



Photo courtesy of Siam Alliance Co. Ltd.

## Quantum Elite Powered Videowall Provides Clear View of Network Conditions for Thailand's CAT Telecom

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**Chukiat Marutharalerd**  
Project Sales  
at Siam Alliance Co. Ltd., Bangkok, Thailand

### Challenge

CAT Telecom Public Company, Limited, CAT Telecom, is the state enterprise responsible for Thailand’s international telecommunications infrastructure, including gateways, satellite access, and submarine cable network connections. Their Bangkok Network Operations Center, NOC, recently underwent an AV upgrade, including replacement of a ten-year old videowall system. The old videowall system delivered low resolution, low brightness images and did not accept HDMI signals.

System integrator Siam Alliance Co. Ltd., Bangkok, was brought in to design a new videowall system using video processing and control systems from Extron. With an 8x7 array of 55" thin bezel LCD monitors, the new videowall system is larger, brighter, and supports high resolution video from HDMI, DVI, or VGA sources. Whether viewed from the operator stations on the NOC floor, or through observation windows in the meeting room on the floor above, the videowall now provides a crystal-clear view of Thailand’s telecommunications system status that allows system controllers to do their jobs without eyestrain. Detailed network maps from NOC PCs are displayed in high resolution alongside other pertinent video feeds in a variety of window layouts delivered by an Extron Quantum Elite videowall processor.



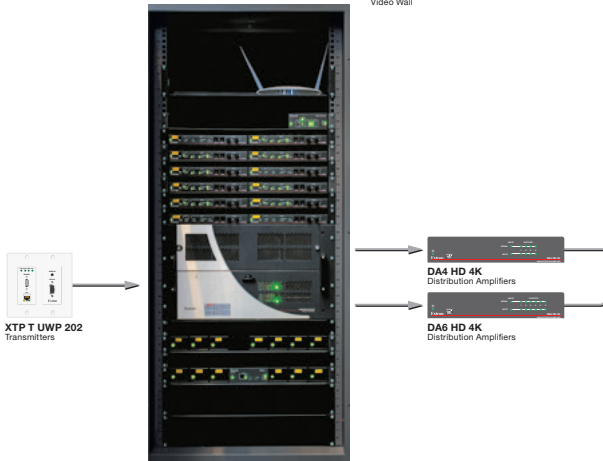
The Quantum Elite videowall processing system provided CAT's Network Operations Center with a cost-effective, reliable way to upgrade its videowall to accept HDMI, DVI, and VGA sources and display highly detailed images.



Users can select the desired videowall window preset using a TouchLink Pro touchpanel or an iPad. Photo courtesy of Siam Alliance Co. Ltd.



8x7 LCD Display  
Video Wall



XTP Wallplate Transmitters coupled to XTP Scaling Receivers feed the Quantum Elite Videowall Processor inputs. The Processor outputs are expanded to 56 HDMI signals by DA HD 4K Series Distribution Amplifiers to drive the 8x7 videowall LCD displays. Rack and videowall photos courtesy of Siam Alliance Co. Ltd.

## Solution

### High Quality Video Processing Ensures Image Integrity

CAT's previous videowall produced dim, low resolution images. CAT needed a system that could produce high resolution, readable images of network maps and other fine-detail graphics. The Quantum Elite system now in use at the NOC accepts signals from HDMI, DVI, and VGA sources via XTP Scaling Receivers. Its high speed, dedicated video/graphics bus provides the processing bandwidth required to deliver high performance video scaling that preserves image quality at full frame rates, producing the detailed source content essential to efficient NOC workflow.

### Failsafe, 24/7 Reliability

CAT's network operations center operates 24/7/365. The Quantum Elite videowall processor is designed for continuous failsafe service, from its redundant hot swappable power supplies and fans, to its solid-state storage which reduces risk of hard drive failure.

### TouchLink Control Allows Fast, Easy Preset Selection

NOC personnel rely on the videowall display for timely, accurate data on which to base critical network control decisions. To ensure that visual data is consistently displayed at the correct locations on the videowall, preconfigured window presets are recalled using a customized user interface on a TLP Pro 725T 7-inch TouchLink® Pro touchpanel communicating with the Quantum control PC via an IPCP Pro 250 IP Link Control Processor. The same selections can be made from a WiFi-connected iPad using Extron's LinkLicense® for User Interfaces. The customized user interface was created using Extron's free GUI Designer software.

### Extron XTP for Long Distance Video Signal Transmission

Twelve XTP 2-Input Wall Plate Transmitters at operator workstations accept HDMI or VGA from PCs or other sources and transmit the signals up to 330 feet (100 meters) over twisted pair cable to XTP Scaling Receivers feeding the Quantum Elite inputs. The Quantum Elite has nine outputs, expanded by DA HD 4K Series Distribution Amplifiers that supply video via 56 HDMI cables to the 8x7 LCD displays in the videowall.

## Result

According to Chukiat Marutharalerd of Siam Alliance Co. Ltd., "The high resolution images provided by the new videowall system allow CAT's operators to clearly display detailed information, such as network maps, that were nearly unreadable with the old system. The much-improved readability resulted in a noticeable boost to NOC operator productivity."

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