

CASE STUDY



National Highways

AV tech helps to keep traffic running smoothly

Operators view traffic feeds from multiple sources on three large Sharp/NEC videowalls in the control room and on a 98-inch MultiSync® display in the conference room for coordinated mission-critical monitoring and response management.

National Highways is a government-owned company that operates, manages and maintains England's motorways and major roads to ensure journeys are safe, smooth and reliable. To manage the network, National Highways operates seven Regional Operations Centres (ROCs) where teams monitor the nation's roads 24/7.

At the Yorkshire and North East ROC in Wakefield, West Yorkshire, National Highways worked with Sharp/NEC's partner Electrosonic, an award-winning audiovisual and technology services company, to create an environment focused on the needs of the operators.

The Challenge

National Highways operations teams work in a fast-paced environment, monitoring roads and responding to incidents 24/7, deploying resources and coordinating emergency repairs. Their effectiveness depends on analysing traffic feeds from many different sources and making real-time decisions about appropriate responses. At the Yorkshire and North East ROC in Wakefield, creating the optimum environment for the operations teams was paramount, with critical focus on human factors.

In the control room they needed a videowall solution that would enable operators to monitor the status of the roads and focus on incidents as they occur. The videowalls must offer optimum viewing from different angles under all lighting conditions, with the ability to zoom in on an area to gain real-time visibility on the roadways. In the conference room, team members need to access the same video feeds on a smaller display so they can plan and coordinate response and follow-up actions with field teams and other agencies.

The Solution

Facilitating critical decision making, three 2x4 NEC LCD videowalls driven by a UVS videowall server displays content from multiple live feeds. Comprising 24 x 55" NEC MultiSync® UN552S narrow-bezel displays in total, each module displays visual feeds from multiple traffic cameras located at strategic positions across the road network to constantly monitor real-time road conditions and respond to incidents. Forming a minimal image gap, each module frames the high-resolution content for easy visual clarity across the three videowalls.



Designed for the rigors of 24/7 operation and featuring a metal rear chassis, the commercial grade videowall naturally dissipates heat, supported by a unique thermal management system to monitor and control heat build up which can be a concern for large videowalls. Featuring a SpectraView engine, the user can adjust the advanced settings of all relevant visual parameters with full control over brightness, colour, gamma and uniformity for outstanding visual experiences.

Meanwhile, other team members in the conference room can view the same information on a 98-inch MultiSync® M981 display for coordinated support effort. The screen features a professional haze level for excellent visibility without distracting reflections from room lighting or sunlight. Integration with the Microsoft Teams system allows the team to share data with police, traffic officers and other agencies on the road and provide a fully coordinated response.



The Result

The close collaboration between Electrosonic, Sharp/NEC, UVS, architects and building contractors enabled a seamless, consistent approach to the project. Matt Cruise, account manager at Electrosonic confirmed:

“our partnership with Sharp/NEC throughout the project helped us provide National Highways with the optimum audiovisual solution and deliver successfully against a tight deadline to meet our client’s needs.”

The videowalls and conference room display support continuous effective monitoring and analysis, and enhanced data visualisation, which improves situational awareness, reduces the risk of human error and enables faster collaborative decision making and response times.



By responding rapidly, control room operators can minimise delays to drivers, keep traffic moving and reduce the risk of further escalation when incidents occur.

Site information

SECTOR

Command & Control

CUSTOMER INFORMATION

National Highways
nationalhighways.co.uk

INSTALLATION PARTNER

Electrosonic
electrosonic.com

INSTALLATION DATE

August 2024

EQUIPMENT

- 24 x 55” NEC MultiSync® UN552S ultra-narrow video wall displays
- 98-inch NEC MultiSync® M981



ELECTROSONIC

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