Configuring Audio and Video Over IP
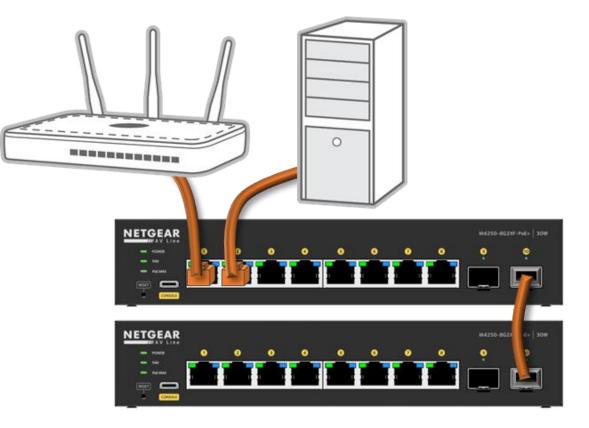
How to configure audio and video on separate VLANs.

NETGEAR® AV

Audio and Video Over IP Configuration

In this guide we will be going over how to configure a switch with audio and video on separate VLANs using Engage.

We will create two VLANs, one with a profile for video and another one with a profile for audio.

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Devices   Topology   **Site Settings**   Support   Controller Management

Open the Engage controller and go to "**Site Settings**."

Site
HQ ⌄

Save

Network Profiles

⬆ Export Worksheet   ⊕ Create New Profile

Click on "**Create New Profile**."

Profile Name	Profile Template	VLAN ID	
■ Default	Data	1	⋮

Total 1   10/page ⌄   ‹ **1** ›   Go to 1

Global Settings

These setting will be applied to all switches on this site.

Auto-Trunk   ⬤○

Auto-LAG   ⬤○

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HQ ⌄   **Save**

Create New Profile   Back to Network Profiles

(1) Profile Template   (2) Profile Settings   (3) Port Assignment

Profile Template

Select the profile overview template to provide your AV profile template options

Profile Template
Select   ⌄

Click on the drop-down
to select the profile.

Use As Default VLAN Profile   ⬤⚪

Next

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HQ ∨   **Save**

Create New Profile

Back to Network Profiles

1 Profile Template   **2** Profile Settings   **3** Port Assignment

Profile Template

Select the profile overview template to provide your AV profile template options

Profile Template
Select ∧

Sonos

Video ← Select the "**Video**" profile.

Video NDI4

Video NDI5 with Dante, Q-Sys or AES67 audio

Video with AES67 audio

Video with Dante audio

Video with Q-SYS audio

Next
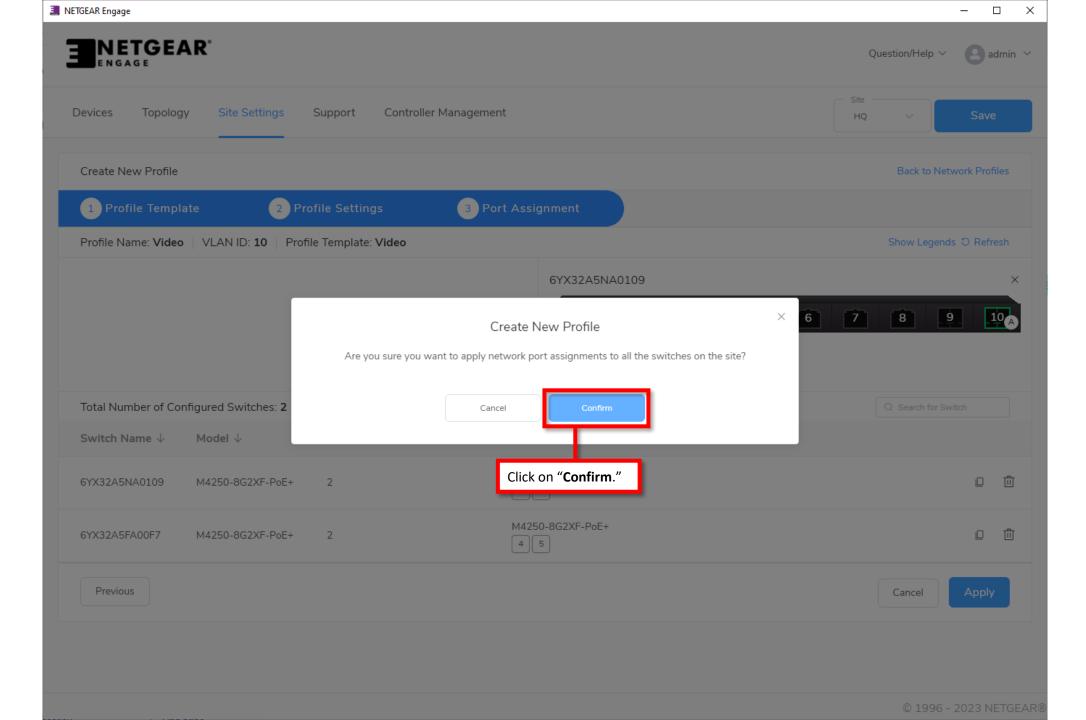
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HQ ⌄   **Save**

Create New Profile   Back to Network Profiles

1 Profile Template   ② Profile Settings   ③ Port Assignment

Profile Template

Select the profile overview template to provide your AV profile template options

Profile Template
Video ⌄

Profile Description

To connect IP Video devices and their controller. Audio can be sent and received using another VLAN tag in another profile simultaneously. Supported devices include NVX, AMX, ZeeVee, Aurora, Kramer, Atlona, ATEN, LibAV, Visionary, Wyrestorm, Extron NAV, Dante AV, SDVoE & etc.

Use As Default VLAN Profile   ⬤

Next

Click on "**Next.**"

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HQ ∨

Save

Create New Profile

Back to Network Profiles

1 Profile Template   **2** Profile Settings   **3** Port Assignment

Profile Settings

Configure you profile settings and and preferences

Profile Name
Video

Profile Template
Video ∨

VLAN ID
10

Color
🔽 #269CE6

We are going to name this VLAN "**Video**" and give it an ID of "**10**," then select the color for the profile.

Previous   Cancel   **Next**

Click on "**Next**."

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Devices   Topology   Site Settings   Support   Controller Management

Site
HQ ⌄   **Save**

Create New Profile   Back to Network Profiles

① Profile Template   ② Profile Settings   ③ Port Assignment

Profile Name: **Video** | VLAN ID: **10** | Profile Template: **Video**   Show Legends ↻ Refresh

Click on the first switch to select the ports.

6YX32A5FA00F...   6YX32A5NA010...

Total Number of Configured Switches: **0**   🔍 Search for Switch

Switch Name ↓   Model ↓   Configured Number of Ports ↓   Configured Ports

You have no configured switches for this network profile.

Please assign ports for this network profile by clicking on the Switch from the above section.

Previous   Cancel   **Apply**

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Devices   Topology   **Site Settings**   Support   Controller Management

Site
HQ ∨

Save

Create New Profile

Back to Network Profiles

① **Profile Template**   ② **Profile Settings**   ③ **Port Assignment**

Profile Name: **Video** | VLAN ID: **10** | Profile Template: **Video**

We are going to select ports 4 and 5.

Show Legends ↻ Refresh

6YX32A5NA0109   ✕

| 1 | 2 | 3 | 4 ✓ | 5 ✓ | 6 | 7 | 8 | 9 | 10 Ⓐ |

6YX32A5FA00F...   6YX32A5NA010...

Untag all

Total Number of Configured Switches: **2**

🔍 Search for Switch

Switch Name ↓	Model ↓	Configured Number of Ports ↓	Configured Ports		
6YX32A5NA0109	M4250-8G2XF-PoE+	2	M4250-8G2XF-PoE+ `4` `5`		📋 🗑
6YX32A5FA00F7	M4250-8G2XF-PoE+	2	M4250-8G2XF-PoE+ `4` `5`		📋 🗑

Previous

If you have any more switches, you can add the ports you want by following these steps.

Cancel   **Apply**

Click on "**Apply**."

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Site
HQ ⌄   Save

Create New Profile   Back to Network Profiles

① Profile Template   ② Profile Settings   ③ Port Assignment

Profile Name: **Video** | VLAN ID: **10** | Profile Template: **Video**   Show Legends ↻ Refresh

6YX32A5NA0109   ✕

10   6   7   8   9   10 A

Create New Profile

Are you sure you want to apply network port assignments to all the switches on the site?

Cancel   **Confirm**

Click on "**Confirm.**"

Total Number of Configured Switches: **2**   🔍 Search for Switch

Switch Name ↓   Model ↓

6YX32A5NA0109   M4250-8G2XF-PoE+   2   📋 🗑

M4250-8G2XF-PoE+
4   5

6YX32A5FA00F7   M4250-8G2XF-PoE+   2   📋 🗑

Previous   Cancel   Apply

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We can now see that the "Video" VLAN has been created.
Next, we are going to create a VLAN for audio.

Devices   Topology   **Site Settings**   Support   Controller Management

Site
HQ ⌄

Save

Network Profiles

⬆ Export Worksheet   ⊕ Create New Profile

Click on "**Create New Profile**."

Profile Name	Profile Template	VLAN ID	
⬛ Default	Data	1	⋮
🟦 Video	Video	10	⋮

Total 2   10/page ⌄   ‹ **1** ›   Go to 1

Global Settings

These setting will be applied to all switches on this site.

Auto-Trunk   ⬜○

Auto-LAG   ⬜○

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Site
HQ ⌄   **Save**

Create New Profile   Back to Network Profiles

① **Profile Template**   ② Profile Settings   ③ Port Assignment

Profile Template

Select the profile overview template to provide your AV profile template options

Profile Template
Select   ⌄

Click on the drop-down
to select the profile.

Use As Default VLAN Profile   ◯

                                                        Next

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Site
HQ ⌄   **Save**

Create New Profile   Back to Network Profiles

1 Profile Template   **2** Profile Settings   **3** Port Assignment

Profile Template

Select the profile overview template to provide your AV profile template options

Profile Template
Select   ⌃

Hybrid

Audio AES67

Audio Dante   ⟶ Select the "**Audio Dante**" profile.

Audio Q-SYS

Audio Video AVB

Data

Lighting

Next

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HQ ⌄   **Save**

Create New Profile   Back to Network Profiles

(1) **Profile Template**   (2) Profile Settings   (3) Port Assignment

Profile Template

Select the profile overview template to provide your AV profile template options

Profile Template
Audio Dante   ⌄

Profile Description

To connect IP Audio Dante devices and their controller

Use As Default VLAN Profile   ⬤○

Next

Click on "**Next**."
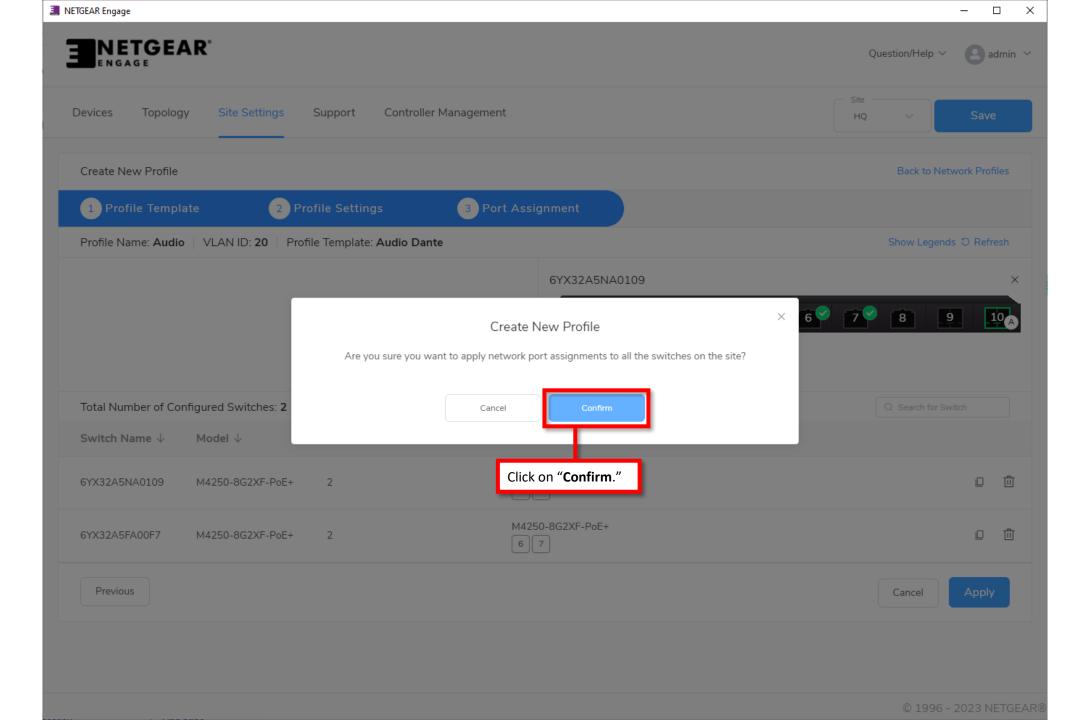
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Site
HQ ⌄   **Save**

Create New Profile   Back to Network Profiles

① Profile Template   ② Profile Settings   ③ Port Assignment

Profile Settings

Configure you profile settings and and preferences

Profile Name
Audio

Profile Template
Audio Dante ⌄

VLAN ID
20

Color
🟩⌄ #1DDE5B

We are going to name this VLAN "**Audio**" and give it an ID of "**20**," then select the color for the profile.

Previous   Cancel   Next

Click on "**Next**."

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Devices   Topology   Site Settings   Support   Controller Management

Site
HQ ⌄   **Save**

Create New Profile   Back to Network Profiles

1 Profile Template   **2** Profile Settings   **3** Port Assignment

Profile Name: **Audio** | VLAN ID: **20** | Profile Template: **Audio Dante**   Show Legends ↻ Refresh

Click on the first switch to select the ports. —————— [switch icon]   [switch icon]

6YX32A5FA00F...   6YX32A5NA010...

Total Number of Configured Switches: **0**   🔍 Search for Switch

Switch Name ↓   Model ↓   Configured Number of Ports ↓   Configured Ports

[···]

You have no configured switches for this network profile.

Please assign ports for this network profile by clicking on the Switch from the above section.

Previous   Cancel   **Apply**

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Site
HQ ⌄   **Save**

Create New Profile

Back to Network Profiles

① **Profile Template**   ② Profile Settings   ③ Port Assignment

Profile Name: **Audio** | VLAN ID: **20** | Profile Template: **Audio Dante**   egends   ↻ Refresh

6YX32A5NA0109   ✕

6YX32A5FA00F...   6YX32A5NA010...

[1] [2] [3] [4] [5] [6 ✓] [7 ✓] [8] [9] [10 Ⓐ]

We are going to select ports 6 and 7.

Untag all

Total Number of Configured Switches: **2**

🔍 Search for Switch

Switch Name ↓	Model ↓	Configured Number of Ports ↓	Configured Ports		
6YX32A5NA0109	M4250-8G2XF-PoE+	2	M4250-8G2XF-PoE+ [6] [7]	📋	🗑
6YX32A5FA00F7	M4250-8G2XF-PoE+	2	M4250-8G2XF-PoE+ [6] [7]	📋	🗑

Previous   Cancel   **Apply**

If you have any more switches, you can add the ports you want by following these steps.

Click on "**Apply**."

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Site
HQ ⌄   **Save**

Create New Profile   Back to Network Profiles

① Profile Template   ② Profile Settings   ③ Port Assignment

Profile Name: **Audio** | VLAN ID: **20** | Profile Template: **Audio Dante**   Show Legends ↻ Refresh

6YX32A5NA0109   ✕

6 ✓   7 ✓   8   9   10 Ⓐ

Create New Profile

Are you sure you want to apply network port assignments to all the switches on the site?

Cancel   **Confirm**

Click on "**Confirm.**"

Total Number of Configured Switches: **2**   🔍 Search for Switch

Switch Name ↓   Model ↓

6YX32A5NA0109   M4250-8G2XF-PoE+   2   📋 🗑

6YX32A5FA00F7   M4250-8G2XF-PoE+   2   M4250-8G2XF-PoE+
                                                            6   7   📋 🗑

Previous   Cancel   **Apply**

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Devices   Topology   **Site Settings**   Support   Controller Management

Site
HQ ∨   **Save**

Network Profiles

⬆ Export Worksheet   ⊕ Create New Profile

Profile Name	Profile Template	VLAN ID	
⬛ Default	Data	1	⋮
🟦 Video	Video	10	⋮
🟩 Audio	Audio Dante	20	⋮

Total 3   10/page ∨   ‹ | **1** | ›   Go to 1

Global Settings

These setting will be applied to all switches on this site.

Auto-Trunk   ⬤○

Auto-LAG   ⬤○

> We now have the video configured for VLAN 10 and audio on VLAN 20.
>
> You can edit each profile to change any of the port configuration.

End