\Orchestrating a brighter world

NEC

Video walls boost information flow and collaboration in command and control centers

Control rooms serve as central points to monitor and manage mission-critical applications. Whether the staff is coordinating hazard responses, delivering global video, managing security or managing any other complex application, team members need simultaneous visuals on many different types of content, from maps and traffic reports to real-time video feeds.

To meet these challenges, a growing number of organizations are replacing the outdated video screens in their control rooms with unified video walls, which integrate seamlessly with workstations throughout the room. These new video display solutions streamline a team's goal of disseminating information, centralizing planning, organizing responses, and deploying assistance where it's needed most.

As a result, control teams are now able to share information more freely, reach insights more quickly, and respond to complex, dynamic situations while adapting in real time. This paper summarizes the benefits of video wall displays in command and control centers, along with key considerations in selecting equipment for these display systems.

Cutting-edge command center technology delivers significant increases in efficiency

The outmoded model of a command center can be traced back to the early days of television, when separate screens and computer terminals represented the leading edge of response coordination technology. Surfacing visual content on a specific screen, or set of screens, was an unintuitive process handled via complex control panels that consumed valuable time and delayed other team members' access to need-to-know data.

In a modern control room, by contrast, high-resolution digital screens display a wide variety of content, from maps and photos to video streams. Separate desks have been replaced by ergonomic desking solutions, and intuitive touchscreens have taken the place of cumbersome control panels. Teams can now surface, resize, move and manipulate content freely across all screens, and they can collaborate in real time across all their individual workstations. Specialist operators can monitor their own information feeds, then immediately display that content on the wall display as needed.

A modern command center includes an array of connected video and computing devices

Hardware and software integrations, such as those provided by the partnership of NEC and Hiperwall, are now the hubs of cutting-edge control rooms. The NEC-Hiperwall solution links all workstations in the room – as well as those of remote collaborators – with an LCD video wall, with single or multi-projector displays, or even with rear-projection video cubes. The layout and format of the display system can be highly flexible, and it should be designed around the room's shape and space, as well as the team's operation needs and workflows.

The bright main screen functions as a canvas on which video and other content can be displayed instantly from any workstation, local or remote. An intuitive touchscreen enables operators to select appropriate content streams, and move and adjust each feed on the video wall. The software automatically handles all compatibility issues, making feed manipulation as seamless and instantaneous as moving app windows on an ordinary tablet screen. For example, with a secondary control node, a Windows Surface table can control the wall.

The size and flexibility of a video wall can exponentially broaden a team's ability to view and process information from multiple sources – a critical ability in situations that demand rapid and agile responses. Integration across all workstations helps keep information better organized and centralized, while making it accessible to everyone on the team at the moment it's needed, and

enabling it to be disseminated to any collaborator, in the room or at a remote site. Digital signage also make failover simpler, ensuring that standby equipment takes over immediately if the main system fails.

Digital video displays are highly flexible and offer easy expandability when needed

When a control room's needs evolve, many of its components can be updated and expanded without disassembling the system as a whole. NEC displays feature open pluggable specification (OPS) slots to simplify maintenance and upgrades. For example, many operators choose to add plug-in modules for additional screens and devices or to add an expansion chassis to their video wall, providing additional space on their digital canvas. Additions like these can often be made in a matter of hours, and only a few minor software adjustments are needed to integrate them fully into the existing control room system. NEC's OPS is compatible with such popular applications as Windows Pro, HDBase T and HD-SDI.

As information continues to become more complex and video resolution continues to increase, video walls offer future-proof flexibility to expand and adapt to changing demands. As long as the information in question can be displayed on a video screen, the software will handle the backend details, empowering operators to control video output via easy-to-use graphical interfaces.

With the help of wall video display solutions, cutting-edge response organizations are able to meet the ever-increasing demands of the communities and customers they serve, by processing and responding to a greater volume of information in a much shorter time and by delivering the rapid, precise responses their communities and clients expect.

About NEC Display Solutions of America, Inc.

NEC Display Solutions of America, Inc., a leading designer and provider of innovative displays, offers the widest range of products on the market, such as commercial and professional-grade large-screen LCD displays, desktop LCD monitors, direct view LED displays, a diverse line of multimedia and digital cinema projectors, and integrated display solutions. Benefitting from the technologies of NEC Corporation and its own Research and Development, NEC produces leading-edge visual technology and customer-focused solutions for a wide variety of markets, including education, retail, transportation, broadcast, enterprise, healthcare, houses of worship, and many more. NEC is orchestrating a brighter world with the quality and reliability of its products and outstanding customer service. For additional information about NEC Display Solutions of America products, call (866) NEC-MORE, or visit the website at www.necdisplay.com. Follow us on our social media channels: Facebook, YouTube, Google+, Twitter and LinkedIn.