

Los Angeles Police Department relies on NEC displays in emergency operations

Quick Facts

Facility: Los Angeles Emergency Operations Center, LAPD RACR Division

Location: Los Angeles, California

Challenge: Constructing a brand new facility that encourages productivity with high-tech digital screens for information display

Solution: 46" NEC X461UN, 46" P461, 40" MultiSync® LCD4020-AVT

Date: September 2009

When the Los Angeles Police Department's (LAPD) Real-Time Analysis and Critical Response (RACR) division needed a display solution in its control center, it looked to Spectrum Video, Inc. to design workstations and a video wall that would allow its staff to work swiftly and efficiently, without worrying about the dependability of its technology. The workstations allow RACR staff to work in teams and enable collaboration, while area monitors mounted from the ceiling helps with decision-making in emergency situations. The ultra-narrow bezel video wall is viewable from virtually anywhere within the brand new facility.

The RACR division of the LAPD is a 24/7 fusion and information processing center where resources, situation status of the city and developing tactical incidents are tracked. This department also includes daily detective support to Los Angeles and complete analysis on emerging crime patterns.

AV Design Consultant Spectrum Video is based in California and provides complete, custom solutions for businesses looking to communicate more

effectively. Spectrum offers a variety of services, including audio visual design, engineering, control system user interface and project oversight, living up to its motto of "clarity without complexity."

The Challenge

Originally, the LAPD resided in the basement of City Hall. Cramped and pressed for space, the City worked to build a brand new facility for multiple stakeholders, including the Emergency Management Department (EMD), LAPD RACR and the Los Angeles Fire Department's Main Dispatch and Department Operations Center. Primary design plans for RACR featured a rear-projection system with mirrors and projection screen that showed emergency situation status in an area where officers developed a course of action. Staff members were not looking forward to constantly replacing projector lamps, and realized bringing in a new flat-panel system would provide real estate behind the displays, which could be used for equipment racks full of AV-related gear.

The City had previous experience acquiring AV design from Spectrum with other projects, so the choice to hire their services for the new installation was easy. Bringing in Spectrum as architect of the Audio Visual systems in the new facility allowed the LAPD

to verbalize its wants and needs and let this trusted consultant take care of the vital features and specifications of the solution.

In designing the system, Spectrum wanted to dramatically improve the RACR facility by creating a seamless video wall that would support a variety of content and have the ability to alternate each screen's content. Spectrum determined that the project would require displays with high



For its RACR facility, the LAPD chose NEC's 46" X461UN to outfit a video wall that displays critical news and information from off-air and closed-circuit sources.
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resolution, image clarity, thin bezels and commercial-grade panels. Finding a manufacturer with a broad lineup of industrial-strength LCDs would benefit the project, as the facility also required large-format displays for several workstations and area screens.

The Solution

Spectrum's solid previous experience with NEC and the company's prestigious reputation in the digital signage industry led the design team to discuss the project's possibilities with NEC's representatives. The conversation quickly moved to NEC's pre-announcement of the 46" X461UN ultra-narrow LCD display. This advanced notice generated interest among both Spectrum's design team and LAPD RACR division management, and a product demonstration was performed for a variety of LAPD personnel. Spectrum's recommendation in selecting the X461UN was approved by the LAPD when it recognized the benefits and substantial change, such as rugged design, TileMatrix video wall capabilities and near-seamless bezel.

Spectrum designed the layout, architecture and engineering of the 28 X461UNs and integrated the 7x4 news and information video wall into the control room, giving operator positions in the center bay unimpeded views. The video wall displays critical news and information from off-air and closed-circuit sources, promoting the LAPD's confidentiality. The RACR division benefits from the ease of exchange and maintenance offered by the NEC product, when coupled with the structural mounting frame ("Swing Wall") designed by RP Visuals of Santa Ana, CA. The video wall is driven by a unique hybrid technology design by Spectrum, utilizing both a primary path ("PixelNet" image processing by Jupiter) and secondary path (direct-to-display Digital Image Signal Routing that leverages NEC's TileMatrix capability) for failsafe image display in the event the primary path is compromised.

Additionally, Spectrum specified 40" LCD4020-AVT displays at each "Team Pod" workstation in the east and west bays. Each pod



NEC's 7x4 video wall utilizes TileMatrix technology for a near-seamless look, along with a Swing Wall mounting frame and a unique failsafe imaging technology.
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houses six individuals who focus on specific support tasks and use the 40" display for local viewing of digital imagery. Images produced at the Team Pods have the ability to be displayed on the news & information video wall for all staff to view.

In three corners of the facility, Spectrum utilized "Decision Making Monitors" with NEC's 46" P461-AVT, suspending them from the ceiling. The industrial-strength P Series display offered the LAPD

enhanced features for long-term digital signage use, such as an ambient light sensor, full connectivity and real-time scheduling. Management offices and conference rooms to the north of the Command Positions have windows allowing a birdseye view into the RACR facility.

"The commercial design of the X461UN allows the LAPD to use the data wall 24/7, and its NEC name assures us that the product is reliable and durable," said John Bilar Jr., CTS, Vice President of Technology at Spectrum Video. "In a time-critical environment, there is no room for failure. NEC's X461UN has not only transformed the space, but allows those in the LA-EOC facility to focus efforts on their jobs and increase productivity."

"Bob Downs and John Bilar from Spectrum did an outstanding job on the AV design and engineering of our facility," said Captain Joel Justice, Commanding Officer, LAPD RACR Division. "They recommended NEC as a dependable display company with a responsive staff that stands behind its product. The final design works so well that we sometimes forget we're looking at 28 screens, since they work together impeccably and have flawless imagery."

"The outcome of the new digital signage is beyond incredible," said Bilar. "We've received many compliments and dropped jaws from liaison agencies that come to work in the LAPD RACR facility. NEC's screens are worthy of becoming the benchmark in the Command, Control and Emergency Operations market."