

Remote Mode: Audio and Control Separation

Applies to Sonifex AVN-CU2 and AVN-CU4 Dante Commentary Units

Overview

A new feature, named **Remote** mode, has been introduced for the AVN-CU2 and AVN-CU4 commentary units. This mode provides traffic separation of audio and control by introducing a dedicated control VLAN, while retaining the Dante primary and secondary audio paths.

Background

The commentary units provide four external network connections: two Ethernet ports and two SFP ports. These are arranged as primary and secondary interfaces.

Previously, only two network modes were available:

- **Switched** mode: a single VLAN is present on all ports, and both audio and control traffic are carried on that VLAN. (See Fig 1.)
- **Redundant** mode: the primary VLAN is present on both primaries, while the secondary VLAN is present on both secondaries. Audio is then carried to both VLANs, and control is shared and only available on the primaries.

Remote Mode

Internally, the unit contains Dante architecture for audio transport and critically a separate processor that provides the web interface, and control for Ember+ and the proprietary UDP-based protocol. This enabled us to introduce **Remote** mode.

Remote mode adds a third VLAN for control traffic only. This allows the audio and control protocols to be separated onto different networks.

Fig 1. Mode traffic behaviour table.

Mode	Primary Ethernet Port	Secondary Ethernet Port	Primary SFP	Secondary SFP
Switched	Audio & Control	Audio & Control	Audio & Control	Audio & Control
Redundant	Primary Audio & Control	Secondary Audio	Primary Audio & Control	Secondary Audio
Remote	Primary Audio	Secondary Audio	Control	Control

Features of Remote Mode

- Dante audio is carried on the Primary and Secondary VLANs only.
- The dedicated Control VLAN carries the web UI, Ember+, and the proprietary UDP control protocol.
- The Control VLAN is available on both SFP ports.
- Control traffic is separated from the Dante audio network, which can simplify network design and improve traffic isolation.

Operational Notes

- The Primary Ethernet port should be connected to the primary Dante audio network.
- The Secondary Ethernet port should be connected to the secondary Dante audio network.
- Both SFP ports provide access to the dedicated control VLAN when **Remote** mode is selected.
- In **Remote** mode, the SFP ports are intended for control connectivity rather than Dante audio transport.
- Correct switch and VLAN configuration is required for successful operation.

Summary

Remote mode is intended for installations where audio and control must be kept on separate networks. It maintains Dante redundancy for audio over the primary and secondary Ethernet ports, while moving all control access to a dedicated control VLAN presented on the two SFP ports.