

Achieving frictionless physical access control with AEOS





The covid-19 pandemic has motivated organisations to look at limiting touchpoints in their buildings, particularly in relation to physical access control. As employees and contractors return to working in offices, and visitors are welcomed back into buildings, there's a growing desire for what's being termed as frictionless access control. Organisations are also looking to improve the experience of visiting their buildings, including reducing queuing times at reception and limiting the number of people gathered in one area.



What is frictionless access control – and is it really possible?

Frictionless access control means controlling how people move through buildings and spaces, without them having to touch anything (other than their physical credential such as a card or mobile phone in some instances). Frictionless access control should also increase the speed at which people can pass through entrances.

Is this possible? The short answer is yes – if you choose the right physical access control system.

Nedap's AEOS physical access control system is built on open standards, which means it offers you the flexibility to integrate with other technologies. Through our Technology Partner Programme, we collaborate with leading manufacturers to develop a wide range of seamless integrations. This includes many manufacturers of biometric identification, such as facial recognition and contactless biometric readers.

Mobile credentials can also be a key element of frictionless access control. We have the Nedap mobile reader, but AEOS also works with leading mobile credential readers too.

How can frictionless access control work in practice?

To assess how frictionless access control can be used to reduce or eliminate touchpoints, let's look at how we can plan and facilitate a visitor's journey to optimise their experience.

Prepare the visit

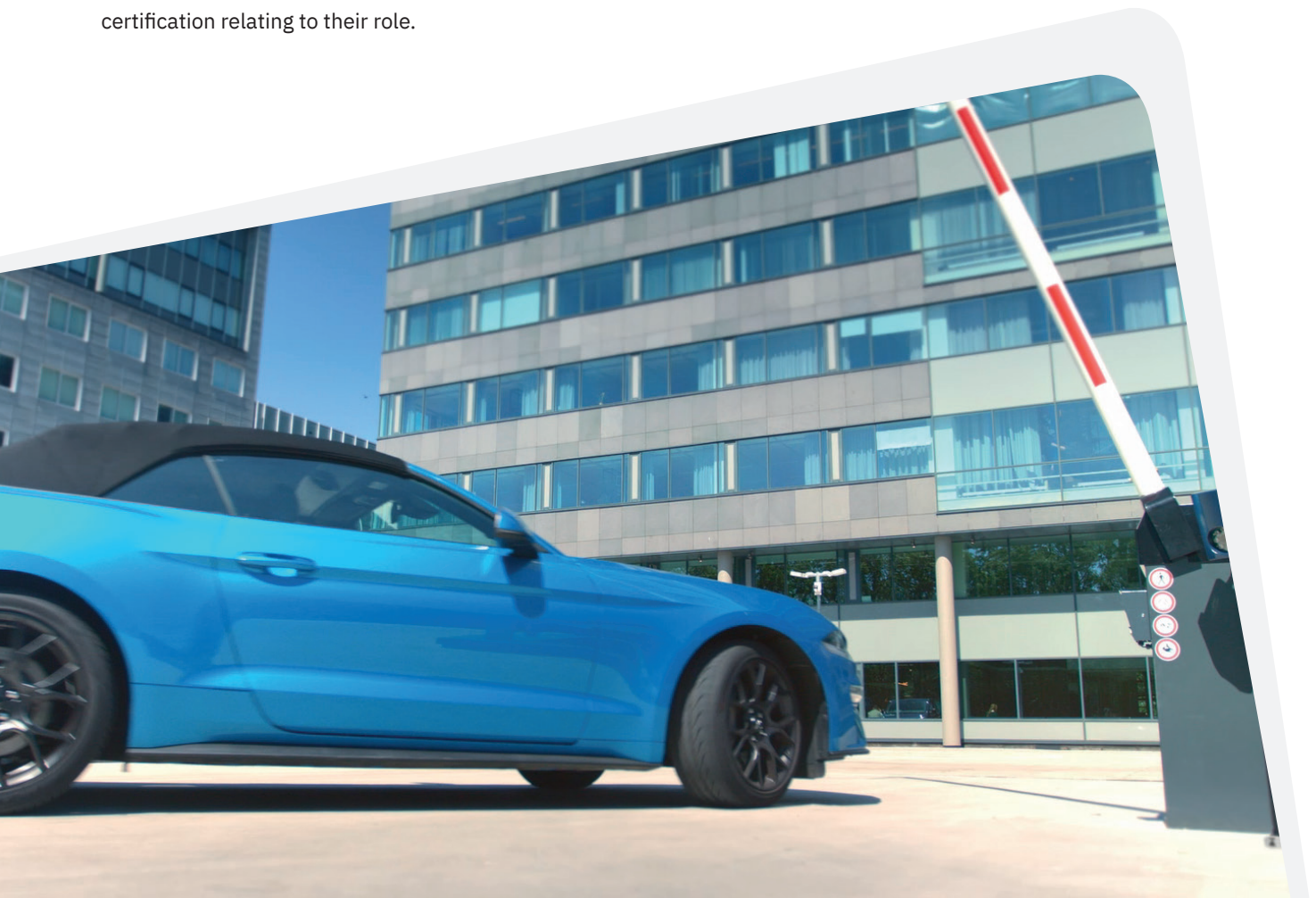
Reception areas can be bottlenecks as people queue to enrol and get a badge. They can also feature many touchpoints such as reception desks, readers, barriers, signing in pens and so on. By using AEOS visitor management, or a similar system, you can enrol people before they arrive to create a much smoother, frictionless access control environment in reception.

The details you can capture in advance for visitors, contractors and employees include their number plate for car parking and their host's details. You can also allow them to book a room or hot desk as part of the process and it's an opportunity to ensure compliance. You can for example, ask them to read your house rules and provide a digital signature to confirm that they've done this. Or you could request proof that they're fully vaccinated or have the necessary certification relating to their role.

Once they're enrolled on your system and have fulfilled compliance requirements, they can be automatically emailed a QR code for them to use on their mobile phone when they arrive. Along with any other information and instructions they need for their visit. To control access rights, the QR code can have various restrictions. It can, for example, be set to only become valid at a certain time on a certain date. And it can be a one-time only QR code so users can't take a screen grab and pass it on for someone else to use.

Arrive at the carpark

With the right pre-announcement procedure, frictionless access control can begin as soon as people arrive at your carpark. An ANPR reader can capture the licence plate and, if the car is authorised to enter, the barrier will lift automatically. There's no need for the driver to press a button to receive a parking ticket. And because they've already received instructions about their visit, they know where the visitor parking is and may even have a space booked for them.





Enter the building

When the person arrives at the building, they know exactly where to go and have already read your house rules and so on. They simply hold the QR code they've been sent in front of the reader to pass through reception. When they do this, an email is automatically sent to their host to notify them that their guest has arrived.

Another option for reception areas is a set of self-service kiosks, so visitors, contractors and employees can check themselves in. A pre-delivered QR code can be used to access a frictionless enrolment process. This might include, for example: holding up their passport for scanning; enrolling their biometric data for speed lanes; confirming they've read the house rules and understand the emergency evacuation procedure; and even printing a temporary access badge.

Both pre-visit enrolment and self-service kiosks help to save time, reduce contact with other people and create a more efficient experience for the people using your building.

Move on from reception

To move into less public areas of the building, people usually have to pass through some kind of barrier such as a turnstile or speed lane. A variety of biometric technologies combined with automatic openers can be used here to make this process touchless.

Facial recognition is an obvious choice, but there are other options too. Biometric technology is now available that can capture a hand's geometry as it's waved across the sensor, with no need for physical touch. Many of these devices have a throughput of 1000 reads per minute, with barriers opening instantly in under one second, so they can handle high volumes of traffic. As well as being more hygienic, it saves time because hold ups at barriers and speed lanes are often caused by people looking for their access badge.



Take a lift

The next area that involves touchpoints, and often attracts crowds, is the lift lobby. To enable frictionless access control, as each person passes through the turnstile from reception, their data is captured and communicated with the lift's destination control system.

The lift then knows which floor this person needs to go to and a display by the turnstile will tell them which lift carriage to wait by. Different rules can be applied to different sets of lifts and users. So, when a contractor approaches, for example, they may be directed to the dedicated goods lift.

When the person enters the carriage they've been directed to, the lift automatically stops at their floor. So there's no need for them to touch buttons to call a lift or direct it to their floor.

Go through internal doors

When people exit the lift, they'll need to go through internal doors to get to their desk or meeting room. One option to make this frictionless is to use long-range handsfree readers that read standard access cards without the cardholder touching anything but their card. If these readers are used with automatic door openers, it means the door opens immediately once the card has been checked and authorised.

Other options are to use a QR code for internal doors or a mobile credential, which is a virtual version of a physical card. If a visitor downloads and uses a virtual credential, it means they're not using a physical badge that may have already been handled by hundreds of people before them. And it also avoids the costs of physical access badges getting lost or accidentally taken home.



Find a desk or meeting room

To avoid people moving around spaces unnecessarily to find a desk for hot desking, or a free meeting room, you can use a booking system. If this is integrated with your access control system, it means you can add room and desk booking to the pre-arrival enrolment procedure.

You can also set authorisations, so people are limited to the zone where they've pre-booked a desk or room. And it means you know exactly how many desks and rooms are free at any given time, so your occupancy details on building usage are always accurate for historical auditing purposes.

Leave the building

To continue the frictionless approach as people leave the building, another trend we're seeing is to replace traditional egress buttons. Instead, you can use a device that enables you to simply wave your hand in front of it to request exit. These frictionless egress devices are a very quick and simple upgrade for any access control system, even if it's an existing installation.

All of this is possible with AEOS

All of these opportunities for frictionless access control can be achieved with AEOS because it uses open standards, and we partner with manufacturers of best-of-breed technologies. It doesn't matter which enrolment or visitor management system you use. And whether you want to link information from HR or facilities management or use facial recognition from one manufacturer and hand wave technology from another. You have the flexibility to integrate, extend and adapt your system to your specific needs and preferences.

So, if you choose to, you could have completely frictionless (in other words, touchless) physical access control.



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