



## PLACE BELL

Laval, Canada

Place Bell, a long-standing joint venture between the City of Laval, evenko and the Quebec Government, which is under the direction of La Cité de la culture et du sport de Laval, is a major, multifunctional cultural and sports facility in Laval, Quebec. Officially opened in September 2017, the venue is the culmination of a major development initiative to provide local residents with a complex for sport, culture and community events.

Place Bell has a 10,000-seat main arena - the home of the American Hockey League's Laval Rockets - that can be transformed into a performance hall - a 2,500-seat rink with Olympic-size ice for professional figure skating and speed skating, as well as a 500-seat rink for local ice hockey teams. With such a wide range of events and uses, Place Bell needed a technological infrastructure that could adapt and accommodate all types, sizes and complexities. With this in mind, the decision

Above: The interior at Place Bell.





was made to give the venue an IP-centric infrastructure - all the audio, lighting, video and broadcasting systems run over an IP network. The decision to go with an IP network at the heart of the infrastructure is a sign of the times, according to Mike Poirier, Director of Business Development at Solotech, which handled the integration of the arena's video systems, LED screens, lighting and intercoms: "Facilities have slowly but surely moved to a networked world; it's a reality now. So, AV-centric switches, like those from Luminex, made a lot of sense for Place Bell."

Benjamin Wahiche, Technical Director at TKNL, which was responsible for integrating all the audio and the closed circuit video at Place Bell, was in agreement: "IP-based systems are no longer a choice - they are the way to go. If you want to deliver the flexibility that customers expect, IP-based systems are the solution."

"Place Bell is the biggest IP-based system we have ever deployed - and one of the largest Luminex networks in the world."

The IP-centric infrastructure will keep Place Bell ahead of the curve right into the future, as Luc Gelinas, Partner and Technical Services Director at project consultant, Trizart Alliance, explained: "With everything running over IP the challenge is always inter-operability with different kinds of equipment. But Luminex is able to handle all the major protocols involved in AV with ease and without requiring the end user to have a deep knowledge of programming switches."

The system at Place Bell features a large complement of Luminex GigaCore switches. The network's backbone is a mix of ring and mesh topology of single-mode fibre with failover paths for fast recovery, a hallmark of the RLinkX functionality by Luminex. Complete filtering of all the multicast traffic generated by all the protocols is

also featured.

Hugo Larin, Director at Luminex America commented: "We have worked on various projects with Trizart and they have been a real promoter of IP infrastructure for these systems. They see real time/live AV and lighting needs of venues as independent systems with specific quality of services, traffic filtering, time awareness. This is exactly what GigaCore is all about."

The main audio system at Place Bell was integrated by TKNL, with a NEXO line array system used - one of the first NEXO systems used in a large arena in North America.

The audio system contains 14 clusters, with each cluster configured using three GEO S1210 line array boxes, two S1230's, two LS18's and four PS15 R2's that cover the ice rink/floor portion, and two STM M28's that serve as monitors for the national anthem.

The Q-SYS integrated and scalable platform





from QSC played a leading role in the audio setup, too. Three Core units were used for the Place Bell project - two Core 500i processors for system management and one Core 250i for the main sound system. The use of these QSC processors facilitates system integration thanks to pre-programmed functionalities within the Q-SYS system. What's more, the Q-SYS Core processors offer unprecedented scalability to accommodate future expansions of the system. To manage the various individual zones, 12 QSC network touch screen controllers have been installed at various strategic locations throughout the facility, and will be used primarily for source, volume, and public address management. In all, 14 QSC CXD4.3Q amplifiers integrate perfectly with the Q-SYS system and allow control and monitoring of the facility's speakers by zone. In total, the Trizart team selected more than 150 loudspeakers, a mix of QSC Acoustic Coverage and AcousticDesign surface-mount, ceiling-mount and pendant-mount loudspeakers. Due to the large number of loudspeakers, the distribution by zone greatly facilitates management and control of the system. The audio system also comprises of 41 Luminex GigaCore 16Xt PoE ruggedised AV

switches with front displays all equipped with RPSU redundant power supplies each supporting two GigaCore 16Xt main PSU and PoE PSU. Two GigaCore 26i PoE AV network switches complement the system, too.

"The secondary audio system has speakers in the concourse, hallways and in the dressing rooms - all on the same network, all communicating with each other and all supported on a Luminex backbone," said Benjamin. "The large number of Luminex switches gives us hardware redundancy; we have two rings of switches on a redundant base."

"If you have done audio all your life, moving to a networked environment is a different world. You want a simple user interface, and Luminex makes it very comfortable and easy for the end user without requiring any special training. Luminex products are engineered to fill the need of AV networks and accept every product we deal with," he added.

Place Bell's IP TV network, or closed circuit TV network, was also integrated by TKNL. It broadcasts advertising, cable TV feed and promotional content within the facility. The network is comprised of 23 Luminex GigaCore 26i PoE AV Network switches



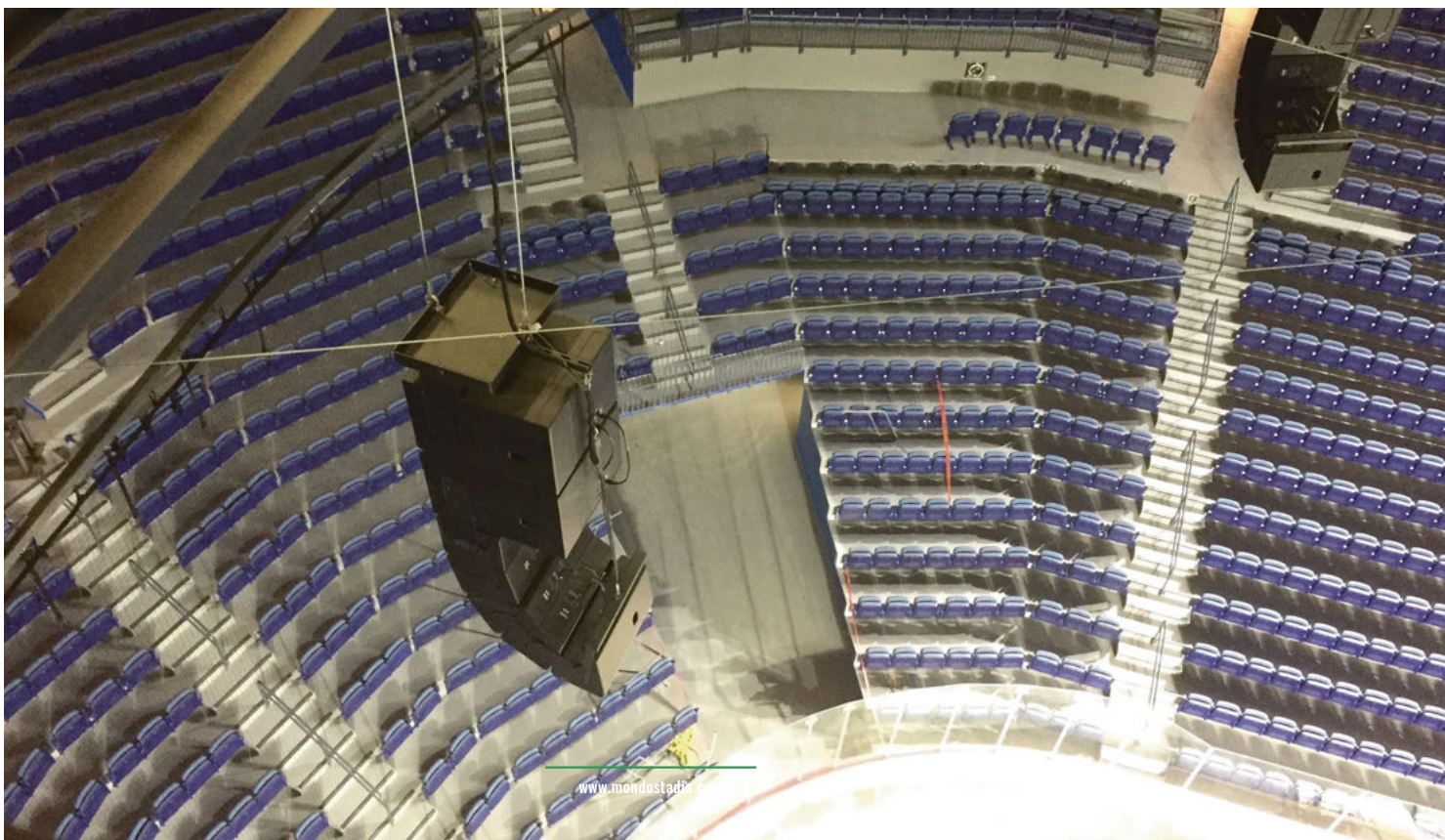


each with a 3GB aggregated link that provides increased bandwidth and redundancy to three main core switches.

The system was designed to support up to 24 video sources, including cable TV feeds, local SDI feeds and a Navori player for digital signage and dynamic content, on a complete AMX SVSI system. There are hundreds of destination points, with 24 SVSI 2000 series encoders used to go to more than 180 destinations. For in-room control, there are 50 Crestron touch panels used also. "It took approximately six months for the com-

pletion of the main PA, secondary PA, and all of the IP TV network," explained Stephane Laurin, Business Development Manager at TKNL. "We determined that the NEXO system was the best solution for this venue. One of the key criteria in this project was intelligibility that is part of NEXO's technical prowess.

"Like all arenas, we had to deal with concrete that causes reverb. So, we needed to install a large number of NEXO speakers in order to cover every section. This type of environment requires highly directive speakers solely focussed on







## TECHNICAL INFORMATION

**INSTALLER** - Solotech, TKNL  
**CONSULTANT** - Trizart  
**BRANDS** - Luminex, NEXO, QSC, AMX, ETC, Chainzone, Ross, AJA, Grass Valley, Riedel  
**WEBSITE** - solotech.com / www.tknl.com / trizart-alliance.com / www.luminex.be / www.nexo-sa.com / www.qsc.com / www.amx.com / www.etcconnect.com / www.chainzone.com / www.rossvideo.com / www.aja.com / www.grassvalley.com / www.riedel.net

the listening experience for everyone attending events in the arena.”

The uniformity of the sound, no matter where visitors are seated in the amphitheatre, is very impressive. The install provides a seamless sound right across the arena - exactly what is needed for a venue of that size.

Luminex feature heavily in the lighting system at Place Bell, with Solotech using a Luminex GigaCore 14R PoE ruggedised AV switch and a GigaCore 26i PoE AV Network switch. An ETC ION 1000 console is networked with ETC Net 3 and sACN protocols to sensors, relays and Luminex DMX nodes.

GigaCore products also support all the LED panels that were put in place by Solotech. They include the Chainzone Imposa trivision (three-sided) scoreboard on the public plaza; the main arena's four-sided Imposa scoreboard with a power ring below it; and Imposa LED panels over each exit and the team entry doors.

As well as the lighting, Solotech also integrated the full HD-compliant control room, which is

used for the broadband capture and distribution of events at Place Bell. The control room features seven cameras, a Grass Valley Korona production switcher, AJA audio and video processor and Ross sync, test and reference generator running on a network consisting of four Luminex GigaCore 26i switches and two GigaCore 16Xt.

Elsewhere, the complex communications system for the production crew and officials in the penalty box uses a Riedel Tango AES67 intercom system and Smart Panel.

Since opening, the whole range of technology installed at Place Bell has been put through its paces. The Laval Rockets' hockey season is underway, while a number of shows - including a performance by Cirque du Soleil that opened the arena - have taken place.

The technology has performed well, with the range of systems all delivering exactly what was expected - reliability and high quality. With everything in place, Place Bell is sure to be an important arena for years to come. ●