



Communicate, Celebrate, Listen

Inside Walmart's IP-based Broadcast Transformation

"Bring your folks together and communicate with them often." The guiding principles of Walmart's co-founder are etched throughout the design and build of the event center named in his honor at the retailer's headquarters. And with its 'folks' (associates) numbered in the millions and based around the globe, Walmart needed a facility that could communicate with everyone, directly and inclusively, in the spirit of Walton's vision.

When Walmart set out to build its new corporate campus in Bentonville, Arkansas, the brief was simple but ambitious: create a space where collaboration, communication, and culture could flourish at the scale of one of the world's largest companies. At the heart of the 400-acre site sits Sam Walton Hall, a technologically advanced hub designed to bring 2.1 million associates closer together through broadcast and live production.

"It's right in the center of the campus," explains Dave Magnia, Chief Engineer, Campus Events at Walmart. "From any office building, it's just a five-minute walk to Sam Walton Hall. The idea was to make company-wide events, conferences, and live productions accessible to everyone."

Operational since January 2025, Sam Walton Hall represents the culmination of a five year development journey involving Walmart, Apeiro Design, and

Grass Valley®. What began as a conventional baseband project evolved into a cutting-edge SMPTE ST 2110 IP facility — a decision that has proven transformative for Walmart's internal broadcast and event operations.

Designing a Unified, Flexible Production Ecosystem

From the outset, Magnia and his team wanted a design that would unify Walmart's long-standing broadcast culture with the flexibility demanded by modern corporate production.

"Walmart has been running its own television studio since 1988," Magnia notes. "Sam Walton started it as a way to communicate directly with associates when we reached around 300 stores. Instead of flying to every location, he used satellite broadcasts and for more than 30 years, Walmart operated the largest privately owned satellite network in the U.S."

That legacy of internal communication set the tone for the new campus. The space needed to serve as both a live event venue and a broadcast hub, capable of supporting high-end productions for audiences that range from hundreds on site to millions worldwide. The almost 200,000-square-foot facility includes a 1,000-seat conference center that can be divided into six smaller spaces, a 1,550-seat auditorium, a fully equipped broadcast TV studio, a radio studio, and two auxiliary control rooms. Outside, a large amphitheatre provides space for open-air productions.

"We wanted every room to be connected and controllable," says Magnia. "If we wanted to run the auditorium from one of the auxiliary control rooms, we could. Operator flexibility and consistency were the core principles."



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Dave Magnia,
Chief Engineer, Campus
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Moving to SMPTE ST 2110 and Standardizing on Grass Valley

The early system designs were based on a traditional SDI baseband infrastructure. “At the time, I didn’t see SMPTE ST 2110 as particularly advantageous,” Magnia admits. “It just looked like a new way to move signals around, and the end viewer wouldn’t see the difference.” But the benefits of IP quickly became clear. “We realized we could significantly reduce the cabling footprint,” he says. “For a router in the 1500x1500 range, that’s a big deal.”

The decision to move to SMPTE ST 2110 opened up an entirely new level of system flexibility. Using IP gateways and SDI-to-IP interfaces, the team regionalized I/O across the facility, removing the need for massive central racks and simplifying system expansion. “It allowed us to decentralize the design,” Magnia explains. “Instead of pulling every cable back to one master rack room, we could distribute signal processing wherever it was needed, which is much more efficient.”

At the heart of every control room sits a Grass Valley K-Frame™ production switcher, chosen for its flexibility, reliability, and operator familiarity. “Consistency was critical,” says Magnia. “We wanted operators to walk into any control room, sit down, and see the same panel, the same workflow, the same experience. The K-Frame makes that possible.”

The entire infrastructure is managed through Grass Valley Orbit, which provides system-level orchestration across the facility’s interconnected environments. “GV Orbit® has been outstanding,” he adds. “It gives us intuitive control over video, audio, timecode, and metadata routing, and lets us patch and move data anywhere in the building.”

Seamless Operations, Global Reach

Today, Walmart uses the facility to produce a wide range of live events and corporate broadcasts, reaching audiences via platforms such as Zoom, YouTube, and WorkVivo — the company’s internal social media network. “We can broadcast to

any of our 2.1 million associates around the world,” says Magnia. “It’s about communicating directly and inclusively, just as Sam Walton intended. With SMPTE ST 2110, we can pair different audio channels, reshuffle tracks, and handle translation workflows efficiently.”

The combination of Grass Valley’s switching and orchestration tools with IP-based routing has created a production environment that’s not just future-proof, but adaptable to Walmart’s evolving communication needs. “Video was the easy part,” says Magnia. “Grass Valley made that straightforward. Audio, on the other hand, was a challenge.”

Bridging Audio and IT Worlds

Integrating audio into the SMPTE ST 2110 framework proved to be the project’s steepest learning curve. “All of our audio systems run on Yamaha consoles using Dante, so getting that to coexist in the SMPTE ST 2110 environment wasn’t simple,” he explains. “We also manage background music across



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**Dave Magnia,
Chief Engineer, Campus Events at Walmart**

the campus through Q-SYS, and all of that needed to tie into the same ecosystem."

Beyond the technical hurdles, the project also had to meet Walmart's stringent IT security standards. "In a corporate environment, security is always front of mind," says Magnia. "We had to design the system in a way that satisfied those requirements while still maintaining the performance we needed for live broadcast."

To build the network, Walmart deployed Cisco Nexus-class switches and worked closely with both Cisco's SMPTE ST 2110 engineering team and Grass Valley's technical support staff to fine-tune the configuration. "The learning curve in SMPTE ST 2110 is extraordinary," Magnia admits. "There isn't a 'wise old man' you can go to for answers: every deployment is unique. Having strong partners like Grass Valley made all the difference. Their engineers helped us identify issues quickly, trace them through the network, and find solutions that worked."

Partnership and Future-Proofing

Walmart's long-standing relationship with Grass Valley stretches back decades, and that trust was a major factor in the team's choice of technology. "Most of our engineers have over 35 years of broadcast experience, and Grass Valley has been part of that for all of us," says Magnia. "When you look at sports trucks or other major production facilities, Grass Valley is always there. That reliability is something we value deeply."

Support has also been a differentiator. "The Grass Valley support teams have been fantastic," he says. "They're attentive, they ask the right questions, and they really engage with us to solve problems. As we push deeper into IP workflows, that collaboration will only become more important."

Looking ahead, Walmart is exploring new levels of IP integration and user customization. "We're seeing a lot of operators wanting to bring their own devices and control interfaces," Magnia explains. "I'd love to see even more openness in the

architecture...ways for Grass Valley systems to communicate directly with third-party IP control devices so that workflows can be personalized."

That forward-looking mindset mirrors Walmart's broader approach to technology. "This facility isn't just about what we need today," he concludes. "It's about building something scalable, flexible, and resilient: a system that can grow as we do."

With Sam Walton Hall, Walmart has created a world-class production environment that blends the reliability of broadcast engineering with the agility of IP technology. By standardizing on Grass Valley systems and SMPTE ST 2110 infrastructure, the company has future-proofed its internal communications and reaffirmed its commitment to connecting its global workforce.

As Magnia puts it, "For us, it's always been about reaching people, wherever they are, in whatever way helps them understand and connect. Technology is just the tool that makes that possible."

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CS-PUB-3-1096A-EN

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