

or Winter Olympic athletes, the 2010 Vancouver Games were over in a matter of weeks. For Cobra Integrated Systems, the Games were the first major deadline in a security project that's carried over well into 2011.

Cobra was contracted by BC Place to replace the bulk of its cameras, in time for the Feb. 12, 2010 Winter Olympics opening ceremonies, and to continue to install security during a major \$550 million renovation which began after the Games.

The work was intense and the deadlines were short, says Scott Knutsen, co-CEO of Cobra, based in the Vancouver area. Cobra was awarded the contract on Jan. 29, a Friday, leaving less than two weeks.

"It was a lot of work in a very short space of time, but the one thing for sure is that opening ceremonies weren't going to move," he says.

Cobra responded to an RFP from BC Place and recommended the stadium upgrade its existing analogue camera set-up with Ocularis, a physical security information management (PSIM) platform from OnSSI. The system included four servers with three RAID5 storage arrays, three client workstations with touchscreens and 106 megapixel cameras.

BC Place "takes up four city blocks, so with such a large footprint, you couldn't get enough resolution out of a conventional analogue camera to do what they needed to do," says Knutsen. "Even though they had a number of cameras all over the building, you'd need to have four or five times the number in order to accomplish what you can do with megapixel nowadays. That was one of the big determining factors to move towards an NVR/ megapixel solution."

The moment the contract came through, the clock started ticking for Knutsen and his team. He and two other senior managers at Cobra set to the job immediately, working through the weekend so they

could hit the ground running on Monday Feb. 1.

"That gave us 48 hours to get ahead of our crews, who were basically coming in on Feb. 1. But we had done a lot of planning before this. We had prepared our vendors, our distribution. Everything had been thought out — if this contracted was awarded on the Friday, that stuff was ready to ship out by air first thing Monday morning. People were basically on standby."

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The first major obstacle Cobra faced was installing a brand new camera system with limited access to the stadium's infrastructure. BC Place had recently installed new fibre, but due to Olympic security, the communications rooms had been locked down prior to Cobra's arrival. That left the integrator at a crossroads: use a wireless solution, like network mesh; re-cable everything from scratch, which came with its own set of problems, since nothing could be run through the communications rooms; or find a way to work with the existing cable.

"(Our option) was basically using the legacy cable and converting it to a network, essentially," says Knutsen.

The equipment Cobra ordered on the Monday arrived on the Wednesday, and the crew could get to work on the install. A lot of work had to be done more or less on the fly, says Knutsen. "It wasn't hard spec'd," he says. "We didn't know all the layouts. We had to go in and find out all of these issues and go back to the customer at the end of the day and say, how do you want to deal with this, how to do want to deal with that? They had to get us the answers virtually within the hour so that we could react.

"It required a lot of people and a lot of co-

ordination to keep everybody moving as fast as humanly possible to get this thing done within the timeline allotted."

The project was completed in nine days, with 13 technicians working 12-16 hour shifts.

Cobra had to satisfy BC Place, as well as criteria laid out by the Vancouver Organizing Committee for the 2010 Olympic and Paralympic Winter Games (VANOC) and the RCMP. "We had one official customer then we had two other ones that had a say in it," says Knutsen. Cobra trained VANOC and the RCMP to use the OnSSI system, which was used for multiple incidents that took place in BC Place during the Games.

Knutsen says there wasn't time to deploy more advanced analytics like facial recognition prior to the Games (there were so many law enforcement personnel on site that it wasn't deemed necessary) but Cobra is now getting the chance to take a second look at upgrades to BC Place.

Upon completion of the Games, the stadium embarked on an ambitious renovation project, upgrading its facilities, including concourses, washrooms, access ramps, concessions, and adding a 7,500 sq. meter retractable roof.

Post-Olympics, time is less urgent for Cobra and the company is able to complete phase two of its contract with BC Place, installing new equipment as needed as the facility grows. The bulk of the work done a year ago will stand the test of time, even though it was built on older architecture.

"There were a lot of man hours put into converting the existing cabling. There would be zero benefit for them to change that, to put in CAT5 cabling and fibre cabling back to the communications rooms. The structure that we did had tons of bandwidth in order to accomplish what we needed to accomplish. We were never maxing it out, even with megapixel cameras."

The BC Place renovation is due to be completed by October this year.