VuWall

HEALTHCARE EXCELLENCE

VuWall Provides a Transformative Visualization Upgrade to the Jewish General Hospital's C4 Command Centre in Montreal

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Located within CIUSSS West-Central Montreal, the Jewish General Hospital (JGH) is a leading healthcare institution that is dedicated to delivering user-centered care. In 2020, the hospital continued its pursuit of that mission with the creation of its Command Centre, known as C4, because its activities enable the hospital and the CIUSSS to be better able to Care, Communicate, Collaborate and Create. Here, representatives from a

number of CIUSSS directorates — such as Nursing, Rehabilitation and Multidisciplinary Services, Mental Health and Addiction, Fronline Integrated Services and the Support Program for the Autonomy of Seniors (SAPA) — gather and work closely with managers to oversee patients' care, from the number of beds available, streamlining discharge procedures to reviewing their current access points for care. C4 enables them to collect and view a large amount of medical data and logistical services for all of CIUSSS West-Central Montreal.

CHALLENGE

C4's first operational space was humble, providing a foundation from which to build the necessary infrastructure for a more comprehensive data analysis. It was designed as a temporary space until the group's operational needs were clearer. It housed 11 displays but lacked the visualization tools to easily access and manage the variety of data and information the team needed. In order to have an accurate understanding of patient needs and care, a key element of the C4's design hinged on multiple video walls driven by a comprehensive visualization system. The screens needed to be able to display a large volume of information from many departments; for instance, the latest information about the condition and status of patients and other healthcare users at JGH and within the CIUSSS. Additionally, this information needed to be presented from multiple perspectives with data originating from an evolving number of sites and departments across the network as well as from external partners. From the onset of the project, GoMultimedia was tasked with designing the space and its flexible visualization system that not only would provide for C4's current needs but also be able to address technological challenges in the future. Solotech, the 5th largest AV integrator in the world, was selected to build, deploy, and support the project.

Our goal was to provide a tool that not only meets the CIUSSS's current needs, but that can also adapt swiftly to the everchanging landscape of healthcare, information and technology. The dedication of the VuWall team was simply outstanding and demonstrates their commitment to innovation and excellence in healthcare."

- Dominic Régimbald Go Multimedia - Design Consultant



SOLUTION

C4 was relocated and expanded to a more central, spacious, and interconnected area on the hospital's main floor. This larger space allowed Solotech to install a total of 35 new LG video wall displays comprising 4 video walls: a 6x2 and 4x2 in the main room and 2 3x2 video walls in the adjacent crisis room. There are 9 operator workstations, each capable of securely sharing their own screen on any video wall with encrypted and highly secure RealVNC software. This powerful capability ensures that the C4 team can share information quickly, speeding up the decisionmaking processes, further improving patient care. In addition to the 35 screens, there are 3 satellite rooms across the building in cardiology and mental health departments, each equipped with a 2x2 video wall that can have access to the same sources as C4, to quickly and easily share information throughout the hospital. Driving the new screens is VuWall's video wall control and management solution. VuWall was chosen for its ability to deliver a seamless and flexible approach to deploying, managing, and controlling the visual content of video walls of any size.

C4's state-of-the-art video wall ecosystem is comprised of 12 VuWall PAK networked, multi-decode video wall processors. VuWall PAK processors can operate as standalone devices or be stitched with other PAK nodes to build an IP-based video wall that is infinitely scalable. This cost-effective, compact appliance allows integrators to simplify video wall deployments by reducing the number of connections and eliminating

a single point of failure, thereby reducing project risks and offering improved reliability. In addition to variable output support, PAK features multiformat decoding of up to 32 HD streams per device, including H.264, remote desktops, or virtualized browsers using VNC. It was perfectly suited to handle the complex and evolving content needs for C4.

There are 27 VuStream encoders installed: 4x E220/E240 dual-channel H.264, 5x VuStream 150 single-channel H.264, and 18x VuStream 350 IP KVM. These encoders deliver high quality video streams across the C4's network. VuWall's VuStream series brings low-latency, high-performance 4K video streams up to 4:4:4. The secure VuStream 350 IP KVM encoders allow staff to control their IP sources remotely with a keyboard and mouse. VuWall's 3x Application Servers ensure that C4 is able to stream, share, control, and visualize websites, dashboards, and applications across the network.

Finally, everything is tied together with the VuWall TRx Centralized Video Wall Management Platform, a powerful software to manage multiple video walls in mission-critical control rooms. At the JGH, TRx is running on a server cluster for High Availability (HA) and automatic failure. TRx combines AV-over-IP distribution, advanced multi video wall control, and KVM management. It allows users to share AV content over IP networks and control multiple video walls, facilitating the display and manipulation of content across various screens to attain a comprehensive view of critical information.

VuWall was instrumental in achieving the hospital's vision for greater collaboration between clinicians working across the continuum of care. C4 is the most advanced and robust hospital command center in the province providing the intelligence and insight that's essential for improving patient care. We're happy to report that as a result, C4 is contributing to a remarkable reduction in the average hospital stay by one day.

- Erin Cook

Director of Quality, Transformation,
Evaluation, Value, Clinical and Organizational Ethics, and Virtual Care

RESULT

Incorporating the VuWall video wall solutions into the new C4 command center resulted in significant improvements for the hospital staff and patient care. With VuWall's video wall platform, the team has a clearer, more comprehensive visualization of CIUSSS' activities and users. They can view a large volume of information from a diverse number of sources and real-time perspectives of what is happening at various CIUSSS sites. This enables the team to identify what situations need immediate attention and helps to speed up the decision-making process. As a result, the C4 team can make rapid, well-informed decisions on patient needs everywhere in the network, which enables the JGH to further improve overall care and health outcomes.







VuWall's advanced video wall and KVM technology helped our team of critical applications specialists to build the transformative system that the Jewish General Hospital had envisioned. VuWall allowed us to deliver the secure, reliable and easy-to-use solution that the hospital needed to achieve their goals. The system processes data and information from various sources required to make swift decisions, thereby truly transforming and maximizing patient care. Through the capabilities of the VuWall system, C4 has put JGH at the forefront of healthcare."

- Jonathan Henri

Director of Quality, Transformation,
Solotech, Global Market Leader - Critical Applications