

Lumens®

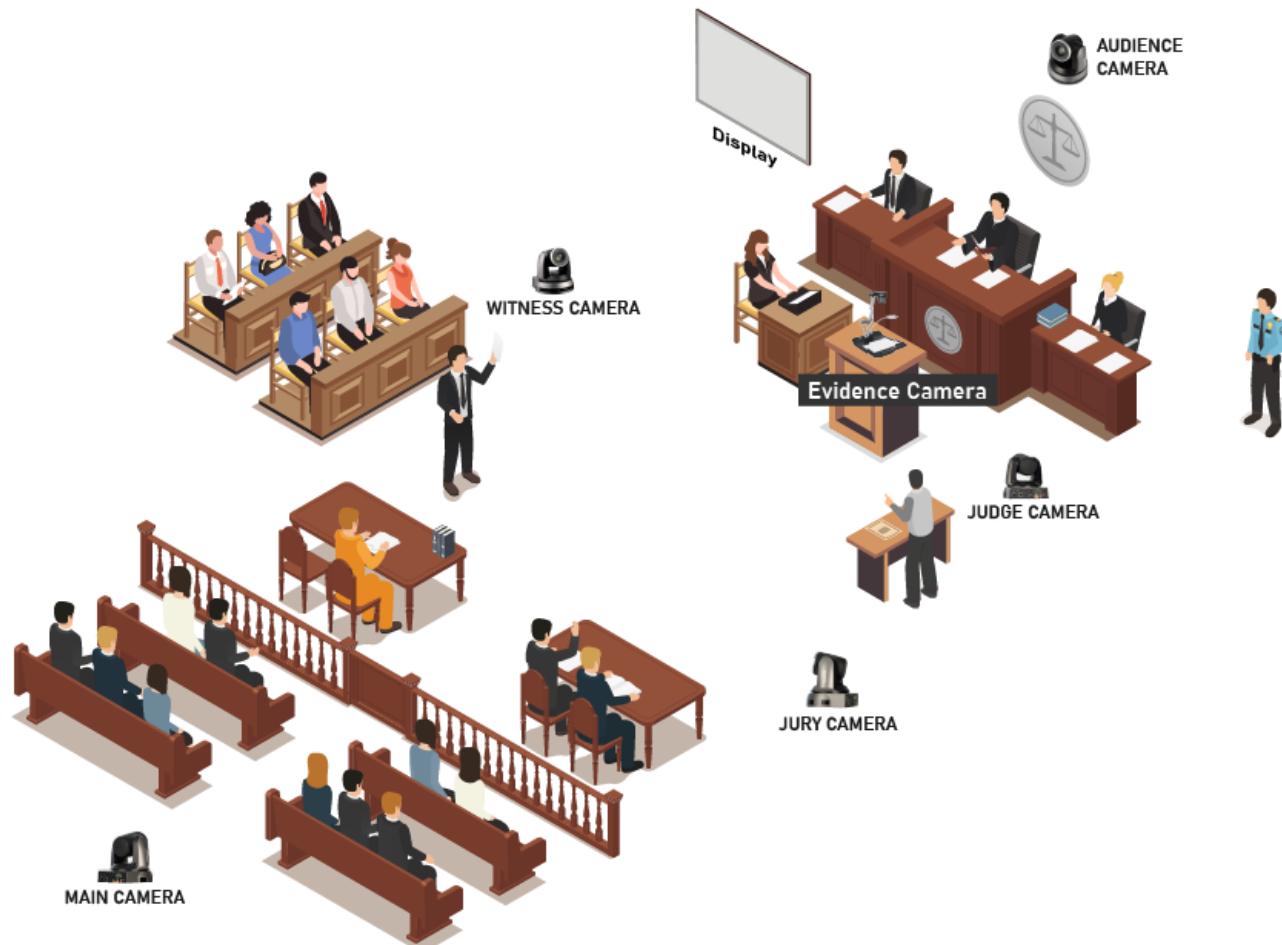
OIP-N Bridge Audio Routing Setting Guide

Lumens®

OIP-N Bridge Audio Routing

By integrating audiovisual systems through the **OIP-N Bridge**, customers can reduce equipment costs as well as installation and maintenance expenses, thereby making the **Lumens OIP-N Bridge** solution more attractive and encouraging customers to transition to Lumens OIP-N Bridge system products.

Scenario - Courtroom



Functional Requirements

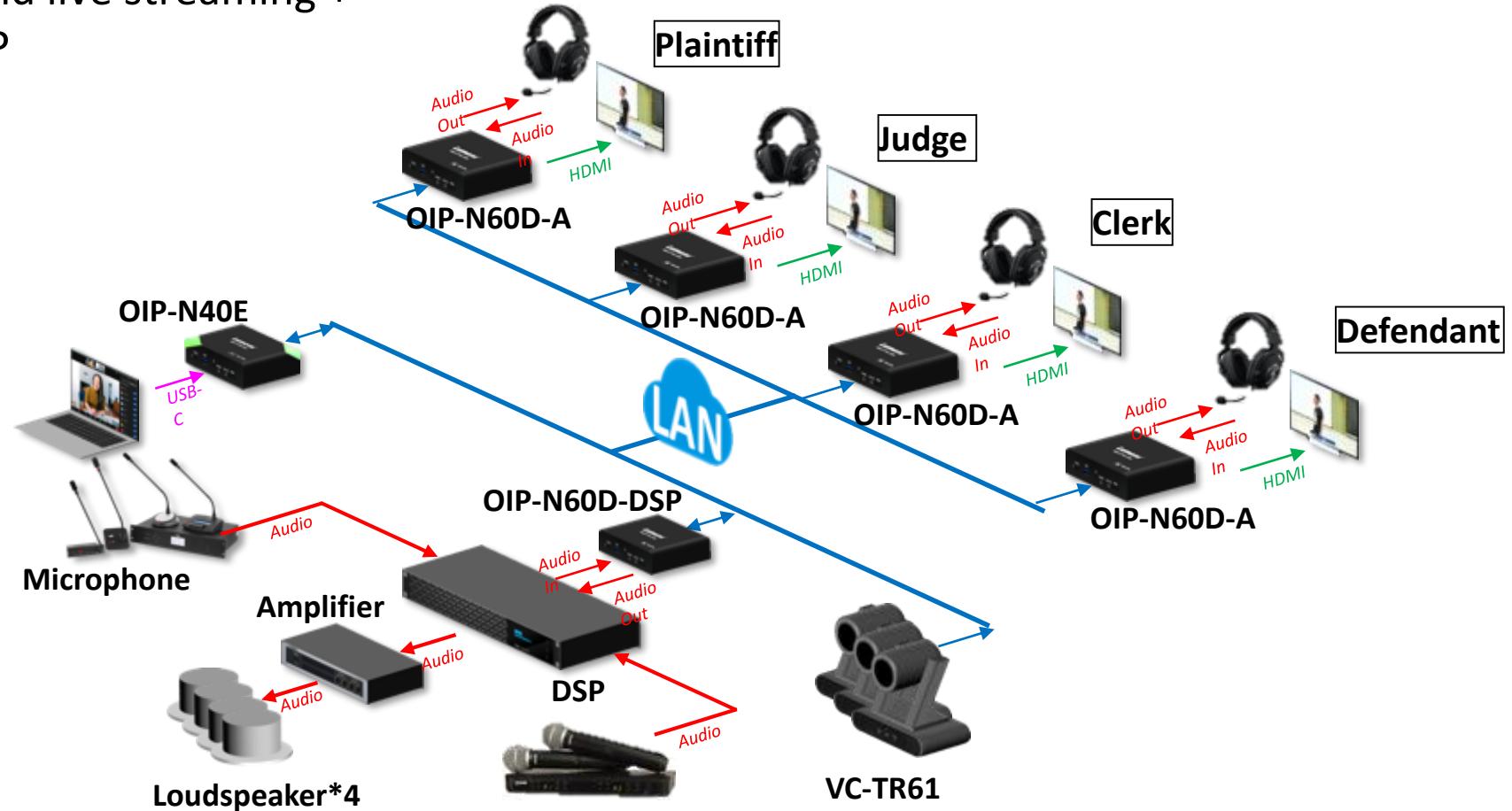
- Multi-channel live streaming and recording, supporting remote court hearings
- Cameras capture judges, witnesses, prosecutors, defense attorneys, and other participants
- Automatic tracking of witnesses and attorneys
- Four channels of simultaneous video recording and audio recording
- **OIP:** Enables one-cable Dante BYOM implementation
- **OIP:** Provides IP-to-HDMI and Audio-to-Dante conversion
- Integration with environmental control systems (room control / automation systems)

Scenario - Courtroom

Application:

BYOM + Recording and live streaming +

Non Dante Audio DSP



Courtroom

- **How to use:**

1. **OIP-N40E**

Step1: Go to N40E [Stream]=>[Stream Setting], change Stream type to [RTSP or NDI] and Apply.
Step2: Go to [System]=>[Output]=>[Virtual USB Setting], enable Virtual USB Output and select [Follow Routing] as UAC source.

(Continued on next slide)

Step1

Stream Setting:

Stream Type	RTSP
Codec	H.264
Bit Rate	7000 kbps
Rate Control	CBR
RTSP URL	rtsp://192.168.6.62:8557/h264
<input type="checkbox"/> Multicast	
<input type="checkbox"/> Authentication	
Account	
Password	

Apply **Cancel**

Step2

Virtual USB Setting

Virtual USB Output	<input checked="" type="checkbox"/>
Codec	MJPEG
UAC Output	Follow Routing

Courtroom

- How to use:

1. OIP-N40E

Step3: Go to [Source], select **VC-TR61** as Source.

Step4: Go to [Audio]=>[Stream Audi], enable “Stream Audio”, select [USB Audio] as Audio source.

Step3

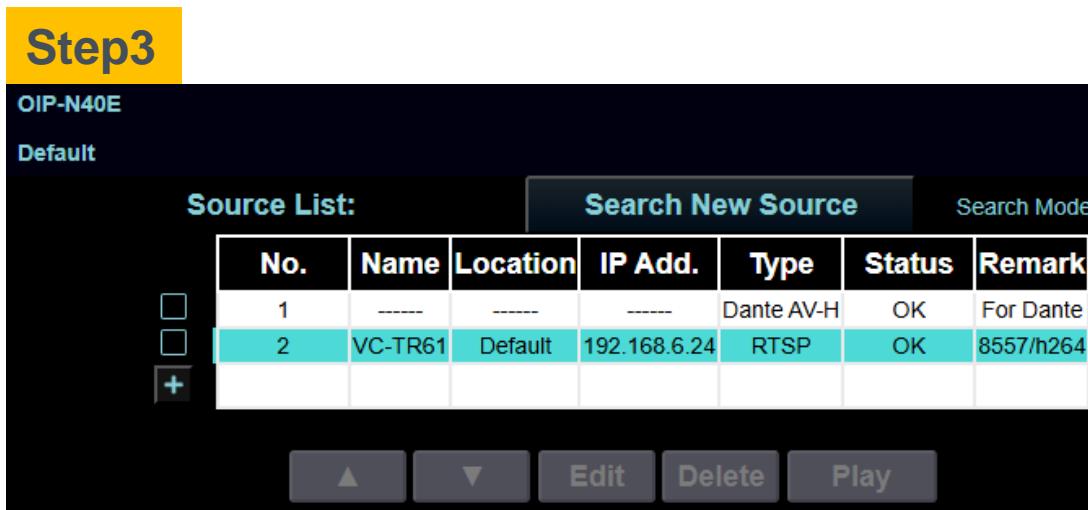
OIP-N40E

Default

Source List: Search New Source Search Mode :

No.	Name	Location	IP Add.	Type	Status	Remark
1	-----	-----	-----	Dante AV-H	OK	For Dante
2	VC-TR61	Default	192.168.6.24	RTSP	OK	8557/h264

▲ ▼ Edit Delete Play



Step4

Audio

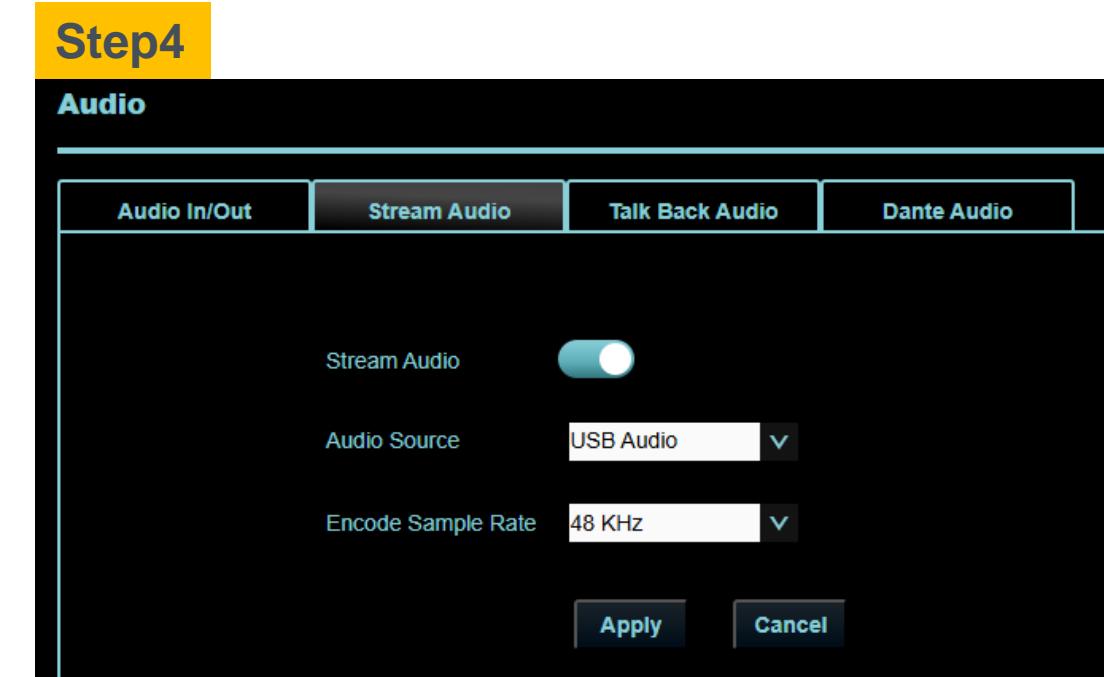
Audio In/Out	Stream Audio	Talk Back Audio	Dante Audio
--------------	--------------	-----------------	-------------

Stream Audio

Audio Source

Encode Sample Rate

Apply Cancel



Courtroom

- How to use:

2. OIP-N60D-DSP:

Step1: Go to [Audio]>[Audio In/Out], [Audio in] select [Line in], [Audio out] enable and select [Follow Routing].

Step2: Go to [Audio]>[Talk Back Audio], enable and select [Audio in].

Step1

Audio

Audio In/Out	HDMI Audio Out	Talk Back Audio
--------------	----------------	-----------------

Audio In Enable

Audio In: Line In

Audio Volume: 9

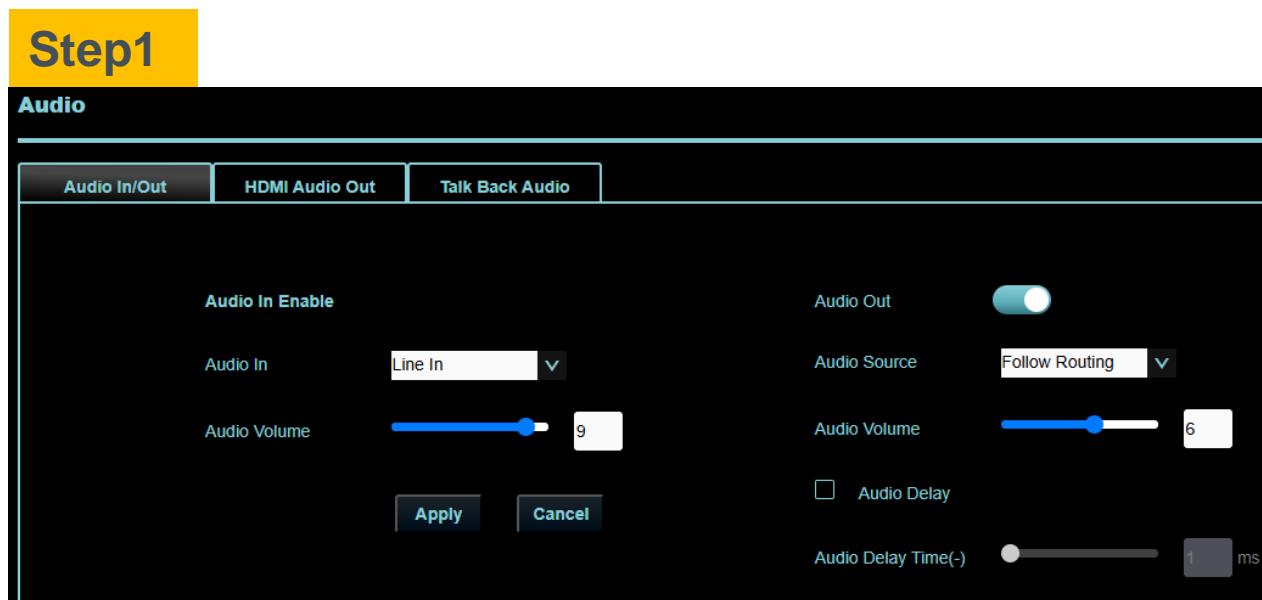
Audio Out

Audio Source: Follow Routing

Audio Volume: 6

Audio Delay

Audio Delay Time(-): 1 ms



Step2

Audio

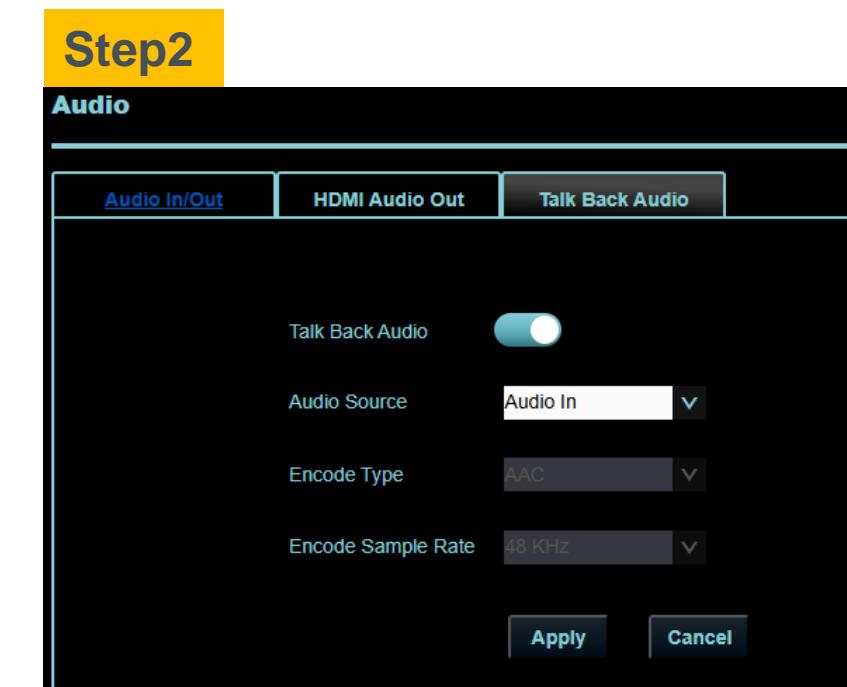
Audio In/Out	HDMI Audio Out	Talk Back Audio
--------------	----------------	-----------------

Talk Back Audio

Audio Source: Audio In

Encode Type: AAC

Encode Sample Rate: 48 KHz



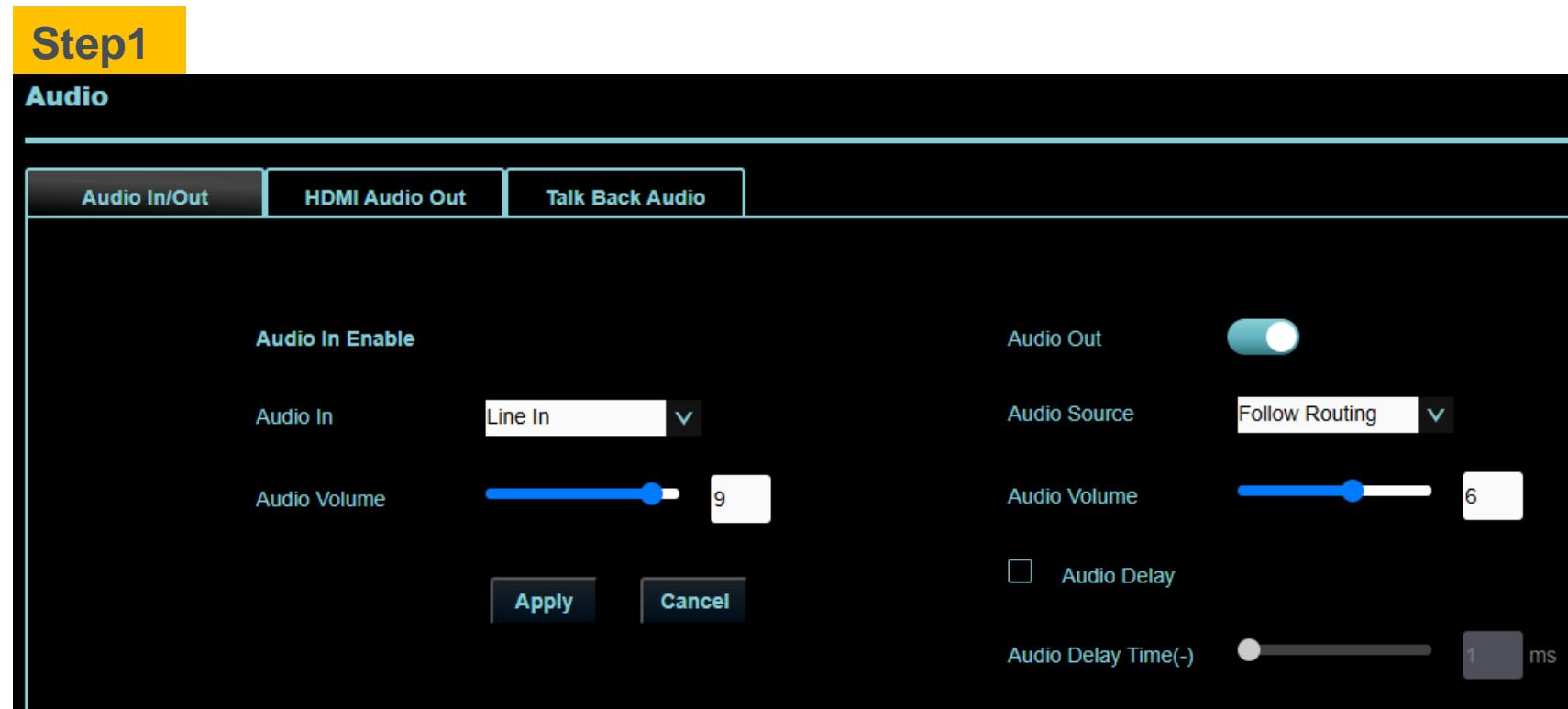
Courtroom

- How to use:

3. OIP-N60D-A: (repeat below steps in setting each OIP-N60D-A)

Step1: Go to [Audio]=>[Audio in/Out], [Audio in] select [Line in], [Audio out] enable and select [Follow Routing].

(Continued on next slide)



Courtroom

- How to use:

3. **OIP-N60D-A:** (repeat below steps in setting each OIP-N60D-A)

Step2: Go to [Audio]=>[Talk Back Audio], enable and select [Audio in].
Step3: Go to [Source], search and select **OIP-N40E** as video source.

Step2

Audio

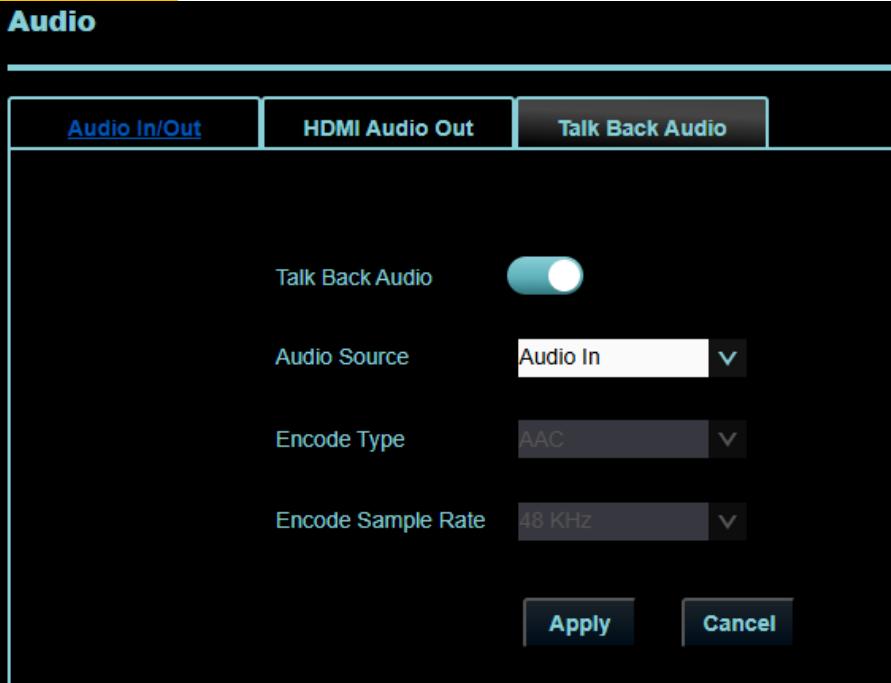
Audio In/Out	HDMI Audio Out	Talk Back Audio
--------------	----------------	-----------------

Talk Back Audio

Audio Source

Encode Type

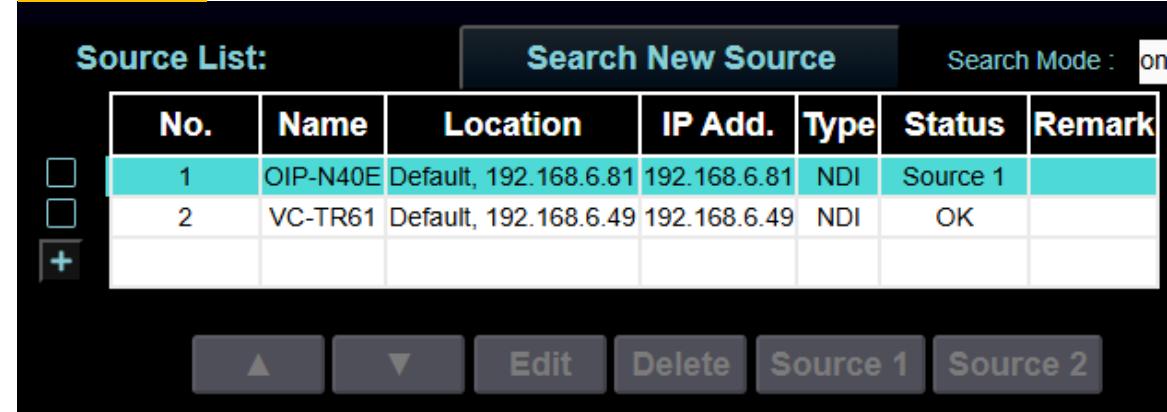
Encode Sample Rate



Step3

Source List:

No.	Name	Location	IP Add.	Type	Status	Remark
1	OIP-N40E	Default, 192.168.6.81	192.168.6.81	NDI	Source 1	
2	VC-TR61	Default, 192.168.6.49	192.168.6.49	NDI	OK	

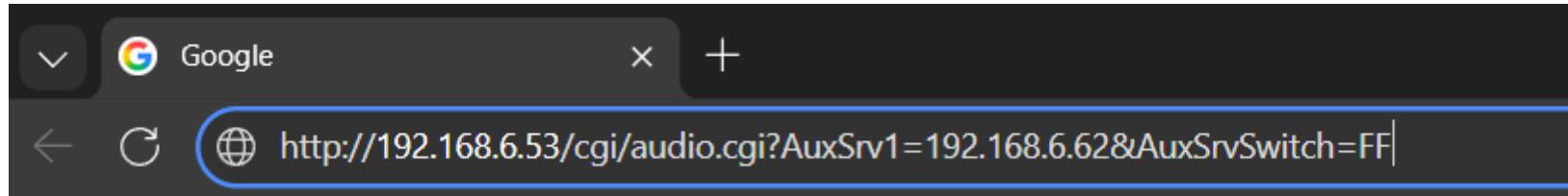


Courtroom

- **How to use:**

4. Set Routing Command

- 1) Launch browser (e.g. Chrome, Edge).
- 2) Enter CGI command in Address Bar to each OIP-N device.
(If you have N devices, please repeat sending command N times.)



E.g.:

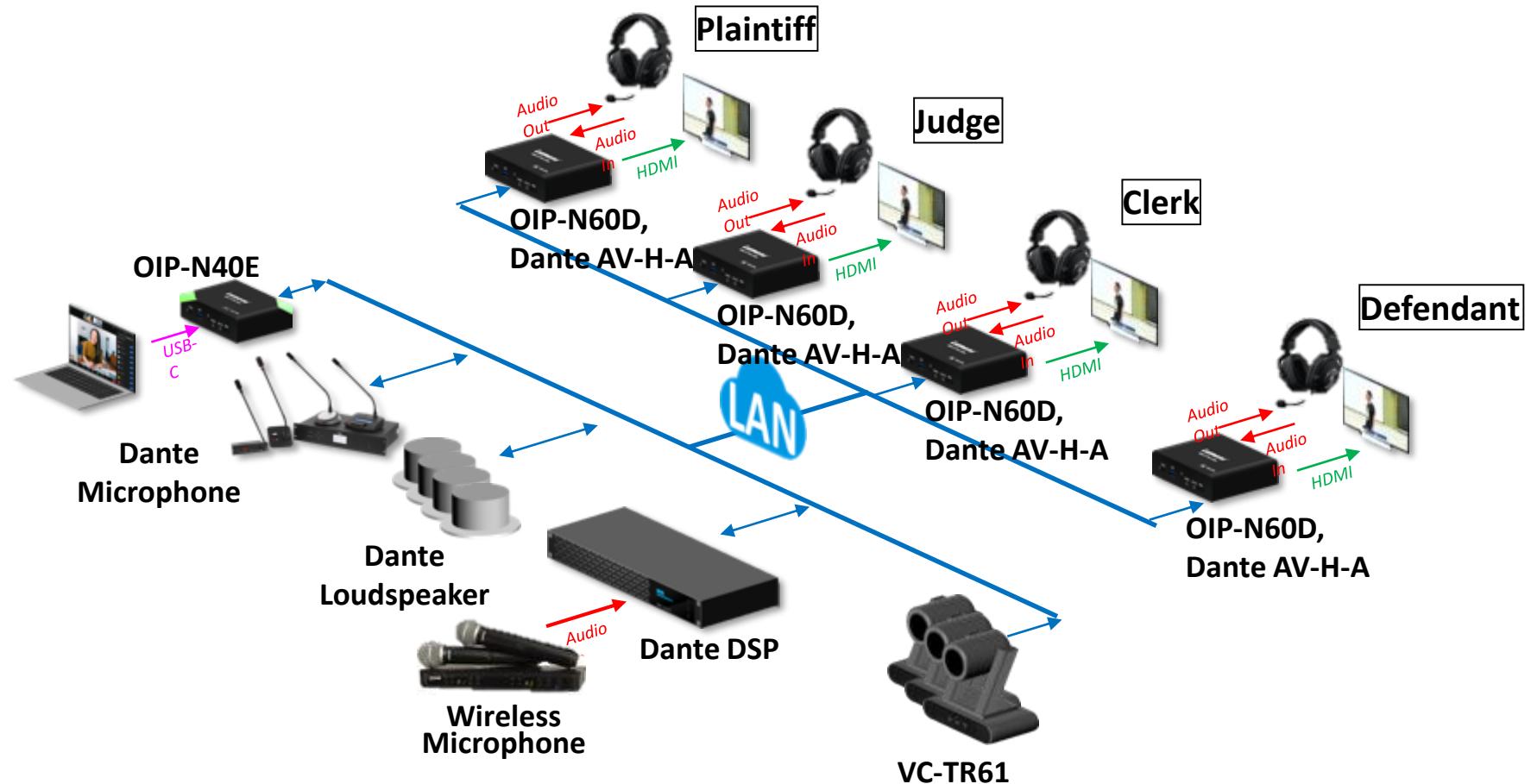
http://OIP-N40E IP/cgi/audio.cgi?AuxSrv1=OIP-N60D-DSP IP&AuxSrv2=OIP-N60D-A1 IP&AuxSrv3=OIP-N60D-A2 IP&AuxSrv(N)=OIP-N60D-A(N-1) IP&AuxSrvSwitch=FF

■ Limitation and attention item:

- 1) In the same environment, a maximum of 9 OIP-N devices can be used simultaneously.
One OIP-N can receive 8 audio channels.
- 2) Audio source needs to be [Line in] device, or it should add a convertor.

Scenario - Courtroom

Application: BYOM + Recording and live streaming +
Dante Audio DSP



Courtroom - Dante

- How to use:

1. OIP-N40E

Step1: Go to OIP-N40E [Stream]=>[Stream Setting], change Stream type to [RTSP or NDI] and Apply.
Step2: Go to [System]=>[Output]=>[Virtual USB Setting], enable Virtual USB Output and select [Follow Dante] as UAC source.

(Continued on next slide)

Step1

Stream Setting:

Stream Type: RTSP

Codec: H.264

Bit Rate: 7000 kbps

Rate Control: CBR

RTSP URL: rtsp://192.168.6.62:8557/h264

Multicast

Authentication

Account: [redacted]

Password: [redacted]

Apply Cancel

Step2

Virtual USB Setting

Virtual USB Output:

Codec: MJPEG

UAC Output: Follow Routing

Apply Cancel

Courtroom - Dante

- How to use:

1. OIP-N40E

Step3: Go to [Source], select **VC-TR61** as Source.

Step4: Go to [Audio]=>[Dante Audio], enable [Dante audio], select [USB Audio] as Audio source.

Step3

OIP-N40E

Default

Source List: **Search New Source** Search Mode :

No.	Name	Location	IP Add.	Type	Status	Remark
1	-----	-----	-----	Dante AV-H	OK	For Dante
2	VC-TR61	Default	192.168.6.24	RTSP	OK	8557/h264

+

▲ ▼ Edit Delete Play

Step4

Audio

Audio In/Out Stream Audio Talk Back Audio Dante Audio

Dante Audio

Audio Source **USB Audio** ▾

Encode Sample Rate 48 KHz ▾

Apply Cancel

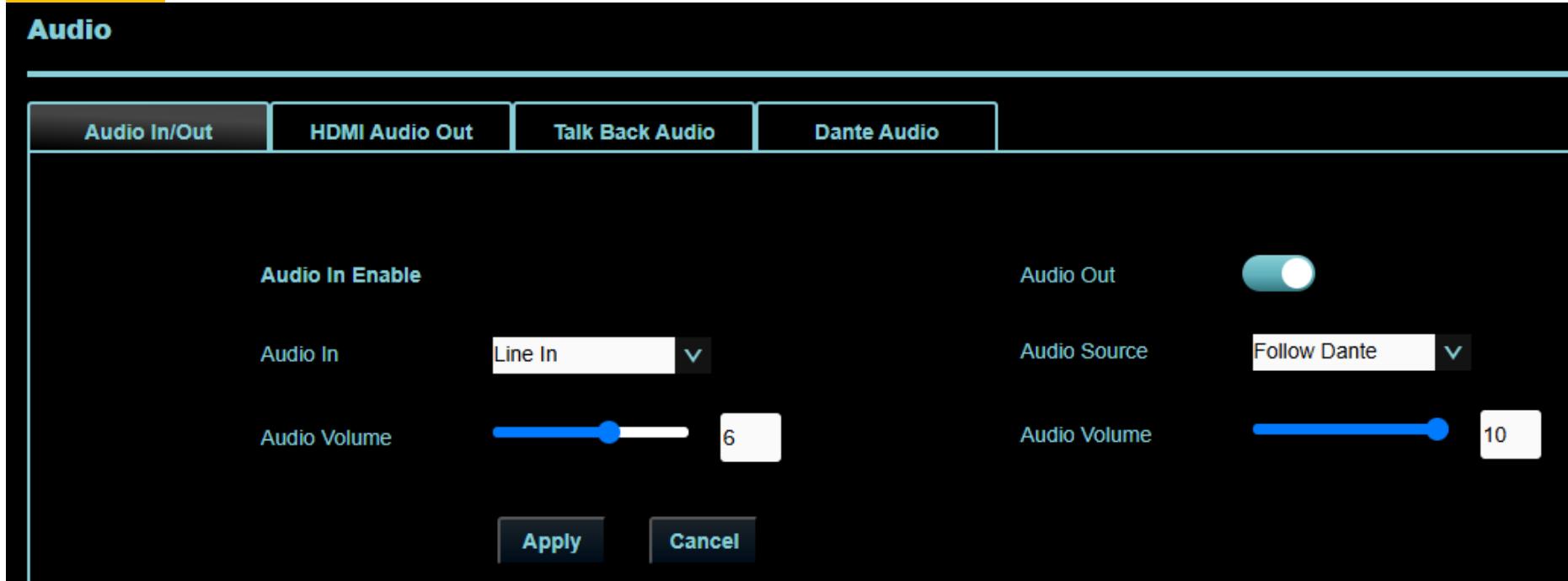
Courtroom - Dante

- How to use:

2. OIP-N60D, Dante AV-H-A: (repeat below steps in setting each OIP-N60D-A)

Step1: Go to [Audio]=>[Audio In/Out], [Audio in] select [Line in], [Audio out] enable and select [Follow Dante].
(Continued on next slide)

Step1



Courtroom - Dante

- How to use:

2. OIP-N60D, Dante AV-H-A: (repeat below steps in setting each N60D-A)

Step2: Go to [Audio]=>[Dante Audio], enable and select [Audio in].

Step3: Go to [Source], search and select **OIP-N40E** as video source.

Step2

Audio

Audio In/Out	HDMI Audio Out	Talk Back Audio	Dante Audio
--------------	----------------	-----------------	-------------

Dante Audio

Audio Source

Encode Sample Rate

Step3

Source List:

No.	Name	Location	IP Add.	Type	Status	Remark
1	OIP-N40E	Default, 192.168.6.81	192.168.6.81	NDI	Source 1	
2	VC-TR61	Default, 192.168.6.49	192.168.6.49	NDI	OK	

Courtroom - Dante

- How to use:

3. Dante Controller setting

- Go to Dante Controller, subscriber all the TX and RX you need.
 - TX: N40E、N60D audio channel, Dante Mic, RX: Dante DSP ;
 - TX: Dante DSP RX: N40E、N60D audio channel, Dante Speaker

■ Limitation and attention item:

- The number of devices that can be deployed in the same environment is determined by the DSP channel count.
- Audio source needs to be [Line in] device, or it should add a convertor.

