BY RIZ AKBAR

CNB goes IP

ECS International Security & Investigations was awarded the contract to install a high quality, real time, IP expandable CCTV system for two branches and a key asset of Colonial National Bank Fiji Limited. They choose DVIS video servers and PACOM high resolution cameras.

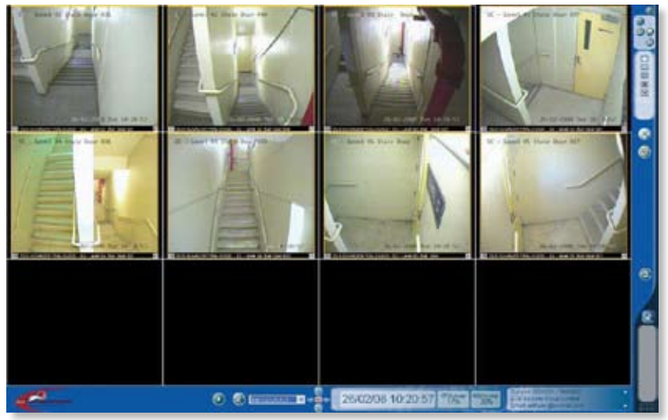
FINANCIAL applications demand continuous, high quality and certifiably accurate video surveillance of high risk areas, particularly those involving high value transactions. And for a widely distributed organisation, such as a bank with many branches spread over several islands, the ability to integrate the individual systems into a single network is highly desirable.

Colonial National Bank began operating in Fiji more than 130 years ago as a life insurance company. Today it has 17 branches distributed across 4 islands. Its headquarters is situated in the capital Suva, on the main island of Viti Levu. Currently, Colonial is owned by the Commonwealth Bank of Australia Group. With over 670 employees and 140 registered insurance sales agents, this is a major operation and it demanded an integrated security solution with a proven track record in real time video and the ability to expand easily. Vital too was that the solution be capable of not just additional video surveillance expansion but access control integration should this be required.

According to ECS International's manager, corporate services, Riz Akbar CPP, Colonial has implemented a culture of security to protect its staff, facilities and financial process.

"As part of this implementation, in 2007, CNB engaged ECS to train its key security team on security operations," Akbar explains. "Importantly ECS International is the only accredited DVIS, Inner Range and TECOM installer in Fiji and it was natural that when the issue of CCTV came up we should be involved.

"The CCTV system was planned after several consultations with ECS International. To commence the roll out, CNB management decided to install the first DVIS Video Server at its Pacific House Branch in Suva.



CNB's building services manager, Edward Hoerder, was CNB's project administrator for the CCTV installation and Akbar says Hoerder had clear requirements for the new CCTV system.

"CNB's specifications were to install a CCTV system that would meet its current basic environment and also be upgradable in the future," Akbar says. "In short, CNB wanted a modular system that would integrate seamlessly with other sub-systems in the future."

Hoerder agrees.

"CNB wished to implement a reputable system that was tried, tested and proven," he says. "It had to meet our current needs and needed to be easily expanded as required."

THE APPLICATION

Akbar explains that the system is most easily understood as a single widely distributed large scale NVR with dual streaming multiple monitoring points and redundant storage.

"It was required to have multiple monitoring points with differing camera allocations at each point so that security officers could concentrate on their own areas of responsibility and also be excluded from areas outside their security level."

"Most of the existing cameras across the three sites had degraded beyond useable functionality and some branches had no video surveillance whatsoever".

According to Akbar, in terms of scope, the systems comprise of 76 cameras and 3 DVIS video servers with varying user privileges. CCTV system functionality is dictated to a significant extent by the features of the management software driving the system. At Suva Central the DVIS Video Management platform has been deployed and is being used primarily to provide surveillance of commercial and residential tenancies.

"Importantly, the Suva Central installation has separate layouts of high resolution cameras protecting multi-level carpark areas and fire stairs. This was incorporated into the current system designed by ECS," Akbar explains. "Comprehensive fire stairs and carpark surveillance of this nature is rarely seen in high rise buildings. CNB's vulnerability assessment showed that perpetrators were most likely to hide in fire stairs and then gain access to parking levels in order to ambush executives.

"Moreover, the CNB has a strict live view and playback criteria. ECS had to ensure that 4CIF real time recording and playback was available at critical locations such as tellers, vault and cash-in-transit passageways."

Hoerder states that he was pleasantly surprised at the image quality on playback which in his opinion was closed to DVD standard.

A relatively high volume of transactions in Fiji are still conducted in cash. However, electronic fund transfers at point of sale and acceptance of credit cards across the country are gaining pace. Criminal elements perceive this convergence to be an opportunity to fleece unwary customers through a variety of methods such as ATM and credit card scams. As a result Hoerder says CNB specified high resolution, real time playback that could identify criminals and be used in prosecutions.

"Tourism is the backbone of our economy and we, as a leading financial institution, must ensure that visitors have confidence in our ability to catch and prosecute criminals," he explains. "We in turn need to have confidence in our CCTV systems to deliver positive results."

According to Akbar, surveillance is considered vital to the bank's ability to secure its operations and provide court admissible evidence.

"The building facility control centre required simultaneous view of site layouts to respond in a timely manner to intruders and emergencies."

Akbar says the video management software supplied by the manufacturer needed no customisation and only a small amount of additional programming was required.

"The DVIS software supplied by Data Video Interactive Solutions Pty Ltd provides control of almost every aspect of the available functionality of the equipment. The only additions were the database programming specific to the equipment's

"Systems redundancy, backup storage and dual streaming for central video management were essential requirements. In short, CNB wanted a modular system that would integrate seamlessly with other sub-systems in the future if called for"

configuration."

"A dashboard GUI consisting of interfaces to the BMS, Cardax FT, Car Park Control, Fire Alarm, Licence Plate Recognition and Intercom System is ready for integration during stage II of the project."

"A key value-added feature offered by ECS was the high level interface to Cardax FT and Inner Range Concept 4000. Cardax FT is installed at Suva Central, an iconic structure in the heart of Suva. Inner Range has been the preferred security management system across its 22 national branches," Akbar explains.

THE INSTALLATION

Akbar says that while this is not a huge installation there were still challenges for the installation team.

"Chasing of existing concrete walls to install conduits for hiding cabling inside the walls was the usual challenge," he says. "Surface installation was out of the question and the extreme weather conditions such as tropical cyclones and hurricanes mean commercial buildings in Fiji are traditionally constructed of high grade materials such as reinforced structural concrete.

"Chasing cables through this type of concrete requires skill and persistence with careful attention to detail in sensitive areas such as vault rooms which were designated dust free zones," Akbar explains.

"Conduits had to be laid with bending radius to cater for future cables and service work. And further making-good with this installation had to be of an exceptional standard in order to meet CNB's décor. This was all undertaken prior to chasing."

Getting a clean power supply was another challenge.

"Clean and constant power supply is a major issue that faces electronic installations in Fiji," says Akbar. "Power surges are a constant threat and risk to the success in major installations.

"Installers acclimatised to western operating conditions quickly learn that unless surge protectors and filters are fitted, there will be damage to components often not covered by the manufacturer's warranty – this was a real concern for CNB."

Akbar explains that to counter this issue, CNB

has installed essential power redundancy for all its mission critical equipment which ensures that components last their expected lifecycle.

At CNB all remote equipment is powered from its associated controllers in the usual way.

"There's also the threat of lightning strikes from tropical thunder storms that dictates ample spares must be kept in stock locally."

According to Akbar, the hardware installation covered 3 weeks and final commissioning another week.

"To make matters interesting, we were hit by a category 3 tropical cyclone during the cabling process. There was a rush to secure the works-in-progress and ensure that all penetrations were 'cyclone proof'.

"A common issue in the tropics is water seepage through conduits," Akbar says. "Heavy tropical showers throughout the year are a fact of life and steps must be taken during the installation to minise the impact of water damage to equipment.

"Three employees participated in this installation, one labourer, one technician, and the assistant project manager who also conducted fit-out, programming and ground training," he says.

"The installation was carried out by local ECS technicians who have received formal integration training in Sydney. They were responsible for all the fitout and programming."

Akbar says no support was required by ECS from the manufacturer or the distributor.

"Design, installation and integration was completed using ECS staff," he explains. "Head-end equipment was supplied by DVIS Australia and cameras by PACOM NSW branch.

"DVIS managing director Andrew Wu shared our excitement and passion in winning a major client such as CNB. This support was important because a key issue for ECS is the fact there are no DVIS branches in Fiji," Akbar explains.

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"This means there's nowhere to run if spares or new stock are required so supplier support and parts availability back in Sydney really are critical to our success at CNB."

According to Akbar another key part of the installation process involved training of CNB's properties staff and branch managers.

"Operational and technical training was provided by ECS' local technical manager who had attended a certified training program in Sydney," he says. "The technical training was successfully conducted for the CNB property administrator, Edward Hoerder and branch managers."

"This training included system configuration, user access management, basic troubleshooting and administrator level controls over the system," he explains.

"Further, the fact that local law enforcement agencies require AVI formats for footage review and at the same time instruct us to save a native format for prosecution purposes, meant that branch managers had to be trained to distinguish and understand the two formats."

THE RESULTS

Now the system has been installed and commissioned, Akbar says that security onsite at CNB branches is demonstrably improved.

"CNB's security officers can now view multiple areas and the system ensures that only authorised persons are permitted to access sensitive areas," he says. "Any complacency about the system was quickly arrested by capturing of some unsavoury incidents – CCTV is now taken seriously.

"The system at CNB fully meets the design criteria by providing real time video and play-back at 4CIF."

Akbar says he is proud of the young local team that carried out the installation and commissioning.

"ECS believes in giving opportunities to local young technicians, allowing them to develop their electronic security skills."