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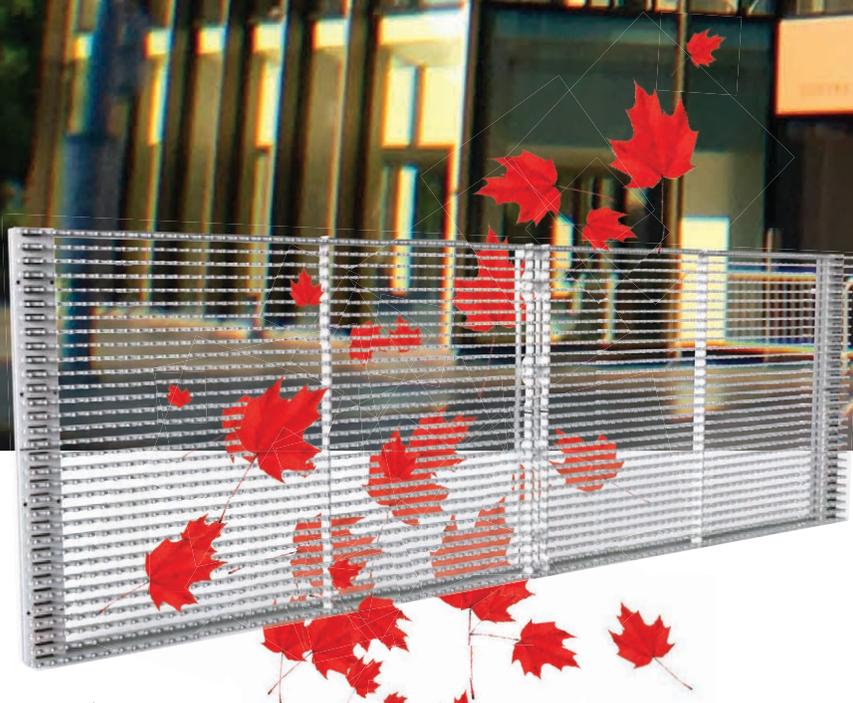
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GET NOTICED WITH TRANSPARENT LED DISPLAYS

ClearLED's almost 50-foot high transparent LED display is the proud centerpiece of the Ottawa National Arts Centre multi-million-dollar renovation. Launched in celebration of Canada's 150th anniversary, this architectural lantern illuminates the glass building. Finally, a display that has it all — high-resolution, second-to-none brightness, and up to 93% transparency.



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Picture Perfect

The changing face of the audio visual sector

by ROBIN BRUNET



Bang & Olufsen BeoVision Eclipse available from Commercial Electronics.

The underlying theme of a December 2017 webinar staged by the Audiovisual and Integrated Experience Association rings true to everyone connected to the AV world: that professional audiovisual (Pro-AV) technology is changing faster than ever before.

So fast, in fact, that remarkable breakthroughs quickly become the norm (as evidenced by home movie lovers who already take 4k resolution for granted), and new ways to do the same thing result in instant obsolescence (such as the mountains of entertainment discs now relegated to retail bargain bins – and largely ignored).

But the velocity of change accompanied by steadily diminishing costs means that opportunities to improve efficiencies in the home, boardroom, hospitality and other sectors are greater and more mind blowing than ever. Mike Chorney, president of La Scala, has distinguished himself by providing the best and most up-to-date AV components, media rooms, and related components (such as security and surveillance) to customers, and he notes that his business “has rapidly moved from centralized to integration to automation, with integration loosely defined as having elements of a home such as lighting and temperature, controlled by a single panel.

“By contrast, in an automated home, I walk in, and my home knows I’m home. Knowing the time of day and day of the week, it will go through a predetermined sequence. My home raises or lowers the room temperature, turns on the lights, opens the blinds and does anything else I’ve configured it to do. This is the type of house I currently live in and have been for roughly two years. This has been relatively easy to achieve with technology such as Alexa interfacing with our cloud-based network.”

Chorney, whose company is providing automation to new condominium projects as a way to enable the developers to distinguish themselves from the competition, points out, “voice recognition went from nine million to 17 million users in the U.S. in just three months, and it’s estimated that it will be in 58 percent of all households within five years. Despite our competition being what I would describe as confused at present, automation is fundamentally changing the way we interact with our physical world.”

As with anything that impacts lifestyles so quickly, AV advances are not without challenges. “So much of the advances are of the do-it-yourself, over the counter, ‘Internet of Things’ variety, and they are growing by leaps and bounds,” says Hal Clark, certified designer and director, residential design/engineering, for Commercial Electronics. “Moreover,

the rise of over the counter devices has been made possible by organizations such as Amazon – CEDIA partnering with third party firms to provide good, better, and best cookie cutter commodity solutions. But all this is pushing out custom professionals who provide comprehensive integration services, and it renders end-users enormously susceptible to hacking and other problems.”

Commercial Electronics develops tailored home networks from the ground up. “We take it from the set top box modem output onward,” says Clark. “This is a strategic quality process but necessary if the client wants secure and trouble-free performance.”

While Clark is concerned by the cookie cutter control of AV, he is just as amazed and delighted as any end user by the sheer velocity of change in this industry. “While 4k video resolution may be hot, in Japan 8k resolution is already in the works,” he says. “And yet, it’s still challenging for many end users to enjoy a genuine 4k viewing experience due to simple misapplications, such as feeding a 4k Blu-ray player into a standard 2k AV receiver and causing the receiver to automatically downgrade the image.”

Clark adds that of all the brands that best deliver advanced sight and sound, it would be hard to beat Bang & Olufsen, whose BeoVision Eclipse features the latest 4k HDR OLED screen technology and the

world's best TV sound. "There has been incredible advances in laser video projection, and with laser video prices declining, the technology is heavily used in the commercial settings as well as in upscale homes," he says.

AV companies themselves are evolving to optimize their capabilities in an industry of constant change. In October, AVI-SPL, a leader in transformative audio visual and collaboration technology, announced the acquisition of Canadian integration firm Sharp's Audio Visual, which will make AVI-SPL the first national provider of AV and collaboration technology solutions in Canada. "Our goal was to substantially increase our local presence and resources throughout Canada, to provide best-in-class services and responsiveness for our customers, while further enhancing our global delivery capabilities to assure a consistent customer experience worldwide," says AVI-SPL CEO John Zettel. With the addition of Sharp's to its existing operation, AVI-SPL will significantly enhance and expand its ability to design, build, manage, and support collaboration technology deployments.



LED walls and displays from GAV MGMT.

Unsurprisingly, service providers such as GAV MGMT Inc. are busy providing everything from AV and automation to digital signage, building illumination, and collaboration solutions to a variety of clients. Donald Nolan, VP of technology integration at GAV MGMT, says, "We're currently doing a lot of work in the corporate, retail spaces as well as the hospitality sector."

Specifically, the company is broadening its digital signage services by focussing on the design and implementation of large LED displays, such as the two LED walls it recently installed in Toronto, Ontario. "The walls are 45 foot by 14 foot and 25 foot by 25 foot," says Nolan. "The large one is geared to marketing purposes, and the smaller one, which faces City Hall, offers amazing abstract art content."

Not too far away, GAV MGMT has installed a floor-to-ceiling cascade of LED screens in Union Station. "LED is another technology that has advanced

dramatically in a short space of time, making it a great and effective marketing tool for brand names," says Nolan. "The beauty is that although these screens are functioning around the clock, their life-time is 100,000 hours to a 50 percent brightness rate – and with walls running only at 20 to 40 percent, display lifespans are able to extend much longer."

GAV MGMT continues to differentiate itself by adding emerging technologies once unavailable to AV integrators. "Companies like Colorbeam North America are really spearheading the initiative of delivering low voltage, tunable, LED lighting solutions for residential, commercial and hospitality applications through the professional AV channel. The future in AV is delivering all things low voltage," adds Nolan.

Jin Fan, CEO of ClearLED, presides over a new and unique LED application: transparent LED window posters. ClearLED's series of transparent LED window posters are available in three kit sizes: 42, 55 and 63 inches. Constructed using lightweight engineered aluminum and LED technology, the posters boast 60 percent transparency, high resolution, and 5,500-nit brightness.

ClearLED Posters can display static and video content, are visible 24/7, and can be seen from a great distance; plus, the poster content can be switched in minutes using intuitive software programming. "We released the posters in March and have been replacing print posters with digital ones for a major fast food franchise," says Fan. "The business potential for clear posters is enormous."



National Arts Centre LED media facade by ClearLED.

As if to showcase the potential of clear posters, ClearLED designed a giant custom 50-foot-high transparent LED media facade as part of the Ottawa National Arts Centre's multi-million-dollar rejuvenation. The architectural "lantern" illuminates the glass building with four additional outdoor light blades that face the street.

This customized ClearLED Wall installation has high-resolution, amazing brightness (8,000 nits), and up to 93 percent transparency. "We worked on this project with the architects for three years, and it is the largest installation of its kind in North America," says Fan. The project was also a technical challenge, as the 13 panels comprising the installation had to match the size of the window frames, and the chassis had to align with the steel beams almost invisibly.

Last but not least, Lyle Fuller, president of Wallworks Acoustic Architectural Products Inc., notes that the supportive elements that bring out the

best in AV technology are finally getting the respect they deserve from the general public. "Most people putting AV into their homes understand they require acoustical treatment, and so do people in the corporate and other sectors, as well as commercial architects. This makes our job a lot easier."

Wallworks, which is currently providing noise control for new school construction throughout Alberta, offers complete acoustic solutions for residential, commercial, and industrial applications via brands it manufactures and distributes such as Fabri-Lok Trak Systems, Barrisol, and Tavaspan. While technological advances aren't as rapid in this field of expertise as in other corners of the AV world, Fuller remarks that "our polycore panels, which are made from recycled pop bottles, are being used successfully for different functions, including acoustic cladding for interior partitions. They can also be hung from ceilings. It's interesting that although the panels have been available for six years, only recently have they been used for acoustic purposes – possible because they're now available in a greater range of colours." ■



Polycore noise control panels from Wallworks Acoustic Architectural Products Inc.

