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Atlona Unveils OmniStream, IP-Based AV Distribution Line Featuring Industry's First Dual-Channel 4K/UHD Encoder and Decoder

4K AV and Control with Dante™ Integration over Standard PoE Gigabit Networks

SAN JOSE, Calif., May 23, 2016 – Continuing its drive toward a leadership position in the global pro AV market, Atlona today launched [OmniStream™](#), its first line of networked AV products designed for integrating and distributing 4K/UHD video, audio, and RS-232 control over Gigabit Ethernet networks employing off-the-shelf network switches.

Consisting of five products, the OmniStream line offers several industry-first features, including high density, dual-channel encoding and decoding; redundant AV networks and streams; encrypted content distribution; network error resilience; broadcast-quality 4K video compression with very low latency; and the ability to convey 4K video and Dante™ audio simultaneously over the same network.

“We created OmniStream as an entirely new platform for dependable, high performance 4K video distribution over enterprise-wide network installations,” said David Shamir, Atlona’s director of product management. “It redefines AV distribution over IP networks and addresses the many challenges of integrating and managing AV signal routing over Ethernet. It delivers the performance and reliability of traditional AV technologies and satisfies the technical demands of AV pros as well as IT managers.”

According to Shamir, OmniStream’s network-based approach enables virtually unlimited scalability and low-cost integration, benefits not available with conventional matrix switching technology. He said the new line is well suited to interconnecting AV between multiple rooms and floors, over an entire building, and across a corporate or university campus.

The OmniStream line comprises the following products:

- [AT-OMNI-111 Single-Channel Networked AV Encoder](#)
- [AT-OMNI-112 Two-Channel Networked AV Encoder](#)
- [AT-OMNI-121 Single-Channel Networked AV Decoder](#)
- [AT-OMNI-122 Two-Channel Networked AV Decoder](#)
- [AT-OMNI-232 Two-Channel Dante™ Networked Audio Interface](#)

Dual-Channel Technology For Efficiency or AV Network Redundancy

An AV industry first, dual-channel encoding and decoding allows each AT-OMNI-112 and AT-OMNI-122 to process two independent 4K/UHD video streams in a single, half-width rack enclosure. This allows Atlona to offer excellent cost per channel value, as well as the benefit of a high-density rack installation.

The dual-channel components can also be configured for system redundancy, with each encoder and decoder handling two simultaneous streams of the same HDMI source. The two independent streams are encoded and decoded simultaneously, and when a physical or logical connection fault is detected in a primary stream, the decoder automatically switches over to the back-up.

Broadcast-Grade Video Compression and Low Latency

OmniStream features SMPTE VC-2 video compression (SMPTE 2042), a visually lossless codec originally developed by the BBC for high quality imagery in master control video distribution as well as post-production and archiving.

Additionally, OmniStream delivers the lowest encode-to-decode latency of any pro AV industry codec, half a video frame or 9ms delay for 60 Hz video signals, making it a smart choice for applications requiring tight audio and video synchronization, such as live streaming.

Network Error Resilience and Security

For optimal performance and reliability, OmniStream features SMPTE 2022 forward error correction for protection against packet loss and the resulting signal dropouts, which can occur in large-scale applications spanning several networks. It also features selectable AES-128 encryption for securing sensitive or protected content in government, military, healthcare, and corporate environments.

Audio Integration with Dante

All OmniStream AV encoders stream HDMI embedded audio, including Dolby® and DTS® multi-channel bitstream formats. In addition, the AT-OMNI-232 Dante network interface can be used for transmitting and receiving two-channel audio over the network. The AT-OMNI-232 also integrates sources such as microphones and PCs into a third-party audio DSP as well as a larger Dante system. Advanced projects with a combination of OmniStream devices can be employed to simultaneously route AV-over-IP and Dante audio signals over the same network.

Designed for Pro AV Integration, including PoE

OmniStream is designed with a host of essential features for streamlining and optimizing AV integration. Decoders feature high performance 4K upscaling and downscaling with 4:4:4 video processing to preserve full color integrity of computer-generated content. Decoders also can downmix multi-channel audio and deliver de-embedded two channel audio outputs. Automatic display control is available at the AV encoders through RS-232 and CEC. In addition, OmniStream offers the option to display a user-supplied logo, a full-screen image, or scrolling text.

To simplify system integration and minimize costs, OmniStream devices can be powered using a PoE-equipped Gigabit switch as well as a dedicated power supply. They also require Atlona Management System (AMS) software for configuration and control. AMS, available as a free download from Atlona, also serves as a centralized portal for managers or system administrators to monitor and manage an enterprise-wide OmniStream system.

“We looked to do more than just keep pace with the market,” Shamir said. “We aimed to raise the bar on what customers can expect in AV networking capacity, performance and economy, and we’ve succeeded in every respect. It’s no exaggeration to say OmniStream breaks new ground for the AV industry as well as Atlona.”

All OmniStream products will be available September 2016.

About Atlona

Atlona is a leading global provider of AV and IT distribution and connectivity solutions. In an ever-changing industry, the company has been designing and engineering innovative, award-winning products for a diverse range of residential and commercial AV and IT markets, including education, business, government, entertainment, and healthcare.

Atlona’s products and services enable system designers, integrators, consultants, and installers worldwide to simplify installation, minimize maintenance and maximize the versatility of premier automated control solutions. Backed by an industry-exclusive 10-year warranty, Atlona’s customer-driven products are designed and developed with the features, performance and reliability that leaders demand. More information about Atlona is available at <http://www.atlona.com>. Follow Atlona on Twitter at @Atlona.

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