

Dante Domain Manager – Information for Network Administrators

1. Overview

Dante Domain Manager (DDM) brings user authentication, role-based security and audit capabilities to Dante networks, while allowing nearly unlimited expansion and organization of Dante systems over any network topology, including routed networks. DDM comes with an intuitive and highly responsive web interface for desktop and tablet browsers.

DDM is provided as virtual appliances for the Oracle® VirtualBox® and VMWare® ESXI® virtualization platforms.

It is assumed that multi-subnet systems are configured to allow Dante control and audio traffic between subnets.

2. Network Services

Refer to 'Bootstrapping Dante Devices' in the DDM user guide for more information about configuring network services.

2.1. Routed Networks

2.1.1. With DHCP and DNS

- Use DHCP to assign addresses to devices
- Use DNS SRV records for DDM discovery

Note: Ensure that DHCP provides devices with a DNS server address and search path (domain). You can use static IP to enroll devices, but this is not the recommended option for this network configuration.

2.1.2. With Static Addressing

- Use manual enrollment via IP address to enroll devices
- Ensure devices *and* the DDM server have static addresses

2.2. Single-subnet Networks

- In the absence of DHCP and DNS, use Link-local addressing and mDNS (Dante Discovery Service) for discovery

2.3. DHCP Configuration

- Specify the DNS domain name for the DDM as the first entry in the domain-search option

2.4. DNS Configuration

When using DNS for auto-discovery your DDM system requires a DNS A record associating its name with its IP address.

In addition, you must provide DNS Service Discovery (DNS-SD) entries to allow controllers and devices to discover your DDM.

Replace <my_ddm.domain.name> with the FQDN of the DDM server:

	For Dante Devices	For Dante Controllers
Record Type	SRV	SRV
Service	_dante-ddm-d	_dante-ddm-c
Protocol	UDP	TCP
Target	<my_ddm.domain.name>	<my_ddm.domain.name>
Port	8000	8443
TTL	Default	Default

The DNS-SD standard requires a corresponding TXT record for each SRV record. For DDM, the TXT record body is empty.

Below are examples for the Bind DNS server.

For Dante Controllers:

- `default._dante-ddm-c._tcp.<domain.name>. 3600 IN SRV 0 0 8443 <my_ddm.domain.name>`
- `default._dante-ddm-c._tcp.<domain.name>. 3600 IN TXT ""`

For Dante devices:

- `default._dante-ddm-d._udp.<domain.name>. 3600 IN SRV 0 0 8000 <my_ddm.domain.name>`
- `default._dante-ddm-d._udp.<domain.name>. 3600 IN TXT ""`

3. Addresses and Ports

Dante uses UDP for audio distribution, both unicast and multicast.

3.1. Standard Ports

- mDNS and DNS-SD traffic for discovery and enumeration of other Dante devices is on 224.0.0.251:5353
- Precision Time Protocol (PTP) for time synchronization is on 224.0.1.129 - 224.0.1.132 ports 319/320

3.2. Dante Audio and Control

- Multicast audio is always on 239.254/16:4321. Unicast audio ports come from a range: 14336 - 14600
- Dante-specific monitoring traffic is on multicast addresses 224.0.0.230 - 224.0.0.233:8700-8706
- Dante devices use port 4455 for audio setup

3.3. AES67

- SAP/SDP is on 239.255.255.255:9875
- RTP audio is on 239.69/16:5004 (address is configurable)

3.4. Dante Domain Manager

- The DDM Web interface uses HTTP on ports 80 and 443
- Dante Devices connect to the DDM on port 8000
- Dante Controllers connect to the DDM on port 8443
- The LDAP standard port is 389
- The SMTP standard port is 25

4. Licensing

DDM does not support configuration of web proxies. In order to activate its license, the DDM VM must be able to reach Audinate's license server at <https://software-license-ddm.audinate.com> on port 443.