DANTE DIGITAL SNAKE APPLICATION GUIDE

A digital audio snake has a number of unique benefits which include:

- Immunity to inductive noise
- The capability to distribute audio from the stage to multiple locations over inexpensive CAT5e cable
- Long cable runs without signal degradation
- The capability for a loss less split of the audio signals
- Control and monitoring from any number of PCs

Every device in this digital audio snake design is an Audinate Dante-compatible Soundweb London BLU-326. Each BLU-326 utilizes Dante to transmit and receive up to 64 channels of 24-bit digital audio at 48kHz or 32 channels of 24-bit digital audio at 96kHz. No audio processing is required for this application since the sole function of an audio snake is to route audio signals. While Dante-compatible BLU-806 devices could be used for this application, the extensive range of processing offered by these devices would not be employed and thus the extra cost would be unnecessary.

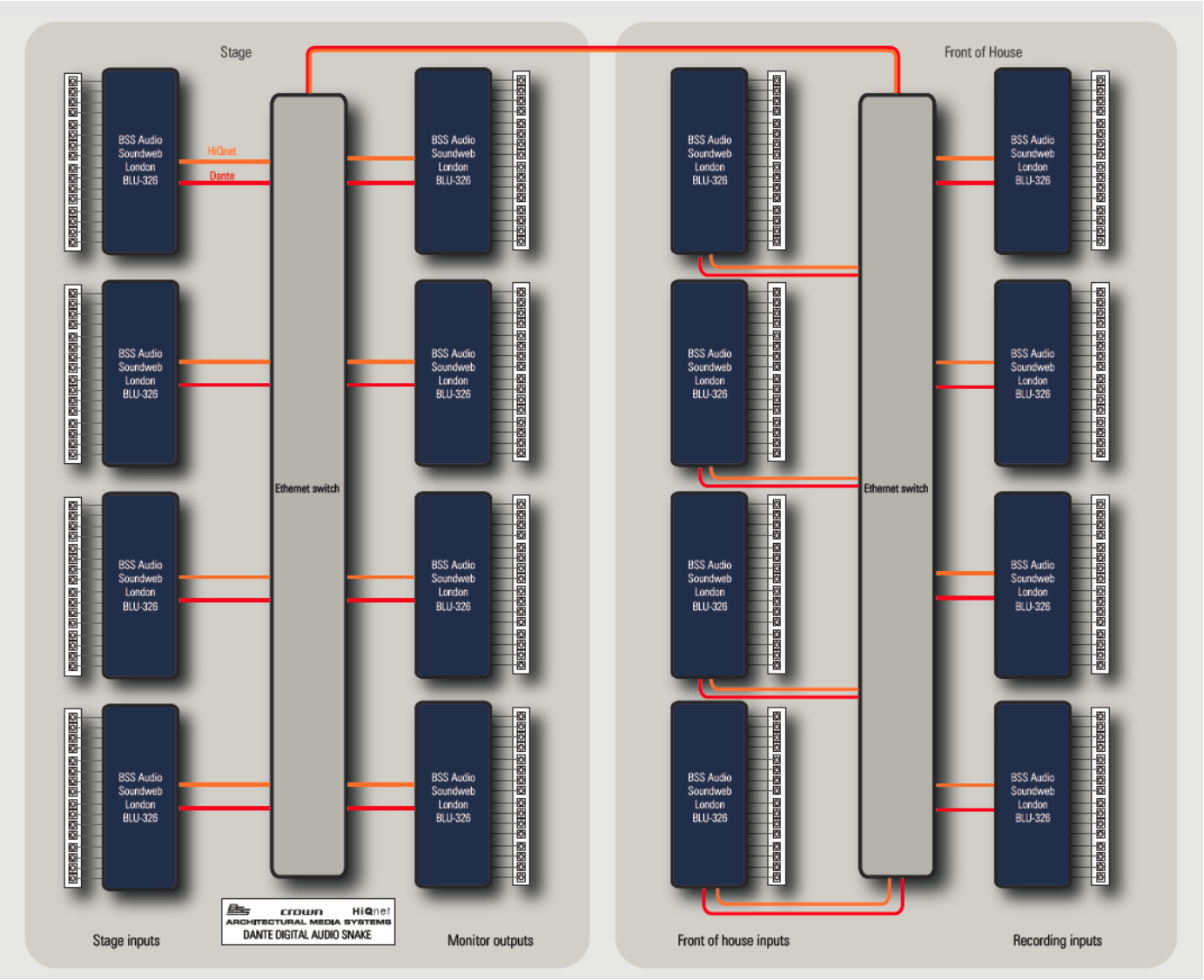
Dante™

Dante is a proprietary audio networking technology from Audinate and employs standard Internet Protocols over 100Mb and / or Gigabit Ethernet. Channel counts can be high over Gigabit Ethernet, although switch management is required for most Dante systems. The Soundweb London BLU-806 and BLU-326 bring Dante capability to the Soundweb London family.

Moving the snake from an analog domain into the digital domain means that audio signals can be ‘copied’ and routed to a virtually unlimited number of locations without impedance concerns.

Inexpensive CAT5e cable replaces costly and bulky analog snakes, providing complete signal integrity, and ensuring a premium listener experience throughout the facility. The digital audio can travel up to 100 meters on each CAT5e cable within the Dante network. If greater distances are needed, standard ‘off-the-shelf’ Ethernet fiber optic devices may be employed.

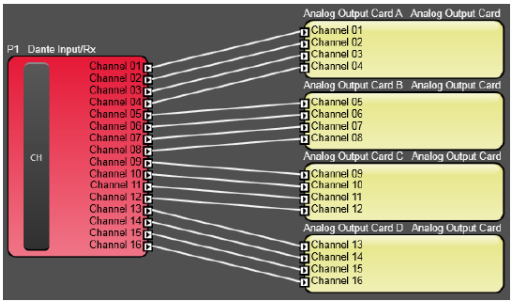
In the case of this design, four BLU-326 devices, configured with 16 analog outputs, are used at each of the three output positions – front of-house, monitors and record. The audio is routed from four BLU-326 devices, configured with 16 analog inputs, located at the stage to all of the output devices via Dante.



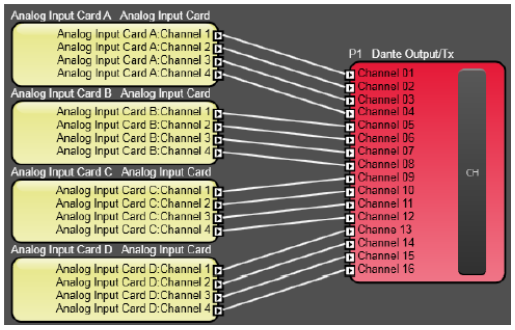
DSP CONFIGURATION

Having a computer connected to the digital audio snake has some major advantages. For the design shown, a Custom Panel could be created to enable the system operator to select any of the inputs, adjust input sensitivity and enable or disable phantom power. Full metering gives the audio engineer accurate signal level at every point in the signal chain.

Ease of signal routing, flexibility, and signal integrity are all good reasons why designers of today's performance venues are choosing Architectural Media Systems to provide an inexpensive, yet more flexible, routing alternative to traditional analog solutions.



Shown above is one of the BLU-326 devices configured as one of the twelve output modules. The Dante processing object is configured as an input from the Dante network and then distributes the 16 signals to the analog outputs.



Shown above is the signal routing from one BLU-326 configured as one of the four input modules to an Dante processing object. The processing object has been configured to accept the 16 channels of audio and put them onto the Dante network.