

Reference

Hamburg Airport



english



## A success story in several chapters



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Exceptionally high security demands, widely fluctuating entrance and exit frequencies, wide variety of user groups: DESIGNA and PM ABACUS ideally meet the demands typical of a major international airport here, and thus guarantee uninterrupted, smooth operation even during the many time-critical conversion and new construction projects.

## Brief description of the project

## Commissioning timetable

- 06.2001** Commissioning with DESIGNA PM 100 series parking management system. Since then, continuous expansion and modernisation of the system, implementing new concepts, parking products and functions.
- Installation and conversion without interrupting the day-to-day operation**
- 07.2005** Installation of the interface to the parking guidance system.
- since **01.2006** Specification and implementation of an SAP export to the airport's own accounting system for invoicing of staff parking, taxis, busses, shuttle service providers and VIP customers.
- 15.10.2008** Conversion to PM ABACUS, keeping the fixed deadline.  
Conversion of the whole network structure from decentralised car park computers (master-slave concept) to a centralised, high-availability server system.  
Complete data migration from the predecessor system.
- 02.2010** Modernisation of the operating system (including upgrade of the whole central server hardware) to 64-bit Microsoft Server 2008.
- 02.2010** Modernisation of the database system to SQL Server-2008 R2.
- 01.04.2010** Implementation of an interface to the airport's own system for online parking space reservation at the same time as the changeover of the airport website, keeping the fixed deadline.
- 07.2010** Changeover of the electronic payment transactions from batch processing to online submission (PA-DSS).
- 01.2012** Relocation of the whole server system to the secure area of the airport's own IT centre.
- Ongoing** Installation of new PM ABACUS software releases

## "Crucial for us are smooth functions and future-oriented solutions"

(Dipl.-Ing. André Geisenjohann,  
Flughafen Hamburg Konsortial- und Service GmbH & Co. oHG)

"The cooperation with DESIGNA is a genuine success factor for the Hamburg Airport. Since its commissioning, the whole system has run to our greatest satisfaction, and even in time-critical or difficult situations we have always received very competent, quick and uncomplicated support. Of particular importance to us is the integration of airport-specific functions and customer-oriented services. As a result, we are ideally equipped to face all the challenges of the future."



Dipl.-Ing. André Geisenjohann

## Facts &amp; figures

- **Owner:** Flughafen Hamburg GmbH (FHG)
- **Operator:** Flughafen Hamburg Konsortial- und Service GmbH & Co oHG (FHK)
- **Operative parking management:** SecuServe Aviation Security and Services Hamburg GmbH (part of the Airport Hamburg Group)
- **Car parks / parking bays:** 9 car parks / multi-storey car parks with 12,500 permanent parking spaces and up to 3000 seasonally managed parking spaces and waiting areas for taxis, shuttle services and coaches
- **User groups:**
  - Flight passengers (parking tickets, pre-booking functions, e-commerce solutions)
  - Short-term parkers
  - Hotel guests
  - Taxis (taxi management incl. access control)
  - Shuttle service providers
  - Bus companies
  - VIP customers
  - Employees / staff with different access authorisations
- **Installed equipment:**
  - 60 entrance control terminals (ENT 120) and 55 exit control terminals (EXT 120) with TFT display and RFID EasyMove 100 equipment for processing of EasyMove transponder cards; processing of magnetic cards with centre stripe technology
  - 35 automatic pay stations (APS 120) with TFT display, bank note return, online credit cards and EC processing and 6 coin change hoppers
- **Counting:**
  - Decentralised management of 50 individual parking aisles (pods) each with separate entrances and exits.
  - Counting and display of the vacant parking spaces in the individual aisles
  - Individual tariffing per aisle is possible
- **Server:**
  - Cold standby system (2 servers) with common storage area network (SAN)
- **Workstations:**
  - 10 units via MS Terminal Server
  - Individual user authorisations for the workstations with correspondingly defined spheres of duties and security levels

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## Special functions and services

## Parking products

- "Comfort" parking card – long-term parking
- "Business" parking card – on-account parking
- "Executive" parking card – permanent parking space rental
- "Transfer parking" for shuttle services as credit or debit cards

## Tariffs

- At present there are more than 70 different tariff structures.

## Taxi management

- incl. access control and a system interface for the data export to the airport's own accounting system (SAP).

## Valet parking

- Provider: GaD Gesellschaft für automobile Dienstleistungen NL Nord mbH
- The vehicle is handed over in front of the terminals or at the service station and is parked near the terminal. In addition to the lump-sum service charge, the customers are also charged parking fees. The process for the customer is backed up by ticket processing in PM ABACUS.

## VIP parking

- Developed specially for frequent parkers; the "VIP parkers" thus have access to specially restricted parking areas.

## "Employee" parking card

- Currently more than 5000 parking cards for airport employees and external companies in circulation; use of the cards according to sphere of duties, authorisation, parking area, time window and credit.

## Pre-booking / online parking space reservation

- Introduction of an interface to the airport's own online parking space reservation system at the same time as the changeover of the airport website, keeping the fixed deadline of 01.04.2010. The pre-booking function comprises online parking space reservation. Entrance and exit is controlled using the authorised credit or EC card. Payment of the parking fee at the automatic pay stations is eliminated.
- The pre-booking quota for the holiday car parks in 2011 lay constantly between 20% and 25 %.

## Electronic payments

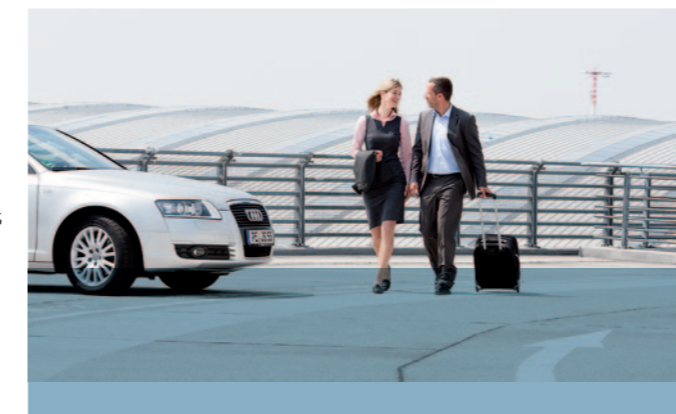
- EC card
- American Express
- VISA card
- Mastercard
- Online credit card processing in accordance with the directives on PCI compliance (DESIGNA is PA-DSS certified).

## Ticket and credit card processing

- Single-slot multicon for processing of tickets and credit cards via a single slot.

## E-commerce / discounting

- Various online discount systems in the area of the Shopping Plaza.



## PIP (car park within car park)

- Separate parking areas with dedicated entrance and exit within the public multi-storey car park.

## Airport hotel

- Separate ticket processing and discounting possible; the only vehicle access to the airport hotel is located in car park P4 where a PIP solution has been implemented.

## Individual aisle counting

- Counting and display of the vacant parking spaces in the individual aisles

## Video and still image documentation

- Action or event-driven triggering of the video and still image recordings in the control centre over a period of up to 3 months. The system is controlled via the CCTV interface.



## Control and monitoring

- **Central monitoring** and control of all system-relevant processes and components.
- **Management information system**  
Use of DESIGNA WebReport, the central information and analysis system for PM ABACUS
- **Reporting**  
Establishment of an invoicing tool adapted to the user-specific overall conditions with interfaces to SAP and financial accounting.  
**Continuous expansion** of the interfaces for implementation of further parking products and guaranteeing more or less automated accounting during day-to-day operation.
- **Automation for safeguarding of earnings**  
Personalised locking concept from an external security service provider. Employees thus have no access to the pay station system and cash.
- **Revision security**  
Establishment of an invoicing tool adapted to the user-specific overall conditions with interfaces to SAP and financial accounting.  
**Continuous expansion** of the interfaces for implementation of further parking products. Guarantee of more or less automated accounting during day-to-day operation.

## Service and maintenance

- There is a comprehensive service and maintenance contract with DESIGNA, incl. one full inspection twice a year and technical standby service on-site and remote 24/7.

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