

Blog: Drop the Mic! The Fundamentals of Dante

This month, it's back to school and we've decided to share a refresher on Dante, courtesy of Audinate, to reacquaint you with this amazing protocol and some of the products Clockaudio have that feature Dante.

So, let's start with the fundamentals:

What exactly is Dante?

Developed by Audinate and supported by most pro audio manufacturers, Dante enables digital audio distribution via standard Ethernet networks and allows audio, control and other data to share the same network. In AV, Dante has become the de facto standard for digital media networking and complete media networking solutions.



What does it do?

With unparalleled audio quality, Dante distributes uncompressed, multi-channel digital media via standard Ethernet networks, with near-zero latency and perfect synchronization. Its intuitive user interface and network management features makes system integration easy and allows even the most challenging networks to be configured quickly and easily.

What are some of the benefits of Dante?

There are so many but Dante's ease of use, interoperability, economic efficiency, sound quality and integration compatibility top the list. Below, Audinate says it best and explains each of these in more detail.

How Does it Work?

In a Dante-enabled device, the hardware takes digital audio and 'packetizes' it. Basically, it segments the audio and wraps it in IP (Internet Protocol) packets suitable for transmission across an Ethernet network. The packets contain timing information and source and destination network addresses, allowing them to be efficiently routed through the network to the correct destination.

When a device receives Dante audio packets, it reconstructs them back into a continuous digital audio stream, which is then played out, recorded, or digitally processed, depending on that device's role in the audio system.

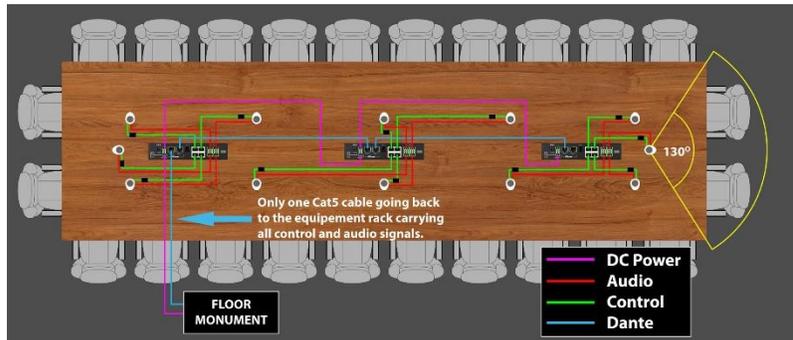
Hardware Dante devices support exceptionally low latency (on the order of microseconds, rather than milliseconds), and common low-latency applications (for example, real-time monitoring during recording) are easily supported.

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Basically, what you need to know is that Dante is all IP-based and makes use of common IT standards. Each Dante device behaves much like any other network device you would already find on your network.

What are some of the Clockaudio products that feature Dante?

CDT-100 - The Clockaudio Dante Transporter is an advanced professional Dante communication product which combines audio and control transport using network-based Dante protocol. By taking advantage of the advanced Dante technology and based on the high performance and pre-configurable hardware platform, this product transfers audio and control signals via widely used Ethernet and can guarantee perfect sound quality.



C 303-D / C 303-D-P

PoE Dante & AES67 Tri element array hanging microphone designed for unobtrusive all-round high quality pickup necessary in places such as boardrooms, conferencing, court rooms and other venues.



TIM-1000

TIM 1000 is a low-profile ceiling microphone with the unique ability to track sound within a room. The microphone is easy to install and uses an intuitive GUI and UDP commands for set up and control. Frequency response 150Hz to 15KHz; powered by 8W PoE+; seamless integration to Dante network and AES 67 devices. The microphone is constructed with UL 2043 rated plastics and Aluminum shell.



As a timesaving, turn-key, digital solution for AV, Audinate's Dante continues to expand its reach and versatility to support digital audio and video device interoperability. At Clockaudio, we look forward to finding new ways and new products that will incorporate Dante into more of our brilliant microphone solutions.

Note: The Audinate content within this document are taken from Audinate's document called *What is Dante? The Basics*. This information appears on the Audinate website.

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