

Access control evolves to leverage the power and versatility of smartphones

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Jaroslav Barton, HID product marketing director for physical access control looks at how the uptake of smartphone-based solutions offer tangible benefits for FMs

Facility managers have always had a wide remit to juggle whether that's maintenance, cleaning, mailroom, reception, security and so on. They're also tasked with providing these services at the right quality, the right time and at the right price. It's tough to do.

And post pandemic, a whole new employment paradigm has to be considered, namely hybrid- working, which is making the workplace significantly more dynamic, fluid and complex.

Historically, the norm was for most employees to work on-site. It was therefore easier to offer access to a building and forecast the utilisation of it. Today, employees are in and out all the time and work remotely, capitalising on the latest unified communications apps like Zoom and Microsoft Teams.

The knock-on effect for facility managers is considerable. They need efficient and easy ways of managing building access whilst grappling with today's more strategic challenges such as delivering against stringent environmental, social and governance (ESG) goals.

Access control isn't just about door entry anymore

The role and benefit of access control has changed markedly in recent years. No longer is it just a way to prevent entry to a building by unauthorized people. As the technology has evolved, it is playing a far greater part to enhance the operational engineering, maintenance and functioning of buildings.

A key enabler of this change is the option to transition away from using physical plastic access cards — which utilise RFID technology — to smartphone-based solutions, along with wearables like smart watches. These then leverage virtual credential technology connecting to mobile-enabled door readers to allow people to enter.

A raft of benefits can be gained from these mobile access solutions, unlocking the potential for smarter, greener and more efficient buildings.

Simplified management is delivered

Any iOS or Android device can be used, with digital wallet integration now possible. Software-based management running in the cloud making it straightforward to then deal with the licencing, allocation of virtual credentials, setting of building access rights, validating or revoking of IDs remotely and dealing with visitors or contractors. The upshot? Mobile access solutions make life easy for time-pressed facility managers as they're much simpler and more efficient to manage and use.

Products that are interoperable and support common industry standards are readily available, too. Using open APIs and software development kits (SDKs), integration is simplified, enabling corporate real estate (CRE) owners to create an ecosystem of solutions to manage their buildings, whilst avoiding vendor lock-in. This makes them easy to integrate with HR, IT, HVAC, time attendance, lighting, air purification, lifts and other systems that combine to make up smart buildings.

Transitioning to mobile access is straightforward. The door readers installed need to be checked. The latest models support mobile access out-of-the-box. Others can be upgraded [really old ones have to be replaced]. It's then just a case of obtaining and installing the mobile access solution — a smartphone app and server-side tools — and integrating this with whatever building management or security systems are in place. Many readers support both physical cards and virtual credentials so that staged roll outs are possible. This is ideal in large buildings with multiple tenants where a 'big bang' switchover would just be too complicated.

Mobile access enhances security, safety and is better for the environment

Mobile-based credentials and door readers support the latest encryption, communications and authentication standards—to establish trusted identities—just like physical access cards. Mobile has key advantages. First, users take far more care looking after their expensive smartphones compared to plastic access cards; research shows a whopping 17% are lost or mislaid every year. Each time this happens, it creates a security risk.

Second, if someone does indeed lose their smartphone, they'll clock this far more quickly (who can function without a phone these days?) with their digital credential then able to be quickly disabled wirelessly. This remote management capability with mobile access is fundamentally the important advantage.

It is estimated that more than 550 million PVC access cards are made and sold annually each year, creating 2,700 tons of plastic waste and emitting 11,400 tons of carbon emissions. It is a significant amount especially as so many cards have to be replaced regularly. Digital credentials remove this environmental overhead in one fell swoop, helping boost a building owner's sustainability initiatives and ESG Index scores.

With support for both Bluetooth and NFC — two technologies enabling data transfer over short distances — mobile access solutions also provide touchless entry like traditional physical cards. This makes it as fast for people to open doors, and — in the context of COVID-19 infection prevention — there's an obvious health benefit given door reader surfaces aren't continually touched, nor do they have to be constantly cleaned.

A key enabler for smart buildings

Many CRE owners today include workplace experience apps as part of the services offered so that users get the most value out of their buildings whether this is reserving desks, booking meeting rooms or parking slots. When mobile access is integrated with these apps, it makes access control an essential component, driving up app traffic given people have everything in one place on their phones. This makes mobile access an obvious tool to help CRE owners boost their net operating income (NOI). Happier tenants mean less churn, resulting in greater long-term revenue generation.

In addition, there's always a focus on how to decrease operational costs. Data generated from access control systems — like the number of people entering and exiting a building, floor or room — combined with other building sensors help owners monitor and interact with their buildings far better. It is the door readers that provide this kind of granular data.

In the context of a hybrid work environment, this could be financial gold dust. Why rent an extra 10,000 sq foot of premium office space when the data demonstrates that through a combination of people working remotely from home as well as the office just 6,000 sq ft will do?

Perhaps one of the most exciting developments with mobile access control is the forthcoming availability of solutions with built-in 'identity positioning'. This provides real-time information 'behind the door' about how people are using the building—based on data provided by their phones. This is certainly not "Big Brother" tracking an individual's movements. No personal and private data is collected. Rather, information is anonymized and grouped in order to provide an overall picture about trends like space utilization, occupancy and so on.

It moves access control from just being a security solution to one that takes on a far more important role in a smart building as identity positioning adds the context of location. Take a simple example. By providing real-time data like this to an appropriate HVAC system, the AC could be turned up automatically if a group of 20 people gather in a meeting room. Similarly, workplace app developers could take 'staff location' to augment the solutions they provide.

In summary, mobile access solutions are evolving to help CRE owners and facility management staff differentiate their buildings, add value to tenants and make their operations ever more efficient and 'greener'. Not only that, but they're cost effective and quick to deploy.