



Dante Troubleshooting FAQ

This guide is designed to help you connect symptoms of common Dante audio networking problems with likely solutions and explanations. For more information, visit <http://www.audinate.com>.

Table of contents:

| | |
|---|---|
| 01 I cannot see my Dante enabled hardware in Dante Controller _____ | 2 |
| 02 I can see my Dante-enabled devices but cannot see Dante Virtual Soundcard in Dante Controller _____ | 2 |
| 03 I can see DVS but cannot see my Dante-enabled hardware device in Dante Controller | 3 |
| 04 Dante Virtual Soundcard appears but does not display details under Device or Clock Status in Dante Controller _____ | 3 |
| 05 Audio from Dante Virtual Soundcard is distorted or has digital artifacts _____ | 4 |
| 06 I am getting no audio at all but have green checks showing in Dante controller _____ | 5 |
| 07 Dante Virtual Soundcard is not showing the expected number of channels _____ | 5 |
| 08 In Dante Controller I see a yellow warning or red error icon instead of a green check _____ | 6 |
| 09 Dante Controller displays a 'Clock Instability Detected' popup _____ | 7 |
| 10 In Dante Controller Clock Status shows different Master clock sources for the Primary and Secondary networks. Is this a problem? _____ | 7 |
| 11 In Dante Controller, a configuration is greyed out and I cannot change the setting _____ | 7 |
| 12 In Dante Controller, the Signal column of the device is not showing any information _____ | 8 |
| 13 How do I update to the latest software/firmware version for my Dante enabled device? | 8 |
| 14 How do I operate or configure my Dante enabled device? _____ | 8 |
| 15 Firmware Update Manager can't find the Dante devices on my network _____ | 8 |
| 16 Dante Virtual Soundcard Activation _____ | 9 |

01 I cannot see my Dante enabled hardware in Dante Controller

The first likelihood is that either the hardware or Dante Controller are not connected to the same network. Check:

- **On the device:** Check that the network cable is plugged in and that the activity lights are flashing rapidly.
- **In Dante Controller:** Check that the correct network interface is selected. The network interface can be changed via the 'interface selection' button in the toolbar of Dante Controller.
- **On your computer:** Check that your network interface has the correct IP address, and is set to acquire an IP address automatically. You can see the IP address in Dante Controller, while other settings are in your operating system preferences.
- **On your computer:** If there are two different wired network interfaces on your computer, make certain that they are assigned to different subnets. Alternatively, you may disable the unused network interface.

Another possibility is that software on your computer is blocking network access to Dante applications. Check:

- **On your computer:** Try disabling any antivirus software you may be using. It may be blocking ports used by Dante Controller. If this helps, add Dante Controller and Dante Virtual Soundcard to a list of trusted applications for your particular antivirus product.
- **On your computer:** Try disabling any installed network firewalls. Please see the Dante Controller user guide for details of how to safely configure a firewall for Dante use in a deployed network.

02 I can see my Dante-enabled devices but cannot see Dante Virtual Soundcard in Dante Controller

- **In Dante Virtual Soundcard:** Check that the Dante Virtual Soundcard is turned ON. Note: the Dante Virtual Soundcard interface can be closed once it is turned ON. The service will continue to operate in the background.
- **In Dante Virtual Soundcard:** Check that the network interface being used by Dante Virtual Soundcard is correct.
- **On your computer:** Check the IP address settings of the interface being used by Dante Virtual Soundcard. For best results, this should be set to get an address automatically (DHCP). If the address is static, you MUST manually set addresses on all other devices on the network.

03 I can see DVS but cannot see my Dante-enabled hardware device in Dante Controller

- **On the device:** Check that the network cable is plugged in securely and that the activity lights are flashing rapidly.
- **On the network switch:** Check that the network cable is plugged in securely and that the activity lights are flashing rapidly.
- **In Dante Controller:** Check that the correct network interface is selected.
- **On your computer:** Check that your network interface has the correct IP address (set to acquire IP address automatically).
- **On your computer:** If there are two different wired network interfaces on your computer, make certain that they are assigned to different subnets. Alternatively, you may disable the unused network interface.

04 Dante Virtual Soundcard appears but does not display details under Device or Clock Status in Dante Controller

This symptom indicates that Dante Controller is receiving partial information, usually due to an improper network configuration or ports being blocked by a firewall.

- **On your computer:** If there are two different wired network interfaces on your computer, make certain that they are assigned to different subnets. Alternatively, you may disable the unused network interface.

Another possibility is that software on your computer is blocking network access to Dante applications. Check:

- **On your computer:** Try disabling any antivirus software you may be using. It may be blocking ports used by Dante Controller. If this helps, add Dante Controller and Dante Virtual Soundcard to a list of trusted applications for your particular antivirus product.
- **On your computer:** Try disabling any installed network firewalls. Please see the Dante Controller user guide for details of how to safely configure a firewall for Dante use in a deployed network.

05 Audio from Dante Virtual Soundcard is distorted or has digital artifacts

Clock Configuration

This is likely to be caused by clock configuration errors that result in a loss of synchronization. By far the most common cause of this problem is a mismatch of clock settings between a Dante-enabled hardware device and in Dante Controller.

Clock Case 1 - Using the clock in your device (e.g., mixer, DSP, etc.): If you configure your device to use its own internal clock (in contrast to the clock in the Dante option card) then you **MUST** configure that device to “Enable Sync to External” in Dante Controller under Clock Status.

Note: only **one** such device may be configured this way on a network in order to avoid conflicting clocks. This device is automatically made the Master clock, so all others will sync to this device. All other hardware devices **MUST** be configured to use the Dante clock.

Clock Case 2 - Using the clock in the Dante option card: If you configure your device to use the clock on the Dante option card or slot, then you **MUST** configure that device **NOT** to use “Enable Sync to External in Dante Controller under Clock Status.

EEE Switches

Another common cause of audible artifacts is a side effect of energy saving measures enabled in certain switches. EEE (Energy Efficient Ethernet) is a technology that reduces switch power consumption during periods of low network traffic, also known as Green Ethernet and IEEE802.3az.

- If you use managed switches, ensure that they allow EEE to be disabled. Make sure that EEE is disabled on all ports used for real-time Dante traffic.
- If you use unmanaged switches, do not use any that support EEE as you cannot disable that function in these switches.

06 I am getting no audio at all but have green checks showing in Dante controller

Clock Configuration

Most Dante devices will mute if they receive unsynchronized audio data. This is likely to be caused by clock configuration errors that result in a loss of synchronization. By far the most common cause of this problem is a mismatch of clock settings between a Dante-enabled hardware device and in Dante Controller.

Clock Case 1 - Using the clock in your device (e.g., mixer, DSP, etc.): If you configure your device to use its own internal clock (in contrast to the clock in the Dante option card) then you **MUST** configure that device to “Enable Sync to External” in Dante Controller under Clock Status.

Note: only **one** such device may be configured this way on a network in order to avoid conflicting clocks. This device is automatically made the Master clock and all others will sync to this device. All other hardware devices **MUST** be configured to use the Dante clock.

Clock Case 2 - Using the clock in the Dante option card: If you configure your device to use the clock on the Dante option card or slot, then you **MUST** configure that device **NOT** to use “Enable Syne to External in Dante Controller under Clock Status.

Patching errors

Carefully check the patching of Dante audio channels in Dante Controller. Recall that transmitters are across the top, and receivers are down the left hand side of the routing view. Test to see if audio is playing in other areas of your Dante network in order to isolate these errors.

07 Dante Virtual Soundcard is not showing the expected number of channels

The number of audio channels available in Dante Virtual Soundcard may be configured as 2x2, 4x4, 8x8, 16x16, 32x32 or 64x64. You should set the number of channels to match your Dante-enabled devices and recording needs.

Channel count may only be changed when Dante Virtual Soundcard is turned OFF.

- Quit all DAW or other software safely.
- Open Dante Virtual Soundcard and turn if OFF.
- In the Audio Channels dropdown, select the channel count you wish to see.
- Turn Dante Virtual Soundcard back ON.
- Re-launch the DAW or other audio software. You will now be able to see the correct number of available channels.
- Dante Controller will also display the correct number of channels, and does not need to be restarted.

08 In Dante Controller I see a yellow warning or red error icon instead of a green check

When subscribing channels in Dante Controller, anything other than a green checkmark at the intersection of the Tx and Rx channels indicates either a pending operation or an error. These errors may have various causes.

If you place the mouse pointer over the icon (without clicking) a tool tip will appear providing an explanation of the subscription status.

Below are descriptions all Dante Controller status indicators:



In progress

The subscription is in progress



Subscribed

Connection is established and fully functional



Warning

Indicates that the subscription is unresolved, typically because the transmitting device is not visible on the network (for example because it has been removed or turned off)



Error

An error has occurred, for example there is insufficient bandwidth to establish the subscription



Pending

Device is part-way through setting up subscription. Most commonly seen when subscribing many devices at a time (by Ctrl-click)

09 Dante Controller displays a 'Clock Instability Detected' popup

This popup warning indicates a network configuration or hardware issue that is causing inconsistent packet timing. Likely causes include:

- A switch that is using Energy Efficient Ethernet (e.g., 'Green Ethernet') settings.
- A 100 Mb switch or link where a Gigabit connection is required.
- Incorrect configuration of one or more switches.
- A switch that not suitable for Dante networking.
- Network stress from other sources. If you are running substantial amounts of traffic from other sources across the network, it may be causing bandwidth issues that are interfering with Dante packet timing.

10 In Dante Controller Clock Status shows different Master clock sources for the Primary and Secondary networks. Is this a problem?

No. This condition will occur under certain circumstances, as outlined below.

In a redundant network, the clock synchronization protocol operates over both Primary and Secondary networks. Each network will have a designated Master clock; *usually* this will be the same device on both networks.

Sometimes the master clock device on the Primary network is **not** a device that supports redundancy, having only a Primary port. In that case, the clock synchronization is **bridged** from the Primary to the Secondary. The Master clock on the Secondary will be a different device than the Primary, but is still slaved to the one on the Primary.

11 In Dante Controller, a configuration is greyed out and I cannot change the setting

This is because that Dante enabled device you are using does not support changing that particular parameter. This may be a limitation of the device, or a technical decision by the manufacturer.

For further information, visit the device manufacturer's website or contact their technical support department.

12 In Dante Controller, the Signal column of the device is not showing any information

This is because the Dante enabled device you are using does not support this feature, or the feature is unavailable under particular circumstances.

For further information, visit the device manufacturer's website or contact their technical support department.

13 How do I update to the latest software/firmware version for my Dante enabled device?

Firmware updates are handled through device manufacturers. Please contact the device manufacturer's technical support department for additional information regarding your particular products.

14 How do I operate or configure my Dante enabled device?

For detailed information about using specific products, visit the device manufacturer's website or contact their technical support department.

15 Firmware Update Manager can't find the Dante devices on my network

Unlike Dante Controller, Firmware Update Manager does not support multiple network interfaces. In order for Firmware Update Manager to work correctly, only one interface may be connected to a network. The other interface must be either disabled or disconnected.

16 Dante Virtual Soundcard Activation

There are several types of error messages related to Dante Virtual Soundcard activation.

| Error | Meaning and Actions |
|--|--|
| The licensing server couldn't be found | <p>Meaning: Dante Virtual Soundcard could not find the IP address of the Audinate licensing server. Likely to be caused by local network DNS failure or proxy settings.</p> <p>Action: Wait and try again in case the issue is temporary. If the problem persists, contact your local IT support.</p> |
| Communication error while contacting server | <p>Meaning: Dante Virtual Soundcard could not find the IP address of the Audinate licensing server. Likely to be caused by local network DNS failure or proxy settings.</p> <p>Action: Wait and try again in case the issue is temporary. If the problem persists, contact your local IT support.</p> |
| The license server has no knowledge of license ID XXXX | <p>Meaning: The License ID that has been entered is not a known Dante Virtual Soundcard License ID</p> <p>Action: Check to make sure a valid Dante Virtual Soundcard License ID has been entered, and not a different product license.</p> |
| The license has been activated too many times. | <p>Meaning: A Dante Virtual Soundcard License can only be activated a limited number of times, and this activation limit has been exceeded.</p> <p>Action: Complete the support form at http://www.audinate.com and be sure to include your Dante Virtual Soundcard License ID. You must have a separate License ID for each computer on which you wish to use Dante Virtual Soundcard simultaneously.</p> |