All photos courtesy of Hong Ky Technology and Investment Development Company Limited

Extron AV at Viettel Headquarters Enables Productive Meetings & Collaboration for Vietnam Telecom Provider

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Le Ngoc Thang
Technical Lead
Hong Ky Technology and Investment
Development Company Limited

Challenges

Viettel Group is the largest telecommunication service provider in Southeast Asia and among the top 30 most valuable telecom companies in the world. It has 50,000 employees worldwide and serves 110 million subscribers. The Vietnam Ministry of Defense operates the company as a state-owned enterprise. In 2020, 1,000 employees moved into Viettel's new Hanoi headquarters. Designed by American architectural firm Gensler, the LEED-Silver-Certified building curves and slopes from the foot to the top of the grass-covered roof in an oval shape inspired by the company logo.

As befits a world class telecommunications company, Viettel's headquarters incorporates cutting edge building management systems to conserve energy and sophisticated audiovisual systems in its many meeting and event spaces to promote collaboration and communication. Pro AV integrator Hong Ky Technology and Investment Development Company Limited handled design and integration of the extensive AV infrastructure. They chose Extron as the preferred supplier for all AV switching, distribution, and control equipment. According to Le Ngoc Thang, Technical Lead for Hong Ky Technology, "Extron's product line provides system designers with the flexibility to select the optimal solution for each application."

(upper left) Typical large conference room.

(lower left) Typical small conference room.

(upper right) Briefing room.

(lower right) Each room is serviced by a single-bay AV equipment rack.

Solution

Ten rooms are equipped with Extron AV systems, including conference spaces, training rooms, and a large auditorium. The entire AV installation used over 150 Extron products and took just under a year to complete.

AV-Equipped Training and Collaboration Spaces Seating up to 65

Large and small conference rooms are situated throughout the building accommodating from 20 to 65 people, and there is a training room that seats 52 students. These rooms feature AV amenities that include multiple projectors, flat panel displays, wired and wireless content sharing, PTZ cameras, and wireless microphones. The AV systems are built around DTP CrossPoint 108 4K Scaling Presentation Matrix Switchers with DTP Transmitters and Receivers for distribution over shielded twisted pair cable. DMP 128 Plus Digital Matrix Processors tailor the audio in the rooms, including acoustic echo cancellation. XPA 2002 amplifiers drive SF 26CT SoundField ceiling speakers. ShareLink Pro wireless presentation gateways allow attendees to share content from BYOD devices via Wi-Fi.

Briefing Room with Wall-to-Wall AV

The briefing room is dazzling. All four walls have PTZ cameras and flat panel displays. If the 98" flat panel display at the front of the room isn't big enough, a 189" projection screen lowers for use with a projector deployed from the ceiling. Lining the brow of the ceiling at the front is a row of auxiliary flat panel displays. AV signal routing is handled by an XTP II CrossPoint 3200 Matrix Switcher distributing content via HDMI,

SDI, analog audio, and twisted pair XTP inputs and outputs. The PTZ cameras feed the matrix switcher via a live video switcher for Hollywood-style production, and an Annotator 300 Annotation Processor allows presenters to draw, point, or type over live presentations. The room's sophisticated sound is anchored by a DMP 128 Plus that conditions audio from program sources, wired, and wireless mics. Twelve ceiling speakers are driven by an XPA 2002 amplifier.

On-Stage Projection Screen Plus Six Flat Panel Displays Provide Clear Views for Everyone in the Auditorium

The 600-seat auditorium hosts major company and civic events. The AV system in this venue supports the sophisticated production capabilities required to stage large events. Program sources include four studio cameras with outputs processed by a live video production switcher, four PTZ cameras, five HDMI sources, including three dedicated laptop PCs, content from BYOD devices delivered via Wi-Fi through a ShareLink Pro wireless presentation gateway, and stored content from an SMP 352 Streaming Media Processor. A ceiling projector provides the video image to the on-stage screen. There are six flat panel displays in the audience seating area, plus control room and auxiliary monitors.

The auditorium has two XTP II CrossPoint 3200 Matrix Switchers distributing content via HDMI, SDI, analog audio, and XTP inputs and outputs. XTP Transmitters and Receivers transport signals that run over long distances via shielded twisted pair cable. A DMP 128 Plus Digital Matrix Processor fine tunes audio delay and echo cancellation characteristics for the auditorium acoustics. There are multiple auxiliary

Auditorium has ceiling-mounted projector for the on-stage screen plus 55" flat panel displays in the audience seating area.

video outputs routed to WPD 100 TP Series XTP/DTP pass-through wallplates around the auditorium that provide connection points for additional projectors or flat panel displays if needed. A matrix switcher output feeds event content to the SMP 352, which can store the content internally or on USB memory sticks and can stream live or on demand.

Consistent AV Control Architecture for All Rooms

All rooms share a common AV control architecture built around IPCP Pro 360 Control Processors and TLP Pro 1025T TouchLink Pro Touchpanels, which simplify configuration, maintenance, and operation. The auditorium also includes an IPL Pro CR88 Control Processor to provide additional control ports. OCS 100C occupancy sensors turn room systems on when attendees arrive, and off when rooms are empty. All of the rooms have TLS 725M TouchLink Scheduling Panels at the entrances. These panels show room availability and allow room reservations to be made right at the panel or through calendaring services.

Results

The Viettel headquarters building is in full operation now, with a cohort of about 1,000 staff. Relating his assessment of feedback from Viettel's staff about the new AV-enabled venues, Hong Ky Technology's Le Ngoc Thang observes in understated technical parlance, "The quality of audio and video is quite good and stable." Viettel's staff appear to enthusiastically agree with that assessment; the venues—especially the conference rooms—are in constant use. And during the few hours each day that they are not in use, these venues contribute to Viettel's

Auditorium AV equipment rack housing two XTP II CrossPoint 3200 Matrix Switchers.

environmental responsibility goals and bolster the building's LEED-Silver rating by automatically shutting the AV systems off in response to Viettel's calendaring services or room occupancy sensors.