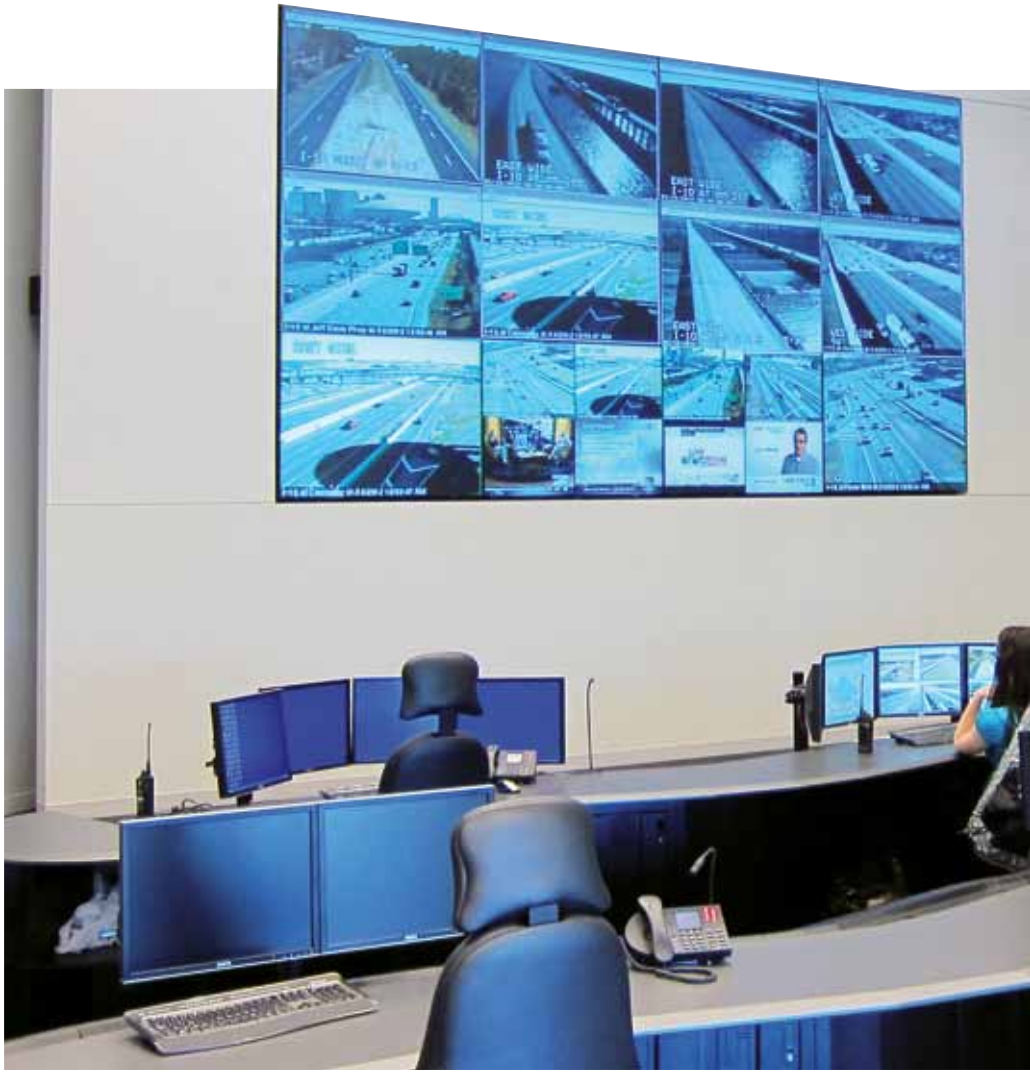
Investing in the present

Nancy Napurski reports from Louisiana Department of Transportation and Development's brand new Regional Transportation Center



The city of New Orleans has learned some hard lessons over the years, especially when it comes to traffic flow. Its unique geography limits the way people can travel on its bridges and highways. And whether it's from a simple flat tire or severe flooding, traffic can easily come to a standstill.

But with its new state-of-the-art Regional Transportation Center in New Orleans, the Louisiana Department of Transportation and Development (LADOTD) hopes to facilitate smooth traffic flow and better communication among drivers, traffic operations staff, and emergency response personnel, using Intelligent Transportation Systems technology and Mitsubishi data display cubes.

The 29,120 square-foot center employs DOTD traffic management staff to actively monitor real-time traffic information on roadway conditions and distribute this information to drivers and emergency response personnel by using a variety of ITS tools. The new facility was built to withstand natural disasters, such as those experienced during Hurricane Katrina.

AN IMPRESSIVE DISPLAY

One of the challenges the technology development team faced was determining how they could collaborate to solve traffic problems in real time: the answer was to install an advanced system of display monitors to create a large video wall that shows activity on local streets, bridges and highways.

"It's all about how quickly we can resolve traffic issues, and we need to see what's going on so we can help," said Paul Hsu, Engineer, LADOTD. "Statistically, for every 30 minutes a car is stranded that adds up to two hours of stop-and-go traffic. Our goal is to quickly help people get moving so traffic can flow again."

The wall incorporates twelve 67″ rear projection display monitors, in a three-high by four-wide array, and includes the latest technology from Mitsubishi, a company known for its product excellence and reliability.

"We currently have about 20 cameras within the metropolitan area that we monitor, along with 18 cameras on the Bonnet Carrie spillway and 24 cameras on I-12 around Northshore," added Hsu. "We couldn't possibly watch all that action on a few computer screens. The size of the screen would limit the number of cameras we could watch at any one time."

The video wall displays camera feeds as well as news and weather reports simultaneously, allowing LADOTD staff to dispatch patrol vehicles to assist motorists

"If a chemical truck overturns on a highway, HAZMAT experts can watch the camera feed and know exactly what equipment and how many people to send, if an ambulance is required"

Louisiana DOTD's state-of-the-art traffic management center in New Orleans

with simple, day-to-day issues such as running out of gas or having a flat tire. But the size of the wall also allows emergency response team members to collaborate on more significant issues.

"We can provide first responders such as state police, fire department staff and others with live video to see what's happening in the city on the display wall, and collaborate in real time," added Hsu. "All groups can communicate directly, with different perspectives and expertise, immediately share solutions, and dispatch the best teams possible, all while we're watching what's happening on the data wall."

For example, if a chemical truck overturns on a highway, HAZMAT experts can watch the camera feed and know exactly what equipment and how many people to send, if an ambulance is required, etc. The problem is resolved more quickly and more efficiently because of the video wall.

"We needed a large video wall solution that we could count on," said Hsu.

Additionally, Mitsubishi's new Seventy Series displays use the same optical engines, cabinets and screens in 43 configurations, designed to fit virtually any possible installation space and operational requirement.

This modularity allows an easy and cost-effective upgrade path: users simply replace input cards, optical engines or other parts, instead of purchasing new units. After replacements or upgrades are installed, the cubes automatically adjust color and brightness across the wall for cost-effectiveness and minimal downtime.

WASTE NOT…

Maximizing the reusability factor of a display wall as LADOTD changes and grows will also reduce a lot of unnecessary waste. Three consumable components that need to be replaced most frequently in a continuous operating environment are the color-wheel, fan motor and lamps. In next-generation scalable display walls, like the Mitsubishi Seventy Series displays, all of these are improved to reduce consumption rates of these parts despite continuous operation.

"One of the advantages of these cubes is that you don't have to take out a whole wall to upgrade," said Hsu. "You just swap out engines, lenses, etc., and changing out the lamps is very simple."

When using or upgrading to an LED-based engine, operation is mercury-free and offers better longevity in lamp life. Color wheels and fan motors are now also designed and built with durable, heat-resistant ceramic bearings that allow these components to last up to 100,000 hours…that's more than 11 years, compared to currently available non-modular walls that need replacement parts in less than half the time.

New, next-generation display walls are now simply flexible and truly customizable, and most importantly, scalable and sustainable, which maximizes reusability and reduces waste. From input cards and color wheels to brightness levels and maintenance access, now you can configure the display to be exactly what you need; nothing more, nothing less.

This modularity will help LADOTD stay current with new technology without having to undergo major re-work and or re-installations; as new technology comes to the market, upgrades can be easily planned and budgeted.

With new modular display walls, the display wall structure can stay as long as it's stable, and upgrading or changing internal components is all that's needed. This allows the display wall to recover its investment and pay for itself long before the LADOTD will need a completely new one.

It is simply our social responsibility to reduce waste and reuse as much as we can, and next generation display wall systems helped LADOTD make the responsible decision without compromising on technology.

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