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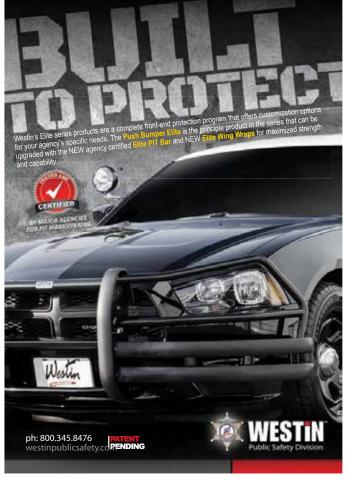
Video walls are an important part of many law enforcement agencies' data fusion centers. Sadly, the high cost of this technology has made it unaffordable for many – until now.

ideo walls display a vast amount of infornation needed for many of today's police activies, such as criminal and antiterrorist operations. nfortunately, high-tech, high quality, integrated,

legacy video walls are expensive and out of reach for most departments, especially in light of today's austere budgets. This is because the typical video wall relies on proprietary hardware resulting in unacceptable higher costs and complexities.

There is now a simpler alternative and a much more affordable solution – Hiperwall. That is because Hiperwall is a software solution as opposed





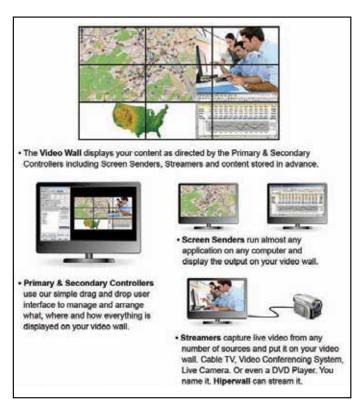
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the proprietary hardware architecture traditional systems. It is software iven versus hardware driven. This iminates the need for special PCs, onitors or other hardware. All that is eded is Hiperwall software, plus offe-shelf commercial display units, netork switches and computers. The perwall system is much more scalle, flexible and affordable than legacy stems on the market today, so presention capabilities can be designed to eet an individual department's needs d budgets.

Not Many Needed

Because Hiperwall is software iven, when displays with embedded mputers are used, the use of many rds and cables is eliminated. Only a wer cable and an Intranet (Ethernet) ble are needed for each display. Thus, stallation and maintenance doesn't reire specialized training or skills. Also, perwall's distributed visualization cabilities allow displaying content not ly on one wall, or in one room, but in ultiple walls or rooms throughout an tire facility.

The Hiperwall control node (the ains of the Hiperwall system) controls



Components of the Hiperwall Video Wall system

what, where, how and when content is displayed. The user interface display presents a miniature view of your entire network of Hiperwall displays and uses a WYSIWYG metaphor with interactive drag and drop simplicity to give the ability to place and locate content on those displays. Changing content on displays can be done manually by using the Hiperwall scheduler to set content changes at a specific time, or by using the API (Application Programming Interface) to control content displays from an external device.

Greater Control

In some applications, content may have to be controlled from multiple locations or workstations. The secondary control node provides that ability with as many secondary control nodes as needed.

These can be scattered throughout the facility or operated remotely, providing the ability to render support from distant locations. Controlling of display content can be done by a conventional mouse and keyboard or by the display's touch screen, or, a tablet can be used for greater mobility. Each secondary control node has a WYSIWYG drag and



drop interface, just like the primary control node, eliminating the need for specialized training.

The screen senders and streamers provide live feeds which deliver content to the displays over the network. The screen sender allows viewing of almost any application running on almost any computer. Start with an existing computer running one or more existing applications; add a Java® app provided by Hiperwall; and the output of those applications can now be transported across the network for viewing. There is no need to modify existing hardware or software. The only requirement is that the computers run Java (available as a free download). The Hiperwall's software flexibility allows the ability to deliver the entire screen to the wall or to divide it up into rectangular regions and deliver each region to the Hiperwall as an independent object. The screen sender software can even be run remotely, enabling collection of live feeds from around the world.

Streaming Content

The streamer software is designed to provide high frame rate feeds to Hiperwall displays. Typically used for video and animation, multiple streamers can deliver simultaneous streams to Hiperwall displays. The streamer system supports streams of up to 60 frames per second at resolutions of 1080p or higher. Hiperwall streamers can import video from any external source via ordinary video capture cards, giving the ability to view feeds from cable TV boxes, videoconferencing systems, VCRs, DVDs, Blu-rays or live camera feeds. The streamers can also stream movies across the network, providing video jukebox capabilities.

Display nodes are the display devices driven by a computer running Hiperwall software. These include LCDs, plasma, projectors, LED modules, rear projection cubes or CRTs (the latest monitors with very narrow bezels provide the best continuity in presentations). All display computers work in parallel to give Hiperwall its unique power, flexibility and scalability. The display node software receives content over the network and displays it on the attached device.

Virtually, any computer can be used, including external mini towers, rack mount machines or blade servers. However, most Hiperwall installations now use monitors with embedded computers for cleaner and simpler installations with only power and Intranet cables needed.

KCPD's Experience

The Kansas City Police Department's Terrorism Early Warning staff is using a Hiperwall video wall system to gather and share data and threats with more than 61 jurisdictions, including federal, state, local and private sector partners. The fusion center integrates law enforcement intelligence activities throughout the area and disseminates everything, from threat assessments to cities hosting large events, such as the Big 12 NCAA Basketball Tournament, to a database of blueprints of buildings like schools and hospitals. Troy Campbell, IT Specialist for the Kansas City Police Department, said he had no interest in a hardware-based solution, but focused on a Hiperwall software-based system.



Hiperwall® for the Kansas City Police Department's Terrorism Early Warning staff

Every day, the Western States Information Network (WSIN) provides supportive services which are critical for the United States law enforcement and criminal justice operations nationwide. WSIN ensures that collaborating law enforcement agencies do not conflict with each other's operations. To prevent accidental – but potentially dangerous – conflicts, WSIN began looking for a cost-effective video wall system which would enable 24/7 monitoring by staff analysts, all operations, surveillance, warrant services and training missions to promptly detect the proximity of other agencies; thus, they chose Hiperwall.

For more information, contact:

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About the Author: Bill Siuru is a retired USAF colonel. He has a Ph.D. in mechanical engineering from Arizona State University. His military assignments included teaching engineering at Wes Point, commander of the research laboratory at the U.S. Air Force Academy and Director of Engineering at Wright-Patterson AFB. For the past 35 years, he has been writing about automotive, aviation and technology subjects.