SETUP GUIDE / NGSM AND NGSME

# Dante configuration with Niveo switches

A managed-switch workflow for native Dante Audio. For a shared Dante/AES67 or Dante AV design, apply the endpoint-specific timing and network requirements.

## Plan management, VLANs and links

**1.** Confirm the exact model and firmware. Connect to its documented management address from an authorized management port. Give each switch a unique management address. Back up the configuration before changing the network.

**2.** Design primary and secondary Dante networks as independent paths where redundant endpoints support them. Connect primary to primary and secondary to secondary. Keep them isolated from each other. Keep management separate where practical. Native Dante on a local subnet does not require enabling switch routing or a DHCP server. If using DHCP, assign an authorized scope for that actual subnet, with unique addresses and appropriate exclusions.

**3.** Configure endpoint access VLANs and carry only the required VLANs on trunks. Retain the approved spanning-tree or loop-protection design. If using a LAG, configure matching settings on both ends and check distribution and capacity after losing a member.

## Timing, discovery and QoS

- Disable EEE on Dante links. Preserve local mDNS and native Dante PTP forwarding. Keep the documented frame size. Leave pause-frame behavior as designed unless Audinate or the endpoint vendor calls for a change.
- For documented QoS use cases, configure DSCP classification on trusted media links. In descending priority, Audinate lists DSCP 56 for critical clock events, 46 for audio and relevant PTPv2 traffic, 8 reserved, and 0 best effort. Map to the corresponding switch queues and verify priority across uplinks. QoS is required for native Dante audio over 100 Mb/s or mixed 100 Mb/s and 1 Gb/s links and is recommended in shared networks.
- If using multicast media, enable IGMP snooping globally and on the Dante VLAN and verify one active querier on each such VLAN. Keep proxy, static mrouter ports and Fast Leave scoped to the approved design. Verify discovery before blocking unknown multicast.

## Save and validate

- Save individual changes, then save running to startup configuration. In Dante Controller, verify discovery, leader clock, subscriptions, latency and errors. For redundant systems, interrupt each path separately and verify audio continuity. Record utilization and queue drops.

## References

Niveo NGSME8H/16/24 managed-switch manual

Audinate, Dante information for network administrators

IETF RFC 4541, IGMP and MLD snooping considerations

Documentation review. Validate with the exact firmware and endpoints before deployment.