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## INTEGRITI IS LOGICAL

Logical Services has installed a beta application of Inner Range's new Integriti intruder, access control and building management platform linking 10 sites for Frankston City Council.

**P**RESSED up against the gentle curve of beach that stretches unbroken from St Kilda 40km to the West to Sorrento, 25km to the South East, Frankston is a city undergoing a transformation. Its beaches have been recognised as among the best in the state but it's the city around the beach which is really starting to shine.

As Melbourne's growth has accelerated and suburbs have mushroomed, Frankston's bayside location, affordable housing and growing population have seen the city designated as one of the Victorian Government's six Central Activities Areas (CAA). Being designated a CAA is a big deal for Frankston and it will result in the city's rebirth as a vital part of the south-east growth corridor of a greater Melbourne.

The Victorian Government's stated CAA priorities include building jobs and services, fostering strong and diverse retail sectors, supporting specialised goods and services, enhancing opportunities for housing, improving public transport and last but not least, building vibrant centres of community activity and public services.

It seems to me that the spirit of renewal now permeating Frankston was one of the reasons Frankston City Council decided to go ahead with an offer from integrator Logical Services and security system manufacturer, Inner Range, to completely upgrade Council's access control and alarm system as part of a beta agreement. It's an agreement that will see legacy Concept 4000

controllers and Insight software swapped out for the latest Integriti controllers and Integriti software.

Driving out to see the system I wasn't sure what to expect from Frankston. Heading into town, it seemed to me similar to many outer suburban centres on the sprawling river basins of any major Australian city. Two things that were noticeable were the volume of quality new housing and the building activity and roadworks in the town centre. Something else that stood out was Frankston's enviable location, its toes in Port Philip Bay.

I met Brendan Bain of integrator Logical Services and Inner Range's Russell Blake at the Frankston Civic Centre, a couple of streets up from



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bay. After meeting the boys we walked through the Centre. Once inside my impression was of a busy and friendly working environment, and this feeling was enhanced as I met Council staff.

The installer of Council's Integriti solution, Logical Services, has supported Frankston's access control system since 2001. Logical Services started as a one-man band in 1995 and Bain now has 9 staff working for him. On the younger side of middle age, Bain possesses the

open gaze of a strongly grounded personality and the man's fundamental nature can be discerned from the title he picked for his own business card - senior technician.

Having worked on the ground breaking Concept 3000 in the 1990s, Bain smilingly lays claim to having installed the second ever Concept 4000 system. With close to 2-and-a-half decades experience working with Inner Range solutions, Bain has the sort of accumulated experience that makes his company the ideal integrator for a beta site like this one. It also gives him a sharp perspective on Inner Range's Integriti solution when compared to Concept 4000.

"To pick up a Concept 4000 manual and read it cover-to-cover is pretty daunting now - all those minor changes over the years have really added up," Bain explains to me as we chat in the Council's busy lunchroom.

"With Integriti, while there is a lot of 4000 and Insight thinking, it has just been streamlined, consolidated and made easier to use. I think of it as the 4000 on steroids and I think other installers who know Concept 4000 and Insight will have no trouble with Integriti. Actually, I find it easier."

If you think an end user would jump at the opportunity to score a complete upgrade of their access control and intruder detection system at no cost from a quality installer, you're wrong.

"It's quite difficult to get companies willing to do a beta installation and you want something that's local, you want there to be no intelligent door access modules because that's the only issue of incompatibility," explains Inner Range's Russell Blake.

"You also need an integrator supporting the site that is both capable of doing a beta upgrade and wanting to do the job. End users are sometimes suspicious that there are strings attached because essentially they are getting thousands of dollars of hardware, software and support for free."

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Bain explains that Logical Services approached a number of its customers trying to find end users who were interested.

"Probably 99 per cent of them thought there was a catch - they thought it was too good to be true - that something was being thrown on them - that they were guinea pigs. Many said no thanks," says Bain.

"We also spoke to Frankston City Council. They've had long experience with the Concept 4000, as well as with the Insight software and we approached them with Inner Range's permission to offer an upgrade to the Integriti platform to make sure Integriti could do what Inner Range wants it to do. After undertaking some



investigation, they jumped at the opportunity.”

### THE COUNCIL SOLUTION

Council has 10 different sites including the main council building, the Frankston Civic Centre. In terms of size, the Civic Centre alone has 40 doors and across the 10 sites there are around 200 doors - a reasonable sized distributed system. Cardholder numbers are hefty, with around 2000 registered users and there are a large number of alarm sensors that have now been integrated with Integriti.

Until the upgrade, each site had a Concept 4000 installed and managed its own system using Insight software installed on a server and some local workstations. According to Bain, this inefficient siloed architecture was a key driver of the upgrade.

“Council has 10 sites but it really only has one system, even though there are multiple Concept 4000 solutions. Each site manages these Concept 4000s across their own LANs using Insight software. And currently with Insight Virtual User it's not that easy for a novice to handle the system remotely. Nor is it easy for admin staff to take global action.

“It's here the new Integriti software is a real benefit to Council,” Bain explains. “If admin staff enter a new cardholder into the system it automatically goes out to 10 sites, rather than them having to fumble around upgrading 10 sites individually. Installing Integriti hardware gives Council the advantage of a distributed installation that feels like a single large system.”

The initial installation of the Integriti software was designed to exist alongside the existing Insight software. Integriti software cannot manage Concept 4000 control panels so it was decided to test these waters first and then upgrade the hardware afterwards. By all accounts the process was an easy one that took only a few minutes to

complete.

According to Bain, it was not first Integriti installation Logical Services has undertaken but it was the first multi-site solution.

“We did the Department of Primary Industries at Knoxfield initially - that was the first Integriti system to go in and it was a single stand-alone site of 70 doors and a couple of hundred users,” Bain tells me.

“At the Department of Primary Industries we did the software installation on a local machine. The software went in with no dramas at all. We have not gone back once for any repairs or upgrades to DPI, so it's been working very well.

“While DPI was an ideal first site, Frankston Council with its multiple sites, was an excellent second installation,” Bain says. “Working with Council's IT department, we started the process by loading Integriti onto the server and a client machine as a test and making sure that databases were created. That went a lot quicker than we thought it was going to.

“We didn't want to find out after installing hardware that we had software issues so the initial job was installing the software and making sure that was ok. There's no hardware dongle with Integriti so it's a lot easier to install than Insight is. You don't have to worry about virtual USB drives and whatnot - you just load it straight on.

“From our perspective as an installer, it's a simple process. You follow the steps and if you accept all the defaults it's very fast and very easy,” Bain explains. “We did not accept all the defaults, however. We tried to look outside the square slightly and try and throw some curly ones at the install.

“As a result, we didn't use Integriti's SQL Express, we used an SQL instance for Integriti on a completely different server to the one the Integriti application is loaded onto. We then got them searching across the network for the other database and it worked. That's the way Council likes to run their systems - all databases are held on separate servers away from applications for redundancy and backup.”

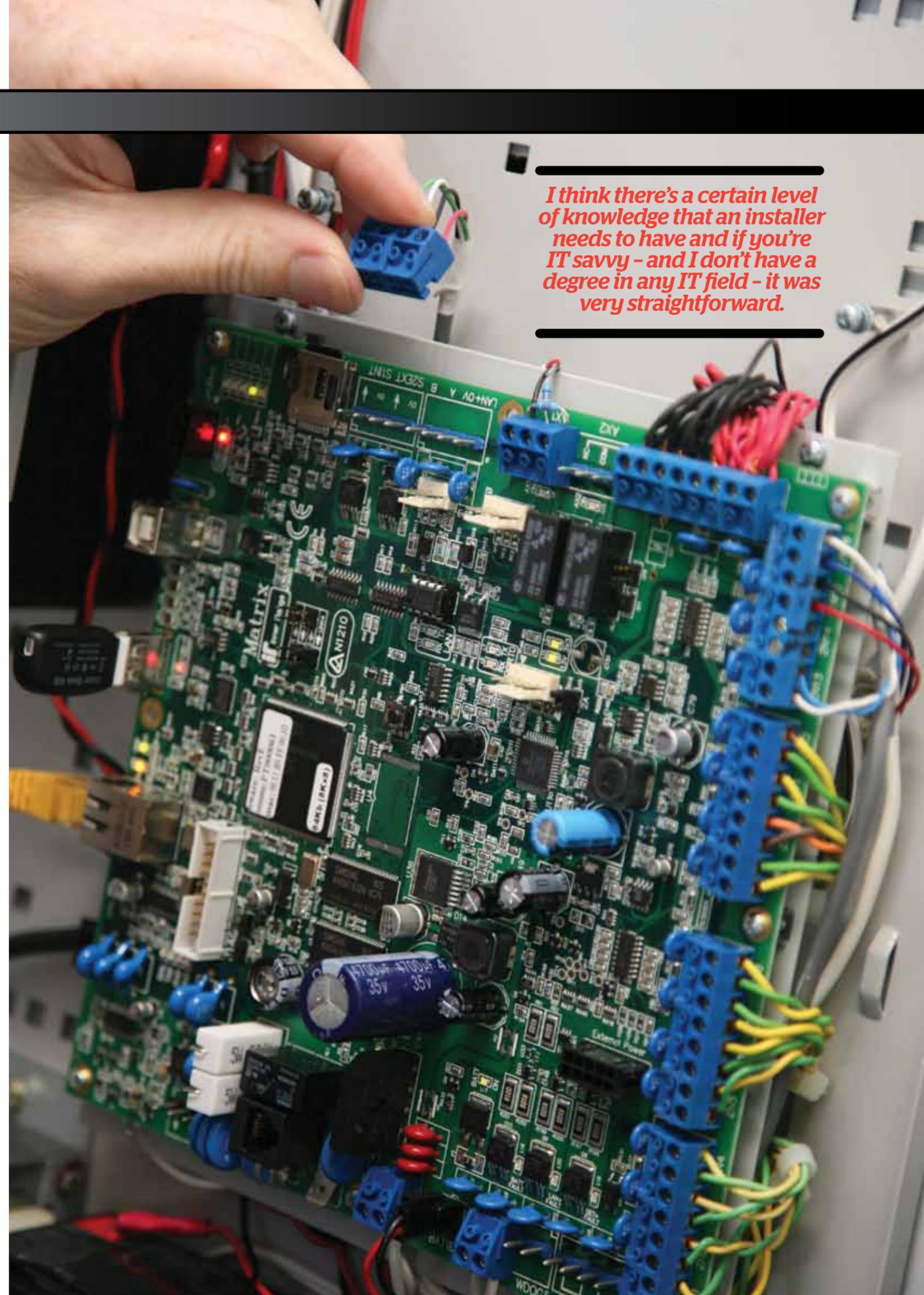
Importantly, Integriti incorporates a database migration tool that took all the 2000 cardholders in the database and put them into Integriti without any fuss. That 2000-strong user list is a good-sized database for a system with 10 sites and represented a proper test of the system.

“This was a good test case for Inner Range and allowed us to see whether everything was going to work,” Bain explains. “It was intuitive from our perspective, very much so. I think there's a certain level of knowledge that an installer needs to have and if you're IT savvy - and I don't have a degree in any IT field - it was very straightforward.”

### INSTALLING INTEGRITI CONTROLLER

In terms of physical specifications, the Integriti

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controller is a brawny control module that has a 32-bit ARM CPU, 64Mb of RAM and 2Gb of Flash memory. It's also got integrated Ethernet on board allowing IR to develop smartphone applications for remote management and uploads. There's a Unibus expander, USB host and USB slave capability, with USB host used for store and review, for backing up programming and updating firmware.

Meanwhile the slave USB connection can be used for porting to laptops for programming. The controller also has a microSD card slot and is delivered with 2GB, though this could be upgraded if required to 4, 8, 16 or 32GB options. Design limitations are 16 million users and 65 thousand controllers. Importantly, Integriti has real-time embedded architecture just as Concept does, yet has PC-style dimensions. This gives the best combination of reliability and networkability.

According to Bain, when it comes to the hardware, the actual process of upgrade involves simply taking the Concept 4000 controller PCB out of the housing and replacing it with the new Integriti control module.

"Everything is backwards compatible so we can deal with all the old legacy cardreader modules, terminals, expanders, everything," explains Bain. "All the readers, locks, RS-485 cabling, door controllers, all these stay the same.

"There will be no change of firmware in any field modules, everything was found when the

integrity module was installed and it came up on the software. It went off without a hitch. We are expecting the same thing here."

Bain says that at DPI the installers had contingency plans in the form of an extra-large enclosure that could fit 2 modules at once.

"We had the Integriti controller sitting there with the 4000 sitting under it and we literally just hot-swapped the LAN from one to the other. That was our redundancy and we still have it sitting there in case we need it - we'll take it out soon as it's obviously not required.

"Here at Frankston Council with the smaller sites we did not worry about the double enclosure, we just took the 4000 PCB out, put the new Integriti PCB in - we were confident it would work.

"The larger sites at FCC - the Civic Centre in particular - we kept that small piece of redundancy sitting there in case we needed it but we never expected we'd have to use it."

Bain says the process of doing the remote sites was as simple as changing over the control module, reconnecting the Ethernet cable, and in the Integriti software, finding new modules that appeared on the LAN. This is one of the best features of Integriti - automatic discovery of controllers on the network. It's a powerful addition to any enterprise access control solution and a blessing for installers.

"We've kept the remote control modules at each site at FCC," Bain explains. "Technically you would not need to put a remote controller onto each site if you did not want to go down that path but for redundancy and to make sure each site is autonomous in the event the network goes down, a remote controller on each site is a good thing to have."

## OPERATION AND MANAGEMENT

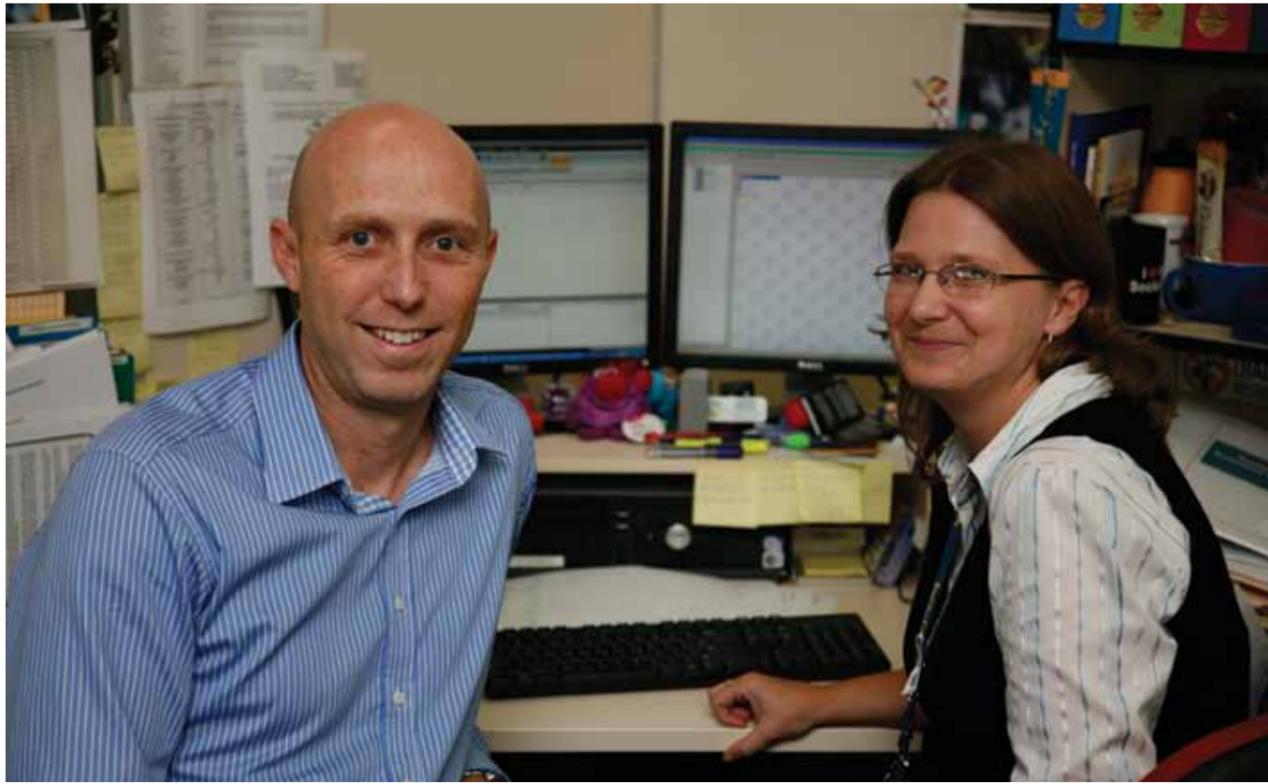
Part of the complexity of Frankston City Council's access control system is getting your head around the dimorphous nature of system management before, during and after the upgrade. The key to this is comprehending the fact that each of council's remote operations is largely independent from the others.

Before the Integriti upgrade, these independent remote sites had their own installations of Insight software and self-managed and self-monitored their sites. Now with the Integriti upgrade, remote sites can be given access to self-manage their own systems while an administrator at the Civic Centre can see and manage them all. Both these layers of management take place on a single WAN-based system.

Making the changeover in management more complicated is the fact the initial rollout of Integriti was done with one Integriti client at the Civic Centre and other sites were added as single clients one at a time over a period of a couple of months.

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During this time, Council ran with 2 versions of software - Integriti at the Civic Centre and Insight at the remote sites, the latter shrinking in number as the installation team brought all 10 sites onto Integriti.

As we talk, I keep trying to establish the exact nature of the management of the system post-upgrade in order to get a feel for the geography of the final system. Will the system now be centrally managed from the Civic Centre or will management be handled at the remote sites or both? I ask.

"Each site will still manage its own cardholders day-to-day," explains Bain. "The Integriti software can be set up so operators can only manage parts of the system - that was definitely a feature we had to make sure was still there for this upgrade.

"So, we've got software administrators that can only look at say, the Arts Centre. Cardholders can be signed into the system remotely and this can be done at any site where there is a client login to the software - they can create cards, do photo IDs, view events.

"Most locations have a nominated site that handles the administrative function of card creation for them and for many sites it does happen to be here at the Civic Centre but there are some remote sites that can do parts or all of that for themselves. So yes, each of the remote sites is largely autonomous, which was the way the systems were rolled out many years ago. But they are also centrally managed."

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#### **THE INTEGRITI WORKSTATION**

When you're undertaking an upgrade, a key motivator is enhancing the simplicity of the software and according to Bain, Integriti is now far easier to drive.

"Everything is now in one application with Integriti, you don't have to launch separate historical applications and then unity applications - that's so much easier for the end user," he says. "And then there's easier management of cardholders.

"To be able to enter a cardholder and have their privileges broadcast out to every site immediately - to delete a user and have the cardholder removed from 10 sites instantly - it's just so much simpler. You don't have to log into 10 different systems and individually delete a cardholder. In the same way,

a new user is entered into the global system once and is populated once."

Handling the system for FCC is security administrator, Laura Myles and as part of my exploration of the system we wander through the heart of the Civic Centre to chat with her about how the system handles. As we walk Bain explains to me that Myles is the first user to go onto the Integriti software platform from Insight and her in-depth knowledge of Insight made the update to Integriti very smooth.

When we arrive we all look at the Integriti solution running on Myles' workstation - I've never seen it in the flesh before. In appearance it's very simple and straightforward - all operations are handled through the one interface. There's a Windows 7 look to the GUI with a strip across the top containing icons.

There's an editing screen, tabs indicate what part of the system you're editing and all of the history appears in a window as opposed to having a separate window open for that purpose. There are also live statuses so if an operator wants to monitor specific things - door openings or closings, gates - then this can be handled on one screen.

"When we had the guys at Inner Range give a demonstration of Integriti, it looked a lot simpler to me than Insight is," Myles tells me. "Not having to log-in to each site separately is great and when you delete someone you simply do one delete and they are gone. There are 2000 users but not all of them have access to every site so this remote management really helps me."

According to Bain, Myles has embraced her role as security administrator with gusto.

"Laura takes on anything we offer that will assist her job and runs with it - it's been a big help. She's very competent with Insight.

Next, I meet Arthur Koutsimpiris, the IT administrator who helped the Logical Services team install the Integriti software.

Was it easy? I ask.

"Yes, it all went very smoothly," replies Koutsimpiris. "It was good - we run a virtualised environment at FCC so Integriti ran up pretty quickly. We are not using one central SQL server, that's separated as well. The application runs on one server and the database on another and the software handled it quite easily - it took about 5 minutes.

"Once we understood the relationship between the application and the database it was a matter of assigning the rights to the database. All we had was an executable list time and you could then do it blindly," Koutsimpiris says.

"In my opinion, it was easier to install than the previous version. That took a couple of hours, this time we took only 5 minutes to get the database up and running and Laura's workstation was up 5

minutes later."

As we head to the server room to check out the racks Bain explains that FCC is the first application in which off-the-shelf hardware has been used.

"This was the first site we've loaded the software onto our customer's hardware," he explains. "Previously at DPI, the initial single site, we provided a server from Inner Range, so using FCC's gear has been a good test."

The rack installation is clean and tidy - as you'd expect. FCC is a Dell house and all the equipment is well organised and sorted out.

#### **CONCLUSION**

This installation at FCC is a vital step in Inner Range's pending full release of the Integriti platform - the latest evolution of what is undeniably Australia's pre-eminent access control, intrusion and building management system.

When it was pre-released late in 2011, Integriti was touted as having been designed to deliver scalability, ease of installation and simple programming through server clustering, system programming and auto discovery of devices. At FCC those claims from Inner Range have been shown to be no idle boast. All these capabilities have been exploited to offer Frankston City Council an enterprise solution with central and remote management capabilities that change the game for medium and large applications.

Easy programming and ease of upgrade - from initial installation to importation of databases were also central to the development of Integriti and it seems obvious to me talking to Bain and Koutsimpiris that Inner Range's engineers have achieved this in spades.

Also clear is that while Integriti is a big leap forward when compared to Insight, it's also recognisable and comprehensible to users and to installers of Concept 4000 and the Insight management solution.

Of course, all this talk about functionality and ease of installation has no value if the solution itself is not reliable and easy to use and it's here that Integriti most distinguishes itself, according to Bain, who makes a direct comparison with Insight from his own experience.

"Before we upgraded The Department of Primary Industries to Integriti we would have a help call in relation to Insight at least once a week from that site," he says.

"Since the upgrade we've had 1 support call in 4 months with a request to explain how to use some part of the software. This shows that Integriti is very intuitive in how it works. We can clearly see from our own call register that the software is a winner for us to roll out. It saves frustration for us and most importantly, is saves frustration for the end user." ▀▀▀