

BRAMALEA CITY CENTRE opens its doors to IP

By Neil Sutton

After an extensive renovation, the Brampton, Ont. mall adds IP cameras to its existing analogue equipment and builds a new control centre. The project manager, the integrator and the security manager explain their choices and how they plan to handle the challenges that come with increased foot traffic

Bramalea City Centre, one of the largest malls in the GTA, recently went through a major growth project, in the process of updating its security system it effectively doubled the number of cameras on site.

BCC, located in Brampton, Ont., added another 417,000 sq. ft. of parking and 323,000 sq. ft. of retail space, including two more restaurants and 85 stores, as a result of the expansion. A renewed security infrastructure that could keep the mall safe and running smoothly was an essential component of the build.

Terry Hoffman, president of consulting firm Hoffman & Co., was hired on as risk professional, design solution consultant and project manager. The first step was to carry out a needs assessment with BCC's property management firm Morguard Investments Ltd., based on the existing technology, its age, value and anticipated duration of operation.

Morguard had been continually updating its security infrastructure, adding cameras each year, so it made sense to build on that existing investment and future-proof for continued growth. The obvious solution was to use the analogue cameras that were already in place and add IP cameras to the new areas of the mall.

"A hybrid system made great sense here, considering the financial commitment they'd made over the last two or three years. There's nothing wrong with their existing 96 cameras. There's nothing wrong with the way they were controlling those 96 cameras through an analogue matrix switch and a DVR," says Hoffman.

"Looking down the road five years from now, does it make a lot of sense to spend a lot of capital on technology that may have aged itself? We're future-proofing the system by going to an IP hybrid technology — utilizing the existing good camera images, bringing them over Ethernet back to the control room. The other option is to replace all the camera technology which at this point didn't make any sense."

"I spent a lot of money in the past couple of years getting the system to where it was before we started this project," adds Shaun McGrath, security manager for BCC, who has worked at the mall for the last 12 years, half of which he has been directly involved with its security systems. McGrath started on the front line and worked his way up to manager.

"For the past six years, we've continued to add to the platform we had in place, which has been here for probably about nine years," he says. "We've replaced DVRs. Now with the expansion we've decided to change and go in a new direction with the IP system."

Morguard selected an IndigoVision infrastructure (IP cameras, NVRs and software) with some additional American Dynamics (analogue PTZ cameras) equipment in parking areas, and through an RFP process, contracted with Whitby, Ont.-based AC Technical Systems to do the install.

The advantage of installing security in a brand new construction was that it could be optimized from the outset.

"The RFP was based on a design build. Through the workshop of Sean's security team, we defined what the real functionality and operational requirements were. Me as the industry expert brought to the table what the expectations are for today in

2010 of images per second, retention, resolution, all that kind of stuff. We put that together in one document," says Hoffman.

McGrath says he was able to spot problem areas early — higher security areas like washroom corridors, service and loading areas — anywhere where there was a greater opportunity for crime. "From Day 1, we were directly involved, myself and my staff, in areas where we could see potential problems with the expansion," he says, "We were able to get involved right from the start, which was great. I was able to move cameras where I wanted them before the construction began."

As part of the design build, BCC built a new security control room and server room. "The old control room was totally knocked down." Says Hoffman. "We utilized the exact same square footage."

"The walls were being taken down around us," adds Chris Daigle, vice-president of installations and customer service at AC Technical. "The new IT room wasn't built at that point. So we started off with, what cabling do we need to move one rack area over to the other. What infrastructure do we need as far as conduit goes. We brought in staff to run all the cable. Once everything was ready to go, we moved the rack as one whole piece to the new area."

There was very little downtime to security during the move, he says: the mall had no video surveillance for approximately three hours, and was up to 90 per cent of its cameras operational within four.

Daigle says BCC was flexible in terms of work hours. In previous retail installs, AC Technical was forced to come in after hours when stores were closed to the public, but since most of the security work at BCC occurred during the actual construction phase, it was less of an issue. Where Daigle had to be careful was with co-ordinating his team with the general contractor construction crew, electricians, and other specialists.

"We had a lot of meetings prior to coming on site. I brought my installers and my technicians on site to do a walkthrough of the entire location. We provided a schedule, knowing what areas we could get into, what areas we couldn't get into, working as a team with everyone else involved. So far, it's gone very smoothly."

Daigle worked closely with McGrath's team to ensure that they could work efficiently. For example, BCC's security would close off certain levels of the parking lot the night before AC Technical was scheduled to come in. That helped to expedite the installation process in those areas.

"By having our schedule be flexible, it allowed us to move from one area of the mall to another without major downtime, without costing a lot of man hours," he says.

The system was designed with growth in mind. The cameras are set up across a distributed architecture — there are eight different IP nodes, which provides a lot of flexibility in terms of camera placement.

"We really feel that this is going to be an amenity to our property that our customers will grow to appreciate and give them the comfort level we want them to have when they visit our property," says Andrew Butler, general manager at BCC for Morguard. He anticipates the current annual foot traffic of 12 million people should grow to 17 or 20 million people in fairly short order, thanks to the recent expansion.

McGrath expects the new infrastructure should make security easier for him and his staff, by moving control on to one platform, "it will be a lot easier to control.

"It's going to allow us to have better coverage of our property. It will be easier to do surveillance and video investigations. Right now, it's a challenge to go to each individual DVR and download video, or to surrounding properties to get video. With this new platform, we're able to go to the security control room and do it all there." ■



Chris Daigle, vice-president of installations and customer service at AC Technical Systems (left) and Shaun McGrath, security manager at Bramalea City Centre, in the mall's new control centre.