# Configuring AES67 Audio over IP requiring PTP Transparent Clock

How to configure AES67 Audio over IP and enabling PTPv2.

NETGEAR® AV

Configuring AES67 Audio over IP requiring PTP Transparent Clock

In this guide we will be going over how to configure a network with AES67 Audio over IP requiring PTP Transparent Clock.

We will be configuring the network for AES67 Audio over IP and then enabling PTPv2 on each switch.

NETGEAR Engage

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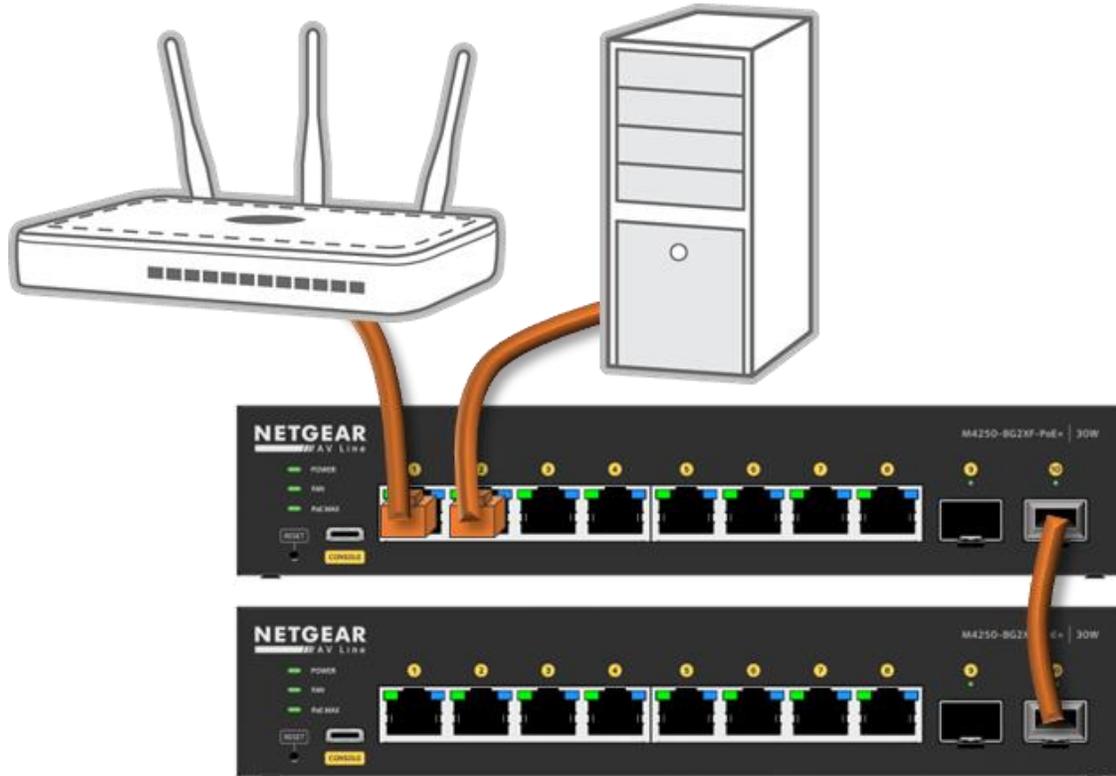
Open the Engage controller and go to "**Site Settings**."

Question/Help ∨   👤 admin ∨

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	⋮

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   ⚪◯

NETGEAR ENGAGE

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	⋮

✏ Edit

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

Click on the menu icon for the default VLAN and then click on "**Edit**."

Global Settings

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

Auto-Trunk   ⬤—

Auto-LAG   ⬤—

NETGEAR Engage

NETGEAR®
ENGAGE

Question/Help ∨   👤 admin ∨

Devices   Topology   Site Settings   Support   Controller Management

Site
HQ   ∨   **Save**

Edit 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
Data   ⌃

Hybrid

Audio AES67   ── Click on the drop-down for "**Profile Template**" and select "**Audio AES67**."

Audio Dante

Audio Q-SYS

Audio Video AVB

Data

Lighting

© 1996 - 2023 NETGEAR®

NETGEAR Engage

NETGEAR®
ENGAGE

Question/Help ⌄   👤 admin ⌄

Devices   Topology   Site Settings   Support   Controller Management

Site
HQ ⌄   **Save**

Edit 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 AES67   ⌄

Next

Click on "**Next**."

© 1996 - 2023 NETGEAR®

NETGEAR Engage

NETGEAR® ENGAGE

Question/Help ⌄   👤 admin ⌄

Devices   Topology   Site Settings   Support   Controller Management

Save

Edit 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
Default

Profile Template
Audio AES67   ⌄

VLAN ID
1

Color
▾ #000000
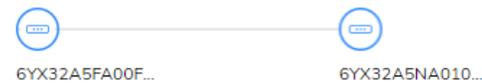
Previous   Cancel   Next

Click on "**Next**."

NETGEAR®
ENGAGE

Question/Help ∨   👤 admin ∨

Devices   Topology   **Site Settings**   Support   Controller Management

Site
HQ ∨

Save

Edit Profile

Back to Network Profiles

① Profile Template   ② Profile Settings   ③ Port Assignment

Profile Name: **Default** | VLAN ID: **1** | Profile Template: **Audio AES67**

Show Legends ↻ Refresh

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**

Click on "**Apply**."

NETGEAR ENGAGE

Question/Help ⌄   admin ⌄

Devices   Topology   Site Settings   Support   Controller Management

Site
HQ ⌄   Save

Edit Profile   Back to Network Profiles

① Profile Template   ② Profile Settings   ③ Port Assignment

Profile Name: **Default** | VLAN ID: **1** | Profile Template: **Audio AES67**   Show Legends ⟳ Refresh

Edit Profile ✕

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

Cancel   **Confirm**

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

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

Click on "**Confirm**."

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

NETGEAR Engage

NETGEAR®
ENGAGE

Question/Help ⌄   👤 admin ⌄

Devices   Topology   Site Settings   Support   Controller Management

Site
HQ ⌄   **Save**

Network Profiles   ⬆ Export Worksheet   ⊕ Create New Profile

Profile Name	Profile Template	VLAN ID	
■ Default	Audio AES67	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   ⬤◯

© 1996 - 2023 NETGEAR®

NETGEAR Engage

NETGEAR
ENGAGE

Question/Help ⌄   👤 admin ⌄

Devices   Topology   Site Settings   Support   Controller Management

Site
HQ ⌄   **Save**

Managed Devices

⊕ Add Device

Switch Model	System Name		Serial Number	IP Address	FW Version	AV Version	Status	
⬚ ⋯	M4250-8G2XF-PoE+ GSM4210PX	✏	6YX32A5FA00F7	192.168.77.103	13.0.4.13	2.2.3.16	Online	Configure ⋮
⬚ ⋯	M4250-8G2XF-PoE+ GSM4210PX	✏	6YX32A5NA0109	192.168.77.106	13.0.4.13	2.2.3.16	Online	Configure ⋮

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

Discovered Devices

Switch Model	System Name	Serial Number	MAC Address	IP Address	FW Version	AV Version

⬚ ⋯
You do not have any discovered devices

Total 0   10/page ⌄   ‹ **1** ›   Go to 1

NETGEAR® ENGAGE

Question/Help ⌄   👤 admin ⌄

Devices   Topology   Site Settings   Support   Controller Management

Site
HQ ⌄   **Save**

< Devices Management

⚙ **Configure**   ^

Overview

Network Profiles   ← Click on "**Network Profiles**."

Link Aggregation

Multicast

Neighbor

Power over Ethernet

Port configuration

Security

Maintenance

AVB License

🔧 Diagnostics   ⌄

Overview

Configure | Overview

M4250-8G2XF-PoE+

☑ Show Legends

○ Connected	○ Connected & Powered	○ Error	○ Disabled
● Available	⊘ Blocked	! Admin Down	⚠ Warning
🔍 Force-Authorized	🔍 Force-Unauthorized	🔓 Authorized	🔒 Unauthorized
L LAG	T VLAN Trunk	A Auto Trunk	⚡ PoE
⚡ PoE Disabled	⊕ Force Multicast	S 1G SFP Fiber Port	S⁺ 10G SFP+ Fiber Port
⑤ Shure Device Connected			

Device Details

Product Name	Serial Number	Model	Date & Time	Country/Region
M4250	6YX32A5FA00F7	M4250-8G2XF-PoE+	2023-03-24 03:44:39 ✎	N/A

Base MAC Address	System Name	Firmware Version	AV UI Version	Boot Version
94:18:65:7D:5D:25	✎	13.0.4.13	2.2.3.16	1.0.0.11

System Uptime

NETGEAR®
ENGAGE

Question/Help ⌄   👤 admin ⌄

Devices   Topology   Site Settings   Support   Controller Management

Site
HQ ⌄   **Save**

⟨ Devices Management

⚙ Configure   ⌃

Overview

Network Profiles

Link Aggregation

Multicast

Neighbor

Power over Ethernet

Port configuration

Security

Maintenance

AVB License

🔧 Diagnostics   ⌄

Network Profiles

Configure | Network Profiles

☑ Show Legends

M4250-8G2XF-PoE+

Auto-Trunk   🟢

Enable the toggle for "**PTP residency time stamping.**"

PTP residency time stamping   ⚪

⭘ Connected	⭘ Connected & Powered	⭘ Error	⚫ Disabled
⚫ Available	⊘ Blocked	❗ Admin Down	⚠ Warning
🔍 Force-Authorized	✖ Force-Unauthorized	🔓 Authorized	🔒 Unauthorized
L LAG	T VLAN Trunk	A Auto Trunk	⚡ PoE
⚡ PoE Disabled	✛ Force Multicast	S 1G SFP Fiber Port	S⁺ 10G SFP+ Fiber Port
Ⓢ Shure Device Connected			

Configured Profiles

Edit the Default Profile VLAN 1
to change its profile template

NETGEAR®
ENGAGE

Question/Help ⌄   👤 admin ⌄

Devices   Topology   Site Settings   Support   Controller Management

Site
HQ ⌄   **Save**

Click on **"Save."**

‹ Devices Management

⚙ Configure ⌄

Overview

Network Profiles

Link Aggregation

Multicast

Neighbor

Power over Ethernet

Port configuration

Security

Maintenance

AVB License

🔧 Diagnostics ⌄

Network Profiles

Configure | Network Profiles

M4250-8G2XF-PoE+   ☑ Show Legends

Auto-Trunk   🟢

PTP residency time stamping   🟢

◯ Connected	◯ Connected & Powered	◯ Error	⚪ Disabled
⬤ Available	⊘ Blocked	❗ Admin Down	⚠ Warning
🔧 Force-Authorized	🔧 Force-Unauthorized	🔓 Authorized	🔒 Unauthorized
L LAG	T VLAN Trunk	A Auto Trunk	⚡ PoE
⚡ PoE Disabled	✛ Force Multicast	S 1G SFP Fiber Port	S⁺ 10G SFP+ Fiber Port
Ⓢ Shure Device Connected			

Configured Profiles

Edit the Default Profile VLAN 1
to change its profile template

© 1996 - 2023 NETGEAR®

NETGEAR Engage

NETGEAR ENGAGE

Question/Help ∨   👤 admin ∨

Devices   Topology   Site Settings   Support   Controller Management

Site
HQ ∨   **Save**

< Devices Management

⚙ Configure   ∧

Overview

Network Profiles

Link Aggregation

Multicast

Neighbor

Power over Ethernet

Port configuration

Security

Maintenance

AVB License

🔧 Diagnostics   ∨

Network Profiles
Configure | Network Profiles

M4250-8G2XF-PoE+

☑ Show Legends

[Switch port diagram: ports 1-8 (PoE), 9 (S+), 10 (A)]

Auto-Trunk   🟢

PTP residency time stamping   🟢

○ Connected	◎ Connected & Powered	⊘ Error	● Disabled
● Available	⊘ Blocked	! Admin Down	⚠ Warning
🔧 Force-Authorized	🔧 Force-Unauthorized	🔓 Authorized	🔒 Unauthorized
L LAG	T VLAN Trunk	A Auto Trunk	⚡ PoE
⚡ PoE Disabled	✛ Force Multicast	S 1G SFP Fiber Port	S+ 10G SFP+ Fiber Port
◐ Shure Device Connected			

Configured Profiles

Edit the Default Profile VLAN 1
to change its profile template

NETGEAR ENGAGE

Question/Help ∨   admin ∨

Devices   Topology   Site Settings   Support   Controller Management

Site
HQ ∨   **Save**

Managed Devices

⊕ Add Device

Switch Model	System Name	Serial Number	IP Address	FW Version	AV Version	Status	
M4250-8G2XF-PoE+ GSM4210PX	✎	6YX32A5FA00F7	192.168.77.103	13.0.4.13	2.2.3.16	Online	Configu...
M4250-8G2XF-PoE+ GSM4210PX	✎	6YX32A5NA0109	192.168.77.106	13.0.4.13	2.2.3.16	Online	Configure ⋮

Click on "**Configure**" for the next switch.

Total 2   10/page ∨   ‹ **1** ›   Go to [1]

Discovered Devices

Switch Model	System Name	Serial Number	MAC Address	IP Address	FW Version	AV Version

You do not have any discovered devices

Total 0   10/page ∨   ‹ **1** ›   Go to [1]

NETGEAR®
ENGAGE

Question/Help ⌄   👤 admin ⌄

Devices   Topology   Site Settings   Support   Controller Management

Site
HQ ⌄   **Save**

⟨ Devices Management

⚙ Configure ⌃

Overview

Network Profiles

Link Aggregation

Multicast

Neighbor

Power over Ethernet

Port configuration

Security

Maintenance

AVB License

🔧 Diagnostics ⌄

Overview
Configure | Overview

M4250-8G2XF-PoE+   ☑ Show Legends

Click on "**Network Profiles**."

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

○ Connected   ○ Connected & Powered   ○ Error   ● Disabled
● Available   ⊘ Blocked   ❗ Admin Down   ⚠ Warning
🔍 Force-Authorized   🔧 Force-Unauthorized   🔓 Authorized   🔒 Unauthorized
L LAG   T VLAN Trunk   A Auto Trunk   ⚡ PoE
⚡ PoE Disabled   ⊕ Force Multicast   S 1G SFP Fiber Port   S⁺ 10G SFP+ Fiber Port
Ⓢ Shure Device Connected

Device Details

Product Name	Serial Number	Model	Date & Time	Country/Region
M4250	6YX32A5NA0109	M4250-8G2XF-PoE+	2023-03-24 03:46:09 ✎	N/A

Base MAC Address	System Name	Firmware Version	AV UI Version	Boot Version
94:18:65:7D:5D:6D	✎	13.0.4.13	2.2.3.16	1.0.0.11

System Uptime

NETGEAR
ENGAGE

Question/Help ⌄   👤 admin ⌄

Devices   Topology   Site Settings   Support   Controller Management

Site
HQ

Save

‹ Devices Management

⚙ Configure ⌃

Overview

Network Profiles

Link Aggregation

Multicast

Neighbor

Power over Ethernet

Port configuration

Security

Maintenance

AVB License

🔧 Diagnostics ⌄

Network Profiles
Configure | Network Profiles

M4250-8G2XF-PoE+

☑ Show Legends

Auto-Trunk 🟢

Enable the toggle for "**PTP residency time stamping**."

PTP residency time stamping ⚪

○ Connected	○ Connected & Powered	○ Error	● Disabled
● Available	⊘ Blocked	! Admin Down	⚠ Warning
🔍 Force-Authorized	✖ Force-Unauthorized	🔓 Authorized	🔒 Unauthorized
L LAG	T VLAN Trunk	A Auto Trunk	⚡ PoE
⚡ PoE Disabled	✛ Force Multicast	S 1G SFP Fiber Port	S⁺ 10G SFP+ Fiber Port
⑤ Shure Device Connected			

Configured Profiles

Edit the Default Profile VLAN 1
to change its profile template

© 1996 - 2023 NETGEAR®

NETGEAR Engage

NETGEAR®
ENGAGE

Question/Help ⌄   👤 admin ⌄

Devices   Topology   Site Settings   Support   Controller Management

Site
HQ ⌄   **Save**

Click on "**Save**."

<   Devices Management

⚙ Configure   ⌃

   Overview

   Network Profiles

   Link Aggregation

   Multicast

   Neighbor

   Power over Ethernet

   Port configuration

   Security

   Maintenance

   AVB License

🔧 Diagnostics   ⌄

Network Profiles
Configure | Network Profiles

M4250-8G2XF-PoE+

☑ Show Legends

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

Auto-Trunk   🟢

PTP residency time stamping   🟢

○ Connected	○ Connected & Powered	○ Error	● Disabled
● Available	⊘ Blocked	❗ Admin Down	⚠ Warning
🔧 Force-Authorized	🔧 Force-Unauthorized	🔓 Authorized	🔒 Unauthorized
L LAG	T VLAN Trunk	A Auto Trunk	⚡ PoE
⚡ PoE Disabled	✛ Force Multicast	S 1G SFP Fiber Port	S⁺ 10G SFP+ Fiber Port
S Shure Device Connected			

Configured Profiles

Edit the Default Profile VLAN 1
to change its profile template

© 1996 - 2023 NETGEAR®

NETGEAR®
ENGAGE

Question/Help ⌄   👤 admin ⌄

Click on "Devices."

Devices   Topology   Site Settings   Support   Controller Management

Site
HQ ⌄   **Save**

‹ Devices Management

⚙ Configure ⌃

Overview

Network Profiles

Link Aggregation

Multicast

Neighbor

Power over Ethernet

Port configuration

Security

Maintenance

AVB License

🔧 Diagnostics ⌄

Network Profiles
Configure | Network Profiles

M4250-8G2XF-PoE+   ☑ Show Legends

Auto-Trunk   ⬤

PTP residency time stamping   ⬤

◯ Connected	◯ Connected & Powered	◯ Error	⬤ Disabled
⬤ Available	⊘ Blocked	❗ Admin Down	⚠ Warning
🔧 Force-Authorized	🔧 Force-Unauthorized	🔓 Authorized	🔒 Unauthorized
L LAG	T VLAN Trunk	A Auto Trunk	⚡ PoE
⚡ PoE Disabled	✛ Force Multicast	S 1G SFP Fiber Port	S⁺ 10G SFP+ Fiber Port
Ⓢ Shure Device Connected			

Configured Profiles

Edit the Default Profile VLAN 1
to change its profile template

© 1996 - 2023 NETGEAR®

NETGEAR ENGAGE

If you have any more switches on your network, enable the "**PTP residency time stamping**" by following the same steps.

Devices   Topology   Site Settings   Support   Controller Management

Site
HQ ⌄

Save

Managed Devices

⊕ Add Device

Switch Model	System Name	Serial Number	IP Address	FW Version	AV Version	Status		
M4250-8G2XF-PoE+ GSM4210PX	✏	6YX32A5FA00F7	192.168.77.103	13.0.4.13	2.2.3.16	Online	Configure	⋮
M4250-8G2XF-PoE+ GSM4210PX	✏	6YX32A5NA0109	192.168.77.106	13.0.4.13	2.2.3.16	Online	Configure	⋮

Total 2   10/page ⌄   ‹ 1 ›   Go to 1

Discovered Devices

Switch Model	System Name	Serial Number	MAC Address	IP Address	FW Version	AV Version

You do not have any discovered devices

Total 0   10/page ⌄   ‹ 1 ›   Go to 1

We have now configured our network with AES67 Audio over IP requiring PTP transparent clock.

End