

APM Project Management Awards



WINNER'S

CASE STUDY



Category **IT Project of the Year 2015**

Winner **Heathrow Terminal 3 Integrated Baggage Facility,
Heathrow Airport Ltd**

Sponsor **T·Systems**

Overview

The way in which baggage is handled has a huge impact on Heathrow's effectiveness as Europe's leading hub airport and on the airlines and passengers that use it.

The airport's four terminals need to be able to cope with some 110 million bags a year, which calls for a system that is fast, safe, reliable and tough. Historically, baggage handling had been adapted during years of expansion with no unified, centralised approach.

A key feature of the £11 billion investment over the past decade has been work to improve baggage handling. The next major project was to build a dedicated system for Terminal 3 (T3) and integrated to Terminal 5 (T5). These

two terminals cope with more than a third of Heathrow connections and in 2014, T3's old system alone handled over 10 million items of baggage.

The IT would be the 'brain' behind the Terminal 3 Integrated Baggage system (T3IB), now hailed as the most sophisticated and effective airport baggage handling system in the world.

Delivering this innovative system in a new, four-storey building the size of two football pitches without interrupting live airport operations required an innovative approach to project management and stakeholder participation from start to finish.



Objectives

The scope of T3IB included five separate but interdependent areas. As well as a system to route bags from check in to the load location, there needed to be a database to store all baggage data and a reporting tool to represent all baggage data.

The systems were to be 'owned' by the airlines to authorise bags and a communication highway to link all baggage-related systems was required.

It would involve the input of multiple global stakeholders to present a solution that would achieve the programme benefits. These included the airlines, baggage handlers and Heathrow's baggage operations, together with security, legal, safety, commercial and performance operations.

Building in training to fully familiarise the users into the new technology was also an essential part of the brief.

Challenges

Constraints on space, integration, construction, time and budget dominated the project.

It had two challenging work streams – the construction and installation of the IT infrastructure in the building and the integration of the new systems. The project timeline did not allow a sequential approach so both had to be carried out and completed in parallel to enable a rapid go-live.

There were multiple interdependencies. New systems for baggage handling, communication and reconciliation had to be integrated with existing systems, new equipment and new logic. New processes and ways of working were also required.

Continuous tracking and review would be essential to manage these constraints and ensure success.

Resources

A T3IB cross-organisational leadership team was established which met on a weekly basis to track progress, plan and validate milestones.

An off-site test facility was installed where the planned technology was deployed and simulated. This meant that during construction of the building, the project could test, resolve issues and establish confidence in the integrated systems before they were implemented. This saved months from the delivery programme.

The IT programme lead had nine project managers. They met weekly but were agile enough to respond quickly to any critical issues.

Stakeholder engagement

A significant effort was put into understanding the stakeholders and their level of involvement and consultation. This led to a robust communications structure to ensure effective collaboration and decision-making between project delivery, all stakeholders and sponsors.

From the start, stakeholders were brought into the project team to ensure the solution met their needs and delivered mutually beneficial results. The business and technical requirements were gathered by the IT solution architects from those who would be using it.

On-site the IT project delivered first of types to improve user experience before any power or networks were available. This meant stakeholders had confidence in what they were getting before any testing and were kept informed and engaged throughout every stage of the project.

Results

T3IB brought people, processes, infrastructure and technology together to keep baggage flowing smoothly, keeping passengers and their bags together.

Layer upon layer of innovation was introduced, such as robots to help with baggage loading and reduce the risk of injury to staff, an in-built security app that automatically identifies and removes unauthorised bags and the pan-airport standardised communication highway has speeded up operations.

Regular, frequent change boards enabled the project team to tightly manage budget, scope and threats to delivery. Innovative and highly disciplined management of the project ensured that the new T3 Integrated Baggage system successfully delivered excellent results for its stakeholders, passengers, users and Heathrow's wider community.

The APM Project Management Awards have been celebrating project management excellence since 1993 and the broad range of categories is designed to make entry possible for projects and companies of all sizes and complexity.

The awards reflect the invaluable contribution project managers make in all sectors of society and the event provides an opportunity for industry professionals to meet with colleagues and entertain guests as well as celebrate at one of the year's most exciting events.

Highly regarded in the project management industry, the awards reflect the dedication and talent that helps to shape the project management community and the world around us. The finalists, winners and sponsors of the awards attract national publicity for their achievement and involvement. Winning an award provides invaluable recognition and kudos to the careers of winners.



For more details on the awards and how to enter or attend, visit apm.org.uk/awards or email awards@apm.org.uk

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