

# Automatic Unicast connections.



**Prerequisite:**

Horus / Hapi Firmware v3.9.3 (or above)  
Anubis Firmware v1.0 (or above)  
MassCore Pyramix v12.0 / Ovation v8.0  
Ravenna ASIO v12.0 (or above)  
CoreAudio / Virtual Audio Device v2.0.40016 (or above)  
ANEMAN v1.1.7 (or above)

**Unicast:** from one source to one destination i.e. One-to-One

**Multicast:** from one source to multiple destinations stating an interest in receiving the traffic i.e. One-to-Many

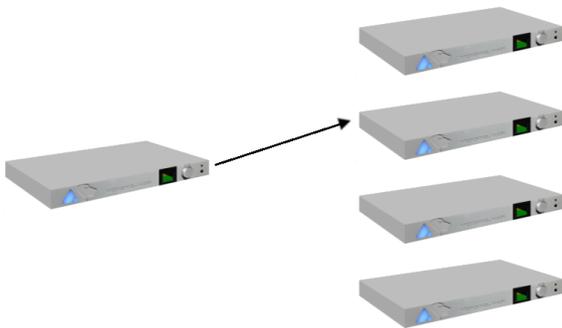
Multicast audio connections allows several nodes to "listen" to a single source, but the network configuration must be multicast capable (managed switches) and properly configured (otherwise there will be audio issues, or no audio at all).

Unicast network configuration is much simpler, and does not require advanced configuration.

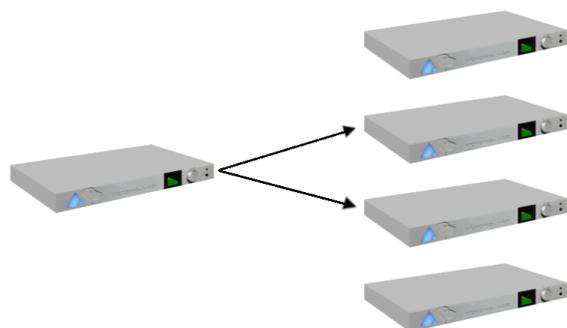
But Unicast audio requires to create 1 source per destination, while Multicast allows to have 1 single source to be sent to several destinations, which changes the network bandwidth used.

- 1 source is listened to by 1 destination : Unicast and Multicast uses the same bandwidth.
- 1 source is listened to by 3 destinations : Unicast will use 3 times more bandwidth than Multicast, as 3 sources will need to be created.

## UNICAST



## MULTICAST



---

### **AUTO - UNICAST FEATURE IS ONLY AVAILABLE ON MERGING PRODUCTS**

Note : Broadcast is not allowed.

- [Auto-Unicast connections using ANEMAN 1.1.7.](#)
- [Auto-Unicast connections using the Advanced pages](#)

### **Auto-Unicast connections using ANEMAN 1.1.7.**

1. Prepare the required connections between the devices using [ANEMAN Matrix](#).
2. Click on **Apply Unicast**

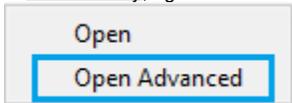


If only Apply Multicast is displayed, the device is not compatible with Unicast, please consult the device manual.

## Auto-Unicast connections using the Advanced pages

We will use a Horus and an ASIO driver for this example.

1. In **MTDiscovery**, right click on the required hardware device (Horus in our example) and select **Open Advanced**.



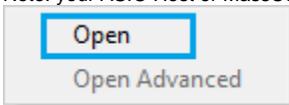
2. Go in the **Session sources** tab
3. On the left hand pane, click on the **Create Session** button 
4. Select the required IO (physical input) and name your connection
5. Tick the **"retrieve unicast address+port from sink"** checkbox  
A *"Address undefined"* error message will show up, this is normal at this stage.

## Configuration

|                      |  |
|----------------------|--|
| IO                   | A/D 3  |
| Name                 | Horus_AD   |
| Advertise            | <input checked="" type="checkbox"/>  |
| Auto-unicast         | <input checked="" type="checkbox"/> retrieve unicast address+port from sink (RTSP) |
| Address              |  |
| TTL                  | 15   |
| Payload Type         | 98   |
| Codec                | L24  |
| Frame size (samples) | 256  |
| DSCP                 | 34 (AF41)  |
| RefClk PTP traceable | <input type="checkbox"/>   |
| Channels             | Channel count: 8<br>1 - 8  |

Address undefined

- Back in **MTDiscovery**, right click on the required software device (ASIO in our example) and select **Open**  
Note: your ASIO Host or MassCore application must be started



- Go in the **Session sinks** tab

- On the left hand pane, click on the **Create Session** button

- Label the connection

- Click on the arrow next to the *Source* field.

The available sources will be listed, select the required one.

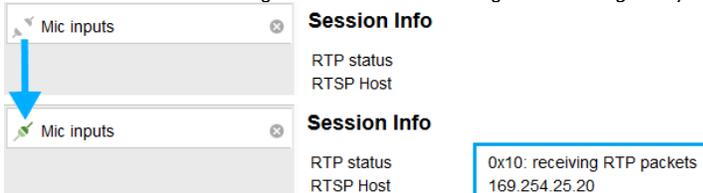
**Restriction:** auto-unicast does not work with SAP sources, do not select a sap:// prefixed source)

## Configuration

|                    |  |
|--------------------|--|
| IO                 | Audio Device   |
| Label              | Mic inputs   |
| Source             | <input type="text" value="Horus_AD"/>                                  |
| Delay (samples)    |  |
| Ignore refclk GMID | sap://Horus_AD   |
| Channels           | Channel count: 0<br>Count adapted: <input checked="" type="checkbox"/> |

- The channel count will be automatically adapted (Count adapted option)

The connection icon will turn green and status will change to "receiving RTX packets".



- You may go back to the hardware device Session sources page, the connection icon is also green.

The Auto-unicast mechanism has automatically added the sink unicast IP address.

|              |  |
|--------------|--|
| Auto-unicast | <input type="checkbox"/> retrieve unicast address+port from sink (RTSP)            |
| Address      |  |
| Auto-unicast | <input checked="" type="checkbox"/> retrieve unicast address+port from sink (RTSP) |
| Address      | 169.254.25.20:5432   |

- Repeat the same operation, but this time from the software device Session sources (our example ASIO) to the hardware device Session sinks (Horus).

