

Remote Modes: Audio and Control Separation

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

Overview

Two remote operating modes, named **Remote SFP** and **Remote EtherCON**, are now available for the AVN-CU2 and AVN-CU4 commentary units. Both modes separate Dante audio and control traffic by introducing a dedicated control VLAN, while retaining the Dante primary and secondary audio paths. The selected mode determines which connector type presents the control network.

Background

The commentary units provide four external network connections: two EtherCON ports and two SFP ports. Each connector type provides a primary and a secondary interface.

Switched and Redundant modes continue to operate as follows:

- **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 primary ports, while the secondary VLAN is present on both secondary ports. Audio is carried on both VLANs, and control is shared and available on the primary ports only.

Remote Modes

Internally, the unit contains Dante architecture for audio transport and a separate processor that provides the web interface and control for Ember+ and the proprietary UDP-based protocol. This architecture allows a third VLAN to be used for control traffic only.

- **Remote SFP:** the primary and secondary EtherCON ports carry the primary and secondary Dante audio networks. Both SFP ports provide access to the dedicated control VLAN.
- **Remote EtherCON:** the primary and secondary SFP ports carry the primary and secondary Dante audio networks. Both EtherCON ports provide access to the dedicated control VLAN.

Fig 1. Mode traffic behaviour table.

Mode	Primary EtherCON	Secondary EtherCON	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 SFP	Primary Audio	Secondary Audio	Control	Control
Remote EtherCON	Control	Control	Primary Audio	Secondary Audio

Features of the Remote Modes

- 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.
- In **Remote SFP** mode, the Control VLAN is available on both SFP ports, while Dante audio is carried on the primary and secondary EtherCON ports.
- In **Remote EtherCON** mode, the Control VLAN is available on both EtherCON ports, while Dante audio is carried on the primary and secondary SFP ports.
- Control traffic is separated from the Dante audio network, which can simplify network design and improve traffic isolation.

Operational Notes

Remote SFP

- Connect the Primary EtherCON port to the primary Dante audio network.
- Connect the Secondary EtherCON port to the secondary Dante audio network.
- Both SFP ports provide access to the dedicated control VLAN.
- The SFP ports are intended for control connectivity rather than Dante audio transport.

Remote EtherCON

- Connect the Primary SFP port to the primary Dante audio network.
- Connect the Secondary SFP port to the secondary Dante audio network.
- Both EtherCON ports provide access to the dedicated control VLAN.
- The EtherCON ports are intended for control connectivity rather than Dante audio transport.

General

- Correct switch and VLAN configuration is required for successful operation.

Summary

Remote SFP and **Remote EtherCON** are intended for installations where audio and control must be kept on separate networks. Remote SFP maintains Dante redundancy over the primary and secondary EtherCON ports while presenting control on the two SFP ports. Remote EtherCON maintains Dante redundancy over the primary and secondary SFP ports while presenting control on the two EtherCON ports.