

Challenges and innovations

■ An opportunity to take a closer look at some of the latest products and success stories arising from this important industry sector.

We begin our article with a story that involves two ground handlers and an IT specialist.

Taking over a ground handling operation should, in theory, be a straightforward process in this day and age but problems can arise within the realm of information technology. Needless to say, it helps enormously if the two handlers in question are running the same or similar software and systems.

When Swissport assumed the duties of Finnair's handling arm, a close co-operation was the order of the day - and the fact that Swissport and Finnair were experts in and long-term users of INFORM's GroundStar IT suite made things easier. GroundStar is the software that optimises airport and ground handling processes.

When Finnair took the decision to concentrate on its core business, and thus sell its Helsinki ground handling operation to Swissport, the challenge was to separate the ground handling operation from Finnair's catering and customer services departments. Perhaps unsurprisingly, the three departments were closely interlinked by one configuration, server and database through the use of their GroundStar IT-based resource planning, rostering and deployment elements.

"The key factor for success was that the Swissport IT environment was compliant with the Finnair one and, of course, the GroundStar IT experience that the Swissport team brought in," commented Tero Laitinen, Director IT at Finnair.

After a six month period, Swissport and Finnair were able to announce the completion of a successful migration. Both companies emphasised the exemplary process and its satisfying results.

"We believe the experts involved on both sides, the excellent teamwork and the fact that the project goal was quite clear to everybody involved, right from the beginning, were all key factors for success. A critical aspect was that there was no learning phase: after the cut-over everything had to be at least of the same quality and performance,"

declares Philipp Schlatter, CTO Chief Technology Officer, Swissport.

As a consequence of the restructuring undertaken by Swissport, the former Finnair staff had to adapt to new processes, set-ups, ways of working and business rules. Different interfaces, such as for the payroll system, had to be established. The whole transition was carried out with close co-operation between both companies, along with some help from application and interface experts such as Axedo, INFORM and other partner companies.

"It was important to have a local expert, as well as data flow, interface and application specialists in order to make this a successful migration project. The Finnair and Swissport application specialists worked closely together to ensure a smooth transfer of knowledge," continues Philipp Schlatter. In the end, Swissport's knowledge was combined with Finnair's experience to produce a highly competitive ground handling operation.

Today, Swissport Finland comprises about 600 employees, 100 electronic workstations and just one IT expert, who is based at Helsinki airport. The heart

of the GroundStar system, its data and server centre, are all based in Zurich, which guarantees cost effectiveness, as well as easy maintenance and support for the Swissport operation.

"The results of the migration to Swissport justify our decision to outsource what is not our core business. We now have a powerful partner who is able to maximise the efficiency of the operation and deliver high quality services, including the real-time data that we need for GS HubControl, our turnaround management system," affirms Tero Laitinen.

This latter was an important goal of the migration phase. Finnair uses the GS HubControl system to monitor its hub or turnaround operation and to identify factors that may negatively affect a seamless turnaround. All the related processes and events are controlled in a cohesive manner, which requires real-time information from the ground handling parties involved. As Tero Laitinen sums up: "GS RealTime was maintained to the same quality and today, GS HubControl receives the same quality of data as before, which proves the success of the project to us."

Who's on board?

New products within the IT aviation marketplace are always of interest and Damarel's EMBARKmobile looks set to become something of a trailblazer in the context of mobile check-in procedures.

As part of the company's continuing drive to help its customers and improve the systems behind air travel, Damarel has just announced the launch of

EMBARKmobile, which it describes as a truly portable solution for automated airline passenger boarding.

Designed for the latest generation of tablets and smartphones, EMBARKmobile supports the devices that the operator wants to use, and where the operator wants to use them. With EMBARKmobile airlines and ground handlers now have the power and flexibility to deploy resources as demand requires, taking control of their cost base and adopting the technology that fits their operation.

Aviation is acknowledged to be an industry wherein movement and change are constant. New airports, new equipment, new retail channels, new security regulations and new technology - the list goes on. However, very often, the boarding process is anything but new. There are still headcounts at the gate and on the aircraft; there is still old, fixed equipment and of course, there are still big queues. This situation is akin to a stone in the shoe after a day of business meetings or on the return leg of a holiday. Worse still, mistakes made during boarding can prove more than an inconvenience. Minimising expensive

network costs and avoiding large fines will certainly help a handler's margins but what cost a damaged reputation?

Up to date - and cost-effective by combining the latest mobile technology with the powerful and widely adopted Embark boarding system, the operator can reduce his dependence on airport-supplied gate equipment and on a Common Use infrastructure. Boarding gate agents simply carry the devices to where they're needed next, helping to match accurately resource with demand, regardless of location. If an operator already uses the Embark or L-DCS applications, they can benefit too because EMBARKmobile is fully compatible with these products.

With EMBARKmobile behind the devices used for check-in and boarding, it becomes possible to streamline and speed up processes, which can give the handler a competitive advantage. Interaction and compliance with government agencies will also be improved. As a fully portable solution, EMBARKmobile can endow agents with the flexibility to collect information anywhere - even on the aircraft during boarding.

The simple and intuitive interface shaves vital seconds off the boarding process, as well as requiring minimal training or support from lead agents and supervisors.

So what do we have here? In essence a solution that is fast, secure and can be used with an array of equipment, such as Apple or Android devices, as well as modern, mobile 2D barcode readers. Where handlers are currently using manual methods to verify passengers, the benefits of possessing live details of who has boarded the aircraft become instantly apparent.

Today, airports have unprecedented access to the Internet (through wi-fi, 3G and now 4G), giving any organisation the potential for far greater control over operations.

The technology is now available - so is this the time for adoption?

Telematics solution endorsed by GlobeGround

GlobeGround Berlin has decided to invest in an award-winning telematics system to optimise the deployment of aircraft tugs and power units.

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Lilienthal airport in Berlin-Tegel are numbered, full apron service for more than 160,000 flight movements per year must still be ensured at the station until the opening of the new Berlin Brandenburg airport. This challenging task has been tackled by the staff of Aviation Ground Service Berlin, a wholly-owned subsidiary of GlobeGround Berlin.

In this context, ground services include baggage loading and unloading, as well as the cleaning of aircraft cabins. Tasks requiring electrical energy inside the aircraft are supplied by external power while the aircraft is on the ground: GlobeGround operates 13 ground power units for this purpose.

To ensure more efficient planning and deployment of these GPUs, GlobeGround now operates the apron fleet telematics system supplied by Funkwerk eurotelematik. The system consists of a type FB-4000 onboard telematics computer, which regularly transmits the GPU position to a central server via mobile communication. The GPU positions appear on a digital map displayed on the workstation screens in the GlobeGround control room, so it is known at all times where the GPUs are positioned and whether or not they are supplying aircraft with energy.

This feature is also important to ensure the correct billing of GPU usage to the airlines. Flight handling and maintenance staff use RFID transponders, which have to be held against the appropriate readers on the GPU, so as to activate the external power supply of the aircraft. At the same time, the onboard computer checks the user identity and reports the time of usage to the central telematics server. A software interface specially designed by Funkwerk transmits the usage data to the post-linked billing system, thus making manual billing forms obsolete and ensuring a higher efficiency of the entire billing process. In addition,



Telematics triumph for GlobeGround

GPU usage can now be charged exactly to the minute, which allows deployment of the power units to be much more efficient and economical. The solution, as mentioned, goes beyond the GPUs and includes the 16 aircraft pushback vehicles that belong to GlobeGround.

GlobeGround's control room apportioning available tugs to aircraft, a task that can be handled more efficiently if vehicle dispatchers are provided with a clear overview of a tug's current position and availability.

Besides improving the planning and billing procedures, apron fleet also contributes towards enhanced internal services by offering various evaluation functions, such as the capacity utilisation of GPUs and tugs.

In summary, it can be said that the introduction of telematics has been extremely successful and satisfactory. The system was also awarded the Best Innovation prize on the occasion of the 2012 Commercial Vehicles Exhibition.

India: catching up

Recent, impressive news concerns the Indian aviation sector: there, the Airports Authority of India has announced that it has selected SITA to equip 25 airports with its common-use passenger processing system, which is designed to improve the travel experience of tens of millions of passengers. This announcement follows on from the

successful implementation of SITA's passenger systems at 13 other AAI airports, which was part of the first phase of an airports modernisation plan by AAI. In total, 38 airports managed by AAI now look set to enjoy the benefits of improved check-in, boarding and new self-service facilities, thanks to SITA's advanced technology.

Over the course of this seven-year agreement SITA will provide AirportConnect Open, the common-use passenger processing system which allows airports to maximise the use of check-in counters and gates. SITA will supply 700 workstations, together with common use self-service (CUSS) kiosks across the 25 airports, including those of Chennai, Kolkata and Pune.

Through shared use among all the airlines operating at the airports, SITA's CUSS kiosks offer multiple services to the passenger and will allow these airports to increase capacity during surges in traffic. This flexibility avoids the need to invest in fixed check-in areas. With these CUSS kiosks, SITA will provide an end-to-end managed solution, complementing other airport check-in services available at the 25 airports.

As part of the above agreement, SITA has ensured the readiness of these systems before the inauguration of the new integrated terminals at Kolkata and Chennai airports so as to ease the transition of airlines. For more than 50m passengers who use these 25 airports annually, this means that they will enjoy a more efficient check-in and boarding process and have self-service kiosks available.

So what exactly is involved here? Andrew O'Connor, Portfolio Director, SITA Airport Solutions, knows the subject well.

"AirportConnect Open is SITA's own brand name for a CUSS solution. We make use of a single platform and the system permits the handler, who often has an interest in multiple contracts, to jump between applications. Setting it all up is now an extremely rapid process. Whereas in the past it might have taken two to three weeks to install this kind of application, thanks to virtualisation technology and a degree of pre-planning, we are able to equip 30-40 workstations within half a day; that's how straightforward it all is. India has been a focus for SITA for some time, the country having benefited from 13 applications a while back. In the future, I'm sure, the country will see more of these installations. Their presence means that the airport has taken the first step to other business intelligence products, like passenger tracking."

In turn, V P Agrawal, Chairman, Airports Authority of India, commented

on the initiative. "This strategic partnership with SITA is part of our Airports Modernisation Plan which includes the new the state-of-art terminals like Chennai, Kolkata, Bhubaneswar, Raipur, Ranchi, Indore, Chandigarh and Pune. We have identified Chennai and Kolkata airports as having great potential to become major hubs serving many international airlines.

"Working together with SITA, we have devised a solution that provides India's airports with world-class technology to provide flexibility to airports and airlines in enhancing passenger facilitation. We were pleased to agree a revenue-sharing model and are confident that this partnership with SITA will assist the future growth of Indian aviation."

Hani El-Asaad, SITA President, Middle East, India and Africa, added: "SITA's long-standing rôle in India's aviation industry continues as we move forward with this seven-year agreement to supply world-class technology at 25 of the Airports Authority of India airports across the country. We look forward to developing the industry in line with global standards so that India's hundreds of millions of passengers that fly each year enjoy a world-class experience."

Maneesh Jakirshna, SITA's Vice President, India and Subcontinent, said: "SITA is already working with the AAI on this implementation and passengers will begin to experience the benefits of this new technology at the integrated passenger terminals in 2013.

"This project by AAI includes the largest multi-airport implementation of passenger systems in the country and will bring benefits to all stakeholders, including airlines and passengers. The self-service check-in kiosks will improve passenger processing and customer service, while maintaining flexibility for airports and airlines."

In all, AAI manages and operates 125 airports across India and now with this roll-out, SITA's technology will be used at more than 38 airports in India, supporting the ongoing expansion and modernisation of the country's infrastructure.

The rôle of next-generation IT systems at airports

For many airports, cost, geographical and regulatory restrictions place limitations on physical improvement, such as the expansion of the airport terminal or the addition of a new runway. In order to increase the number of passengers passing through an airport and to enhance the customer experience, it is advisable for stakeholders at airports to invest in intelligent technology in order to maximise the physical infrastructure available. Yannick Beunardeau, Commercial Director, Amadeus Airport IT, takes up the story "At Amadeus, we first ventured into technology for ground handlers with our Departure Control System, the Altea DCS,

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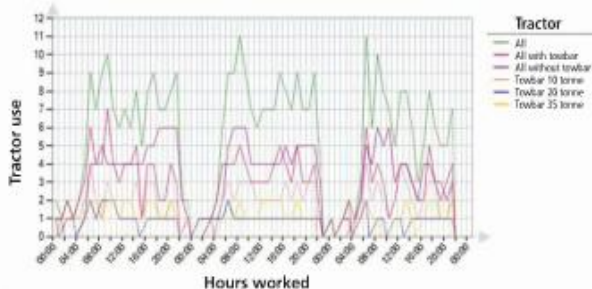


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Tractor usage comparison



Funkwerk graph shows tractor type and deployment



Amadeus DCS has proved to be popular

which includes two modules to deal with the challenges of increasing operational efficiency and improving the customer experience. Flight Management for Ground Handlers provides a load control platform designed to ensure efficient flight departures, and to optimise the weight and balance of handled flights. Customer Management for Ground Handlers is a solution that is used to optimise the customer experience through differentiated customer service and to enable ground handlers to cater for more passengers.

"Back in 2007, Finnair became the first European carrier to select Altéa DCS – Flight Management, and this solution was fully implemented across the entire Finnair network in early 2008. Finnair outsources the majority of its load control processes to Air Dispatch, who in turn became the first ground handler to practise Centralised Load Control using Altéa DCS. By locating load controllers remotely, rather than at the airport, a single Air Dispatch load controller is now able to handle 17,250 load sheets each year, rather than approximately 3,000 as was the case with a decentralised environment.

"The Altéa portfolio was subsequently extended with the addition of two further products: Altéa Reservation Desktop for Ground Handlers, and Altéa Self-Service Check-in for Ground Handlers. The former solution increases ticketing agents' productivity by allowing them to service all airlines via an intuitive single screen, with limited training effort. Self-Service Check-in for Ground Handlers improves check-in services to airlines and maximises space at the airport by allowing travellers to check-in when and where they want at all airports.

"Since the initial development of Altéa DCS for Ground Handlers, we have seen significant adoption from the ground handling community and have secured 22 long-term IT agreements with ground handling companies to date, extending

the portfolio of products and moving towards the vision of a truly integrated airport ecosystem which will help the collaborative decision making models. This development is becoming possible thanks to the breadth of the travel community using Amadeus' IT solutions. This includes travel agents, airlines, ground handlers and other travel service providers. All these systems are based around the Amadeus passenger name record and collaborative systems which are fully interoperable and can share data effectively across partners."

Yannick goes on to say that through the implementation of integrated IT solutions, it is possible for the airport to take a step towards achieving a truly integrated ecosystem, enabling collaborative decision making and engaging key partners within the airport ecosystem. Achieving true CDM requires efficient and transparent data sharing and process collaboration between these relevant partners.

"What makes Amadeus' solutions unique is the utilisation of PNR information this is the industry standard booking record which contains detailed traveller information. Global Distribution Systems such as Amadeus manage this data on behalf of travellers and travel providers like airlines, rail companies and hotels. The PNR information, which belongs to the passengers, is managed securely and we have more than 22 years of undisputed security experience when it comes to acting as a guardian of PNR data. Under strict control, the traveller and the travel service providers can decide to exchange data for a better service to the passenger. Access to this information provides Amadeus' Altéa DCS ground handling customers with an edge over the competition whilst being able to share data with airline partners seamlessly provides the insight required to ensure an excellent passenger experience from the moment customers arrive at the airport."

Collaborative decision making has become a reality

Experience enhancement

At Amadeus, there is a constant focus on new development and looking at ways to enhance the airport experience for all parties involved. Recent research commissioned by Amadeus found that 80% of passengers cited a lack of speed and simplicity in the airport check-in process as "very stressful", with baggage delivery another consistent pain point for passengers. By 2015, ACI suggests that 88% of airports are planning to invest in mobile apps; provision of touch points in the airport environment means that ground handlers can offer à la carte services to passengers, such as special assistance or concierge services. This development allows handlers to adopt a rôle beyond passenger processing alone and to re-examine their business model.

There are other, more run-of-the-mill issues in the airport environment which are yet to be fully overcome. Keeping track of all services rendered and all elements to justify billing is a complex, time-consuming task for ground handlers; human error is still prevalent and can result in lost revenue. Amadeus Contract Management will be the next offering for ground handlers, and the solution will seek to address this challenge with a structured process to monitor all aspects of a contract: from document generation, to handling reporting and service billing. The solution is set to eliminate the chance of human error and it will track service levels, resulting in a more streamlined delivery.

Yannick concludes: "The airport environment continues to evolve but it is absolutely clear there is a need for an increasingly close relationship between ground handlers and their airline customers, as well as airport authorities and even retail operators on the ground. Next-generation technology has a fundamental rôle to play when it comes to realising this vision."

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