

# How to Connect IGGY to a Yamaha Console

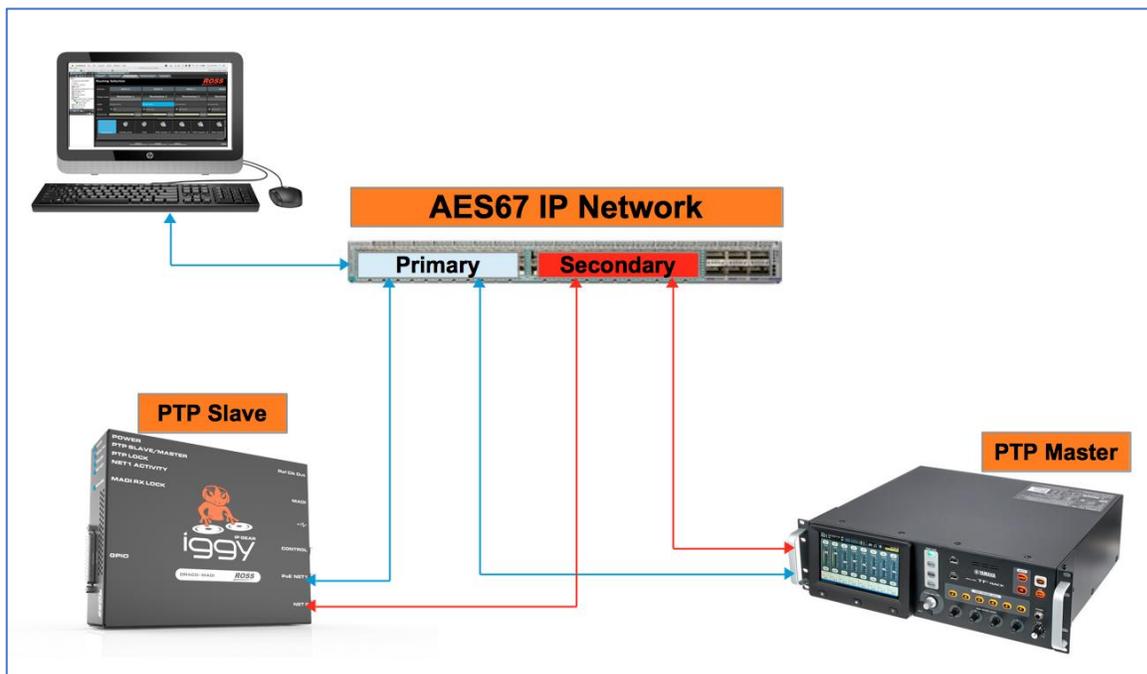
## Overview

This application note explains the steps to configure your Yamaha console's AES67 network interface for interoperability with Ross Video's IGGY line of audio converter products. Note that these steps will likely apply to any Dante product that is licensed with AES67 mode, such as Yamaha consoles.

More details on the Yamaha configuration can be found in the document "[Connecting Yamaha Dante devices with AES67](#)".

## System Setup

The diagram below shows a simplified network configuration with IGGY and a Yamaha TF-Rack Digital Mixer that has a NY64-D I/O card which supports AES67. In addition, there is a computer connected to the primary subnet for management/control of the devices. The instructions in this document follows the configuration below.



Note that both devices have two data RJ-45 ethernet ports which are simultaneously the data and the control access to the card. In this application, the IGGY RJ-45 port used for management/control is not connected.

There is a separate RJ-45 port on the Yamaha which is not connected to the Dante card and is only for controlling the Yamaha mixer remotely. This port is not connected as well.

The Dante Controller software is used to access and configure the NY64-D I/O card on the Yamaha TF-Rack console and Dashboard is used to control IGGY. This application note assumes the user has both software installed on his computer and the Yamaha device and IGGY are already connected to their respective software controllers.

I used the IGGY's NET 1 & 2 ports only (for Dashboard access also). I left everything as DHCP, and so all the devices on my isolated test network were 169.254.X.X

# Configuration Recipe

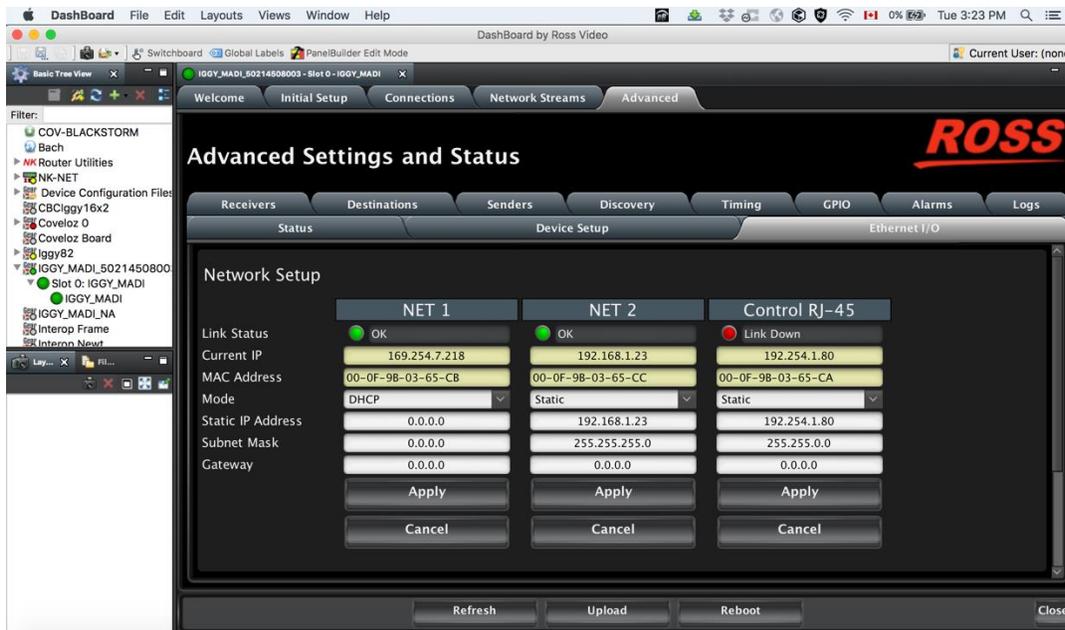
## Step 1 – Network configuration

Set two VLANs on the switch or use two separate switches for the primary and the secondary subnets.

### IGGY

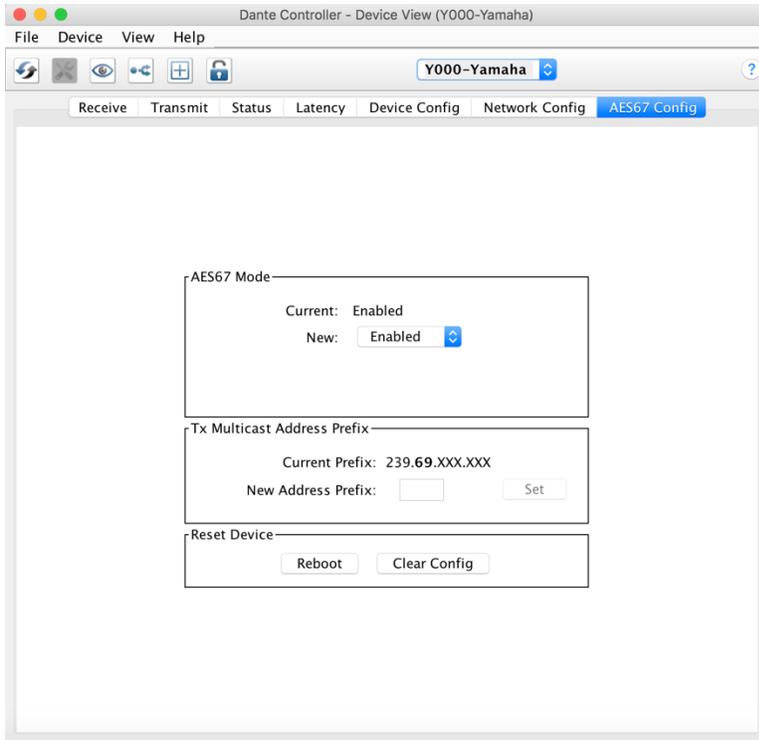
On Dashboard under the “Advanced” tab, go to “Ethernet I/O”. Set NET1 to DHCP or static IP and do the same thing for NET2. Since the control port is not connected, there is no need to modify it. See example in the picture below.

Note: all three ports must be set to different subnets.

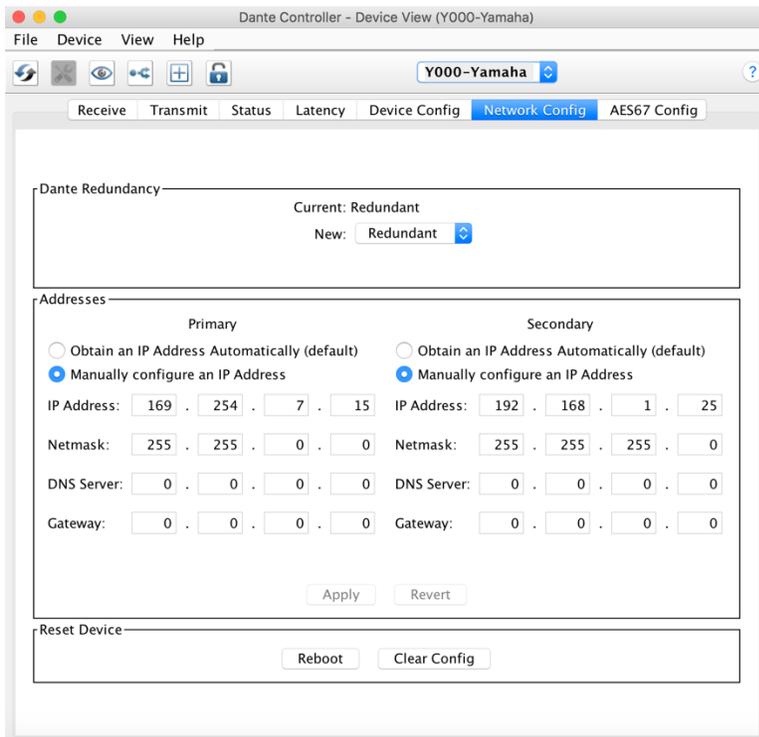


### Yamaha

On the Dante Controller, under “Device Info”, double click on the Yamaha device and under “AES67 Config” enabled the AES67 mode. By default, the TX multicast address range is 239.69.X.X.

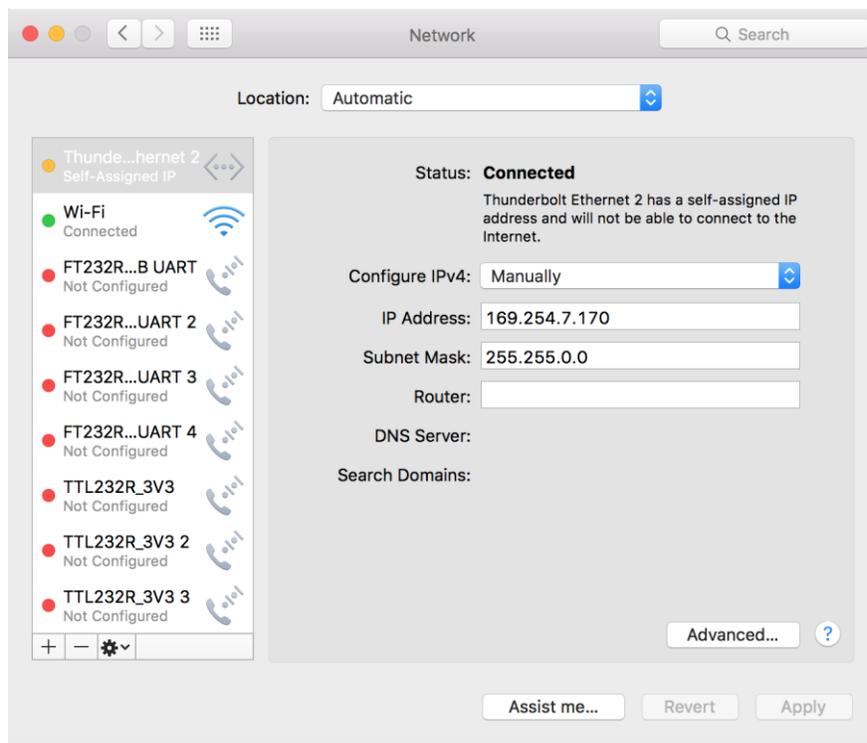


Under “Network Config” choose redundancy mode and set the IP addresses and Netmask for the primary and the secondary ports. Make sure you set the corresponding subnets for primary and secondary that you have set on IGGY.



## Management PC

Configure the network port of your computer to the same subnet as the primary network and connect it to one of the switch primary ports.



## Step 2 – PTP configuration

In this application, IGGY is set to PTP Slave and Yamaha to PTP Master. However, IGGY can be configured as the PTP Master of the network. Keep in mind that the native Dante devices do not support PTPv2 therefore you have to be careful when choosing the PTP Master.

### IGGY

On Dashboard under the “Advanced” tab, go to “Timing” and select “AES67 Media” profile. Leave all default values and click on Apply. IGGY will listen to the network until it finds the PTP Master, then locks to it.

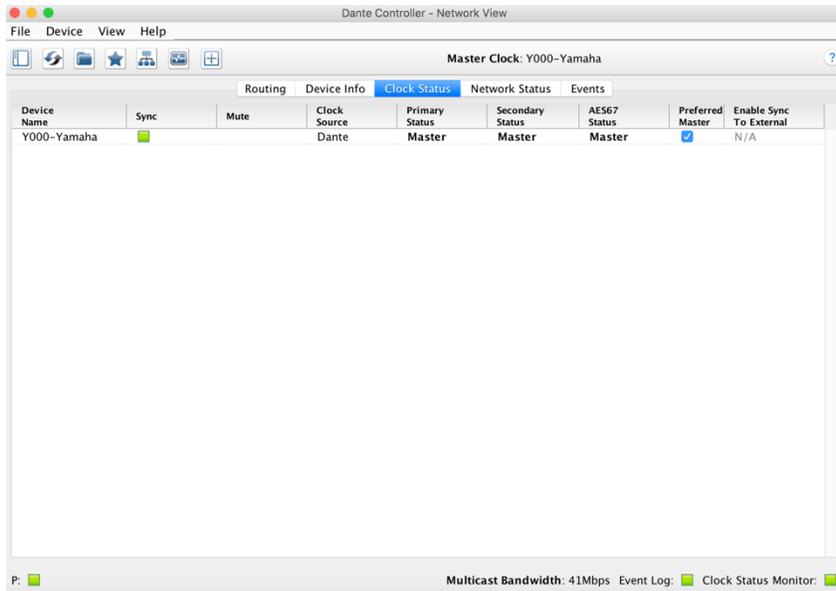
The screenshot displays the Ross Dante Controller's Advanced Settings and Status window. The 'Timing' tab is active, showing the following configuration:

Category	Parameter	Value
PTP Configuration	Slave Only	<input checked="" type="checkbox"/>
	Master Lock Mode	Auto - PTP Based
	Profile	AES67 Media
	Custom PTP Profile	<input type="checkbox"/>
	Domain	0
	Priority1	128
Local	Local ID	00-0f-9b-ff-fe-03-65-cb
	Mean Path Delay (ns)	4164
Grandmaster	Grandmaster ID	00-1d-c1-ff-fe-14-80-a8
	Priority1	119
Ethernet I/O	Priority2	112
	Clock Accuracy	254

Buttons at the bottom include OK, Apply, Cancel, Refresh, Upload, Reboot, and Close.

### Yamaha

On the Dante Controller, under “Clock Status”, select “Preferred Master” and make sure the sync status is green and the status for primary, secondary and AES67 are all showing Master.



**Note:** if you plan to use IGGY in a network that has native Dante devices, it is highly recommended to read the section “Clocking Notices” in the document [“Connecting Yamaha Dante devices with AES67”](#).

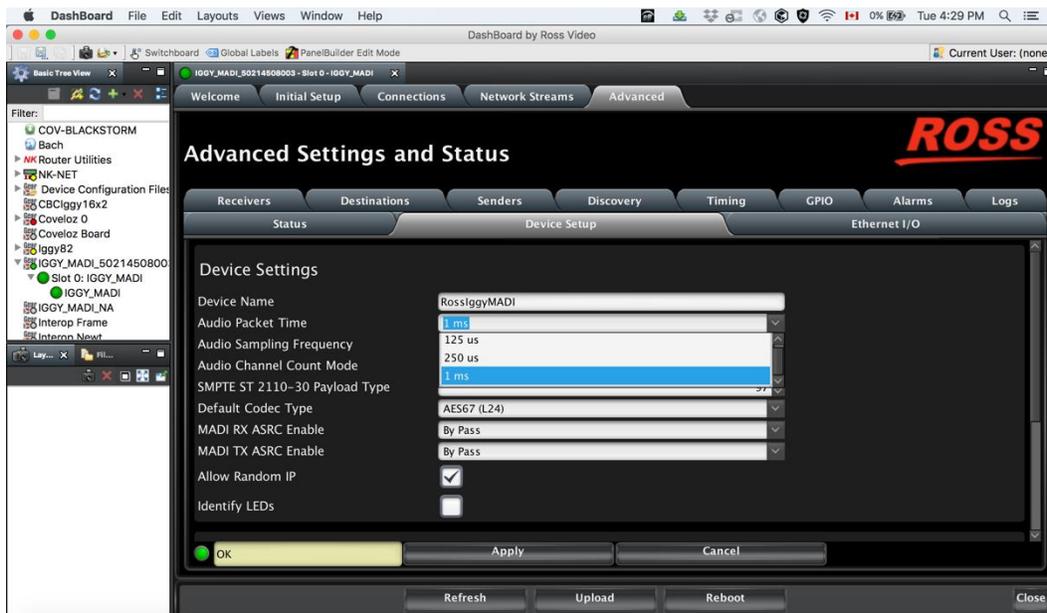
### Step 3 – Sources configuration

Do not proceed until you verify that both IGGY and Yamaha are PTP locked.

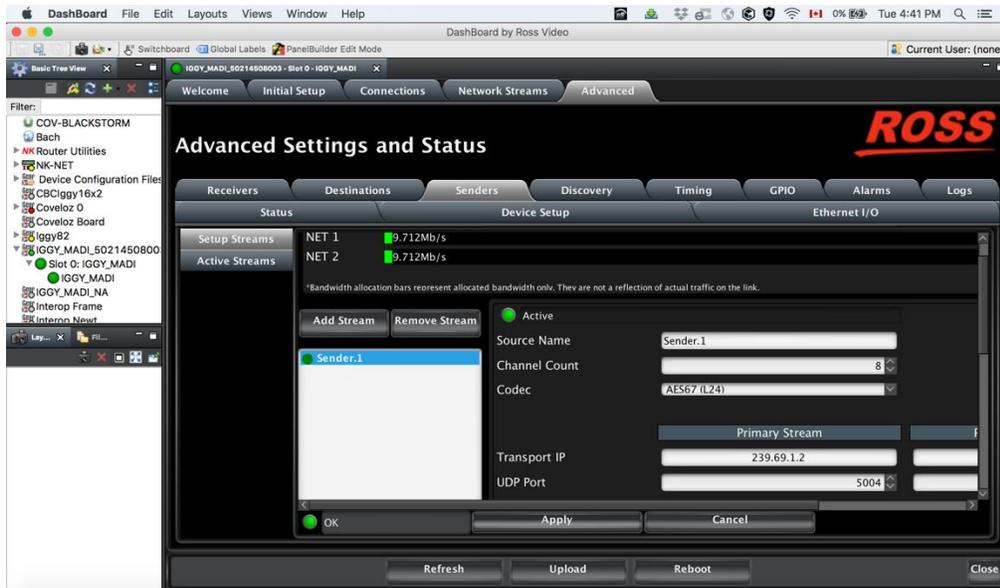
Most of the Dante devices running the AES67 mode do not support 125us packet time, therefore you need to set IGGY to 1ms packet time.

#### IGGY

On Dashboard under the “Advanced” tab, go to “Device Setup” and select 1ms for “Audio Packet Time”.

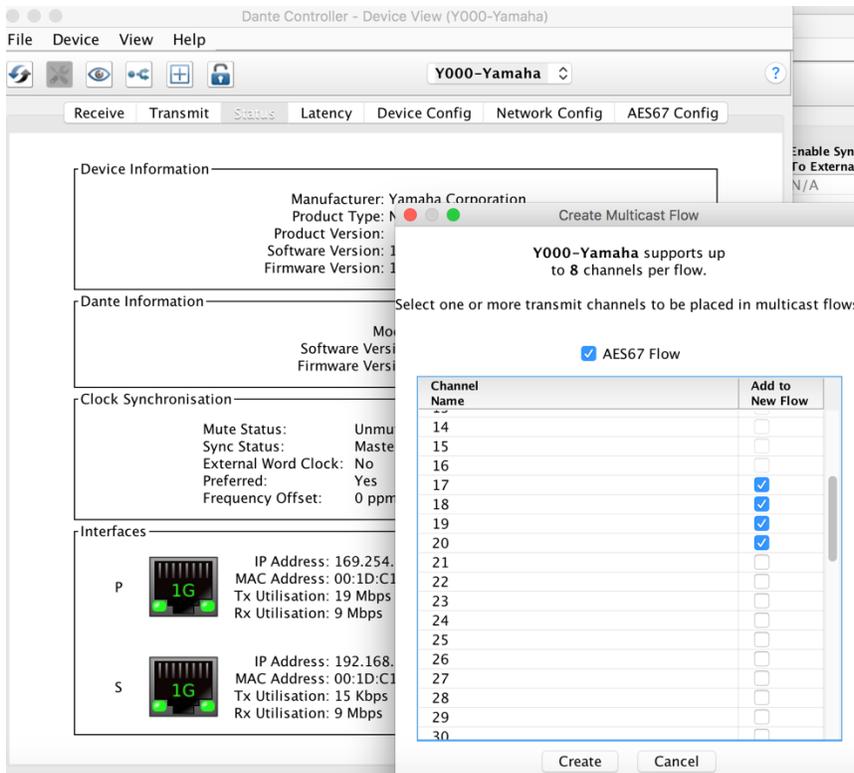


To create a source, go to “Sender” and click on “Add Stream”. Enter the name, select AES67 (L24) for the Codec, enter the Transport IP which has to be in the range 239.69.x.x and UDP port for the Primary Stream. Click on “Set Default Audio” and on “Apply”. The secondary parameters will be set automatically. Make sure the status show “Active” green.



## Yamaha

On the Dante Controller, under “Device Info”, double click on the Yamaha device. Create a source enabling “AES67 Flow”, select the channels then click on Create.



You should see the sources under the "Transmit" tab.

The screenshot shows the Dante Controller interface for a Y000-Yamaha device. The 'Transmit' tab is active, displaying a list of 26 channels and a summary of transmit flows.

Channel	Signal	Channel Label
01	🔊	
02	🔊	
03	🔊	
04	🔊	
05	🔊	
06	🔊	
07	🔊	
08	🔊	
09	🔊	
10	🔊	
11	🔊	
12	🔊	
13	🔊	
14	🔊	
15	🔊	
16	🔊	
17	🔊	
18	🔊	
19	🔊	
20	🔊	
21	🔊	
22	🔊	
23	🔊	
24	🔊	
25	🔊	
26	🔊	

**Transmit Flows**

Unicast: 0  
Multicast: 3  
Total: 3 of 32

**Multicast Flow 30:** 16 (239.69.122.230)  
AES67 Session Id=3003737554419675356

**Multicast Flow 31:** 08,09,10,11,12,13,14,15 (239.69.189.64)  
AES67 Session Id=3003737554419675356

**Multicast Flow 32:** 01,02,03,04,05,06,07 (239.69.132.20)  
AES67 Session Id=3003737554419675356

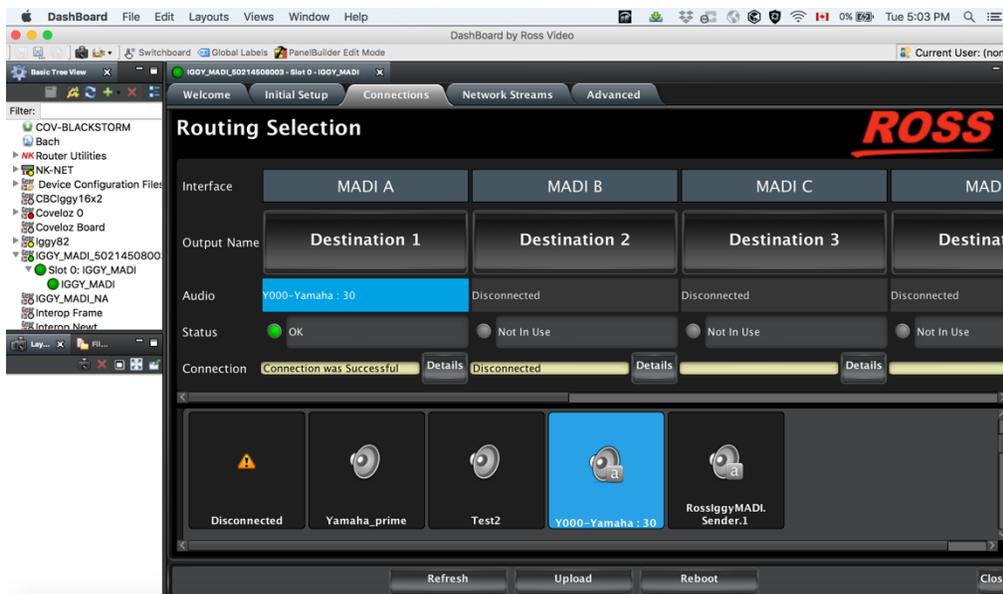
Delete

## Step 4 – Making connections

Since IGGY does not support the native Dante API, you are not able to see the IGGY destinations (receivers) in the Dante Controller. Therefore, you connect the IGGY receivers to the Yamaha sources on Dashboard. On the Dante Controller you should be able to see the IGGY sources so you can patch them to any Dante receiver.

### IGGY

On Dashboard under the “Advanced” tab, go to “Connections”, select the IGGY receive interface then click on the desired Yamaha source icon. The Status should be green and the Connection message should say “Connection was Successful”. At this point, the audio from Yamaha should be available at the IGGY receiver interface.



### Yamaha

On the Dante Controller, under “Routing”, you should see the IGGY sources in blue as the transmitters. Patch the channels to the Yamaha receive interfaces. The green icons show that the connection was successful.

Dante Controller - Network View

File Device View Help

Master Clock: Y000-Yamaha

Routing Device Info Clock Status Network Status Events

**Dante**

Filter Transmitters

Filter Receivers

**Dante Transmitters**

Y000-Yamaha

239.69.1.2 @ RossigymADI.Sender.1

01	
02	
03	
04	
05	
06	
07	
08	

**Dante Receivers**

Y000-Yamaha

01	✓
02	✓
03	✓
04	✓
05	✓
06	✓
07	✓
08	✓
09	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	

P: ■ Multicast Bandwidth: 19Mbps Event Log: ■ Clock Status Monitor: ■

## Common Problems

In this section, we list some common problems and what could be done to solve them.

### **PTP not locking**

1- Confirm the PTP Parameters:

- PTP Master device
- profile
- domain
- sync interval
- announce interval

2- Make sure the switch is set to “Boundary clock”.

3- Check if the switch is blocking the PTP packets.

### **Cannot see the sources**

1- Confirm if the subnets are correctly set and you are able to ping each port.

2- If you set VLANs. Confirm if they are correctly configured.

3- Confirm that SAP is enabled on IGGY (go to the “Discovery” tab and “Advanced”).

4- Confirm that the Multicast address is in the same range on both devices.

### **Connections are not successful or reporting “no packets received”**

1- Confirm that IGGY is set to 1ms packet time.

2- Check if both devices are still PTP locked.

3- Confirm that the Multicast address and UDP ports at the receivers are the same as the sources.

### **Connections are successful but getting audio glitches**

1- Check if both devices are still PTP locked.

2- Confirm that both devices are set to the same Codec type (L24).