Dante Connection Guide

2022-09-06

1 Overview

This document describes how to connect 2wcom's audio over IP devices and software with Dante devices. This guide aims to describe the smoothest possible Dante integration without having to integrate Dante hardware into 2wcom devices.

This guide is applicable for the following devices and software:

- MoIN
- 4audio IP-Series (IP-4c, IP-8e, IP-4d …)
- SAT-4d
- 4audio MPX-Series (MPX-1ds, MPX-2ds, MPX-2c, MPX-1g, …)

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Your audio. Our solution.

2 How to receive 2wcom AES67 streams in Dante devices

Receiving streams in Dante devices is as simple as doing a cross-connect on the Dante controller, but it requires a little preparation in the 2wcom device:

1. must send a PCM, 24 Bit audio stream
2. must use a multicast address in the Dante realm: 239.69.x.y (e.g. 239.69.0.1)

Example:

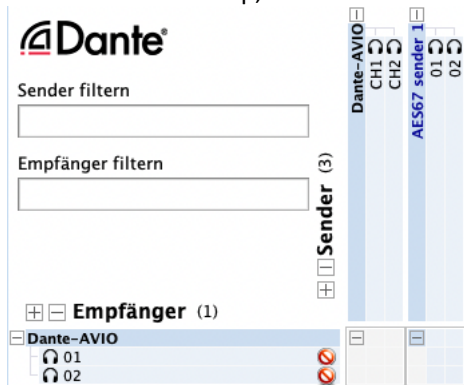| Multicast IP	Port	IP Interface	VLAN	Payload ID	Packet Time	Audio Mode	Width	DSCP	TTL	Empty Packets
239.69.0.100	5004	Data 1 ⌄	--	98	4 ms ⌄	Stereo ⌄	24 bit ⌄	34	42	ON ⬤

3. SAP announcements must be enabled
4. SAP multicast address must use the devices default of 239.255.255.255:9875

SAP (Session Announcement Protocol)

Mode:	Client/Server ⌄
Announce interval:	300 sec
Multicast loop (receive own SAP messages):	⬤ OFF
Receive address and port:	239.255.255.255 : 9875

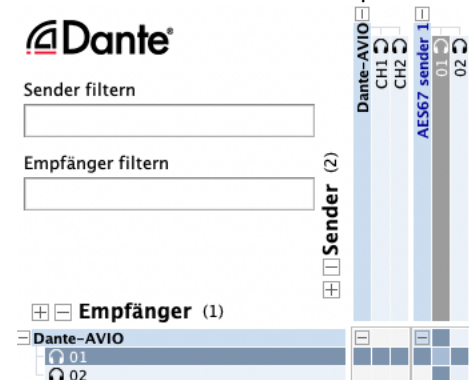|	
Ethernet port:	Data 1 ⌄
Bandwidth limit:	500 byte/s
Destination address and port:	239.255.255.255 : 9875

Note:
IPv4 administrative scope sessions using administratively scoped IP multicast as defined in RFC2365.
The multicast address to be used for announcements is the highest multicast address in the relevant administrative scope zone.
IPv4 global scope sessions are using **224.2.127.254** and Ravenna is using **239.255.255.255** for SAP announcements.

[Save]

After the above setup, a 2wcom Dante sender will be present in the Dante Controller:
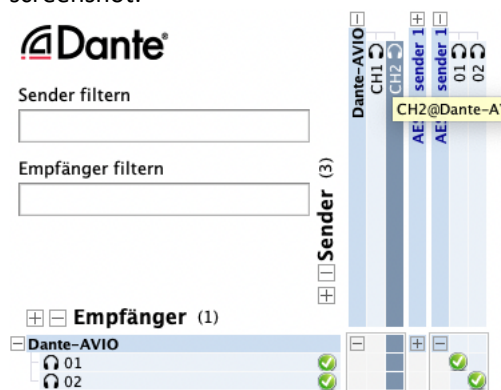
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The only thing left to do is to click in the cross-matrix into the field you want to connect. For example to connect channel 1 of the example AES67 sender 1, one has to click the following field:

After setting up the connections the controller will show a successful connection as indicated in the following screenshot:

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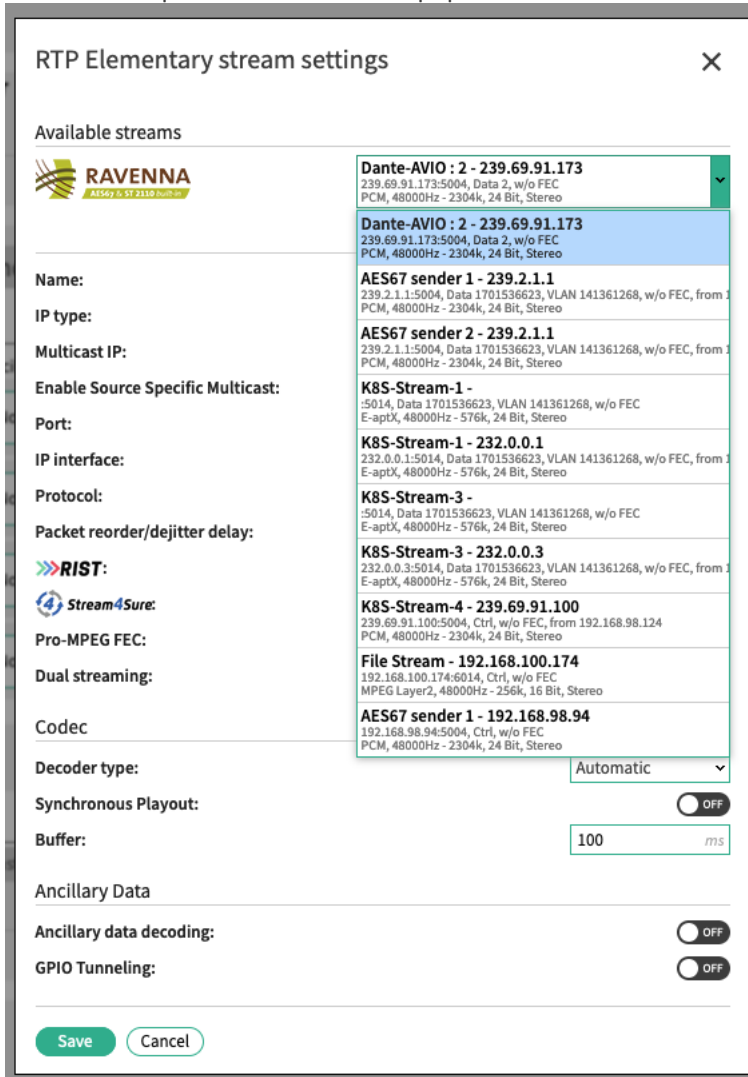## 3 How to receive Dante streams in a 2wcom device

Receiving Dante streams must be performed on the 2wcom codec and can not be done on the Dante Controller. (read section "Why can't I use Dante Controller to let a 2wcom device receive a stream?")

Even without using the Dante controller receiving a Dante stream is easy and comfortable thanks to the standardized SAP announcements. If SAP announcements are set to Client/Server, your 2wcom device will receive Dante SAP announcements and therefore show your streams present in the network.

1. Navigate to page codec and select tab "ES / RIST"

2. Add a new input source by clicking on the "+" symbol
3. Click on "edit" to configure the input source
4. Your Dante input sources should be populated in the Available streams section:

5. Select your Dante stream that you want to receive
6. Click on "Copy/Use selected stream serttings"
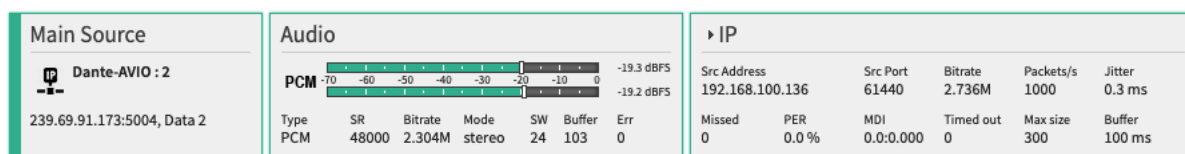7. Click save

8. Drag and Drop your input source on your decoder for any audio output and hit save

9. Observe the reception of your Dante stream on page overview:

4   Why can't I use Dante Controller to let a 2wcom device receive a stream?

2wcom uses all standardized protocols that Audinate / Dante uses as well. So by using SAP and AES67 we are very close to a full intregration of Dante. Unfortunately, the commands to instruct a Dante receiver to obtain a stream from the network is proprietary. Therefore, this function can't be performed on the Dante Controller. 2wcom devices support NMOS to provide a standardized connection management layer. So whenever Dante Controller integrates the latest NMOS standards, this functionality could become available.

Why has 2wcom no Dante software or hardware integrated?
We believe in standardized solutions that enables our customers to easily exchange even our devices against other devices that fulfill the same standards. Unfortunately, Audinate / Dante has proprietary parts.
Additionally, we would have integrated Dante into our devices / software if Dante was available as a software stack. This is the case for Dante DEP. But DEP does not support virtualization yet. Once Audinate provides support for using DEP in a virtualized environment, we are commited to provide also the full Dante integration with our devices and software.

5   Contact

If you have any questions, please don't hesitate to contact us:

https://www.2wcom.com/contact/

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