

DANTE VIRTUAL SOUND CARD

Audinate's Dante Virtual Soundcard (DVS) is a software application that turns your computer into a Dante-enabled device, allowing Dante audio to be transmitted and received using its standard Ethernet port, either directly or through an Ethernet switch, ideal for multitrack recording and playback.

M-DANTE is shipped with a free DVS licence token to activate one computer. You can purchase more licences from Audinate if you need to run DVS on more than one computer.

Detailed information on downloading and activating the Dante Virtual Soundcard are included in the Getting Started Guide AP8340 shipped with the M-DANTE module. Please also read Audinate's Dante Virtual Soundcard User Guide for information describing how to install, configure and operate the software.



MULTITRACK RECORDING

Top-spec desktop workstations are often the way to go for professional, reliable audio recording and playback. Nevertheless, the following best practices should help to improve your overall I/O capability and get better audio performance.

The Dante Virtual Soundcard is a kernel-based driver. It can be set for latency values of 4, 6 or 10ms. Lower settings require greater resources from the host computer, and so should be used only with machines that exceed the minimum requirements. Some device drivers, including wireless adapters and FireWire interfaces, can hold the CPU for a long time, with spikes of several milliseconds, causing dropouts on playback and recording. Tools are available on-line to check and monitor your Deferred Procedure Call (DPC) latency. Make sure that you have installed the latest version of each driver. Disable the advanced visual effects in Windows. To prevent installed protocols and services interfering with the streaming, disable all non-essential options for your Network Interface from device properties in Windows Device Manager. Disable any unused Network Interface and any installed antivirus or firewall software. Some of these applications need complete removal from the system in order for the Dante Virtual Soundcard to work at its best. Audinate can provide more information on system requirements.

Direct recording data to a non-system, separate, fast hard drive, either internal or external. Multiple drives are recommended for recording more than 32 channels. Quit any unnecessary applications or services you may have running. It is always advisable either to run as few simultaneous applications as possible, or to have a completely separate dedicated machine for recording.

M-DANTE and the Dante Virtual Soundcard FAQ

Q: Do I need an audio interface to record with Dante?

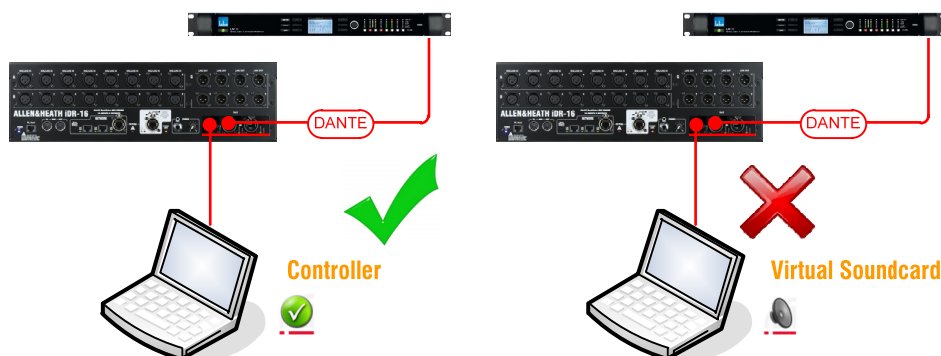
A: No. One of the main benefits of Dante Virtual Soundcard is that it replaces expensive multichannel soundcard hardware. It works with any audio application that supports ASIO drivers (Windows) or the Core Audio interface (Mac). These include nearly all currently available professional level audio workstations such as Nuendo, Cubase, Reaper, Sonar, Logic, Pro Tools 9 and many others.

Q: Can I install a single licensed copy of Dante Virtual Soundcard on all my computers?

A: No. Dante Virtual Soundcard is licensed to one machine per license. Additional full licenses or temporary low-cost ones are available from the Audinate Store.

Q: Can I use the Control Network port for recording?

A: No. The Control Network port isn't intended for playback and recording purposes. It should only be used for connecting a computer running Dante Controller. It will be also suitable for bridging the iLive control network over the Dante network with a future firmware upgrade.



Q: Can I playback audio files into the Dante network and iLive system using iTunes or Windows Media Player?

A: In a Mac OS, all major applications including iTunes and QuickTime support the Core Audio interface and will recognize properly the Dante Virtual Soundcard. However, Windows Media Player doesn't support ASIO drivers. A suitable media player for the Windows environment is Winamp with the ASIO plugin installed.

Q: How many channels can I record / playback with the Dante Virtual Soundcard?

A: Dante Virtual Soundcard allows routing up to 64x64 channels. The actual channel count depends on your PC or Mac specs. Please read the ‘Multitrack Recording’ section in this document and visit www.audinate.com for further information.

Q: What sample rates does the Dante Virtual Soundcard support?

A: Dante Virtual Soundcard allows you to select either 48kHz or 96kHz sample rates, although iLive operates at 48kHz only.

Q: Is there a recommended operating system for the Dante Virtual Soundcard?

A: Windows 7 and Mac OS X have been found far more reliable than Windows XP, SP3 and Vista.

IP ADDRESSING

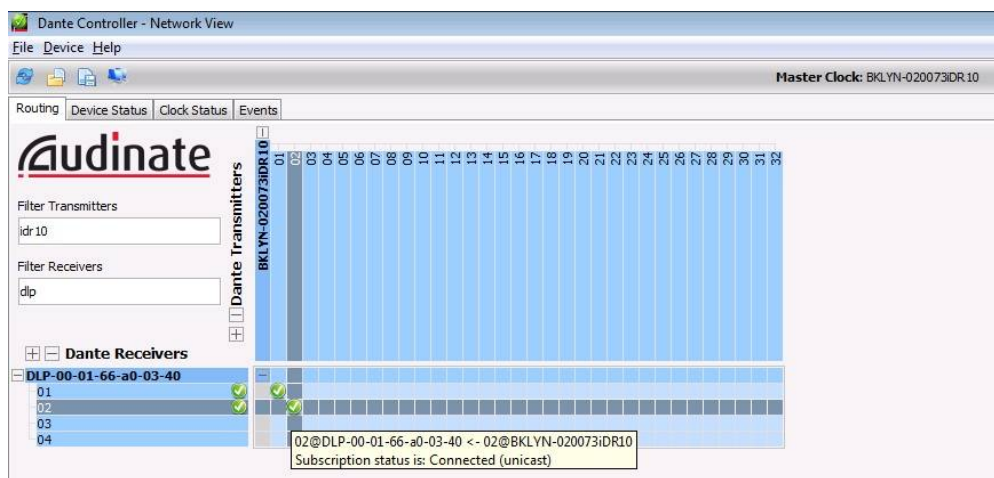
Dante uses ‘Bonjour’ Zero Config auto addressing protocol by Apple. If your network has a DHCP server, Dante devices will receive their IP configuration using the standard DHCP protocol. On a network without DHCP, a Dante-enabled device will automatically assign itself an address using ‘Bonjour’.

DANTE CONTROLLER

You must have Audinate’s Dante Controller software installed to configure and use your M-DANTE module.

Dante Controller is a software application that allows users to configure and route audio around Dante networks, view all Dante-enabled devices and their status, access clock settings, change the labels of transmitted audio channels etc. It is available as a free download to registered users on www.audinate.com, and can be installed on the same computer running the Dante Virtual Soundcard.

To install the Dante Controller on a PC you will need to download ‘Bonjour’ for Windows, so that your computer will get assigned a compatible IP address when connected to the network. A link is provided in the installer package. Please read the Dante Controller User Guide for information describing how to install, configure and use the software.



Clicking matrix crosspoints in the Routing page allows transmitting audio channels from the iLive system to any other device in the network, as well as receiving channels.

Don’t forget to make the relevant patches in the iLive software OUTPUTS and PREAMP screens.

NETWORK recommendations and best practices

Make certain that your network is using good quality components and is running Gigabit throughout. This helps reducing latency and increases bandwidth flexibility. As a rule of thumb, a separate dedicated Dante network is recommended for critical, high channel-count applications.

If you need Dante, iLive control and third-party Ethernet traffic to be on the same network, your Ethernet switch must support Diffserv (DSCP) Quality of Service (QoS) with strict priority and 4 queues, as these features are used to prioritize clock sync and audio traffic over other network data. A list of recommended switches is available on the Audinate website. If a DHCP server is used and enabled in the iLive system, all devices on the network automatically get assigned a compatible IP address so both iLive and Dante devices can be viewed and controlled from the same computer. Because iLive devices do not support Zero Config auto addressing, on a network without DHCP you would need to manually assign each device (MixRack, Surface and TouchScreen) to a compatible address in the 169.254.xxx.xxx range.

Note that bridging the iLive network over Dante is not supported with current firmware V3.4.x.

When a Wi-Fi connection is necessary on the same network, e.g. to gain iPad MixPad control over your iLive system, Wi-Fi routers must support IGMP Snooping multicast protocol; MAC Id and ACL filtering are recommended to ensure that audio packets do not reach the wireless network, as these can easily saturate the wireless link.

