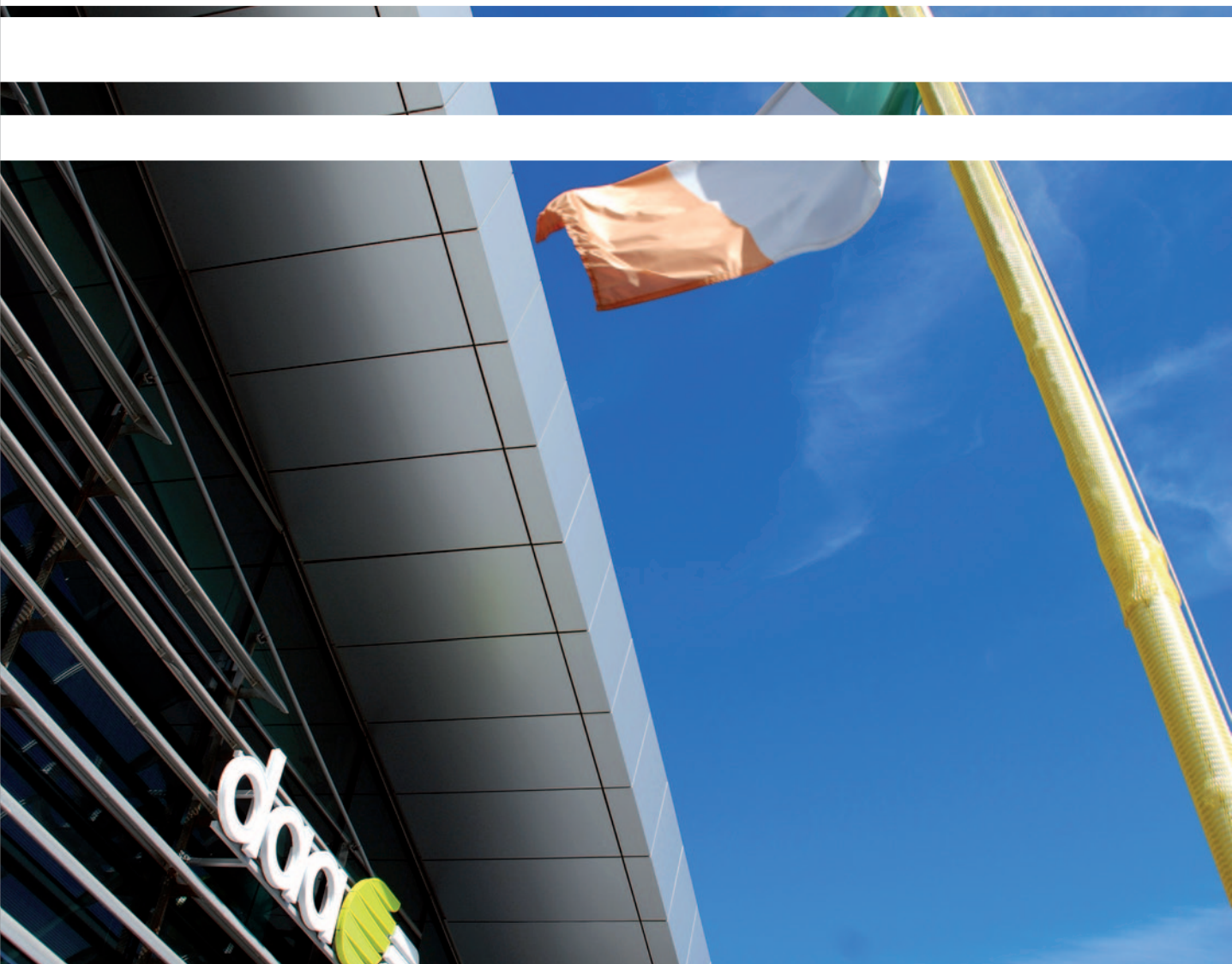




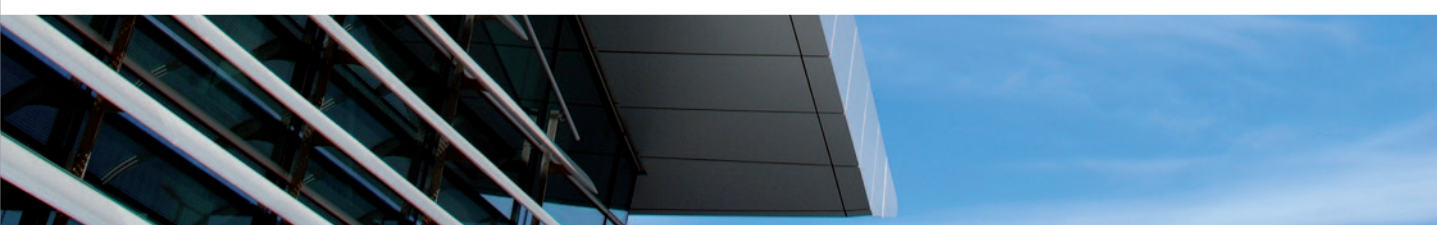
DESIGNA

Reference

Dublin Airport



english



Dublin Airport

Major projects demand comprehensive solutions



Dublin Airport is the Irish capital's international commercial airport. It is the country's largest airport and with around 20 million flight passengers a year is ranked 15th in Europe. With a 15% increase in passenger numbers per year, it enjoyed rapid growth up until 2008. After a comprehensive and highly competitive tender process, DESIGNA received the order in August 2006 to supply an integrated parking management system, PM ABACUS, and to convert the existing system at the airport. Parallel to that, a completely new cable network was installed for the system communication. The ambitious project was completed within the given time framework and without impairment of the day-to-day operation.

Since then Dublin Airport and DESIGNA have cooperated closely, leading to regular follow-up orders such as the development and integration of new functions and innovative products. The decision in favour of DESIGNA was taken on the one hand because PM ABACUS ideally satisfied the airport's high demands on system and revision security, and on the other hand because a team of specialists is permanently available to take on all the challenges and to reliably keep deadlines.

A special feature at Dublin Airport is the fact that the central control of the parking management system is located in the main control room of the Airport Control Centre and operates with direct integration and cooperation with the control centres of the airport police and airport operations.

Brief description of the project

Commissioning timetable

Summer 2007	Commissioning with DESIGNA PM ABACUS 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	
12.2010	Complete data migration from the predecessor system
02.2011	Modernisation of the operating system to 64-bit Microsoft Server 2008 and commissioning as automatic fail-over clusters
02.2011	Modernisation of the database system to SQL Server-2008 R2
02.2011	Relocation of the whole server system to the secure area of the airport's own IT centre
02.2011	Changeover of the electronic payment system to full-compliance PA-DSS. The demands on the security concept and system architecture were significantly increased. Every access to the system is subject to special security provisions (group policy).
Ongoing	Continuous installation of new PM ABACUS software releases

"DESIGNA is a partner on whom we can rely one hundred percent."

(Richard Leahy, IT Service Delivery Manager,
Dublin Airport Authority)

"Parking management is a very crucial business factor for us, both as far as customer service is concerned and from an economic point of view. Maximum availability is vital there. We are therefore all the happier about the cooperation with DESIGNA, because over and above the outstanding system we also have a partner with a very proactive support culture. The team is at our disposal 24/7 and always supports us quickly and competently even in demanding situations. That is the kind of security we need."



Facts & figures

- **Operator:** Dublin Airport Authorities (DAA)
- **Car parks / parking bays:** 10 car parks and multi-storey car parks with more than 21,000 parking bays (> 7500 parking operations/day, > 4000 taxi events/day, > 800 pre-booking transactions / day)
- **User groups:**
 - Flight passengers (parking tickets, pre-booking functions, e-commerce solutions, parking assistance services (OCS))
 - Short-term parkers
 - Taxis (taxi management)
 - Shuttle service providers
 - Bus companies (hotel and shuttle busses)
 - VIP customers (VIP services)
 - Employees / staff with different access authorisations
- **Installed equipment:**
 - **19 entrance control terminals (ENT 120) and 14 exit control terminals (EXT 120)** with TFT display and RFID Easy Move 100 equipment for processing of EasyMove transponder cards; processing of credit cards and magnetic track tickets with centre track technology in a single-slot solution, license plate recognition system (LPR) for contact-free entrance and exit, VoIP and lane and driver camera (fully integrated CCTV system)
 - **16 automatic pay stations (APS 120) and 3 cashless pay stations (APS 120 CL)** with TFT display, bank note return (APS 120), online credit card and debit card processing, auxiliary „lost ticket“ function and VoIP. Media based on the magnetic stripe technology can be processed: Credit cards, parking tickets, debit cards, season tickets. Top-up and payments possible using debit cards.
 - **2 manual pay stations (MPS 120)**, used exclusively as encoding stations
- **Counting:**
 - Counting and display of the vacant parking spaces
- **Server:**
 - Database server fail-over cluster with firewall, domain controller and dedicated SAN
 - Disaster recovery system
 - Designed with 2 database servers, 1 of which as cold standby
 - Separate disaster recovery control centre
 - 9 peripheral servers with 4 CCTV servers, 1 SNAP server, 2 credit card servers, 2 pre-booking servers and 1 additional support PC
- **16 workstations:**
 - The workstations are located all over the airport premises. Individual user authorisations for the workstations with correspondingly defined spheres of duties and security levels.

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Special functions and services

Full integration of all subsystems by DESIGNA as single-source supplier.

- **Oracle®**
Defined interface to the existing Oracle® systems for financial accounting and reporting.
- **Data warehouse and Business Intelligence Group**
Defined interface to existing data warehouse of the airport's own "Business Intelligence Group" (BIG). The BIG draws up an analysis of all system-relevant indicators and uses these to proactively control the entrance and exit terminals; one of these indicators is the entrance and exit frequency in the car parks with the resulting implications for the passenger traffic.
- **Credit card clearing**
Defined interface to existing system for online credit card clearing. Clearing fail-over server is in operation.
- **License plate recognition system (LPR)**
 - Fully integrated license plate recognition system (LPR) for handling the contact-free entrance and exit for pre-booking customers and VIP parkers
 - Clear reconstruction of the "lost ticket" at the pay stations, hence protection against misuse and loss of earnings.
- **Pre-booking**
 - Provider: ADVAM
 - Transactions: > 800 pre-booking transactions/day
 - Electronic payments: Online with laser debit card, VISA card, Mastercard, AMEX
 - Various tariff structures with a broad range of special offers and discounting possibilities.
 - Bookings are possible up to 6 hours before entrance to the car park.
 - Extended forecast interface for proactive management of the pre-booking parking space capacities.
 - Pre-booking management is handled centrally from Shannon
- **Airport shopping voucher**
 - Together with the online reservation of a parking space, the user can download a EUR 10.00 shopping voucher from the website.
 - Entrance and exit is effected with the credit or debit card used at the time of booking
 - Payment at the pay stations is eliminated.
 - In the event of the reserved parking time being exceeded, the additional payment can be made at the exit with any credit or debit card.
- **VIP parking**
 - Contact-free barrier opening via license plate recognition system (LPR).
 - 5 license plates can be stored in the system per VIP customer (use limited to 1 vehicle at a time).
- **Valet parking**
 - Currently still resolved traditionally
 - Automated solution being planned
- **Taxi management system**
 - > 4000 taxi events/day
 - Taxi management is handled centrally from Shannon.
- **PIP**
 - Separate parking areas with dedicated entrance and exit within the public multi-storey car park.
 - Establishment of different PIP areas according to target group, e.g. executive parking and airport management.



- **CCTV**
 - Completely digitised recording and storage of still image and video documents.
 - Defined interface with the parking management system.
 - In concrete terms this means e.g. in the event of predefined alarms from the parking system, marks are created in the CCTV system with stored ticket number and license plate.
 - In the event of an alarm, the system stores the recording from 10 seconds before the event to 60 seconds after the end of the event together with the audio signal from the VoIP system.
 - Use of the recording i.a. also for internal quality assurance and staff training.
- **Video and still image documentation**
Action or event-driven triggering of the video and still image recordings over a period of 6 months. The system is controlled via the CCTV interface.
- **Intercom**
VoIP Command digital intercom system. Linked to the CCTV and parking system.
- **Electronic payments**
Authorisations and payment transactions are handled as part of the credit card and debit card clearing online via the provider ADVAM. There is a defined interface to the existing online credit card clearing system. A clearing fail-over server is in operation.
 - Processing of debit cards, credit cards and season tickets, EC card, American Express, VISA card, Mastercard, laser debit card



Control and monitoring

System monitoring is effected by both DESIGNA and the IT service of DAA (DAA-IT).

- **Management information system / reporting**
Management information system / reporting Full integration of the existing Oracle® systems for financial accounting and reporting. Defined interfaces and integration of all the airport's own reporting and accounting systems.
- **Automation for safeguarding of earnings / revision security**
 - There is no manual payment at the airport. The manual pay station system is used exclusively as an encoding station for parking products and discount products.
 - Full integration of the existing Oracle® systems for financial accounting and reporting. Defined interfaces and integration of all the airport's own reporting and accounting systems.

Service and maintenance

There is a full-service contract between DAA and DESIGNA. Both repair and maintenance of all the equipment and components belonging to the parking management system are performed by the regularly trained and correspondingly qualified DESIGNA personnel.

contact

DESIGNA
Verkehrsleittechnik GmbH
Faluner Weg 3
24109 KIEL/GERMANY

T +49 431 5336-0
F +49 431 5336-260
info@designa.com
www.designa.com