A NEW GATEWAY FOR IRELAND

Central to the €1.2 billion redevelopment of Dublin Airport is Terminal 2, a new facility designed to handle an extra 15 million passengers a year. Our company was entrusted with the role of systems integrator. We delivered T2's 'specialist systems' ensuring that all communications, security and passengers systems were operational when the terminal opened in November 2010.

Dublin Airport is the gateway to Ireland and increasingly a hub for transatlantic flights. Driven in part by the growth in low cost travel, in recent years passenger numbers grew rapidly. Twenty-three million passengers a year were passing through the airport.

Speaking to Airport Business magazine, Dublin Airport Authority's chief executive Declan Collier, said: "Dublin Airport's role in the Irish economy is undeniable as there is no land bridge between us and mainland Europe and there is not likely to be one. There are 15,000 jobs on campus and the airport accounts for 25 percent of total regional revenues. When it comes to stimulating the economy, we're a big player."

Recognizing the need to cater for future growth, in 2005, the Dublin Airport Authority (DAA) initiated a €1.2 billion 'Transforming Dublin Airport' program, managed directly by the DAA with support, where appropriate, from a number of external consultants. Central to this program would be a €600 million new passenger terminal and pier which would increase the airport's capacity to up to 35 million passengers a year.

"We believe the new terminal will stimulate traffic and help make Ireland a more attractive destination for investment, business and leisure travel," Collier said. "There is not only capacity improvement but also basic improvement in passenger service."

It was a major construction project to build the 75,000 square metre Terminal 2 and 25,000 square metre Pier E. The new terminal building, which opened in November 2010, has 58 check-in desks, with provision for self-service, online check-in and baggage drop. It also features a US Customs & Border Protection (CBP) facility where passengers flying to the USA can clear both immigration and customs before departure, giving them the same status as domestic US passengers on arrival at their US airport. As well as reducing the time required by passengers in the arrival airport, this will create many benefits for airlines, including allowing new destinations and reducing costs, and it will help the DAA achieve its strategic goals of building up sustainable route networks by generating new transfer business.

KEY HIGHLIGHTS

- Major €1.2 billion expansion project at Ireland's largest airport/

- Includes €600 million new passenger terminal and pier.

- T2 Terminal increases capacity of airport to up to 35 million passengers per annum and adds 25 aircraft boarding gates.

- DAA hosts the only US Customs and Border Protection facilities in Europe, which lets passengers clear US immigration and customs before arriving in the US.

- Our expertise in designing and building the entire IT infrastructure in the new terminal (communications, passenger, baggage and security systems).

- Our ability to manage a complex systems integration project in multivendor environment.

- Deployment and testing of IT systems simultaneously with construction and other workstreams.

- IT successfully implemented and operational in time for the terminal opening in November 2010.

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DECLAN COLLIER
CHIEF EXECUTIVE, DUBLIN AIRPORT AUTHORITY

A MULTIDISCIPLINARY TEAM

Building a new terminal is a major engineering project requiring many different disciplines. DAA chose to share the responsibilities for designing and managing the project with a consortium comprising of architects, Pascall & Watson, programme managers, Mace, and design specialists, Arup; seventeen independent suppliers provided key elements of the build such as steelworks and baggage handling and, of course, the specialist IT systems.

DAA recognized the vital role that IT plays in the smooth operation of modern airports and that they would need a partner which had airport experience and know-how to take responsibility for the design and delivery of the systems.

"One of the key principles in our IT&T Strategy for Terminal 2 was to ensure that the facility was fully integrated into the campus and Terminal 1. Additionally we wanted to ensure that the systems deployed were leading edge, introducing the latest innovations but avoiding any 'bleeding edge' technologies that could have presented a risk for the business", explained Andrew Murphy, Head of IT&T, Dublin Airport Authority.

Building a new terminal is something that requires experienced specialists and airport operators tend not to have the internal programme management or IT resources for a project on this scale. Their internal IT staff will usually be focused on managing the operational functions that ensure smooth day-to-day running of the airport. For T2, DAA would need to out-task IT to a systems integrator experienced in managing multiple third-party vendors, and capable of ensuring all systems were ready on opening day.

OUR APPOINTMENT

Following a thorough tendering process, in 2008 we emerged as the chosen specialist IT partner. We would provide systems integration for:

- Communications services including LAN, Wi-Fi, IP telephony, master clock and aerial systems for cellular and professional radio.

- Passenger processes including ICISS (Internet check-in scanning systems), passenger information display terminals and a baggage management system with bespoke software for capturing checked baggage details for US Customs & Border Protection use.

- Security systems including closed circuit television (CCTV), access control, security search and display systems for the operations control center.

We were selected because of our demonstrable experience as an airport systems integrator and track record in delivering large projects in a multi-vendor environment.

"It was vital for DAA to select a major systems provider which had both the capability in airport IT as well as the capacity to deliver such an extensive programme. It was equally important that this provider could work with DAA to integrate the numerous T2 IT solutions into our campus systems, in line with the DAA IT Strategy", Murphy said.

We started the design work in September 2008, and the terminal opened in November 2010. Our implementation strategy ensured that all the IT systems were installed and tested by the opening date.

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>
> **ANDREW MURPHY**
> HEAD OF IT&T, DUBLIN AIRPORT AUTHORITY

THE MASTER IT STRATEGY

The Master IT Strategy developed by DAA and its consultants was aggressive and complex. DAA wanted an intelligent facility that would be capable of scaling or flexing the physical space allocated to some of its more demanding tenants (such as US CBP) through the use of integrated technologies. We were entrusted with creating the detailed design and delivery of this strategy.

Key design and build tasks included:

- **RAPID TRANSFER OF AIRPORT SYSTEMS TO CUSTOMERS**
  By combining the capabilities of an integrated access control, CCTV, and communications systems platform, we enabled the dynamic flexing of physical space allocated to US CBP. This means that while physical a reas of the new terminal are in 'CBP mode', the complete control and ownership of the access control, CCTV, and communications systems is transferred from DAA to US CBP.

- **INTEGRATION WITH EXISTING COMMON USE TERMINALS**
  We led and delivered an integration of IP telephony, enabling airline users to have common-use access to their corporate voice VPN with a single sign-in on the passenger processing platform.

- **OPERATIONS CONTROL CENTER WITH A HOLISTIC VIEW**
  We brought the combined and integrated capabilities of all of the master IT strategy's systems in the airport's new Operations Control Centre (OCC). We also designed the OCC to meet the functional requirements of a wide range of stakeholders (e.g. airport operations, airport police, facilities management) while harnessing the complete capabilities of the master IT strategy.

In all three areas, together with our partners, we met these challenges resulting in the delivery of a world class airport with a number of technological firsts that DAA can be proud of.

"To meet this target opening date, we were installing communications, security passenger and baggage systems on what was effectively a building site. Consequently it was essential that the programme team demonstrated both IT and construction skills and experience," explains Bob McMullan, account manager for Ireland, SITA. "We knew that the environment on site would require knowledge of local legislation and regulation so we engaged local resources for training in health and safety, and construction management."

Before the terminal opened, together with DAA, we conducted trials for operational readiness to ensure all processes were functioning properly before tenants could move in. In normal circumstances this would be done sequentially, but to ensure that the terminal opened on time, we blended their test strategy with the existing operational readiness trial. It was this flexibility that impressed DAA.

"T2 was a major undertaking comprising a complex multi-package programme with aggressive timescales that SITA delivered successfully. SITA formed a strong and flexible partnership with DAA IT&T over the course of this transformational journey, and the result was a success story for all", Murphy explained.

Rewarding the trust placed in it by DAA, we delivered on time and on budget, exceeding the client's expectations. Now Dublin has an airport that can support growth while improving passenger comfort and experience.

SITA AT A GLANCE

We are the world's leading specialists in air transport communications and IT solutions.

We deliver and manage business solutions for airline, airport, GDS, government and other customers over the world's most extensive network, which forms the communications backbone of the global air transport industry.

For further information, please visit **www.sita.aero**

For more information on Dublin Airport visit **www.daa.ie**
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