# **TECH LIBRARY**

## Dante Redundant/Switched Modes



How to swap between them on VM Series Products

### Introduction

This document assumes the user is familiar with the following software applications:

- Audinate Dante Controller
- NST Audio D-Net

#### "Switched" mode and "Redundant" mode

By default, a VMxxx leaves the factory with the Dante interface set in "Redundant" mode. This mode is designed to allow a physically independent audio network connection to be established as a "secondary" or back-up in the event that the primary connection should fail. It is for safety-critical audio applications such as public spaces where the system could be used for evacuation announcements. This is why the sockets on the rear panel and LEDs on the front are labelled "Primary" and "Secondary".

In certain applications it is unlikely that a fully redundant audio network will be required (for example home cinema or smaller commercial installations), so the Dante interface can be swapped into "Switched" mode. In "Switched" mode, the "Primary" socket is used for carrying network data as normal, but the "Secondary" becomes a switched connection as with any network switch, and so allows onward connection to other devices. This would allow for daisy-chaining of Dante devices Primary to Secondary in a rack, saving on cabling of each device back to a main switch, or in our example, daisy-chaining into the "Comms" socket for the same purpose or reducing cable runs.



#### **Establish Physical Connections**

For network audio, ensure that the VMxxx is connected to the network using the Primary RJ45 socket on the rear panel of the unit's Dante interface, and not the "Comms" socket!

For comms (to control the unit's DSP in D-Net), ensure that the VMxxx is connected to the network using the "Comms" RJ45 socket on the rear panel.

To connect both comms (for D-Net) and network audio at the same time without running two dedicate cables back to the router, the Dante interface can be set to "switched" mode, that allows a single cable to be used for both comms and audio, and this can be routed locally on the rear of the unit to the "Comms" interface with a short patch cable instead.

Connect a cable back to the switch/router from the Dante "Primary" socket, and a short patch cable between the "Secondary" socket and the "Comms" socket as below:



Next, open the Dante Controller application on the computer.



The VMxxx should be visible under the "Receivers" on the left hand side of the window (VMO16) and also Transmitters (VMX88):

🥺 Dante Controller - Network View	x
<u>File D</u> evices View Help	
	Primary Leader Clock: VM016-0007fa
Routing Device Info Clock Status Network Status Events	
@Dante	
Filter Transmitters	
ē /	
Filter Receivers	
© State	
<	>
P: 📃 1 dev	vices Multicast Audio Bandwidth: Obps Event Log: 🧧 Clock Status Monitor: 🗧

Double click on the device name to display the Device View and then select the Network Config tab:

👷 Dante Controller - Device View (VMO16-0007fa) — 💷	×
<u>File D</u> evices View Help	
Image: Status     Latency     Device Config     Network Config     ES67 Config	<ul> <li>Finally, from the drop-down list under</li> <li>"Dante Redundancy", select "Switched".</li> </ul>
Dante Redundancy Current: Switched New: Switched V	A pop-up dialogue will confirm the change:
Addresses	Are you sure you want to change the VH016-0007fa from Redundant to Switched? This device must be rebooted for the changes to take effect. Yes No Reboot the device and the process is complete



Confirm that the VMxxx is still present in Dante Controller, but additionally is now visible in D-Net (as long as the patch cable has been connected from the "Secondary" RJ45 socket to the "Comms" socket as previously described).

Open the D-Net application and press the "Online button in the centre of the top toolbar.



The device should appear in the left hand "rack" if all is well.