ROOM FOR GROWTH

DÜSSELDORF INTERNATIONAL AIRPORT

CUSTOMER STORY
Düsseldorf International Airport is the third-largest airport in Germany. In 2009, it transported nearly 18 million passengers and managed an average of 600 aircraft movements a day.

It is the main hub for Air Berlin, and also a new hub for Lufthansa, which operates about 300 flights a day to and from Düsseldorf. Around 70 airlines use the airport, taking passengers and freight to 180 non-stop destinations.

"Düsseldorf Airport has changed a lot in the last few years. We have become a hub airport, which means we needed an IT infrastructure to cope with massive increase in traffic volumes. We offer aircraft turnaround time of only 35-40 minutes so we don’t have long to make sure baggage is routed properly and flights are not delayed," explains Thomas Schnalke, Managing Director, Düsseldorf International Airport.

In 2005, Düsseldorf International recognized that IT would be fundamental to its growth strategy – impacting everything from customer parking, check-in, boarding and baggage reconciliation to aircraft turnaround. To help it become one of the world’s most technologically advanced airports, it wanted to find a partner that could provide day-to-day management experience while also possessing the necessary technology leadership vision.

In May 2005, SITA and Düsseldorf International inked a deal to create the world’s first full-scale airport IT outsourcing project. The 10 year, 200 million dollar contract gave SITA responsibility to manage the airport’s entire IT infrastructure. As a result, Düsseldorf would be able to place more strategic focus on developing processes to improve airport safety, throughput and passenger comfort.

A joint venture was formed – 70% owned by SITA, 30% by the airport – to provide a whole range of services to the airport, its airlines and local businesses. SITA Airport IT GmbH (SAIT) took 62 employees from Düsseldorf International’s IT department without making any redundancies – a vital issue in Germany. In fact, over the five years, SAIT has grown to 85 employees, demonstrating that outsourcing creates value rather than destroys it.

SAIT is based at the airport. As Dr Christian Jahncke, the organization’s managing director explains, “You can’t manage a project like this from 50 km away. You need to be close to where all the action is.” On site, SAIT has an office and a back-up data centre. The principle data centre is less than 1 km away.

During the first years of the contract, SAIT focused on assessing the legacy IT infrastructure and implementing a refresh strategy. “The IT infrastructure had to be modernized and refreshed as very little of the equipment could be called state of the art. Initially there were a lot of network outages until we could rebuild. We transformed the network from ATM to gigabit Ethernet technology, which gave us more speed, reliability and was easier to manage,” explains Dr Jahncke. "After five years, we’ve replaced every element of the old IT infrastructure. The new infrastructure is now at the level of industry best practice, and this is guaranteed with very high SLAs.”

PROJECT SCOPE: FROM INFRASTRUCTURE TO NEXT-GENERATION SERVICES

SAIT’s responsibilities include desktop PCs, network infrastructure, fixed and mobile telephony, two data centre facilities on the campus, SAP management and hosting services.

A regular, planned refresh ensures that the 5,000 computers, servers and flight information display systems are kept up to date. A similar refresh program has been set up for updating or replacing various airport applications such as the airport’s operational database (AODB).
In addition, SAIT will be introducing foreign object detection technology which automatically recognizes debris on the runway or apron.

The deployment of i-Ferret later this year will be the first of its kind in Europe.

Other major projects included:

- Building a GPS based location system for Ground power Units using a UMTS mobile broadband network.
- An efficient baggage reconciliation system that dramatically improves baggage processing and which, for example, can rapidly identify the location of a single piece of luggage in a fully-loaded airplane.
- An online management tool for allocating free parking spaces.
- An airport-wide TETRA professional mobile radio network (see Finding the right voice).

**REDUCING COSTS AND GENERATING REVENUES**

Outsourcing has reduced IT bills for the airport through a number of ways. SITA’s experience in managing large-scale IT projects means that it can design, integrate and manage IT much more efficiently than an organization can do internally. And as a large purchaser of technology, SITA is able to secure the best prices and services deals from equipment and software vendors.

A further financial benefit is that by sharing a common infrastructure among a number of customers, there are considerable economies of scale which can then be passed on. For instance, the data centres are used by the airport, Lufthansa, Air Berlin and Condor among others.

The results speak for themselves. In five years, the project has achieved a 12% reduction year on year in overall IT costs in a time when passenger volume has increased. In 2005, 15.5 million passengers passed through Düsseldorf, increasing to nearly 18 million in 2009. Aircraft movements have also increased significantly. The deployment of 74 self-service kiosks, for instance, has helped to reduce queuing times at check-in even though there are now more passengers than ever before.

**SUPPORTING A WIDER ECOSYSTEM**

Reducing the direct IT costs of the airport was one of the main goals of this project. But it is not the only benefit to the airport and its tenants. By setting up a campus-wide, integrated IT and communications infrastructure, SAIT has been able to extend the services it offers to other companies in the local environment such as Air Berlin, Lufthansa, Condor, as well as retail outlets and car hire companies.

Around 250 companies are now sharing the IT infrastructure with Düsseldorf International.

Customers can choose from a range of managed services including: managed hosting in resilient data centres; a fully-managed telephony system; and outsourcing their entire desktop environment. This is particularly interesting for companies that do not have their own IT skills on site.

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THOMAS SCHNALKE
MANAGING DIRECTOR, DÜSSELDORF INTERNATIONAL AIRPORT
“In terms of cost per aircraft movement, outsourcing has saved Düsseldorf International a considerable amount of money while being an engine to generate new revenues,” comments Dr Jahncke. “Before outsourcing, IT was very much a cost centre – now it is an independent, profitable company.”

Beyond cost saving, outsourcing IT to an industry specialist like SITA has given Düsseldorf International Airport access to a much wider range of IT experience and know-how, allowing it to focus on its core business.

“We have a really good working relationship with SITA, there’s a lot of trust here. Our complete IT environment – software and hardware – is in the hands of SITA and we can focus on our core business.” explains Mr. Karl-Ulrich Schmid, Managing Director of Flughafen Düsseldorf Ground Handling GmbH (FDGHG), a subsidiary of Düsseldorf International.

“The recent implementation of a new RMS is a good example of how they work: the conceptual design, project management, software integration and hardware services were delivered smoothly and met an extremely tight time schedule.”

By trusting in SITA’s technology expertise and experience in managing large projects, Düsseldorf International has been able to focus on its customers and passengers. Safety has improved, volume increased and the business is moving from strength to strength.

“Since SITA introduced self-service kiosks throughout the terminal, we’ve seen 80% of our customers now using the self-service option rather than queuing at check-in. It means they have less waiting time and less stress.”

Ms Iris Fritsch
Manager Passenger Services, Deutsche Lufthansa

Finding the Right Voice

One of the key projects in the Düsseldorf International Airport outsourcing project has been the replacement of the airport’s existing communications system with a new shared infrastructure that all organizations, including airlines, ground handlers and agencies, such as the fire brigade, could access via mobile devices wherever they are on site.

The solution had to meet demanding mission critical communications needs – namely the daily exchange of voice, data and short messages (SMS), with high traffic loads and no downtime. It also had to support up to 3,000 subscribers. And finally, Düsseldorf wanted a communications infrastructure that could handle value-added services such as Flight-Oriented Dialling (FOD), which enables immediate communications among all personnel involved in aircraft turnarounds at the gate.

In 2008, SAIT began rolling out the TETRA professional mobile radio system to the entire site, initially to support 1200 users. TETRA was chosen because it offers airport-wide coverage, secure communications, excellent quality (which is vital in noisy environments) and copes well with high call volumes.
RESULTS

- Lower IT costs for airport and its tenants.
- Core network upgrade to Gigabit Ethernet ensures higher network availability.
- Shared IT services allow tenants to grow more easily without being held back.
- Safety will still be improved with i-Ferret foreign object detection.
- Airport-wide TETRA professional mobile radio to improve efficiency and security.
- Turnaround times improved with new baggage reconciliation system (BRS).
- Queues cut with introduction of self-service kiosks.
- Passengers benefit from faster and easier parking, check-in and transfers.

PROVEN PROCESSES KEY TO SUCCESSFUL PROJECTS

Successful outsourcing projects always have a clearly defined scope of activities and procedures. This ensures that all parties have shared goals and expectations. Five of Düsseldorf International’s IT team were retained to form a steering group which liaises with SAIT and its own users. Counterparts from SAIT and Düsseldorf Airport meet weekly, and there is a monthly steering group meeting to ensure targets are being met. “We have a very open book relationship with the airport. I talk to the airport managing director regularly,” explains Dr Jahncke.

To ensure that targets are met, and both parties agree a plan for refresh and introducing new technologies, stringent SLAs have been created. In addition, there is an annual benchmark of industry standard costs to ensure that SAIT remains competitive.

SAIT uses ITIL best practice to help it effectively manage its service delivery operations. SAIT also has ISO9001 certification, which is evidence of its commitment to service management excellence. With ISO9001 and ITIL, SAIT can provide its expertise and know-how to other airports.

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MR. KARL-ULRICH SCHMID
MANAGING DIRECTOR, FLUGHAFFEN DÜSSELDORF GROUND HANDLING GMBH (FDGHG)
SITA AT A GLANCE

The air transport industry is the most dynamic and exciting community on earth – and SITA is its heart.

- Our vision is to be the chosen technology partner of the industry, a position we will attain through flawless customer service and a unique portfolio of IT and communications solutions that covers the industry’s every need 24/7.
- We are the innovators of the industry. Our experts and developers keep it fuelled with a constant stream of ground-breaking products and solutions. We are the ones who see the potential in the latest technology and put it to work.
- Our customers include airlines, airports, GDSs and governments. We work with around 450 air transport industry members and 2,800 customers in over 200 countries and territories.
- We are open, energetic and committed. We work in collaboration with our partners and customers to ensure we are always delivering the most effective, most efficient solutions.
- We own and operate the world’s most extensive communications network. It’s the vital asset that keeps the global air transport industry connected.
- We are 100% owned by the air transport industry – a unique status that enables us to understand and respond to its needs better than anyone.
- Our annual IT surveys for airlines, airports and passenger self-service are industry-renowned and the only ones of their kind.
- We sponsor .aero, the top-level internet domain reserved exclusively for aviation.
- In 2013, we had consolidated revenues of US$1.63 billion.

For further information, please visit www.sita.aero