

Designing security systems for casinos and hotels means balancing the need to have coverage and stringent security, without making patrons feel as if they are being constantly watched.

Security at Casinos and Hotels



Mike Prsa, P.Eng., vice president at Mulvey & Banani International in Toronto, has seen a great advance take place in security systems in the last decade. “No longer are security systems simply hardwired door locks and pixelated gray scale images of vacant corridors,” he says.

In advanced buildings that have IP (internet protocol) converged networks, the security systems become part of a common protocol environment and comprehensive “building intelligence,” explains Prsa. Thus a security camera might be used not only to capture images: “It is also a motion detector to activate lights and HVAC, a photo sensor to dim lights and draw motorized blinds, a security camera as well as a video conferencing camera, a microphone and speaker for two-way synchronized audio/video communication — and this [camera] is only one of hundreds of IP-based devices deployed in a building.”

For Jason Chiu, associate and group lead of HIDi Security Consulting in Toronto, the advances in technology are a highlight of his work.

“I’m a very technology-focused person so I find it invigorating that I have to constantly stay up to date in an evolving industry. That’s a big plus in my job.”

But Chiu knows that for casinos and hotels, the issue is not just finding the right technologies, but also meeting clients’ operational needs. With casinos and hotels, the biggest issue is finding a balance between having good security coverage, while ensuring guests do not feel as if they are constantly being watched.

Roman Dabrowski of Canon Canada, manufacturers of security video systems, agrees. “Hotels and casinos are trying to find a balance between the needs of protecting privacy for clients and protecting property. So they want to make sure that they have coverage in case something goes wrong, but they don’t want to make the clients feel that they’re watching their every move.”

In practical terms it means finding discreet locations for the cameras — something particularly crucial in the casino gaming rooms where cameras cover every table. But cameras are needed throughout these

complexes: in entry foyers, at the ends of corridors, at emergency exits, and roof doors, for example. Depending on the location, different cameras, with different coverage and lighting sensitivity are required.

Coordinating technical needs

Chiu says that as security system designers they spend a lot of time talking to clients and finding out what their needs are, both technically and operationally. They have found that sometimes electrical engineers who aren’t security specialists leave too many specific decisions up to the contractor, which can lead to problems for owners down the road. For example, owners find out the system they have installed isn’t flexible and scalable, or it requires a lot of investment “at the back end.”

Another big chunk of Chiu’s time is spent working with other members of the design team during the design phase to coordinate the security system with the other building systems. For example, the location specified for camera equipment might conflict with ceiling light fixtures or an HVAC duct. Working together they can develop a solution that mitigates problems during construction.

And the most advanced solutions are not the right solutions in some circumstances. “Sometimes clients jump to newer technologies, thinking [they’re] beneficial,” says Chiu, “when in fact if you deep dive into the requirements, it may be appropriate to consider older, tried and true solutions.”

For example, when an owner adds an IP-based camera to an older coaxial cable network, there can be a

delay in the camera's response time.

As a result, some casinos are choosing to stay with analog camera equipment and coaxial analog cable, or with hybrid systems, he suggests.

Dabrowski agrees the reason casinos are sticking with older technology is that it can be very disruptive to completely rewire a casino. Instead of closing down operations which means losing revenues, owners may put in IP cameras and install converters to enable them to reuse the existing coaxial cable. However, Dabrowski says they should do a cost analysis, since converters can be as expensive as the cameras.

Dabrowski has seen designers overlook something important during the early design phase: the need to provide separate security equipment rooms. "The days of putting the recorder underneath the guard station are over," he says.

The security equipment rooms have almost data-centre requirements. They have to be secure "so that people don't get in to damage the equipment and change things." And they require power, cooling, and network connections. "The engineer has to make sure that he communicates with the architect to provide the appropriately sized rooms and services," Dabrowski says.

For casinos and hotels it's also important, he says, to provide centralized uninterruptible power supply (UPS), both for the monitoring equipment and the cameras. The building's emergency generator might take time to kick in, which means "the cameras may start to shut down and then turn on again. But if they're on centralized UPS power from the security equipment room or data centre the cameras never shut off."

Choosing a supplier

Dabrowski says the security systems industry is seeing fierce competition with an influx of cameras from overseas. A camera with the same fea-

tures made by different manufacturers can range from \$500 to \$5,000. He says it's important to know that the manufacturer has reliable products and will stand behind them.

As a consultant Chiu says: "We try as much as possible to specify multiple systems to help our clients get the

most competitive bid possible. But there are always going to be cases where they need special features and we have to do our homework. There are quite a few situations where we end up with just one manufacturer that makes the particular product our client needs." **CCE**



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