



Migrating from Guarding Services to Electronic Security

There is a sizable gap between the security systems used for luxury apartment buildings and upscale homes, compared to mid-range homes in Asia. Most homes do not have security systems installed or have basic stand-alone intrusion sensors linked to a monitoring site. Developers are working more closely with security system providers to secure new condominiums and homes.

BY ROSA CHEN

Technological development in access control, intrusion detection and video surveillance has reached the residential market. Though perhaps not the quickest adopters, residents pose a strong market for security vendors.

GIVING ACCESS

Residents most commonly request

for access control systems. Customers are typically looking for good-quality locks with electronic control, said Kee Hua Lim, founder and Principal Architect at Ezra Architects. Few demand traditional keys because they are troublesome, too easy to duplicate and manipulate.

There are countless poorly made electronic locks in the market, and

users often find lock mechanism to be of low quality. "Particularly with fingerprint readers, many lower-quality biometrics readers fail after just a few months of use," Lim of Ezra Architects said.

Today, more home owners are requesting single card or keys that can be programmed to grant or deny access to any doors within the house,

Lim of Ezra Architects said.

Smart card systems can offer this. "People want to have control over their apartment. They don't want management to have access to their homes," said David Rees, Regional Manager of APAC at Salto Systems. Condominium systems can be programmed to manage perimeter doors and shared public doors through a software system. Homeowners can control the issuing of key cards to their apartments. These same cards can access all the public facilities so users do not need two separate cards.

Shadow cards can be issued, which allow users to cancel a key without the original being present. To lessen the inconvenience caused by lost or damaged cards, these cards help users get back on track with the system without deleting or reissuing all cards, Rees said.

At luxury apartments, biometric locks are gaining interest. However, smart cards with PIN codes are more reliable, said Eric Zheng, Integrated System Director, APAC, Ingersoll Rand Security Technologies. "Three to 5 percent of the population have problems with enrollment and cannot be verified by fingerprint readers because their fingerprints are too shallow or thin."

Remotely controlling door locks has increased electronic access control deployments. "Users can manage locks via Web-based or mobile phones," Zheng said. Vendors have partnered with local telecoms for mobile phone remote access, launched in Australia and New Zealand.

Mobile telephony plays a growing role in Asian security solutions. In India, telecommunications have bypassed the landline infrastructure

and gone straight to mobile, said Nick Willis, CFO of ECKey.

Bluetooth-based transmission from mobile devices to access control devices is generating interest. Proximity readers have ranges measured in inches, while Bluetooth readers can read up to 30 feet, ideal for garage remotes at apartment buildings, Willis said. "Garage remotes are expensive, with prices up to US\$50 per remote. When tenants lose them and need replacing, this becomes a costly hassle for building managers. With Bluetooth readers, tenants simply turn on the Bluetooth signal on their mobile phones, and when they reach within 30 feet of the reader, the signal will be caught and the garage door opened."

KEEPING OUT INTRUDERS

In 2009, the intrusion alarm market for global residential security was \$675 to \$700 million. This figure is expected to increase 2 percent in 2010, said Melvin Leong, Program Manager at Frost & Sullivan. APAC accounts for 13 percent of the global market.

The market includes personal emergency response systems, which can be categorized as hardwired panels, wireless panels and hybrid panels, Leong said.

"More users are requesting smart intrusion alarms, where systems can give owners the ability to arm or disarm specific parts of the house, or group the sensors intelligently. "I'm surprised that many alarm systems out there are actually quite primitive

and do not offer these functions," Lim of Ezra Architects said. "As an architect, I usually look for effective alarm products that are aesthetically pleasing, such as an LCD touch screen arming keypad."

Most alarm panels in Asia are wired, especially for large houses and bungalows. However, with intruders cutting phone lines to disarm alarm systems, residents realize these systems are not safe, said Michael Jip, CEO of SMD. "GSM-based alarm systems are much easier to install and less complicated."

Most people install simple alarms which are not connected to monitoring centers. When alerts sound, they alert homeowners, who then contact the police if necessary, said Johan Haryanto, Director of Hotware Indonesia. PIR, window and door contact sensors are the most widely used sensors.

Remote management is not only increasing access control equipment sales, but video verification is also witnessing high uptake. "Many of our customers have subscribed to this service," said Charles Lim, Country Manager for Singapore, ADT Security.

For upscale houses, alarms are akin to small perimeter systems. Long-range PIR sensors are installed within perimeter walls, said Mark



▲ David Rees, Regional Manager of APAC at Salto Systems



▲ Nick Willis, CFO of ECKey

Tan, Sales Manager for Security Products Division, New Datche Philippines. These sensors are usually connected to a monitoring center.

In Southeast Asia, monitoring alarms is simple but responding is not. In large cities, traffic is snarled by motorcycle and vehicle congestion. "In Jakarta, it can take up to four hours to go from the south to the north. For this reason, we have alarm response units patrolling the city 24 hours a day, to decrease response time," said Jeff Lampe, GM of Electronic Systems, Indonesia, G4S Security Services.

VIDEO SURVEILLANCE

Owners of mid- to high-end apartment buildings represent the largest market for residential video surveillance. Apartment video systems are typically analog, while change has occurred quicker in the homeowner market, where video surveillance is far from prevalent, said Brian Lohse, Director of Business Development, Secure-i.

Developments in wireless video and home automation have resulted in low-resolution video at front doors. "The video has to be high enough quality that you can recognize people, but low enough so you can send it over the

bandwidth," said Bob Heile, Chairman and CEO of ZigBee Alliance. This is usually lower resolution at a quarter of VGA, streaming from 5 to 15 fps, with better images requiring more bandwidth.

Video door phones can now keep track of house guests. "Our terminals have a memory function that automatically takes a photo of the guest," said Juan Campos, Regional Manager for APAC, Fermax. "If users are absent during the visit, they can check the terminal's memory upon returning home."

Homeowners who do deploy video surveillance live in upscale houses, and are a minority. Even these homes use cheaper analog cameras, which usually cost \$200 each, Haryanto said. "Homeowners are not comfortable with running their computers 24 hours a day for continuous real-time monitoring. With the strain it has on electricity usage, most prefer to use stand-alone DVRs for recording." For large homes, roughly four to six cameras are used on average.

Equipment purchases depend on the owner's requirements purpose. "Customers may want to continually record, or record only when an alarm is triggered," said Martin Worndl, VP



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of Product Development at Lorex.

To simplify setup for IP-based video systems, technicians can remotely log in to a household's network. This temporary control over the user's computer can allow engineers to effectively configure devices or DVRs, Worndl said.

A historic bottleneck of residential IP video has been recording, which required a dedicated computer for storage. With the advent of NVRs, video can be streamed directly onto these devices, which can also store other digital data like MP3 audio files, Worndl said. These devices are popular in consumer and residential markets.

"I believe the classic preboxed DVR kit with cameras, Siamese cables, connectors and a monitor is on the decline," Lohse said.



▲ **Johan Haryanto**, Director of Hotware Indonesia



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