

# Divisible Workspaces

CoE Blueprint for Pro Series Microphones

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Solutions Engineer

Global Collaboration Engineering

# 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

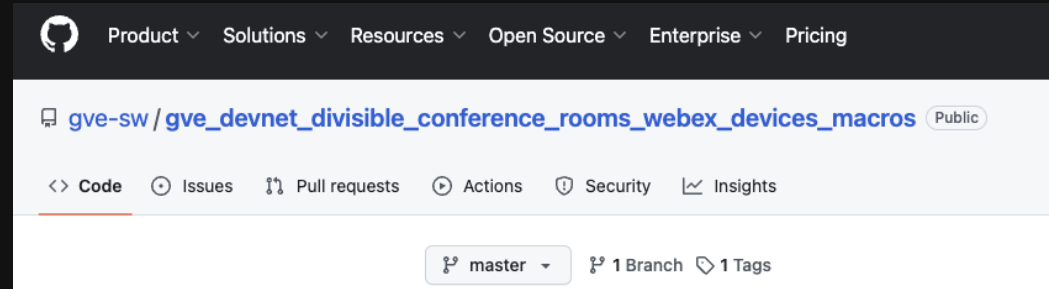




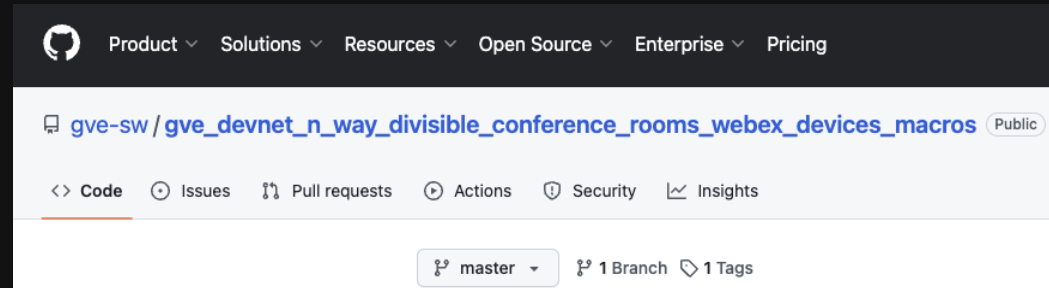
# Current Solutions



Great Results ...



“Simplified” 1+1 Macro



N-Way Multi-Room Macro



... Hard work to get right

# 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.

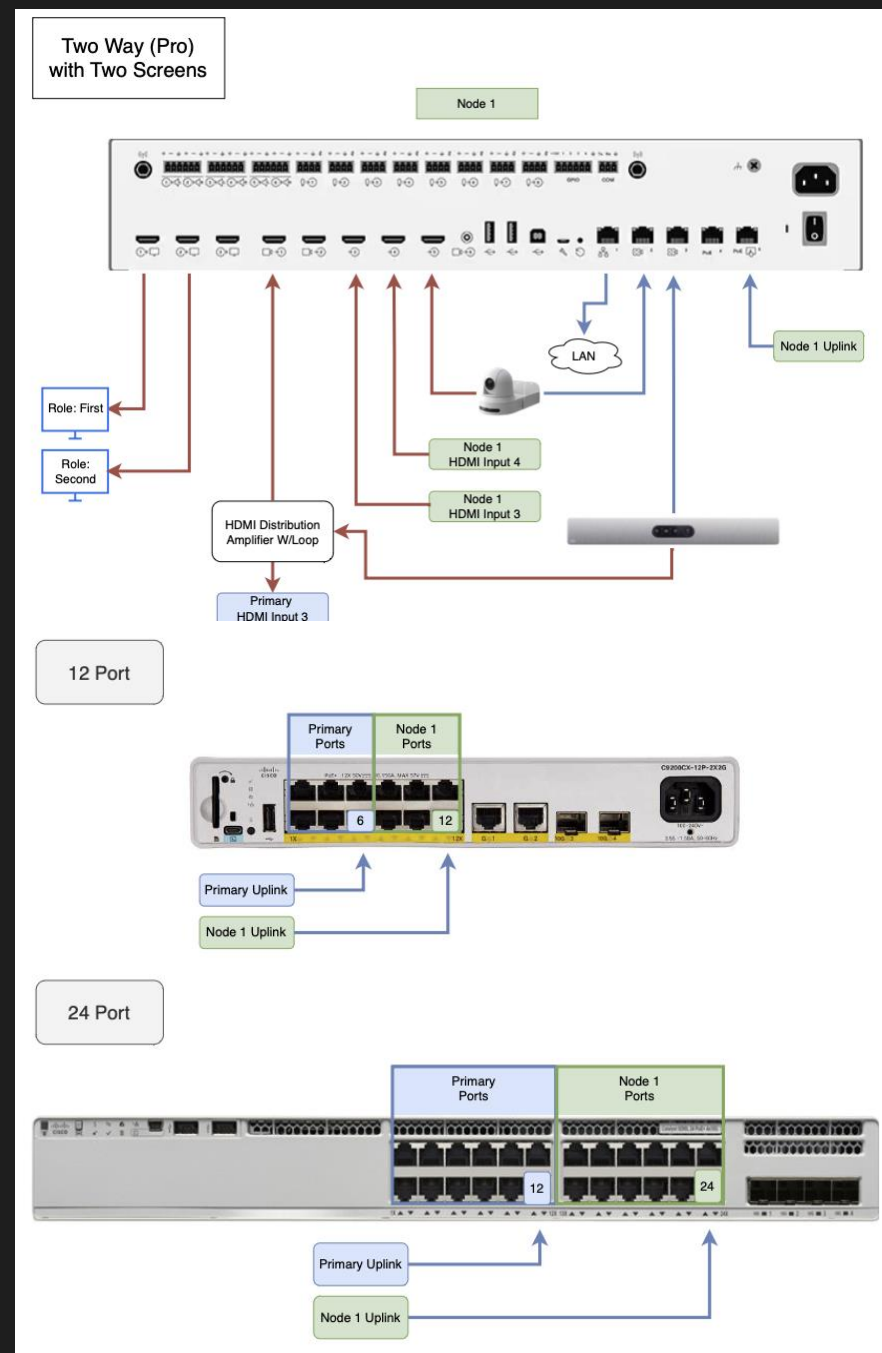
We support Two-Way and Three-Way designs!

All the documentation available on GitHub:

<http://cs.co/dwsblueprint>

Join the “Community” Space:

[https://eurl.io/#nakTe\\_Vn3](https://eurl.io/#nakTe_Vn3)



# What's Different?

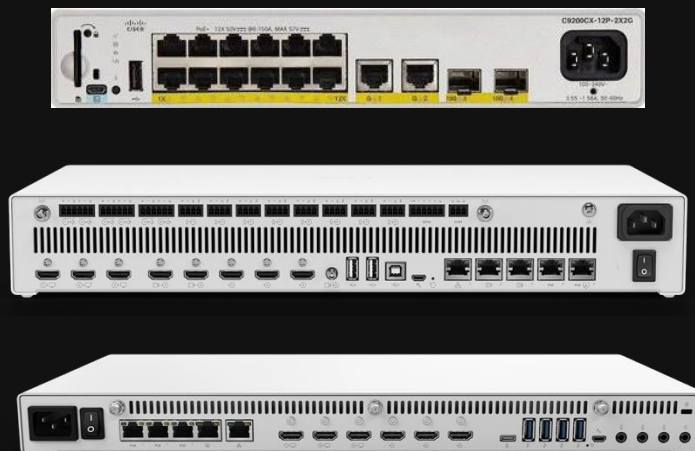
## No Macro Interaction / Knowledge Required

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 combinations.



## Built for Cisco IP Peripherals

Supports Table Microphone Pro and Ceiling Microphone Pros.



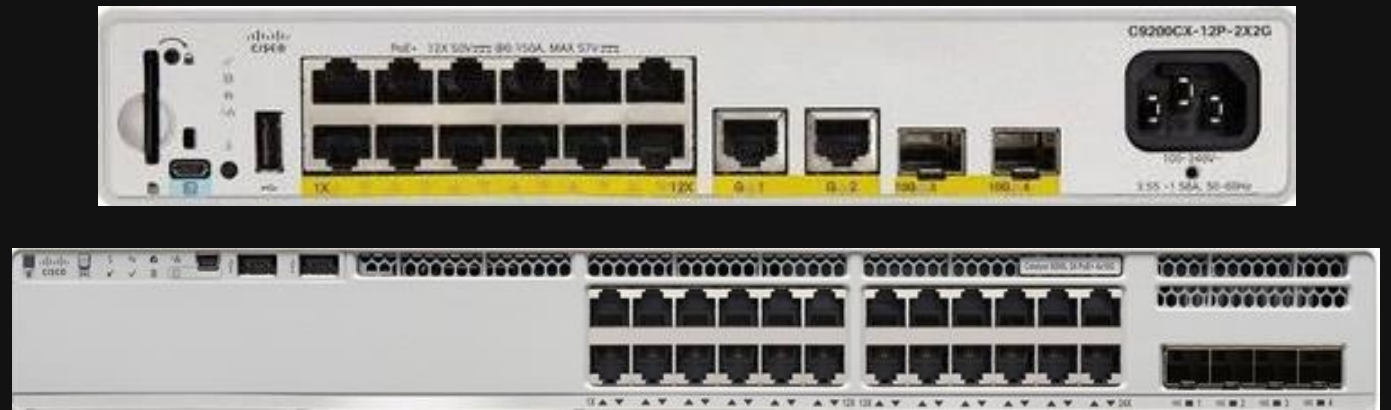
# Supported Switches

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.




Network Essentials (-E) is ***recommended*** for the blueprint.

\*Tested SKUs will be published to the GitHub Repository






# 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: 

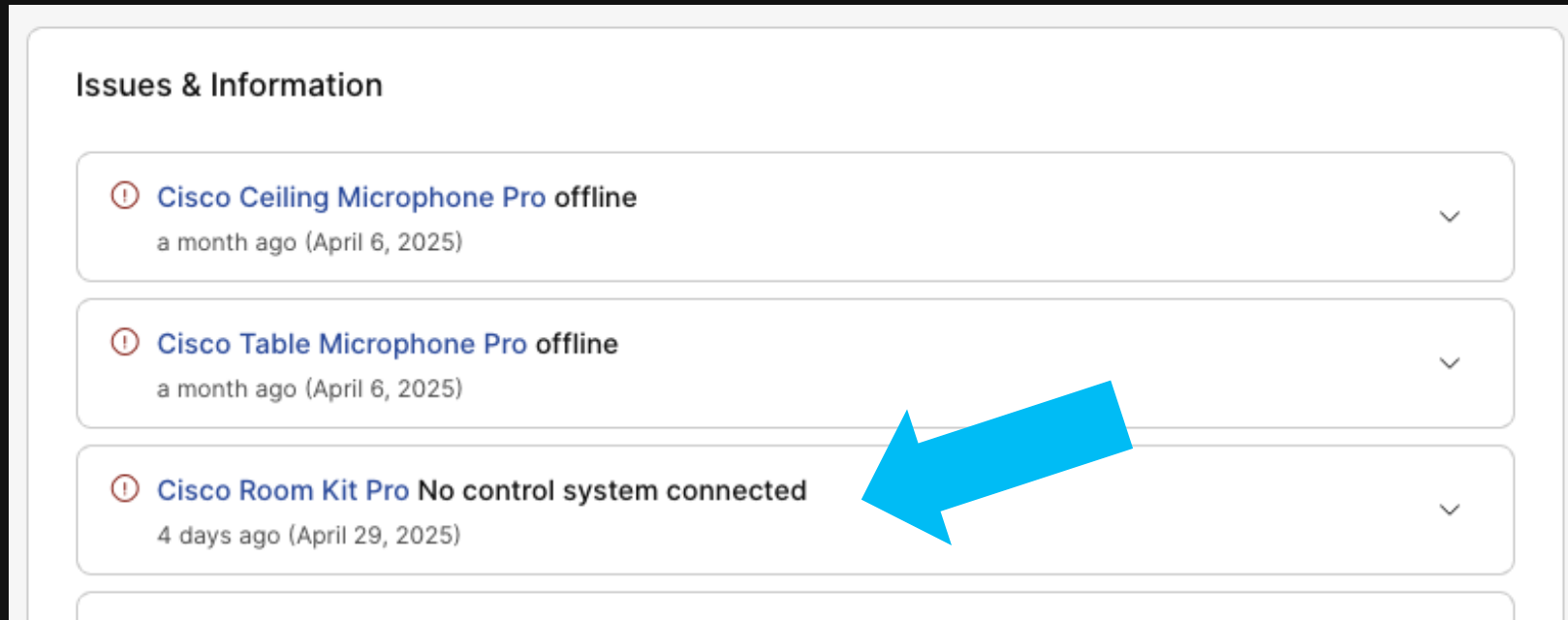
Overview History

**Details**

<b>Control System</b> Type	<b>None</b> Verification 
<b>FJC272221JU</b> Serial number	<b>Unknown</b> Connection Type

Link Local Switch Visibility in Control Hub under the Primary Codec

# Control Hub Alerting



Link Local Switch “Disconnected” warnings in Control Hub under the Primary Codec



# Quick FAQ

## No TAC Support

But... like Campfire this is a tested “blueprint”

## Cisco Pro Microphones Only

Third party IP microphones not supported for Audience Mics.

## No Integrated Voice Lift

User functionality to provide limited support.

## 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

Blueprint will not be tested on each release.

## Two and Three Way Only

Larger configurations out of scope.

## Still a “Custom” Macro

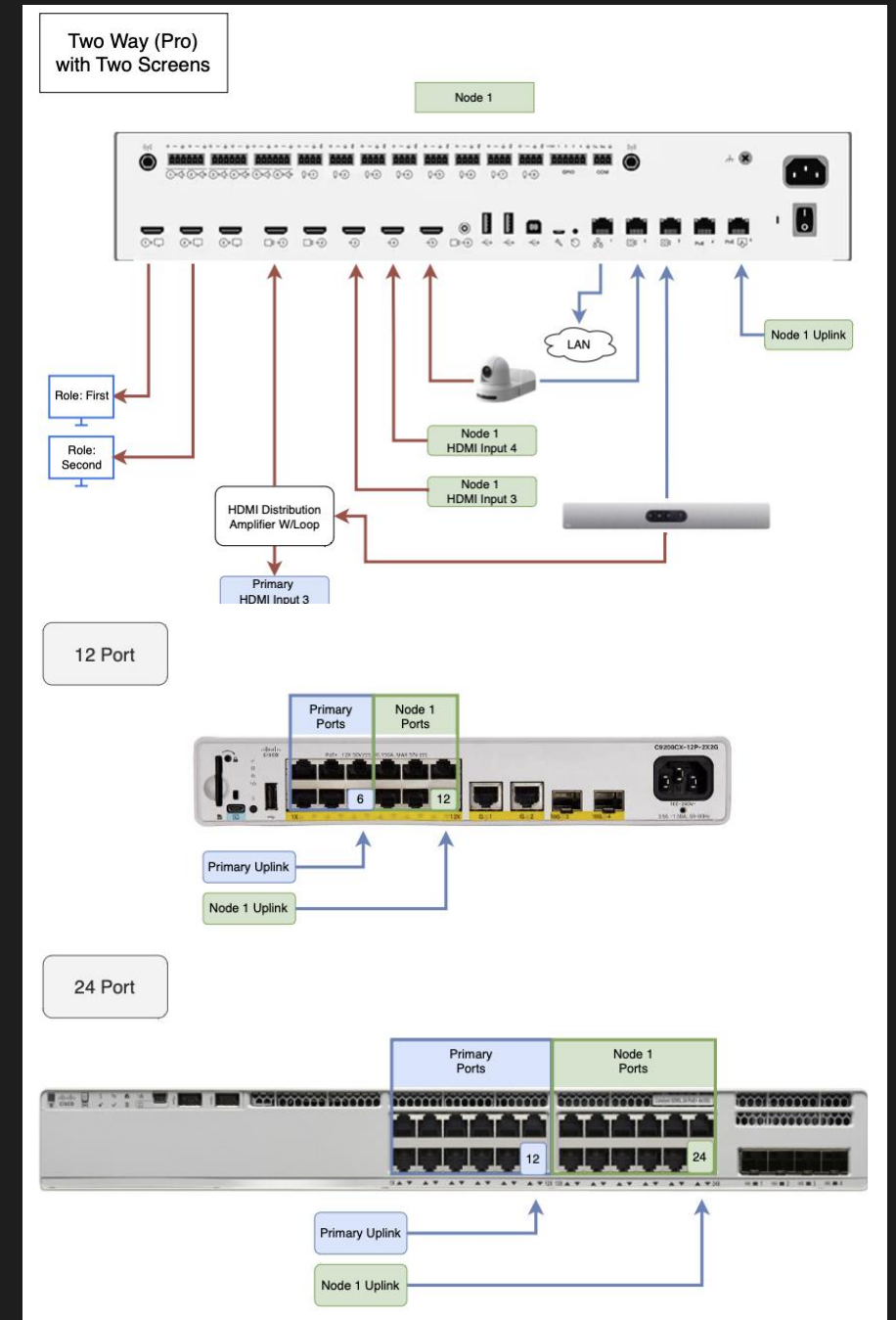
Can be modified by partners & customers as needed

# 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!



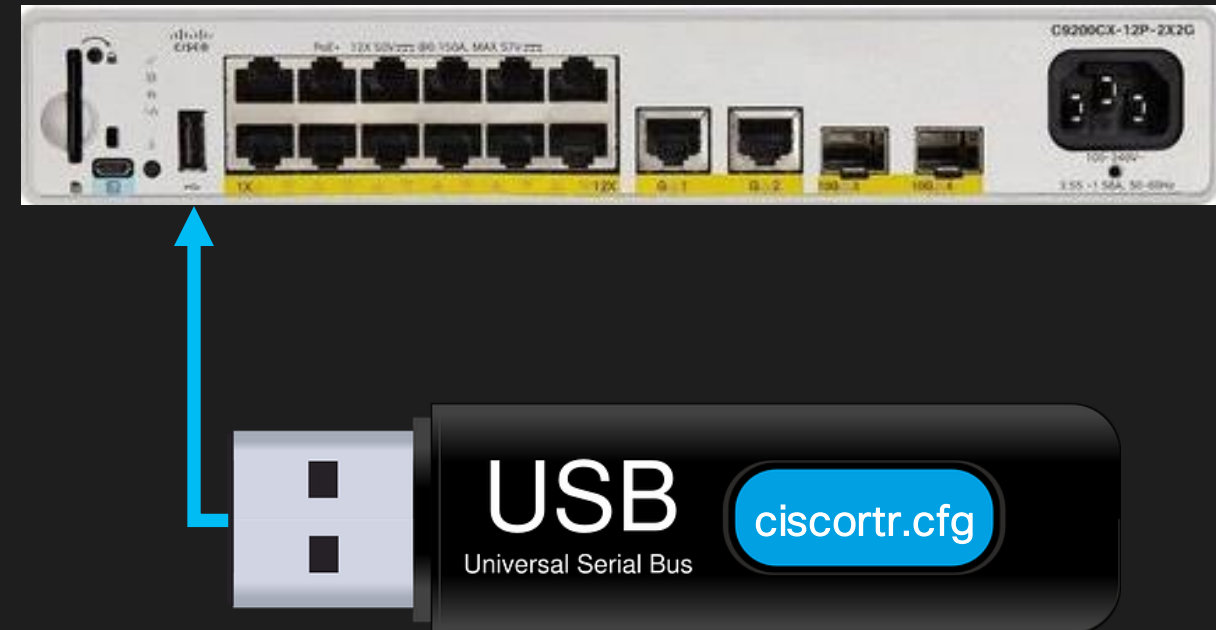
# Setup: Switch Configuration

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 ciscotr.cfg onto USB Key
- Wire all connections as instructed in the diagrams
- Power up Switch
- Switch will be fully configured in 6 minutes



USB key needs to be:

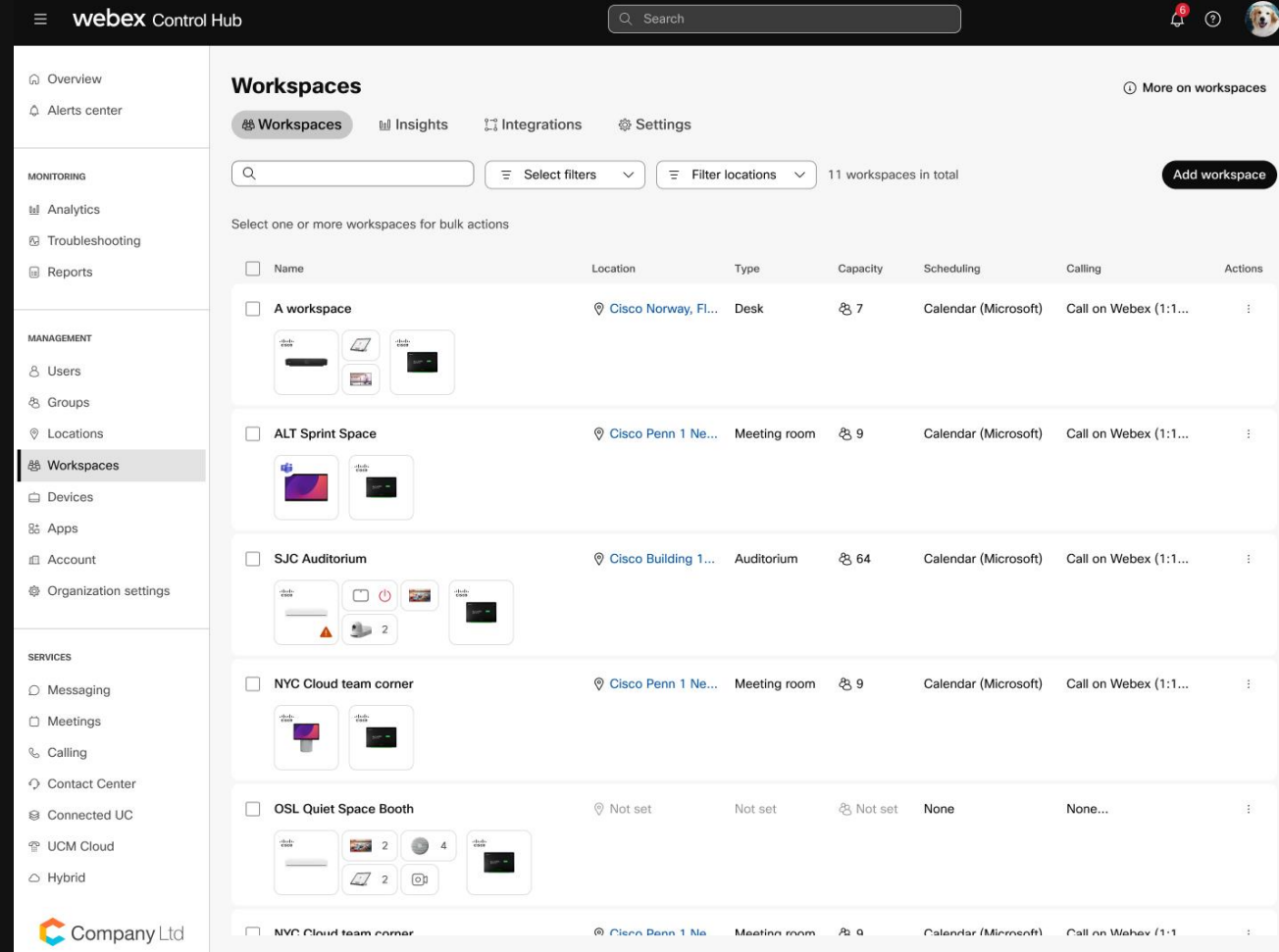
- 4 GB (if > 4gb... partitioned)
- formatted to FAT32

# Cloud Registration Setup



# Setup: Control Hub

Create your Workspaces and Register the Devices



**webex Control Hub**

Search





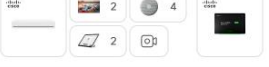
More on workspaces

**Workspaces**

Workspaces Insights Integrations Settings

Search Select filters Filter locations 11 workspaces in total Add workspace

Select one or more workspaces for bulk actions

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

Company Ltd

# Setup: Device Configuration Templates

The configuration template is used to apply some settings needed on both Codecs prior to the Macro installation.

Templates

Divisible Workspaces

Actions

General

Sets the required configuration settings for Divisible Workspaces.  
Description

5  
Configurations

Details

03/27/2025  
Last edited

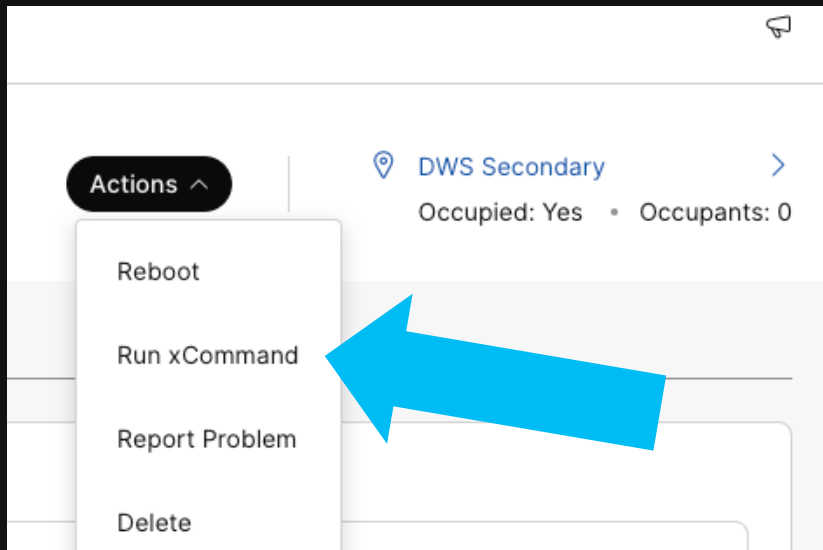
Mark Lula  
Last edited by

02/28/2025  
Date created

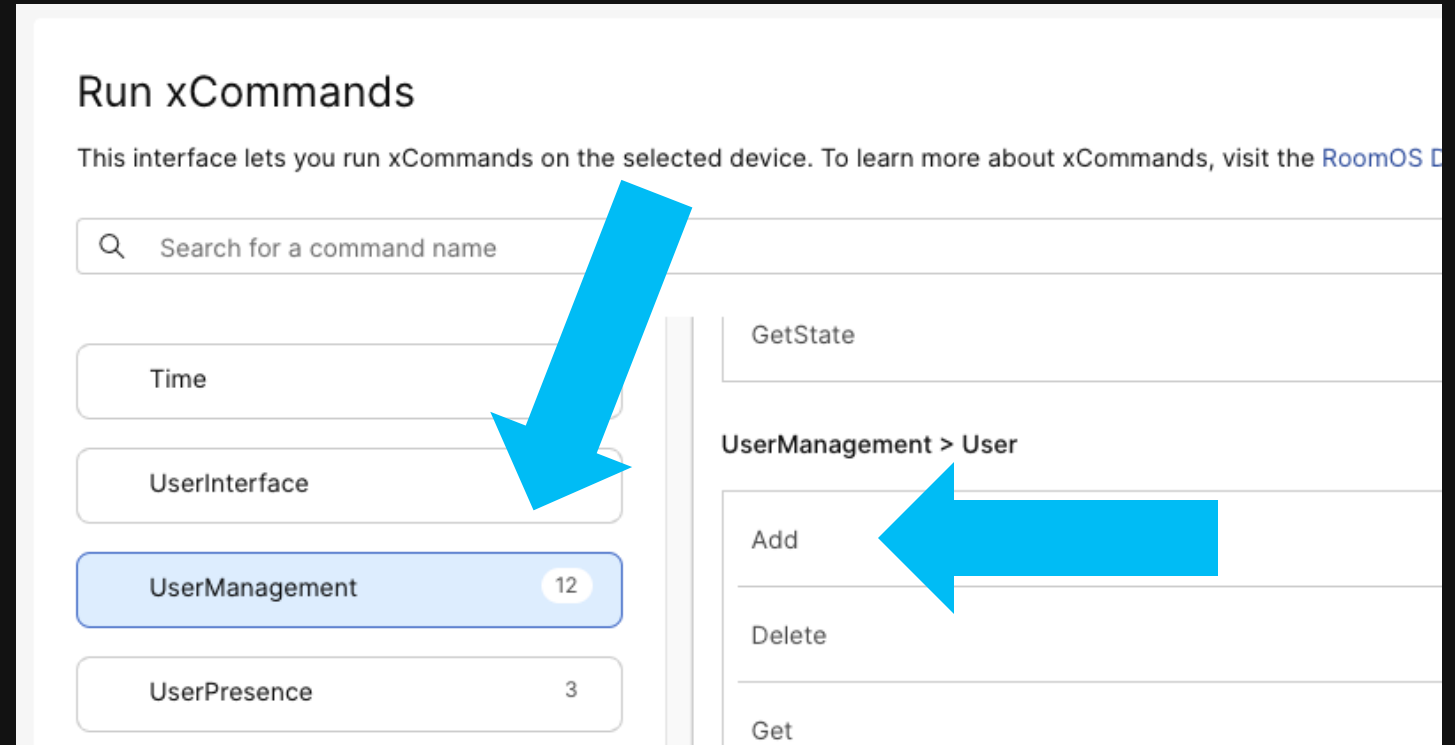
Mark Lula  
Created by

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

# Setup: Add a Local User to Secondary Codec



Select Run xCommand under actions within the Devices Page of the Secondary Codec.








Select UserManagement > Add

# Setup: Add a Local User to Secondary Codec

This user will be used for cross codec state changes. The role must be set to Admin to enable the setup wizard to save Macros.

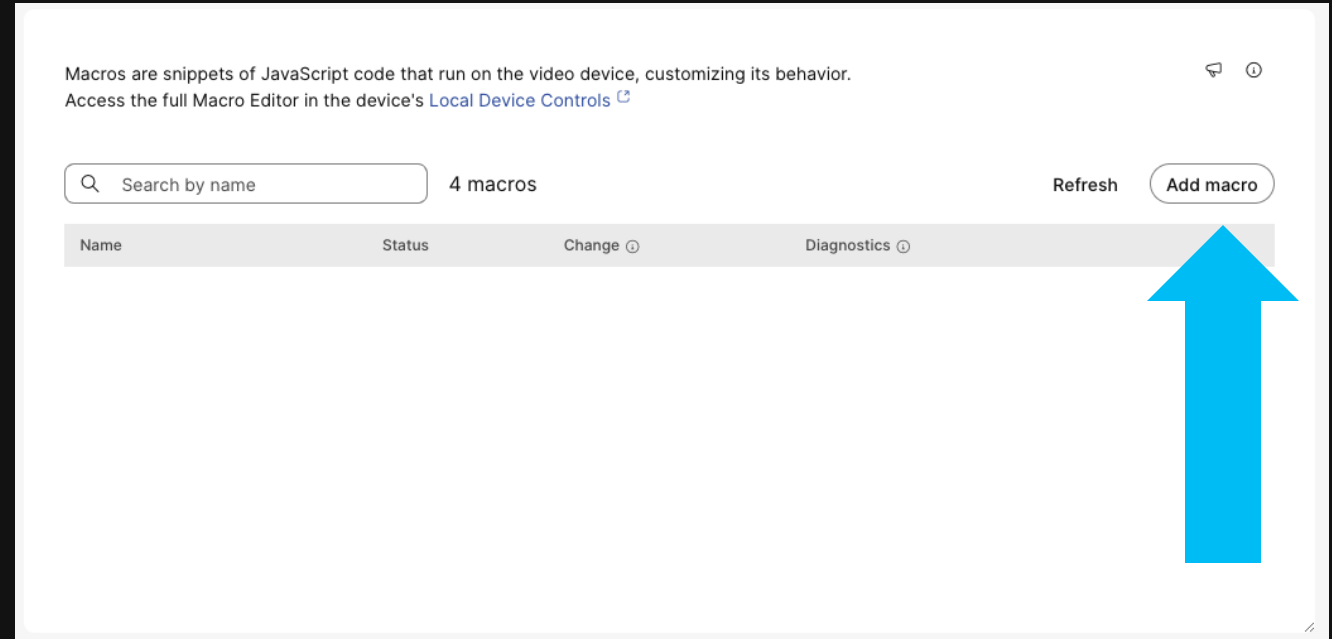
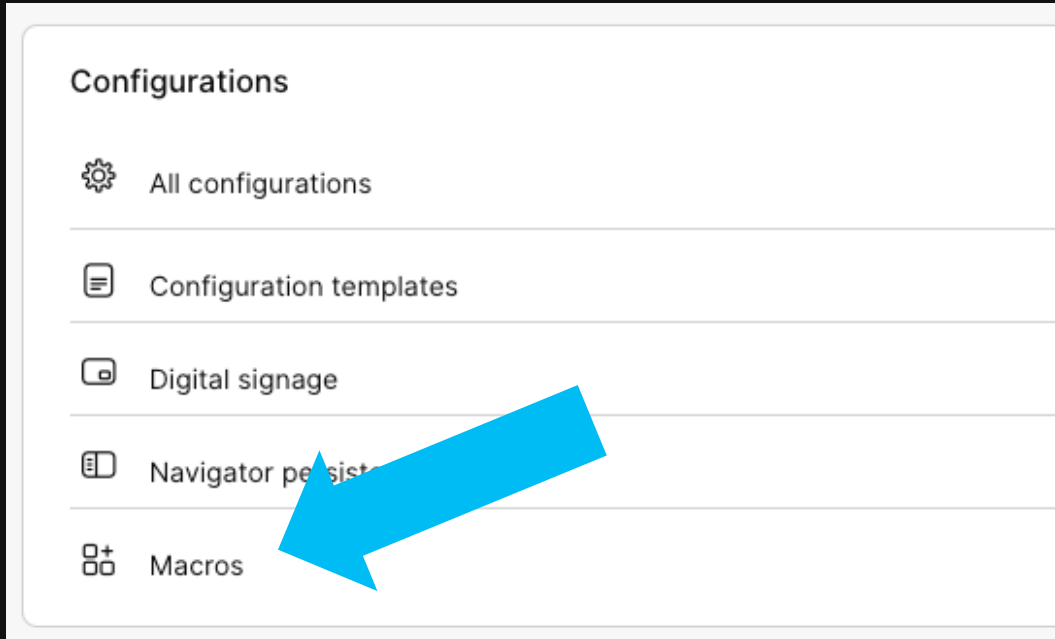
**Arguments**  
\* indicates a required field

Role *		<input checked="" type="checkbox"/> Admin <input type="checkbox"/> Audit <input type="checkbox"/> User <input type="checkbox"/> Integrator <input type="checkbox"/> 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"/>

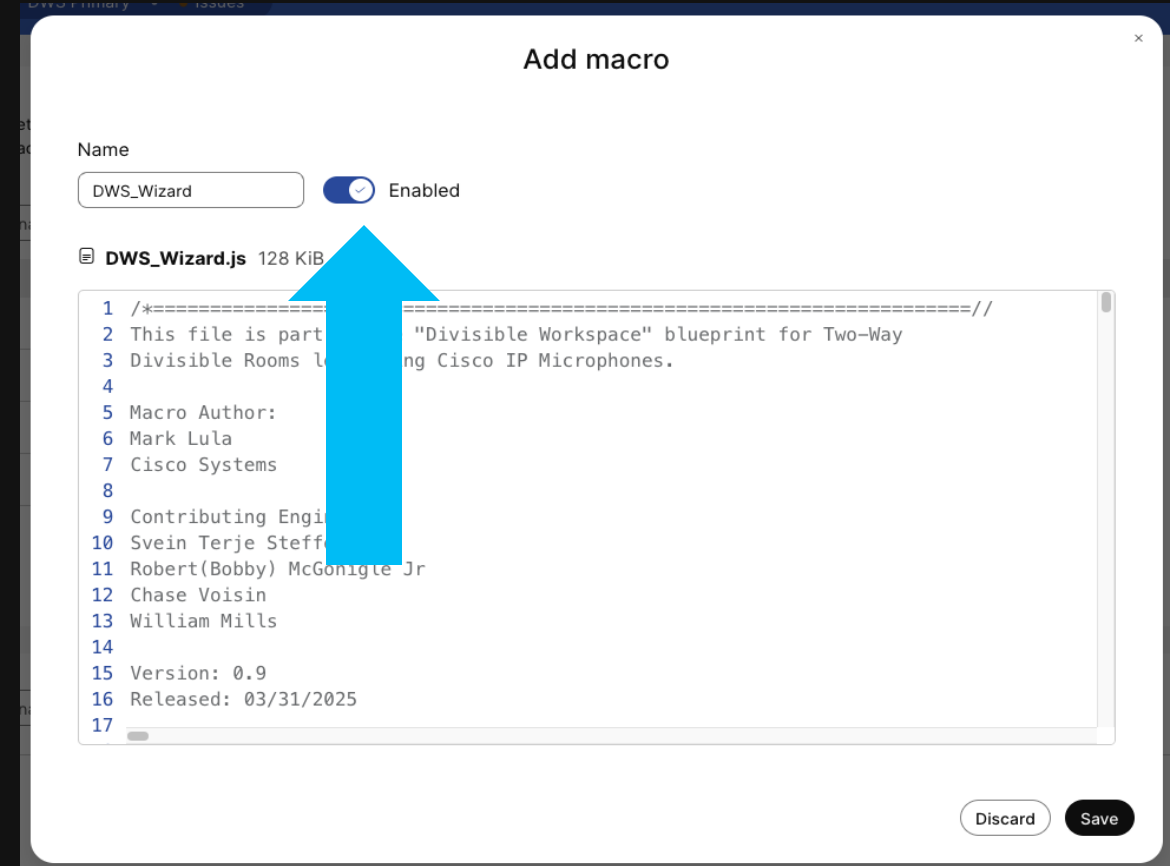
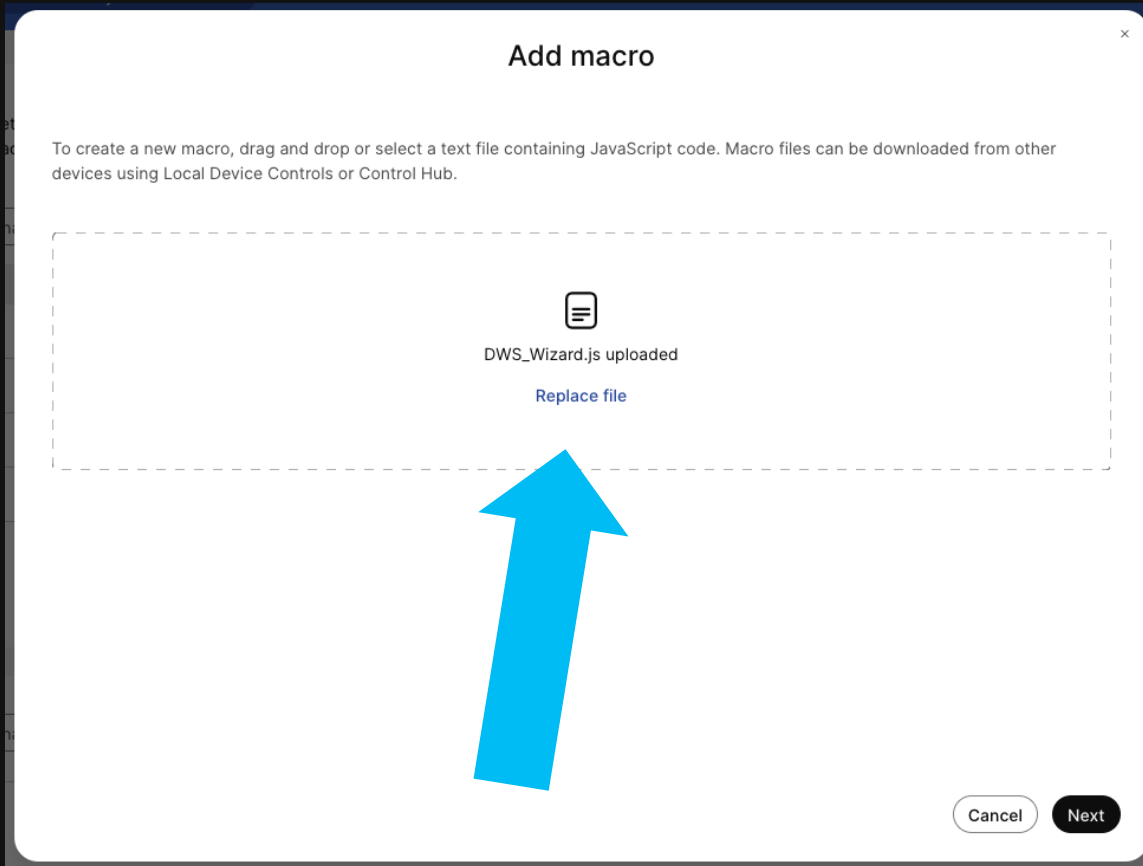


# Setup: Load Wizard Macro 1/2

Open the Primary Codec's Device Page

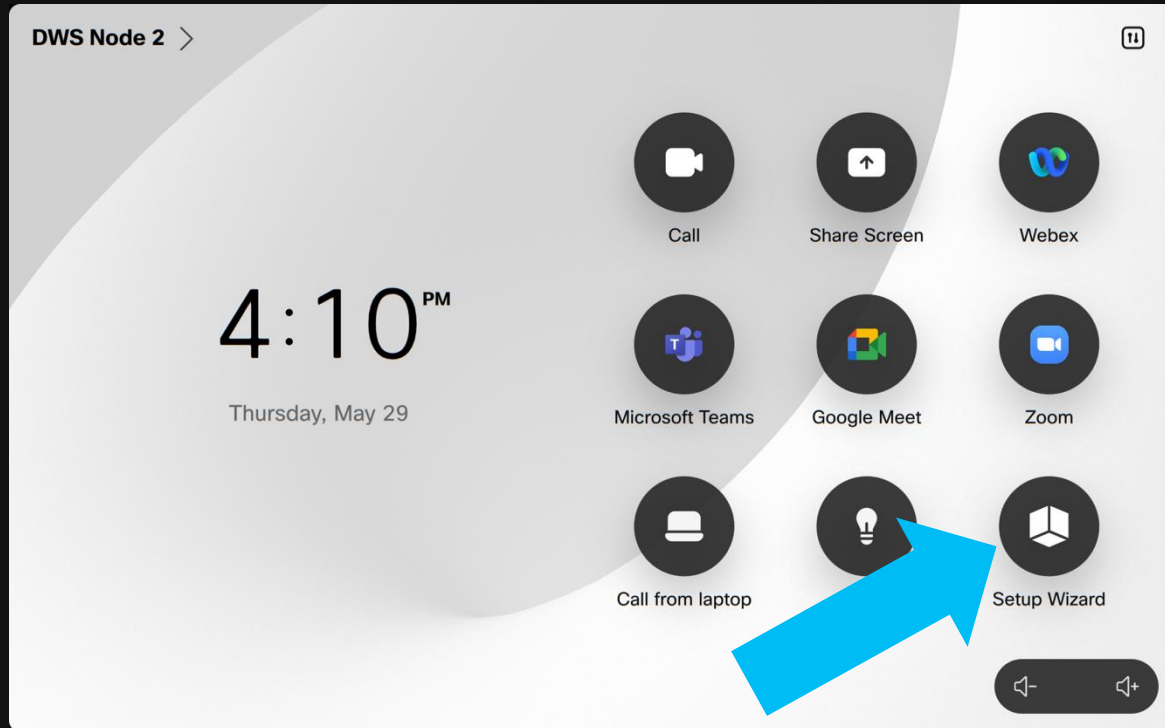


# Setup: Load Wizard Macro 2/2

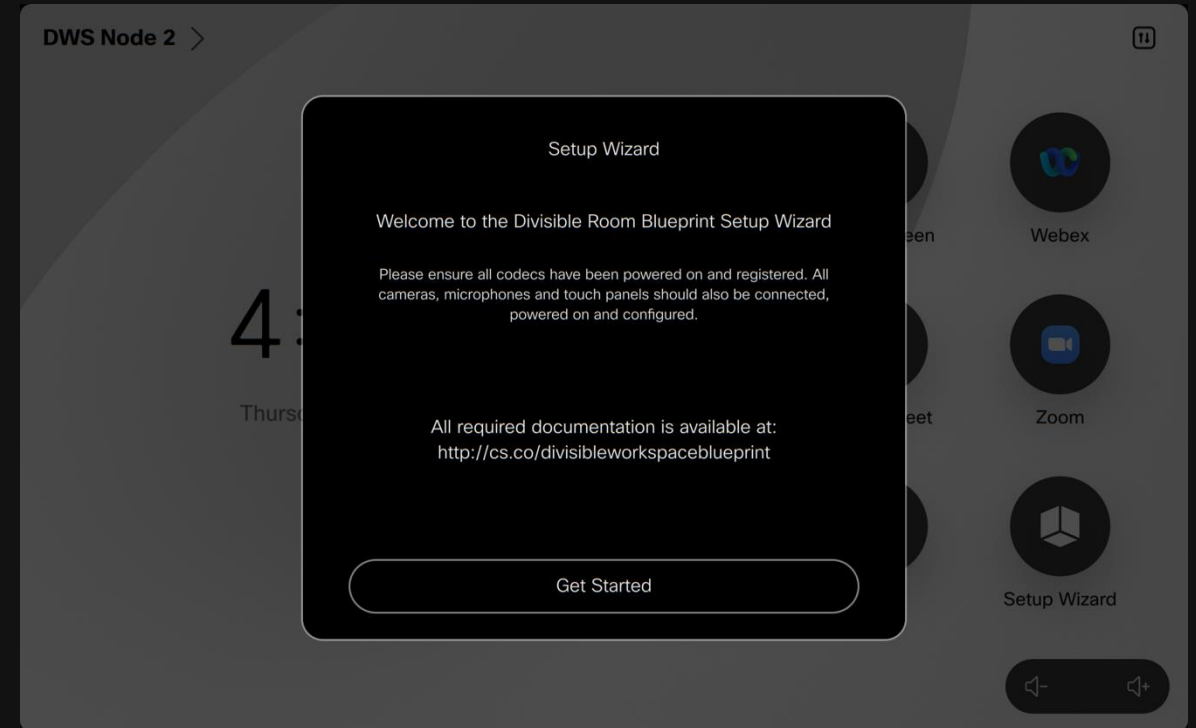


“DWS\_Wizard” Macro published on the GitHub Repository  
No Macro Configuration Required!

# Setup: Setup Wizard



Select "Setup Wizard"



Complete Each Step

# 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

Enter the Node Codec Information

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

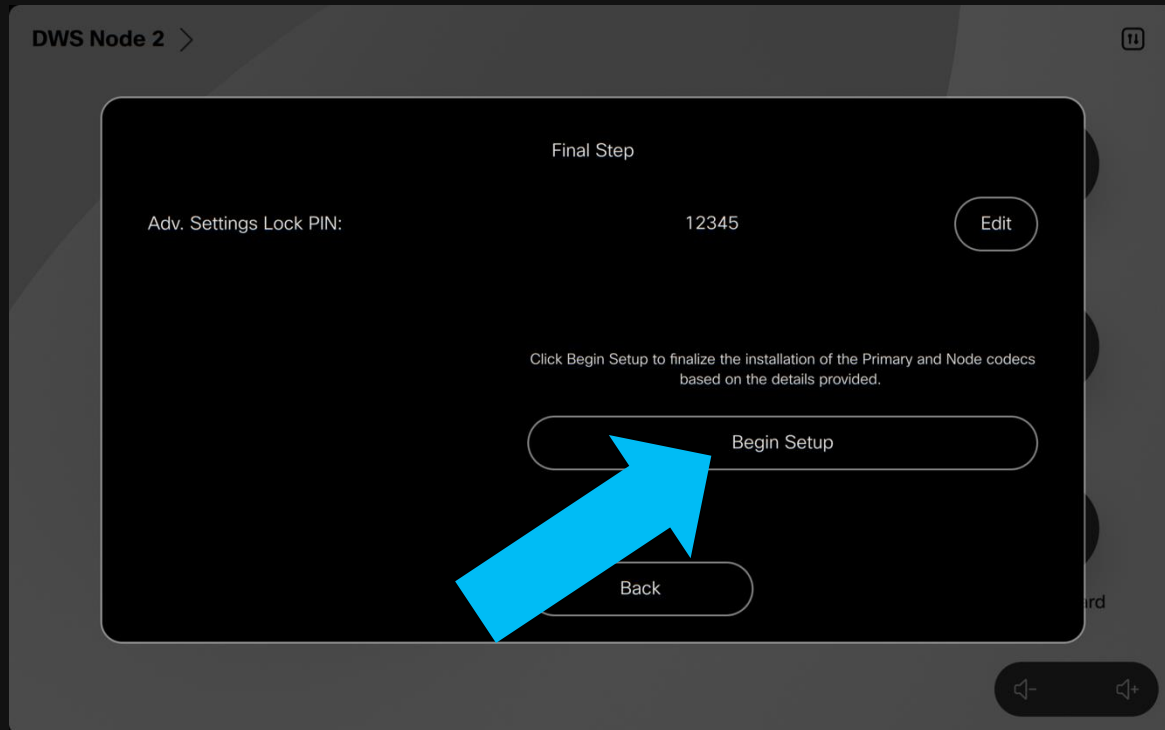
Please ensure all expected peripherals are detected before continuing.

Back Next

Connects & gathers details automatically



# Setup: Setup Wizard



Once Completed, Click “Begin Setup”



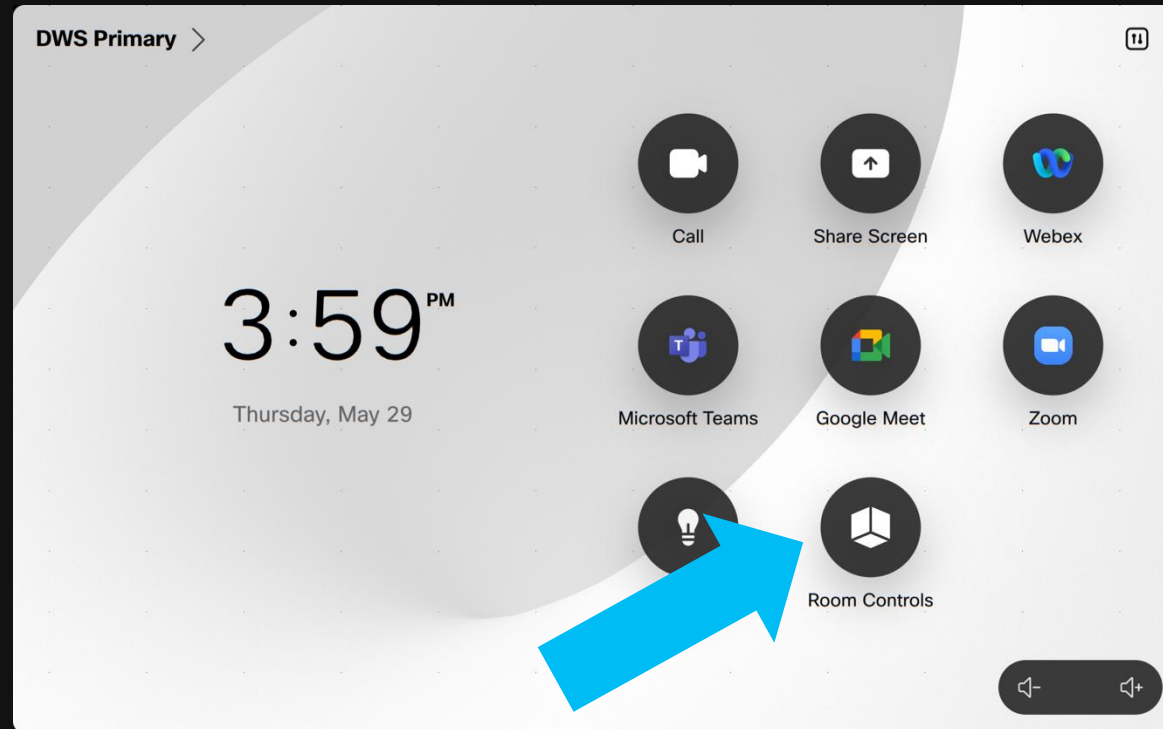
The Wizard will validate your entries!

# Setup: Presenter Track & Microphone Calibration

Once you've completed the Divisible Workspace Setup, you should perform the following actions in both spaces in "Split Mode:

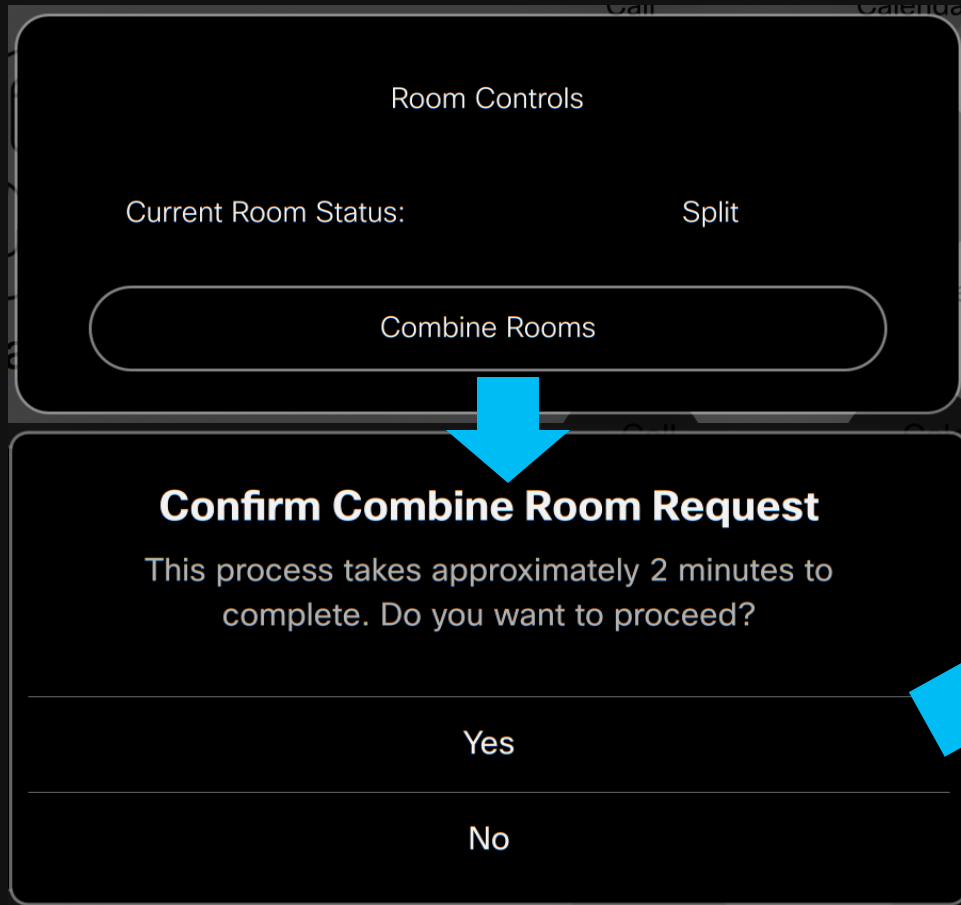
- Setup Presenter Track:  
<https://help.webex.com/en-us/article/9ur0g6/Set-up-PresenterTrack-for-Board-and-Room-Series>
- Run the "Speaker Track using external Microphones" wizard:  
[https://www.cisco.com/c/dam/en/us/td/docs/telepresence/endpoint/camera/SpeakerTrack\\_using\\_external\\_microphones.pdf](https://www.cisco.com/c/dam/en/us/td/docs/telepresence/endpoint/camera/SpeakerTrack_using_external_microphones.pdf)
- If required, Set your Exclusion Zones:  
<https://marklula.github.io/Advanced-Exclusion-Zone-Builder/>

# Operation: “Room Controls” Button



Home Screen

# Operation: Change States



Room Controls

Current Room Status: Split

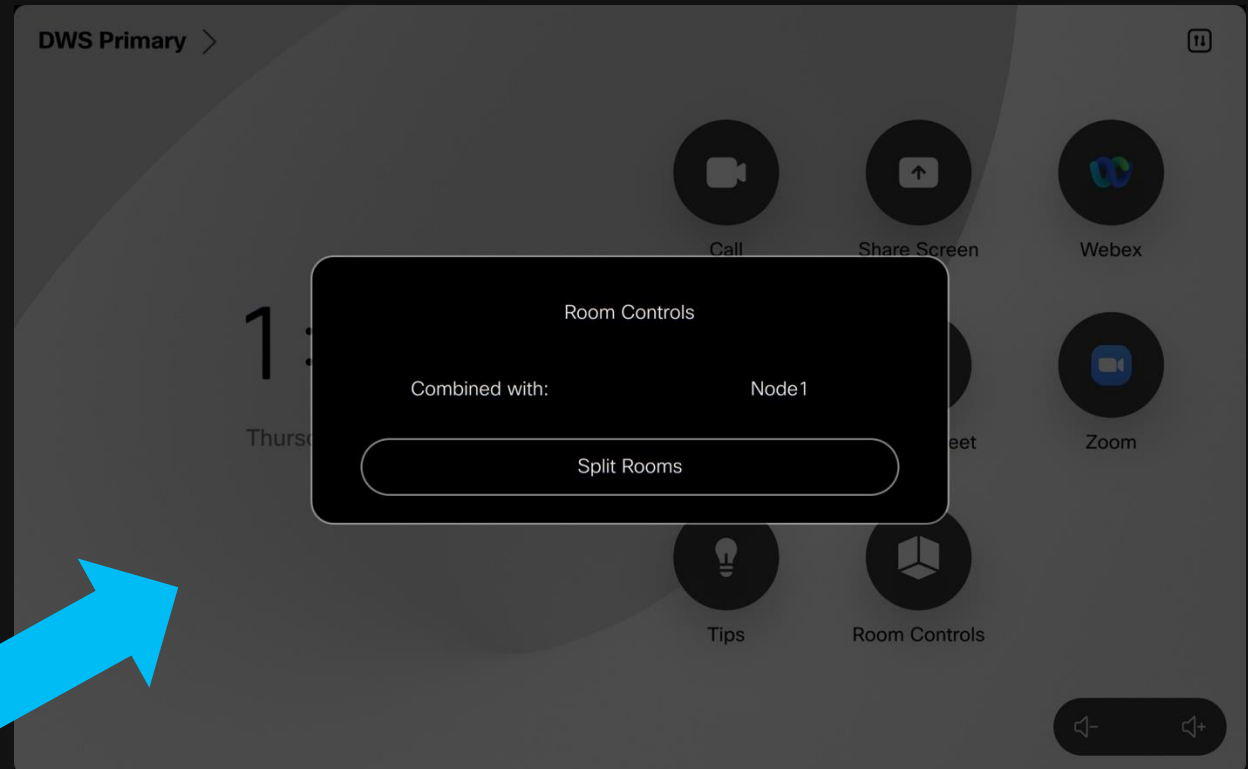
Combine Rooms

**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

Combine / Split controls only  
available out of call



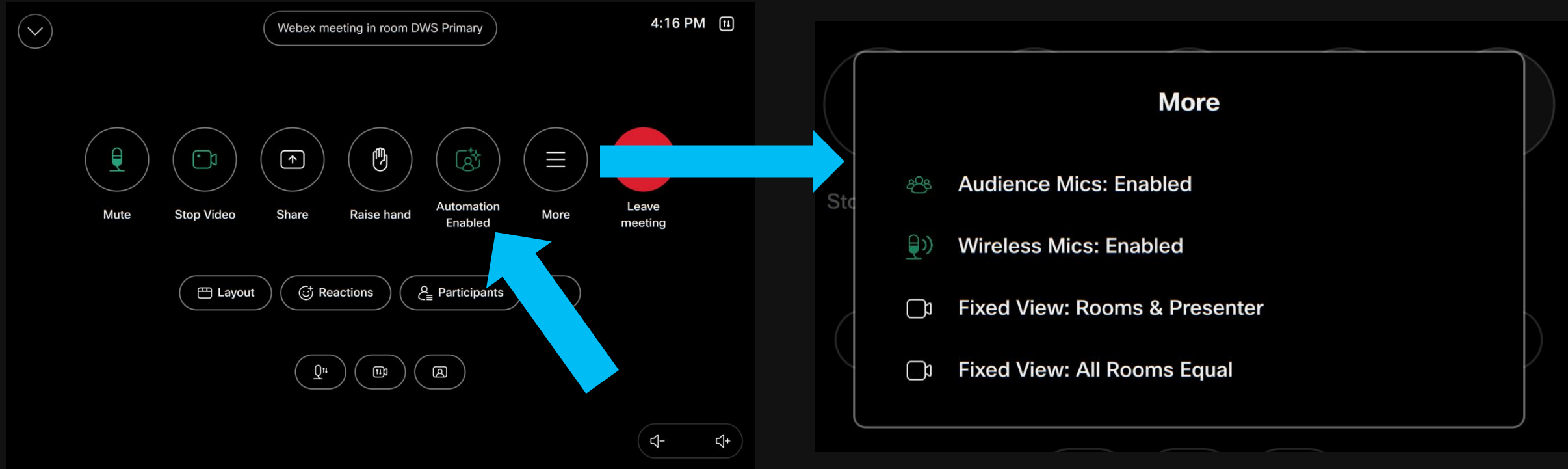
# Operation: Combined State

A banner will be added to all displays of the combined workspaces to give the end user a visual cue that they are combined. The alias name of the node workspaces will be auto populated.

The banner can be enabled or disabled via a configuration setting.



# Operation: In Call Features

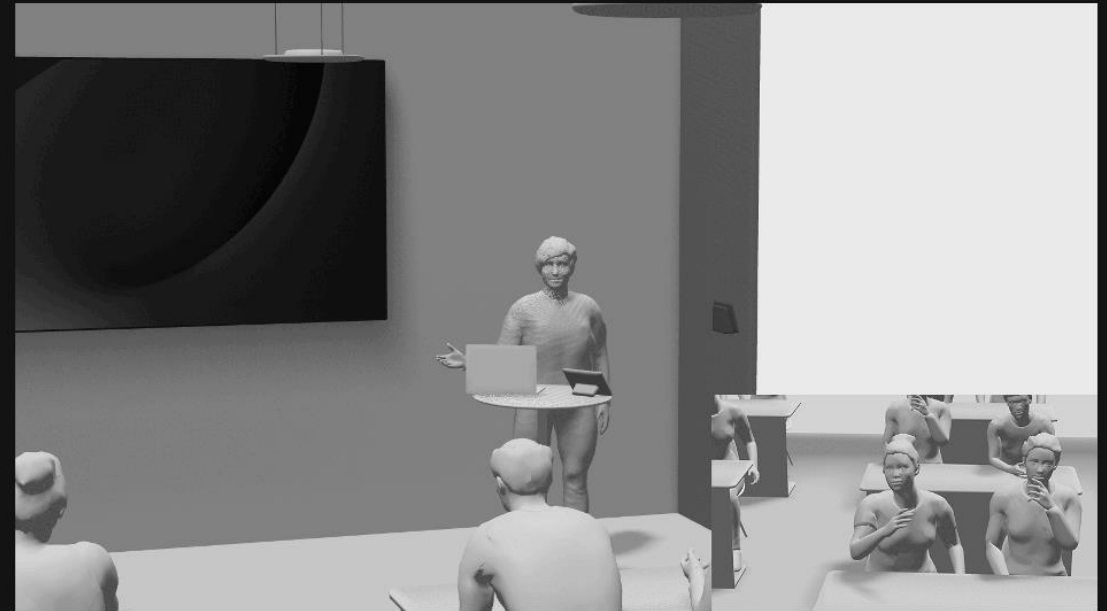


All functions exist as “native-esque” buttons during a call

# Operation: Automation Enabled w/o Presenter



# Operation: Automation Enabled w/Presenter

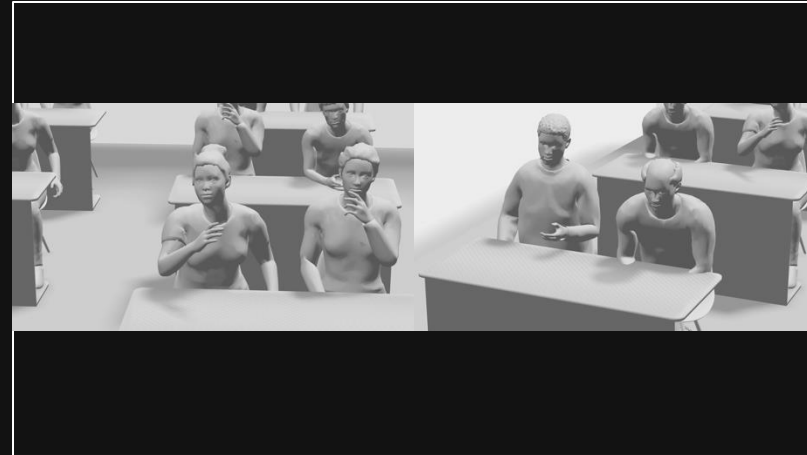


# Fixed / Single Camera Modes

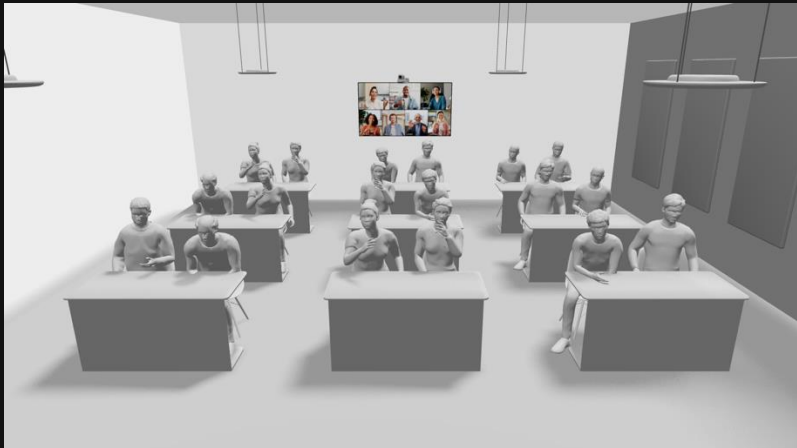
Presenter



All Rooms Equal



Single Camera




Rooms & Presenter





# Operation: Control Hub


< 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: 

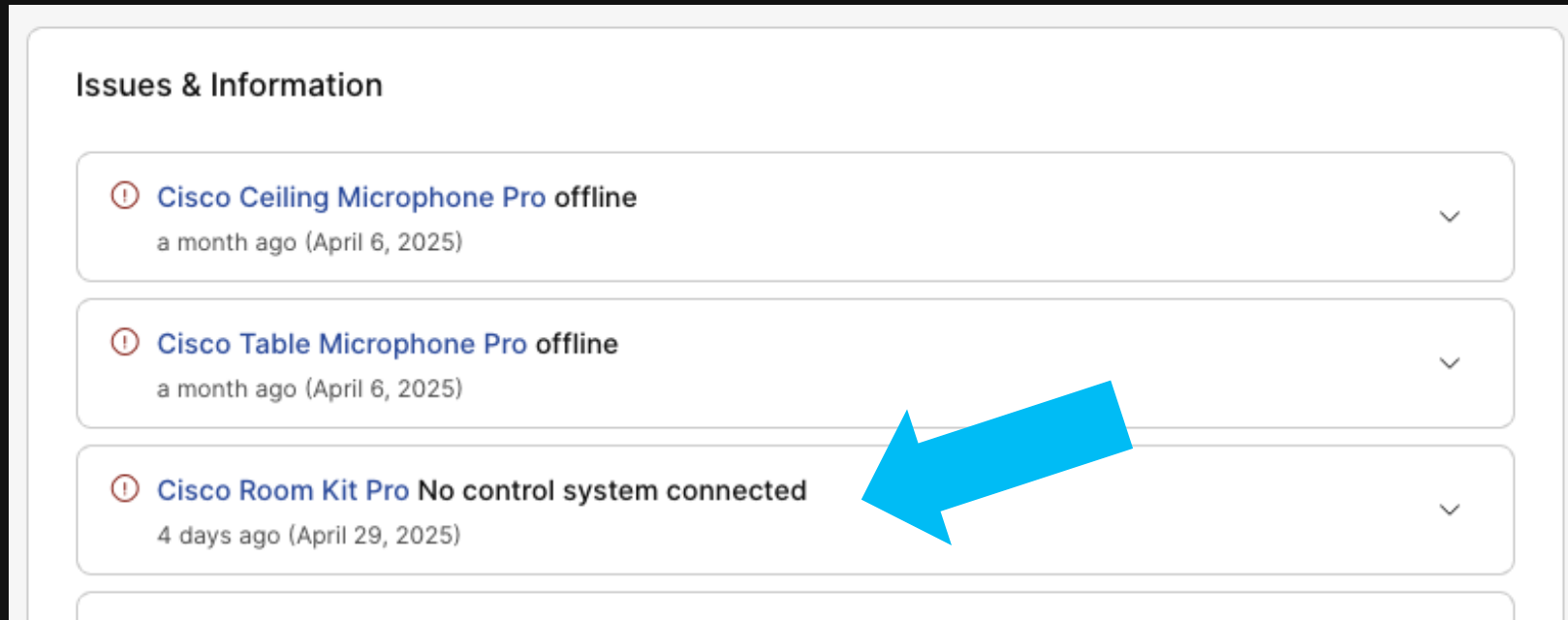
Overview History

**Details**

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

Link Local Switch Visibility in Control Hub under the Primary Codec

# Operation: Control Hub



Link Local Switch “Disconnected” warnings in Control Hub under the Primary Codec



# Operation: Advanced Settings

The Advanced Settings panel provides the ability to change the default automation mode, adjust primary room output delay and tweak the “trigger” thresholds of the audience microphones.

This panel is protected by a PIN Code set during setup.

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

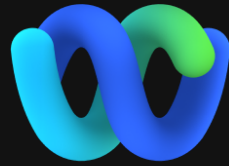
—

37

+

Apply Configuration

Device settings



webex  
by CISCO