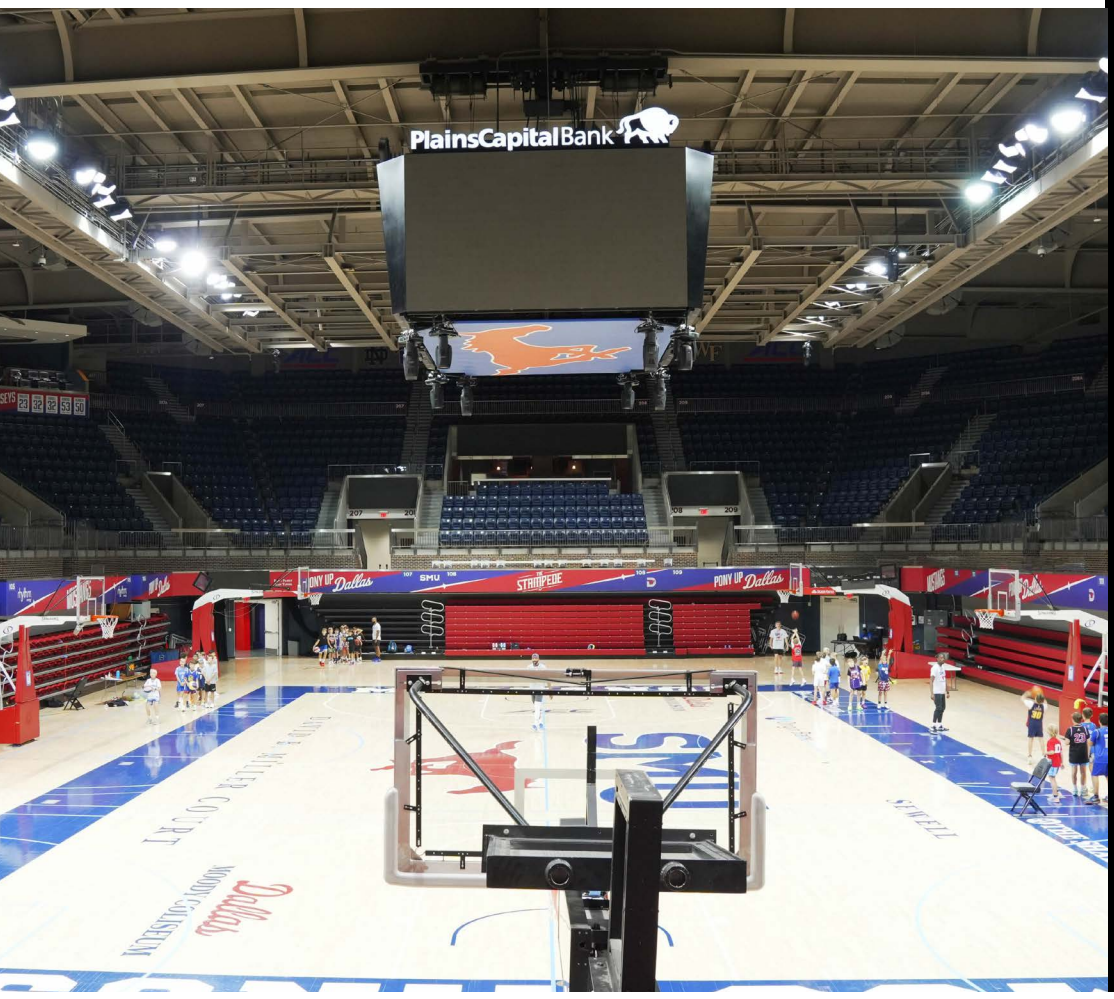
Customer
Southern Methodist University

Location
Dallas, Texas

The Customer

Southern Methodist University (SMU), located in Dallas, Texas, is a leading private research institution with a growing commitment to collegiate athletics and broadcast innovation. To support high-quality productions for the Atlantic Coast Conference (ACC), SMU has transformed its campus-based production facility into a centralized IP-driven hub connecting six venues to four production control rooms.



Solution at a Glance

► SMU connected six venues to four control rooms using a fully IP-based SMPTE ST 2110 infrastructure, enabling scalable, multi-venue productions.

► The solution bridges legacy 3G-SDI with modern IP workflows through FPGA-powered gateways, ensuring a smooth transition without sacrificing existing investments.

► Dual NATX IP switch fabrics, redundant timing systems, and PTP synchronization deliver reliability, bandwidth flexibility, and high availability.

► Evertz solutions like DreamCatcher™ replay, BRAVO Studio, and Dante-to-IP integration empower both professional and student-led productions with efficient, multi-angle workflows.

► MAGNUM-OS orchestration provides centralized management, analytics, and intuitive operator control, boosting efficiency and operational confidence.

The Challenge

SMU's previous broadcast setup lacked the flexibility, scalability and efficiency required for a modern, multi-venue production environment. With growing demand for high-quality live sports content and simultaneous multi-event productions, SMU needed a future-ready infrastructure built around IP standards, without compromising reliability or operational control. The project consisted of:

- Connecting six remote venues to a central hub via high-bandwidth, low-latency infrastructure.
- Supporting legacy SDI equipment while fully embracing SMPTE ST 2110 and IP-based workflows.
- Facilitating streamlined audio and video processing, multiviewing and replay capabilities.
- Simplifying signal control and monitoring across venues with intelligent orchestration tools.

"It's a great product, great service. It's been a great partnership. Why not choose Evertz!"

- Spencer Jones, Assistant Athletic Director for MustangVision
SMU Athletics

The Solution

SMU selected Evertz' Software Defined Video Networking (SDVN) solution to power its next-generation production environment. The facility was built from the ground up with a comprehensive all-IP infrastructure centered on SMPTE ST 2110 and NMOS protocols, leveraging Evertz's robust ecosystem of products.

Central to the system are Evertz NATX-64 IP switch fabrics, deployed in both main and backup configurations, offering red and blue network redundancy. Two NATX-LT switch fabrics provide scalable aggregation, enabling seamless routing and expansion across the facility. This dynamic NAT architecture ensures high availability, bandwidth flexibility, and format-agnostic connectivity, ideal for both core and aggregation requirements.
To interface existing 3G-SDI sources, SMU deployed the ev670-X30-HW platform. This FPGA-powered edge processor is used for multiple tasks:

- IP Gateways: Bridging SDI and IP workflows by encapsulating 3G-SDI to ST 2110 and vice versa.
- Multiviewers: Generating multi-image mosaics for all four control rooms via the ST 2110 multiviewer app.
- Processing: Supporting 32 channels of up/down/cross conversion for format and HDR adaptation.

The Solution

The entire timing architecture is synchronized by redundant Evertz 5700MSC-IP systems, delivering PTP timing across the facility.

For audio, SMU chose a Dante-based solution. The Evertz 9821EMR-HUB Audio Gateways convert Dante audio (256x256 channels) to ST 2110-30, integrating seamlessly with the video infrastructure and enabling synchronized IP-based production workflows.

Replay and clip management are handled by a 36x20 DreamCatcher™ ST 2110 cluster. This powerful replay system supports 11 operators with full access to inputs and outputs, empowering fast-paced, multi-angle content creation.

For smaller productions that do not require the full control room suite, SMU has integrated Evertz BRAVO Studio, a live production suite that combines ingest, switching, graphics, and replay in a single virtualized platform, and also provides agility for student-led or secondary event coverage, while scaling down operational demands.

Connectivity between remote venues and the central hub is achieved using Evertz SCORPION Flexible Media Edge solutions over dedicated 25GbE links. SCORPION's modular, network-agnostic design allows for precise customization to signal transport needs, from SDI and IP to Dante and more, delivering robust media aggregation and routing from the field.

Tying everything together is the MAGNUM-OS orchestration and control platform. As the backbone of the SDVN deployment, MAGNUM-OS manages edge devices, monitors link bandwidth, and tracks signal flows across the IP fabric. Its NMOS support ensures interoperability with third-party systems, while VUE and tactile panels provide intuitive control for production staff. With built-in analytics and PTP monitoring, MAGNUM-OS offers complete operational visibility for engineering teams.

The Conclusion

The Evertz solution has enabled SMU to:

- Unify six venues and four control rooms under a single, flexible IP infrastructure.
- Transition from SDI to IP without sacrificing legacy equipment investment.
- Empower both high-end and student-led productions with dynamic replay and switching tools.
- Achieve full redundancy and timing synchronization across the facility.
- Streamline control and monitoring workflows, improving operational efficiency.