

# Case Study

## Heathrow Airport

»Fujitsu acted as a beacon of good behaviour in the way it approached the tasks in hand. It demonstrated how best to co-ordinate and was a model IT supplier«

Bally Grewal, Director of IT Delivery, Heathrow Airport



### The customer

Country: United Kingdom  
Industry: Transportation  
Founded: 1929  
Employees: 76,600  
Website: [www.heathrowairport.com](http://www.heathrowairport.com)



### The challenge

Heathrow Airport invested £2.5bn in a comprehensive rebuilding of its second terminal. It needed a partner that could deliver a high-speed, robust and flexible network that would underpin all of the new terminal's critical operations.

### The solution

Selected Fujitsu to design and deploy an extensive network, including fibre cabling, switches, wireless LAN, IPTV, IP Telephony infrastructure, to cover 110 comms rooms, 1,700 cameras, 34,000 CAT 5 and 6 network ports and many other areas.

### The customer

Heathrow Airport is a major international airport located in West London, and is the busiest in Europe by passenger traffic. It is also the third busiest airport in the world in total passenger traffic, processing more international passengers than any other. The airport consists of five terminals which collectively handle over 70 million passengers flying to 170 destinations worldwide with 90 different airlines. It is constantly striving to improve its facilities within the framework of a ten year 'masterplan', which represents an investment of £11bn.

### The challenge

This 'masterplan' includes the extensive refurbishment of existing terminals and the complete construction of the new Terminal 2. Heathrow learnt considerable lessons while building the fifth terminal and applied this knowledge when it came to rebuilding Terminal 2. Chief amongst its concerns was health and safety. It needed to partner with the right suppliers to ensure a safe and seamless transition to the new infrastructure.

"Terminal 5 involved substantial network remediation, however with Terminal 2 we wanted to get it right first time taking the learning from Terminal 5," explains Bally Grewal, Director of IT Delivery at Heathrow Airport. "Rebuilding the terminal from the ground up required a network integrator that could interface across every element of the construction."

Aside from the safety aspects, Heathrow had a number of other criteria in mind when it came to choosing a strategic partner for network integration, among them cost, quality, reputation and the ability to meet strict deadlines.

"The network underpins the entire infrastructure of the terminal so it was crucial to find a supplier with the expertise and scale to handle this ambitious project," adds Grewal. "We wanted a partner that would deliver safely on time and on budget but also one with whom we could build a solid, collaborative relationship."

Following a comprehensive tendering process, Heathrow selected Fujitsu as its key network integrator based on its extensive experience in large scale construction projects and its understanding of the objectives.

### The benefit

- Fujitsu's proactive and flexible approach acted as a model for all suppliers and encouraged a collaborative relationship that ensures deadlines are met
- Fujitsu's keen focus on health and safety helped to make this one of the safest large scale construction projects undertaken in recent years

"Fujitsu grasped exactly what we needed from the outset and displayed a willingness to invest in our aims that went beyond that of other vendors," says Grewal. "That, combined with its ability to manage multiple relationships with other suppliers, made Fujitsu the ideal partner of choice."

### The solution

The mantra from the beginning was to 'build, sample and benchmark.' Fujitsu and Heathrow mapped every part of the terminal, which encompasses Terminal 2, Terminal 2A, Terminal 2B, a car park and over 34,000 CAT 5 & 6 cable ports. By dividing the area into 90m<sup>2</sup> grids, they could ascertain the individual network requirements and design an appropriate network solution which could be replicated elsewhere.

"Terminal 2 and its peripheral buildings (T2B a satellite and car park) has 110 communications rooms so we created the first one, tested it exhaustively and created the benchmark for the other rooms to follow," continues Grewal. "We had in excess of a hundred Fujitsu engineers onsite and when there were any problems, they quickly looked at alternative designs and came up with a solution."

Fujitsu was responsible for the fibre cabling, switches and underlying infrastructure, all of which were preconfigured in its Birmingham facility before being delivered to the site for installation. Ensuring each room was sealed and remained dust free was a challenge as was integrating with other suppliers responsible for air-conditioning, security, flooring and other essential components.

"Fujitsu acted as a beacon of good behaviour in the way it approached the tasks in hand. It demonstrated how best to co-ordinate and was a model IT supplier," says Grewal. "It was proactive and had the ability to apply logic to complex projects."

### Products and services

- Fujitsu Network Integration

### The benefit

Terminal 2 reopened for business in June 2014, following seven years of planning and construction that involved over 30,000 workers. At its heart is a secure, high-speed network designed and built by Fujitsu that connects every aspect of life in the airport, from the safety and security of the operation, to check-in systems, through to enhanced passenger experience via the free Heathrow WiFi.

"The network is both the backbone and the brain of the operation. It enables every element of our passengers' journey from check-in, through security search and boarding a flight," comments Grewal. "Fujitsu helped us design, develop and deploy that network within strict budget and time constraints."

The Airport Service Quality organisation (ASQ) judges airports on 16 key performance indicators, including waiting time at check-in and security; number of baggage carts available and waiting time at immigration.

"Fujitsu not only delivered the network that connects every element of our business, it also demonstrated a proactive, flexible and collaborative approach that other suppliers could mirror," adds Grewal. "Its strong adherence to health and safety guidelines contributed to the exemplary health and safety record of the terminal during the build phase," concludes Grewal.

### Conclusion

Heathrow Terminal 2 is open for business with 26 airlines fully operational and ready to handle millions of passengers every year. At its heart is a future-proof, secure network that enables thousands of components to communicate effectively in order to make every passenger's journey safer and more enjoyable.

### Contact

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2014-11-26

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