



# Fraport AG

Security is a key issue at the airport –  
how primion and Fraport AG work successfully together







## Naturally, an airport cannot simply close

For anyone who starts their journey at an airport, security is a key issue. Ordinarily, sophisticated systems ensure that people and valuables are protected. As a rule, potentially dangerous situations are recognised early and are dealt with accordingly. The situation at Frankfurt Airport is no different. The primion Group has been working for the airport operators Fraport AG there for nine years, installing and updating a highly complex security system that is in continuous operation. Step by step, the existing system is gradually being replaced. Much of the system has been modernised or partially reintegrated and the individual applications are continuously checked during installation, in order to guarantee the seamless running of the airport during commissioning work.

For primion this means conducting installations while the airport is in operation. For this reason, work is often undertaken at night. After all, Frankfurt Airport is the third largest airport in Europe by passenger numbers. With around 60 million passengers being processed each year. In the air freight sector, Frankfurt is actually the biggest in Europe and ranks among the top 10 worldwide. Up to 1,000 freight forwarders, freight airlines, cargo handlers and other service providers work here. The new applications cover all areas where security plays an essential role. The procedures are transparent, user friendly and stringent.

From the very beginning, primion service personnel had to be available 24/7. Dependent on various levels of escalation, they can connect to the affected system remotely within 30 minutes to analyse possible error messages and rectify these where necessary, in situations of the highest priority.

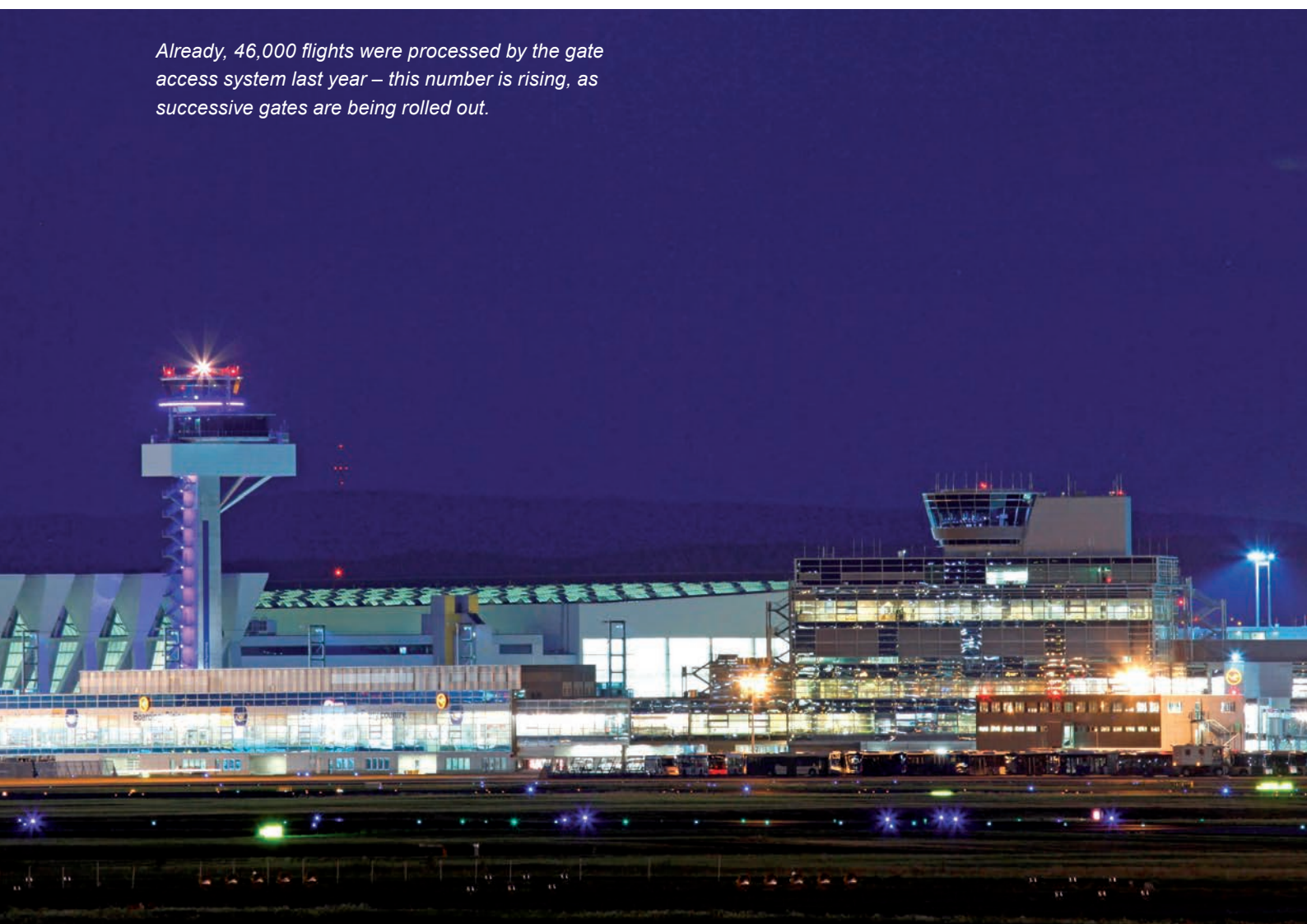
## Special ID card management system

Since 2008, primion has installed a number of applications as an integral part of the comprehensive security concept. Specifically, primion has installed an ID card management system, AVS, specially developed for use in the identification process at a European airport, an entry control system, a system for measuring time and attendance, and a gate access system, GAS, specifically developed for the airport.

The identification management system was delivered and operational in 2011. The time and attendance system has been used successfully since 2013 and the roll-out of the access control hardware is already 90% complete. Consequently, in 2016, the central IT components of the gate access system were approved

and the entire IT project was concluded from a development perspective. Since then, roll-out has been under way in the airport terminal gate areas, which at times has involved the pre-configuration, conversion and commissioning of several gates per week. At the same time, the dismantling of the old gate hardware is progressing steadily. Of course, all systems are networked together and communicate with each other. Frankfurt Airport covers an area of more than 23 km<sup>2</sup>, including areas that are prioritised differently in terms of security technology. There are areas inside and outside the buildings, on the runway, in the terminal buildings, at the gates and along the fence that encloses the airport site. In accordance with the defined specifications, all these areas, either have to be 100% secured and closed or they have to be open and accessible.

*Already, 46,000 flights were processed by the gate access system last year – this number is rising, as successive gates are being rolled out.*





*Over 81,000 people from 70 countries work at Frankfurt airport in 450 different work areas. There are many different types of ID cards with individual access authorisations.*

## Tailor-made solutions for Fraport AG

For this purpose, primion has installed around 1,500 access control readers. Working on the basis of the standard prime prox product, these readers have been specially configured for Fraport AG to suit individual requirements. After all, over 81,000 people from 70 countries work at Frankfurt airport in 450 different work areas, many of them part time. So far, primion has spent a total of almost 13,000 hours on special development work for this project.

The number of employees calls for many different working models and ID cards. There are many different types of ID cards with individual access authorisations, which can of course be expanded or altered as the client's requirements change. Authorisations are structured according to area and are time-limited. For example, an access authorisation can be valid for just a single day in certain zones, or for up to five years for the entire airport. Owing to their limited validity, ID cards have to be renewed regularly, in some cases daily. Cardholders have to be given official verification by the authorities in accordance with legal specifications and they have to be trained. In addition to this, applicant companies have to be registered and approved. In the airport identification service centre, such applications are entered into the identification management system

(AVS), security checks and training sessions are initiated, access rights are granted and ID cards are produced and issued after approval. Different colours on the ID cards indicate different access authorisations.

Every ID card has to include a current photo. The cardholder can access different areas, depending on the authorisation level assigned to the card. Access authorisations are controlled, recorded and managed completely through the AVS. Hundreds of fixed-term ID cards are produced for thousands of external companies every day, in addition to those produced for thousands of visitors.

## Collecting, evaluating, logging

Furthermore, many different working time models have to be catered for at Frankfurt Airport. The working hours of over 20,000 employees of Fraport AG are electronically collected, evaluated and logged. They enter their time into the DT 1000 time recording terminals. primion has also installed multiple DT 100 terminals with Braille input for the visually impaired. A customised solution was developed especially for Fraport AG; a solution tailored to the company's corporate design, which is immediately recognisable as a Fraport application at the GUI level, by virtue of



the logo or the colour scheme for example. There is an interface to transfer the recorded time data to SAP for payroll calculations and for personnel scheduling. Within the authorisation structure, interfaces allowing access to staff lockers have also been implemented.

Around 60 million passengers arrive at or depart from Frankfurt annually through 170 gates, some 60 of which are already being managed using primion's gate access system. This is another example of a bespoke development by primion for Fraport AG.

**All gate processes, taking into account legal requirements such as the Schengen Agreement for example, are managed by the gate management terminal (GMT), which itself is interfaced to and controlled by the airport's flight plan application.**

All processes are displayed through the primion Command centre application psm2200 and can be accessed at any time. In addition, all components such as readers, GMTs, server services and interfaces to external systems are monitored in real time so that failures can be identified promptly and the use of the gates can be safeguarded.

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*Security is a key issue at Frankfurt airport. This also includes the apron control.*



The display of all these processes in GAS is explicitly stipulated by the responsible department at Fraport AG. Multiple graphics can be displayed in parallel for each individual gate through the control system; picture details can be defined or magnified if needed. Text overlays and freely definable info windows, for example a flight plan list for a selected gate, as well as many other features are available. Already, 46,000 flights were processed by the gate access system last year – this number is rising, as successive gates are being rolled out.

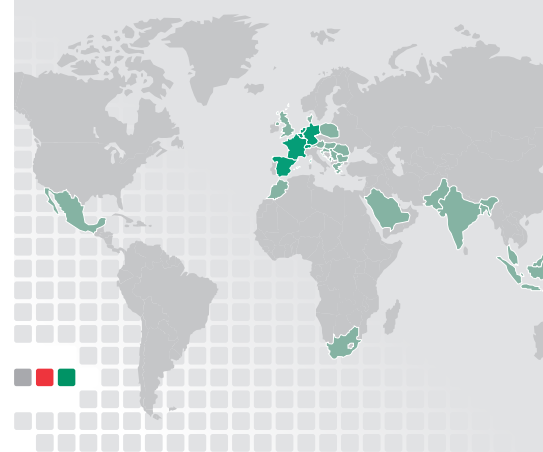
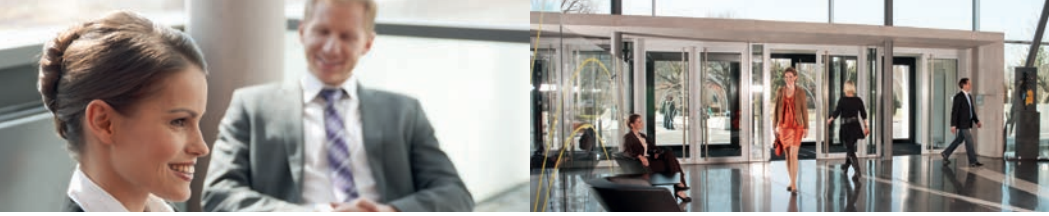
## Airport Solutions from primion

Thanks to this unprecedented success story, the primion Group has decided to market the solutions developed within this project externally, as a modular product line. Under the umbrella of the business segment Airport Solutions, Flughafen Nürnberg GmbH, Albrecht Dürer Airport was successfully acquired as a new customer and has been using AVS as its new identification management system since 2016. In addition, primion Technology GmbH is currently tendering its solutions to other major German airports.

*In the air freight sector, Frankfurt is actually the biggest in Europe and ranks among the top 10 worldwide. The investment in security at Frankfurt Airport is in the tens of millions.*







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