

6 valuable benefits of automatic vehicle & driver identification



6 valuable benefits of long-range automatic vehicle & driver identification

We've all sat frustrated at a barrier as we wait for the drivers in front to be let through manually. It's a really poor welcome and can be particularly damaging in situations where first impressions count or where speed is critical for operations to run smoothly and profitably. What's more, it's time consuming for security professionals who could be focusing on other tasks.

If you've arrived at a vehicle entrance or exit, and the barrier is risen without you or a guard doing anything, however, you've most likely experienced long-range automatic vehicle identification. It's convenient for drivers and keeps traffic flowing – and there are many more benefits too.

Here, we'll look at six key benefits of this kind of identification:

1. Highly accurate identification for secure access control.
2. Optimized traffic flow into and across your site.
3. Reduced costs and increased efficiency.
4. Fast, safe access for vehicles and drivers.
5. Touchless identification for increased hygiene.
6. Registering, tracking and tracing vehicles and drivers.

Different technologies for different settings and needs

Long-range automatic vehicle identification is used in a wide range of ways in different environments around the world – for example, at airports, industrial estates, taxi ranks and business parks. The technologies used can include passive UHF RFID, semi-active RFID and license plate recognition. As well as products that allow people to access car parks, buildings and more using their smartphone, a QR code or an access card.

Each technology offers different advantages. And, by selecting the right products, and combining technologies where needed, you can create the right set-up for each situation.

Let's look in more detail now at some of the valuable and commercial benefits of long-range automatic vehicle identification. Please continue reading on the next page.

1. Highly accurate identification for secure access control

On sites where security must be watertight, there's no room for error when identifying drivers and their vehicles. Especially as security threats, safety concerns and regulations continue to grow for many locations and industries. But how do you maintain security when thousands of vehicles need to enter and exit in a limited period? How do you accommodate different user groups and meet varying security levels across large sites?

When guards check authorizations for vehicles and drivers, it's not only time consuming, but it can also be open to errors and inconsistent validation. Long-range automatic vehicle identification is usually not only more convenient but more secure too.

It eliminates human error and prevents guards waving through unauthorized vehicles. Good-quality vehicle identification systems can also be integrated with your access control system, so you can extend your security policies to vehicle entrances and exits.

Time schedules and conditional authorizations, for example, can be implemented for vehicles. And some systems even support identifying a vehicle and driver simultaneously and interdependently for an extra layer of security.

Improved with Long-range AVI

Fast and secure ground transport access at Auckland Airport in New Zealand

While 19 million passengers travel through Auckland Airport every year already, this number is anticipated to grow rapidly in the upcoming years. The Ground Transportations Plan was redesigned to ensure that service levels required meet the demands of the many passengers, while safety is granted. To offer extremely reliable, fast and secure access to all ground transport vehicles, Nedap's TRANSIT and MOOV were installed. [\[read more\]](#)



2. Optimized traffic flow into and across your site

The number and diversity of vehicles entering, leaving and moving around a site can make controlling traffic flow challenging. Manned gatehouses typically slow down throughput. And manually handling large volumes of traffic across a site can lead to errors and congestion.

The results of this can be widespread and include:

- Reduced productivity due to delays for people entering the site.
- Safety hazards – especially if cars are queuing outside the entrance on public roads or if the flow of traffic isn't managed well on site.
- Stress for drivers, which can lead to low morale for employees and a bad impression of your organization for visitors.
- Air pollution and wasted fuel from queuing traffic.

These are all outcomes to avoid; long-range automatic vehicle identification is a smart, easy way to prevent them. It maximizes traffic throughput for authorized vehicles and drivers by saving time during check-in procedures. And helps keep traffic flowing safely and efficiently across your site to prevent delays, accidents and vehicles standing with their engines running.

Digitalization of Turkish cement plants with long-range RFID solutions

The global cement industry is a large and important sector facing challenges. While cement plants continuously improve their productivity, they simultaneously try to decrease operational costs. This requires high quality and energy efficient products which deliver optimal operational availability under harsh environmental circumstances and high safety regulations. [[read more](#)]



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3. Reduced costs and increased efficiency

Most sites welcome a variety of groups of people, which may include:

- **Employees**, who may work in shifts and often arrive and leave in crowds at peak periods.
- **Contractors**, who often have different access rights from employees – they may need to enter at different times or access different areas, for example.
- **Visitors**, who may arrive with or without an appointment and who must be given a warm welcome, even while you maintain your required security levels.
- **Carriers**, who may need frequent access to specific zones at varying times to collect or deliver goods.

Managing this level of complexity, while also ensuring appropriate levels of security and safety, can take a lot of time for a security team if it's handled manually.

Of course, you want to identify all vehicles and drivers on arrival and check they're authorized to enter. And, for some scenarios, you may want security officers to be involved. For almost all scenarios though, long-range automatic vehicle identification is a more efficient and effective option. By automating entry and exit processes, and quickly and securely identifying an unlimited variety of user groups, it removes the risk of human error or tampering.

It means you need fewer people to secure entrances and exits, which saves money. And it frees up any security team members you do have to focus on other tasks.

Australia's largest mining operations choose long-range vehicle identification

For installation at mining operations an extremely reliable and accurate RFID reading performance was required. A system matching these requirements was needed to ensure accurate hydrocarbon management of all vehicles operating in the mine allowing for allocation of fuel consumption to the correct equipment. [\[read more\]](#)



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4. Welcoming and convenient for drivers

Many vehicle access control systems and processes rely on vehicles stopping and the driver winding the window down. Whether it's to present an access credential to a reader or guard, or to press an intercom to request entry. This slows traffic flow down considerably and can mean drivers getting wet in bad weather and the effectiveness of their air conditioning being impaired in hot weather. Not to mention, it can be ergonomically uncomfortable for the driver, depending on the position of the reader in relation to their window. Which can result in them getting injured or their vehicle or the reader getting damaged.

An important benefit of long-range automatic vehicle identification is the convenience it brings. A tag attached to the windscreen, or elsewhere on the vehicle, can be read remotely by a long-range reader. If the vehicle (and driver) is authorized, the barrier opens quickly so the driver can get on their way. For temporary or incidental access, where issuing an identifier in advance is impractical, automatic number plate recognition is a good alternative.

These options are far preferable for employees. And, as first impressions are important, a welcoming, efficient experience at the gate can influence whether a visitor returns or not.

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Vodafone Qatar chooses to digitalize employee and visitor access at their new HQ building

When Vodafone Qatar moved to its new, state-of-the-art HQ building, there was a need for an advanced digital solution that could enhance security and convenience for visitors and employees. The multi-technology readers from Nedap proved to be the perfect solution to create a welcoming and convenient solution for drivers entering the site. [\[read more\]](#)



5. Touchless identification for increased hygiene

The covid-19 pandemic increased demand for touchless (also known as frictionless) vehicle entry and exit points – in car parks, for example. Reducing the number of physical touchpoints is also becoming increasingly important to comply with health and safety legislation in some circumstances. And certainly, to meet the expectations of people seeking to protect themselves from infection.

With long-range automatic vehicle identification, there's no need to press an intercom button, collect a ticket or wind down your window to present your pass or speak to someone. If you're authorized for entry, you just drive straight through.

Despite this smooth, touch-free experience for drivers, there's no compromise on security.

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Secure and contactless vehicle access to Msheireb Downtown Doha Qatar

Msheireb Downtown is a smart city since its inception and adopts the latest advanced technology features in its infrastructure and aim to create a hub of activity, where people return once again to live, work, shop and spend time with family and friends. With 10,000+ parking bays available, it was important to provide seamless and hands-free parking access to tenants and visitors. [\[read more\]](#)



6. Registering, tracking and tracing vehicles and drivers

Identifying vehicles and drivers automatically is not only useful for controlling access – it enables them to be registered and tracked too. And this kind of monitoring and data is valuable in many environments. For example, when:

- Ensuring high levels of safety on industrial or mining sites.
- Planning and optimizing deliveries in the logistics industry.
- Using weighing bridges for trucks.
- Authorizing and monitoring refueling.
- Managing taxi queues and bus terminals.
- Checking the progress of trains.

In any scenario, tracking exactly which vehicles (and drivers) are where can help to save lives during an emergency. And can be critical in analyzing an incident after the event and working out how to prevent such incidents in the future. Which is why this kind of tracking and reporting is often now required in legislation.

Improved with Long-range AVI

Long-range RFID solution optimizes truck logistics at Saudi Arabian container terminal

The Red Sea Gateway Terminal (RSGT) is a world-class terminal equipped with cutting-edge technology to enhance the trade and supply chain management process. In order to enhance the system efficiency, there was need for automatic, faster and paperless process for permit validation and identify vehicle movement on the go. RFID technology was a perfect fit, and this includes the issuance of UHF tags and the use of Nedap's UHF readers. [\[read more\]](#)



Get expert advice

Knowing the benefits that long-range automatic vehicle identification can bring is one thing – but applying them is another. Which technology is best for each scenario? And how could you combine them for optimum results? We can help!

We have more than 30 years' experience in this field and a comprehensive portfolio of products that use the following technologies:

- **Passive UHF RFID**– a cost-effective way to increase security while avoiding congestion at gated vehicle entrances and exits.
- **Semi-active RFID**– gives flexibility for a wide range of vehicle and driver identification applications, especially in high-secured environments.
- **License plate recognition**– a contactless, convenient option for secure vehicle access control, based on license plate recognition.
- **Mobile and cards**– lets people use smartphones, QR codes, access cards and more to gain access to sites, zones, buildings and rooms.

We also provide specialist support for industries and settings including airports, ports, mining, residential, government and education, enterprises and office buildings, industrial and logistics. If you need advice relating to long-range automatic vehicle identification – in one of these industries or any other – we're always happy to talk.

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