

Sagem Morpho: Finger on the pulse



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South Sydney Corporate Park has deployed the largest biometric access control installation in Australia using Sagem MorphoAccess technology and BioMatch management software integrated by Biometric Innovations and installers Austral Surveillance and Kings Security.

SECURITY people are a conservative bunch and this mindset is most apparent when it comes to biometric access control, a technology suite that deserves plenty more attention than it's getting. There are 2 things that have held biometrics back in the real world - the first issue is dollars and the second is misconceptions about reliability. As it turns out, both these myths have long been put to rest.

In the medium term, biometric solutions will always repay their investment thanks to zero card costs and a reduced management demand that saves hours of work each week. As for reliability, the National Institute of Standards and Technology's painstaking and independent MINEX II test forum has just announced that Sagem's MorphoAccess algorithms are twice as accurate as their nearest competitors and meet all its PIV and FIPS standards for access control credentials. Importantly, Sagem's clever kit blitzed NIST's MINEX I tests in 2004 and this latest success really just confirms Sagem's credentials as a biometrics manufacturer of serious quality.

Just as importantly from a local perspective, Sagem MorphoAccess is proving highly capable in a major application at F. Hannan Properties' South Sydney Corporate Park (SSCP) where around 150 MA-200 and MA-500 readers are networked using a fibre loop and existing IT infrastructure to provide high security access control for more than 10,000 users.

What's so sweet about this installation is that along with handling the needs of tenants at the 7 hectare site at Alexandria, the fully networked MorphoAccess readers at remote sites including Wyong and Kiama are also managed using the excellent BioMatch software across a secure VPN from a central location.

It really is impossible to understand this installation without taking into account the size and potential for expansion of its remote locations. The Wyong Technology Park alone is massive at 30 hectares, with space for hundreds of tenants, and its size guarantees this MorphoAccess biometric installation will double and even triple in size over the next couple of years.

"The biometric MorphoAccess system of networked readers we have is our primary access control system," explains F. Hannan Properties' security manager, Jason McCombe. "The decision to go with

biometrics came down to cost over the long term – management was very focused on what was going to be the most cost effective solution.

“Obviously with such a large site – South Sydney Corporate Park has multiple tenancies - management costs escalate quickly. As a rule every tenancy would have different keys, or large numbers of access cards – both of which are extremely time-consuming to manage,” McCombe says.

According to McCombe the cost difference with biometric card readers means biometrics are around 30 per cent more expensive installed than proximity.

“They do cost more going in but the ongoing maintenance is infinitely easier for us and ongoing costs are far less expensive given there are no cards or keys to worry about,” says McCombe.

“With MorphoAccess we have a biometric reader on each door and we set up our access control authorization levels through the BioMatch management software,” he explains.

“As well as it being far more cost-effective for us to use a biometric reader than to juggle proxy card access or physical locking devices, biometric readers are also much easier for end users to manage. They don’t have to remember to bring anything with them.”

McCombe says coming to terms with the complexity of the SSCP site compared to managing single organization sites was a key challenge but he credits the biometric access solution with simplifying operations.

“When I first started working here the challenge was managing the different aspects of such a dynamic site – there’s a large number of tenants and it’s growing fast,” McCombe explains.

McCombe says there are around 50 tenancies on the SSCP site and each tenancy has at least one biometric reader. There are also general site applications which include readers on every single car park boom gate as well as every lift, the site’s petrol bowser and the gymnasium. There’s also a pay station for the site’s underground carpark with an integrated biometric reader. In all McCombe estimates there are probably 150 biometric readers across the SSCP site in Alexandria.

“Along with door and vehicle access we also have biometric readers attached to our site vehicles where they are linked to the ignition systems,” says McCombe. “This means our vehicles can only be driven by authorized individuals – they can’t be moved without proof of identity regardless of who has a key. In the near future all these vehicles will be networked to our control room using a GSM wireless network for real time monitoring.”

The software integration of the Sagem readers with BioMatch software at SSCP was handled by Biometric Innovations working with installers Austral Surveillance and Kings Security. Biometric Innovations was founded to bring together a small group of biometrics specialists and the outfit has quickly become the country’s leading biometric software developer.

Biometric Innovations’ Ken Angel says that at South Sydney Corporate Park, BioMatch software really proved its flexibility by allowing the integration of speciality items such as petrol dispensers and carpark boom gates into the overall access solution.

“The field-proven BioMatch solution talks to and manages Sagem MorphoAccess terminals and can operate through multiple users, including remote clients over a WAN,” Angel explains.

“Biometric Innovations has close cooperation with Sagem and this has allowed the powerful control that BioMatch has over the MorphoAccess terminals,” he says. “The use of biometrics at SSCP is in keeping with the owner’s focused approach to the adoption of leading edge technology in that development.”

McCombe agrees that cost isn’t the only thing SSCP management is concerned about. Performance and reliability are also central to the application. Along with cost efficiency and ease of use the other big motivator when it came to choosing MorphoAccess biometric readers was security.

“This is quality site with high level customers and we wanted the highest levels of security,” he says.

“This site has some very large clients - some with extremely valuable stock – and they need high security protection and that meant biometrics.

And McCombe says performance has been excellent.

“It’s fair to say we don’t have any issues with performance of the Sagem readers – to the point that we only have a handful of card readers across the site and they’re being phased out – MorphoAccess has been very reliable,” says McCombe.

“The only thing we’ve ever had to address specifically has been contractors or builders who work with their hands – if they do a lot of heavy work it’s possible for workers fingerprints to be worn down,”

McCombe explains. “The answer is to adjust the sensitivity of the readers these contractors are using BioMatch software.”

Network installation

The central element of Sagem’s MorphoAccess biometric readers is that they are addressable devices designed specifically to run on existing networks. It’s a fundamental that makes SSCP’s MA200 and new MA500 readers all the more attractive from both an installation and a management point of view.

The current SSCP system primarily uses MA-200 readers but new MA-500s are installed in the lifts, as well as being used wherever new readers are being installed or older hardware upgraded. While the MA200 is a solid little unit, the new MA500 that will replace it at SSCP really is the goods. It comes replete with features like Power-Over-Ethernet, internal USB port for database and configuration management, 10/100 BaseT connectivity with DHCP, as well as FBI PIV IQS and PIV FIPS 201 certification. Important, too, the MA500 has dual-core ARM9 microprocessors with multi-thread processing capabilities that give faster read times.

Sagem designed the MA200 and now the MA500 as network devices from the get-go and at a time when many other manufacturers are just starting to think about putting their door controllers onto blue cable, this makes Sagem’s biometric readers pretty special. With MorphoAccess you’re networking all the way to the door and that means cheaper installation as well as real distributed intelligence.

Typically French, MorphoAccess gear is mercilessly over-engineered and that's good news for developers and end users. Each MA500 is sold complete with a suite of seamlessly integrated software-based management tools to assist in development and ongoing maintenance. In line with this, proprietary Windows-based applications can be rapidly developed to interface with the MA500 Series using the Morpho Integrator's Kit (MIK 3.2) with its Windows DLL components.

McCombe says this networking focus makes Sagem's biometric readers perfect for SSCP.

"We have an optical fibre LAN at SSCP because of the size of the site – there's a ring of optical fibre around the whole park and the Sagem access system taps into this LAN," McCombe explains.

"All the readers are linked directly to the network and their signals go back to the site's fully redundant servers - we access information and applications stored there," McCombe explains. "In terms of the physical installation, Cat-5 goes from the readers to a network gateway in the comms cupboard nearest the door – we patch into a switch or a router locally.

"Importantly, we are using existing infrastructure and just as good, we didn't have to make any network changes to install the access system," McCombe says.

"I'd say that the longest part of the installation job with the MorphoAccess readers is getting the cables run – as far as installing and downloading information to the readers – that part is pretty straightforward.

"We're running 3 servers to support the system and we're up to 11,000 users already – that's significant and we could make it bigger still. The MorphoAccess system has no limitation (at the back end) but we'd have to keep this in line with reader capacity," he explains.

"At the moment our MA-200 readers can handle 5000 users each but the MA-500 readers we're in the process of upgrading to can manage 50,000 users each. This capability gives a high level of distributed intelligence as biometric credentials can be held at a local level or server level – the system can continue to operate in the field if the network should ever go down – it's never done so."

Along with making the system less expensive to install and easier to manage locally, having network addressable readers is perfect when it comes to managing remote sites.

"From a remote management point of view we can handle the entire system here at the SSCP control room using the Biomatch software," McCombe explains.

"I can also log onto any computer on the network that has BioMatch software installed on it – in fact I've also got the system set up so I can dial into the network from home and make any changes I need from there as well. It's very convenient."

According to McCombe, setting up a new reader is easy.

"Essentially it's just a matter of setting up user groups and simply adding or deleting users from these groups," he says. "If we need to eliminate a user we just cancel that user – it's very easy."

"Now the system is set up the biggest job each month is handling contractor access – there would be hundreds of contractors a month we have to register – construction guys, electricians, plumbers," explains McCombe.

"We take a template of 2 fingers and then hit upgrade and that template goes to all the relevant readers simultaneously across our VPN.

"The security team can set a user up in 10 minutes with no cards to cut – it's too easy for the security staff," he says.

The simplicity comes down to BioMatch software which has an automated 4-stage enrolment process that virtually eliminates false rejections. Management using BioMatch also includes advanced reporting and User Watch features.

According to McCombe, the system is so easy to handle that SSCP has been able to give management of the system to tenants.

"Self-management is important for certain tenants like the childcare centre here at Alexandria," he says. "Its staff can easily enroll parents so that only authorised parents can gain access to the carpark and the centre.

"We have segregated the childcare centre's biometric system - they have total management over everyone with access to their facility – you could never do that with cards or keys."