

# Security and safety

## concerns driving physical security market

Rapidly growing global concerns over safety and security are driving major growth of the physical security market, particularly 'smart' perimeter security, CCTV and electronic surveillance.

BY NATIONAL AFFAIRS  
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Researchers say that huge growth is expected in the physical security market in Australia and around the world in both the government and private sectors over the next few years.

One recent Reuters estimate predicted that global government spending on homeland security products and services should have reached over US\$140 billion in 2009, a 9.5 per cent increase over the previous year.

A report commissioned by an Australian company, Future Fibre Technologies (FFT), which has developed world-leading fibre optic intrusion detection technologies, has found that global spending on perimeter security is continuing to increase, in the face of rising threats to security.

And research into the global market by security analysts says growing concerns over safety and security have been pushing a rapid increase in the deployment of CCTV or video surveillance systems all over the world. A report by New Delhi-based RNCOS says the global CCTV market, currently estimated at more than US\$13 billion, is likely to grow at a compound annual growth rate of more than 27 per cent during 2009-2012.

"With such high growth projection, the market appears as a huge opportunity area for the CCTV players including equipment manufactur-

ers, distributors and operators," a spokesman said.

On the home front, the Federal Government recently announced a \$4-million upgrade to the CCTV system at Parliament House, Canberra, with an intelligent/analytical system capable of identifying and drawing attention to suspicious bags and vehicles.

A senior executive from Australian-based FFT Global says the increased investment in perimeter security – predicted to reach more than \$4.5 billion in 2010 – is being fuelled by factors including a heightened threat of terrorism, consequently escalating insurance premiums, increasing international travel, technological innovation, and increased infrastructure spending.

FFT provided ASM with the findings of its report: *Boundaries of Security – Global Trends in Perimeter Security*.

According to Alec Owen, International Client Manager at FFT, the technological advances which were primarily confined previously to the military and aerospace industries a couple of years ago are now emerging in the latest-generation intrusion detection systems.

"Techniques such as intelligent learning algorithms, neural networks and advanced multi-parameter signal processing are being employed to dramatically improve the recognition of real intrusion events versus nuisance alarms," Mr Owen told ASM.

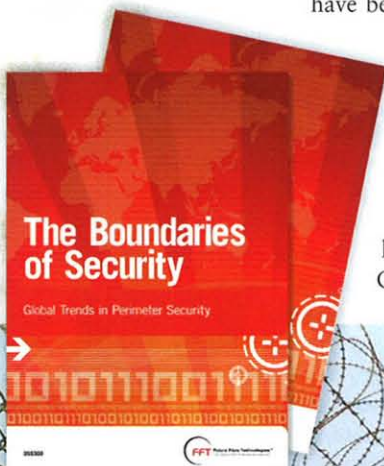
"We produced the *Boundaries of Security* to give our customers and industry partners an edge in understanding the technology. The pace of these technological advances can make it challenging to stay abreast of the latest developments and we believe this report can help with that."

In response to a series of questions from ASM, Mr Owen said his company tended to provide intrusion detection solutions to larger installations and projects.

"Our Australian customers over the past year or so have mainly consisted of Government (both Federal and State), military, the petrochemical industry (LNG plants, refineries etc.) and in the area of critical national infrastructure protection with installations such as power generation plants and the like.

"I feel that as more of these infrastructures critical to Australia's security, economic stability and trade are identified, there will be an increased requirement and pressure from the Government to protect these even if they are privately controlled and operated."

Asked what percentage of the available Australian market was getting involved in improving perimeter security and if enterprises were not, what were the reasons they should, Mr Owen said:



"There is very little data specifically available about perimeter security globally due to the sensitive nature of most of these installations.

"From a commercial organisations perspective, Australia is generally considered to be a 'safe' environment to operate in, and being an island our natural coastal defences tend to support this concept against external threats.

"However, as was seen recently with the Holsworthy Army Base incident, you cannot overlook the fact that the threat can just as easily be internal.

"I think the primary pressure for improving perimeter security in the Australian market will come from governments in the form of increased recommendations, regulation, and possibly even legislation, especially for those industries identified as being critical to Australia's security and economy."

Mr Owen said more than 90 per cent of FFT's income came from exports, and the company had seen no let up in demand despite the global financial crisis.

"We are partially insulated from this as we export to just about every country in the world, so as one economy slows down, another picks up the slack.

"A critical part of FFT's export success has been establishing a direct presence and office in these regions to provide both sales and technical support in the local time zones. We now have multiple offices across the USA, plus offices in Europe, the Middle East and Asia Pacific," he said.

"Unfortunately due to the confidential and sensitive nature of our customers I cannot discuss individual or specific installations or contracts, but I can confirm that recently FFT has received orders for perimeter intrusion detection systems from a number of international airports, as well as LNG and petrochemical plants, intrusion detection systems for various government agencies in the USA, plus the protection of additional defence and critical infrastructures globally."

Mr Owen said FFT had a long-term R&D strategy in place to continue to develop and enhance its existing product lines.

"For years, the most common end-user complaint in the perimeter intrusion detection market has been the number of nuisance alarms generated by the various systems regardless of the core detection technology employed," he said.

"None of these older intrusion detection technologies or architectures have effectively tackled the problems caused by traffic, rain, thunder, lightning strikes, animals, trains etc.; instead, employing fairly crude techniques that simply desensitised those problem-causing areas to mask it.

"They have not actually fixed the root issue at all – that is, looking at the signal itself to discriminate between what is a 'real' intrusion versus just a nuisance event.

"FFT began actively addressing these customer concerns a number of years ago with the development and subsequent release of its Advanced Recognition and Discrimination (ARaD) signal processing technology.

"Despite its success, we continue to work on further improvements in signature recognition, neural network software and artificial intelligence to completely elimi-

nate nuisance alarms without trading off system sensitivity at all, and we make these improvements available to all of our customers as a simple software upgrade.

"FFT's approach is absolutely unique in the industry, and gets our systems considerably closer to the 'holy grail' of perimeter intrusion detection – that is, 100 per cent detection of intruders with zero nuisance alarms."

Future Fibre Technologies' export success was recognised with two separate awards at the 2009 Governor of Victoria Export Awards ceremony, held in Melbourne late last year. FFT was winner in the Small to Medium Manufacture section and commended in the Innovation Excellence category.

On the CCTV security front, the RNCOS report said growing safety and security concerns worldwide had led to a rapid increase in the deployment of CCTV and video surveillance across the world.

"The market has emerged as a big opportunity area for the CCTV players including equipment manufacturers, distributors and operators," it said in its report entitled *Global CCTV Market Analysis (2008-2012)*.

"Our thorough research anticipates the global CCTV market to be worth more than US\$13 billion in 2009, which will grow at a compound annual growth rate of



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**"THE GLOBAL CCTV MARKET IS LIKELY TO GROW AT A COMPOUND ANNUAL GROWTH RATE OF MORE THAN 27 PER CENT DURING 2009-2012."**

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more than 27 per cent during 2009-2012, indicating the immense growth potential for the market in the coming few years."

Key countries covered in the report include Australia, the US, Canada, the UK, Germany, Italy, Russia, Turkey, the Philippines, China, Thailand, Malaysia, Singapore, Indonesia, Taiwan, India and Argentina.

The FFT report outlined the key drivers fuelling investment in the perimeter security market which included higher insurance premiums, international travel and an ongoing terrorist and protestor threat.

FFT said the last decade saw substantial advancement in perimeter intrusion detection technologies, increasing the reliability and accuracy of probability of detection (POD), lowering false alarms and improving performance (differentiating between intruders and environmental disturbances).

Innovation has been driven by numerous smaller developers of niche technologies. The plethora of intrusion detection sensor systems now on offer and under development includes electromagnetic point sensors, geophone point sensors, fibre optic fence sensors, infrared beams, buried magnetic lines, fibre optic mesh, buried seismic lines, vibration sensors and video event detection, the report said.

On the question of increased government spending on security, infrastructure and alternative energy, FFT said Reuters estimated global government spending on homeland security products and services was expected to reach \$141.6 billion in 2009, a 9.5 per cent increase over 2008. ■