Evertz Highlights Solutions For UHD/4K and HDR Facilities

The company's extensive infrastructure solutions are helping media companies remain agile and in control as they move to 12G-SDI and IP.

Burlington, Canada. August 31st 2023: At IBC 2023, Evertz is showing a range of versatile and straightforward solutions that are allowing broadcast facilities, OB trucks, venues and stadia to take advantage of the latest UHD (4K and 8K) technology, regardless of the signal type they use. The solutions also future-proof customers as the industry continues to adopt more cloud services as part of their workflow.

The company's Software Defined Video Networking (SDVN) solution, which has now achieved over 600 installations worldwide, is helping the industry transition to all-IP infrastructures using SMPTE ST 2110 and NMOS. This exceptional technology taps into Evertz' wealth of experience in this area and offers an end-to-end format agnostic solution for moving to IP for both on-premises and the public cloud.

At the heart of Evertz' SDVN solution is MAGNUM-OS, a comprehensive orchestration, monitoring and analytics platform for IP-based facilities that is designed to simplify workflows, reduce operational costs, and increase efficiency. The architecture of MAGNUM-OS allows broadcasters to connect facilities, resources, and devices together within a city, country or globally. MAGNUM-OS also supports hybrid workflows where devices or resources are located on premise or in cloud (public or private). MAGNUM-OS manages devices and flows within public cloud infrastructure (including AWS, Microsoft Azure, and Google Cloud) and between cloud and broadcast facilities.

Consistency, simplicity and scalability are the key benefits MAGNUM-OS orchestration brings as it gives content providers full control over complex workflows using high bandwidth broadcast video, audio and data signals. As a JT-NM tested NMOS Controller, MAGNUM-OS can discover and register third party devices using IS-04 and move flows between devices using IS-05 as connection management. MAGNUM-OS also provides control of network switches that include Evertz EXE and NATX, Cisco, Arista, and cloud-based swxcth.io. It manages the link bandwidth between the discovered edge devices and the network switches to ensure reliable switching of ST 2110 flows.

For monitoring and analytics, Evertz offers MAGNUM-NMS and MAGNUM-ANALYTICS modules, which allow MAGNUM-OS to provide comprehensive integration with Evertz monitoring and data analytics technologies. This gives users full visibility to all aspects of their system from a single user interface. Operators and support engineers use real-time dashboards to have an overall view of what is happening in the facility or cloud. MAGNUM-OS consolidates data from multiple devices to show real time flows of video and audio within the facility or across facilities.

Fernando Solanes, Director of Solutions Engineering for Evertz, says: "MAGNUM-OS continues to be a critical component for any facility. It enables not only greenfield IP facilities but also hybrid SDI/IP and on/off-premises ones. MAGNUM-OS eases the transition to IP with support for NMOS for third party devices and advanced monitoring and analytics tools that have been developed over the past decade of IP installations.

For those facilities that have already deployed IP, MAGNUM-OS helps enable the ability to have hybrid facilities where workflows are orchestrated with on- and off-premises services and resources."

At IBC 2023, Evertz will also be showing its EXE3.0 and NATX-32/64-100G switch fabrics, which offer a flexible, format agnostic and scalable infrastructure for SD, HD, 3G, and Ultra HD (4K and 8K) video. Fully supported by MAGNUM-OS and specifically developed for high capacity and low latency data routing, both the EXE3.0 and NATX-32/64-100G are Evertz' latest generation switch fabrics that support real-time network address translations. Both platforms merge traditional networking with SDN networking to offer the power of IP and the simplicity of SDI. With built-in boundary clock support, Layer 3 functionality, and 25/100/400GbE interfacing, both EXE3.0 and NAT-X switch fabrics seamlessly integrate into ST 2110-based infrastructures to deliver highly reliable video and audio routing.

Evertz will also be showing processing and conversion applications (apps) for the ev670-X30-HW-2 virtualized media processing platform, which supports either 12G-SDI, ST 2110 or ST 2022-6. Building on the existing IP Multiviewer apps, these new apps enable multiple paths of frame synchronization and up/down/cross or SDR-to-HDR conversions on the ev670-X30-HW-2, thus making it a high-density processing and conversion platform for 12G-SDI or IP facilities. As an NMOS-compliant device with support for IS-04 and IS-05, the ev670-HW-2 seamlessly integrates with MAGNUM-OS or other third party control systems.

For more granular or modular 12G-SDI or IP signal processing and conversion, Evertz is also showing the MIO-BLADE for the SCORPION Flexible Media Processing Platform. Similar to the ev670-X30-HW-2, the MIO-BLADE is a NMOS-compliant virtualized FPGA-based module that offers a series of software apps that can be added to provide a single or dual path for up/down/cross conversion, frame synchronization, IP media gateway, and HDR/SDR conversion.

Finally, Evertz is showing its NEXX next generation processing routing solution using 12G-SDI, a compact and robust product that is proving popular with broadcast facilities and OB trucks. Fully-passive with a modular-based frame and main interface/backplane, NEXX offers redundant control and ease of swapping components, including crosspoint, fans and I/O modules. It also offers native full audio shuffling and an integrated, software-enabled multiviewer with over 30 pre-configured layouts. Internal Evertz X-Link signaling allows NEXX to remain penalty-free and avoid unnecessary output usage, while the ability to tap into additional license-enabled features makes it highly customizable.

NEXX is controlled by MAGNUM-OS, which provides all the common user interfaces including traditional hardware router control panels, virtual web-based control panels, and VUE intelligent panels. It is designed to provide a path to integrate future IP expansion, protect investment and ensure the platform can grow as customer needs arise.

For more information on Evertz Software Defined Video Networking solutions, please visit IBC stand I.B79 or visit www.evertz.com

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About Evertz Technologies Ltd.

Evertz Technologies Limited (TSX:ET) designs, manufactures and markets video and audio infrastructure solutions for the television, telecommunications and new-media industries. The Company's solutions are used by content creators, broadcasters, specialty channels and television service providers to support their increasingly complex multi-channel digital, high & ultra-high definition television ("HDTV" & "UHD") and next generation high bandwidth low latency IP

network environments and by telecommunications and new-media companies. Evertz products allow customers to generate additional revenue while reducing costs through efficient signal routing, distribution, monitoring and management of content, as well as the automation and orchestration of more streamlined and agile workflow processes on-premise and in the "Cloud". For more information, please visit www.evertz.com

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