South African Airways upgraded its Fujitsu PegaSys platform to include the Network Aware module, providing real-time fleet tracking using rich 3D visualisation.

**Challenge**
South African Airways (SAA) is a long-time customer of Fujitsu PegaSys, which, although an industry leading product, had become a little dated. Its user interfaces, functionality and the general user experience needed upgrading to make crew schedules more efficient for enhanced productivity and employee satisfaction.

**Solution**
Fujitsu partnered with Constraint Technologies International (CTI), headquartered in Melbourne, to drive the next stage in PegaSys’ evolution and provide South African Airways with the tools it needs.

**Benefit**
- PegaSys Network Aware (NA) adds mobility, enabling consolidated real-time fleet tracking data on a range of devices using rich 3D visualisation
- PegaSys NA enables SAA staff to be in contact at all times and locations, transforming the workplace from being desk/PC-bound to full mobility
- The Executive Management view provides real-time KPI rendering, such as on-time-performance, load factor and cancellation
Customer

Founded in 1934, South African Airways is the leading carrier in Africa, serving 56 destinations, in partnership with SA Express, Airlink and its low cost carrier, Mango. The SAA Group operates a fleet of 58 state of the art aircraft. Approximately 800 Flight Deck and 1,800 Cabin Crew serve thousands of passengers every month. SAA is the winner of the ‘Best Airline in Africa’ Award in the regional category for 14 consecutive years and the winner of ‘Service Excellence Africa’ for three years.

Products and services

■ Fujitsu PegaSys Network Aware

Challenge

Fujitsu first partnered with SAA in 1995 and in 2005 helped it migrate from its Genesis software to the Fujitsu PegaSys platform, a sophisticated, end-to-end business system for scheduling aircraft and crew. Although PegaSys is an industry leading product, over the years it had become dated. User interfaces, functionality and the general user experience needed an upgrade in order to deliver more efficiency in crew scheduling and real-time access to information.

“There is a huge drive to ensure an equilibrium in work-life balance, which then enhances productivity and provides a better service to the crew in an industry where rosters are typically scheduled only two weeks in advance,” explains Shaun Pillay, Head of In-flight Service and Logistics, South African Airways. “We needed a more integrated platform that would decrease manual input and enable us to plan much further into the future.”

Constraint Technologies International (CTI), a privately owned Australian-based company, headquartered in Melbourne, entered as a key partner to drive the next stage in PegaSys’ evolution. Its primary focus is the development of cutting edge crewing solutions and real-time, event-driven situational awareness modules for both aircraft and crew.

Solution

Fujitsu and CTI formally created a long-term strategic partnership to continue the support, development and evolution of Fujitsu’s existing airlines system. In order to exceed industry requirements, Fujitsu and CTI embarked on the PegaSys ‘Next Generation Roadmap’, which includes an extracted rules engine, optimisation of pairing solutions as well as a robust, multi-tiered approach to the solving of rosters.

The core of PegaSys is a schedule database that becomes the airline’s central source of schedule information. It contains both dynamic data, such as schedules, actual times and crew names as well as static data such as airport and aircraft details. As a fully integrated system, PegaSys enables SAA to react quickly to market changes and operational disruptions. Rapid processing of rules and constraints allows for swift generation of alternative solutions, while intelligent repair tools – and modules – help users get the best possible answers.

“It’s a significant upgrade with new modules, such as Globe Mode, which monitors flights at any given time,” adds Pillay. “For the crew, we now also have remote, secure access to the roster system via the Internet so pilots can view schedules and 1,700 cabin crew members, 790 pilots and 400 ground operational staff may now rely on it for real-time information.”

Network Aware is one such module that brings SAA’s situational awareness to a new level. Real-time airline fleet data is displayed on mobile devices and provides new visualisation awareness via 3D graphics, and true mobility via WiFi and 3G. It leverages Fujitsu’s existing secure, scalable, hosted airline tracking server, providing access to consolidated fleet tracking data.

Benefit

PegaSys Network Aware option adds mobility, enabling real-time data on a range of devices using rich 3D visualisation. The Executive Management console provides real-time KPI rendering, including on-time-performance (OTP), load factor and cancellations. At the same time, the Operational View delivers real-time presentation of airborne and ground-based assets and associated operational data such as taxi times, ETA, ETD, PAX and crew information.

“The in-built rules engine allows us to programme our own parameters, which boosts efficiency,” comments Pillay. “There is a robust test platform that allows us to measure demands, plug in the proposals and look at the impact. Instead of waiting weeks or months, we can get the relevant information in hours. This provides roster stability and means we can plan ahead for up to six months instead of two weeks.”

PegaSys also performs all the legacy tasks associated with airline integration automatically in the background and without need for manual intervention. These tasks include sending and reading of telexes and publishing schedule changes to the outside world as well as dramatically reducing the need for on-board paper-based data.

Now entering the final stage of the three-phased implementation approach, SAA is realising the full benefit of enabling its staff to be in contact at all times and locations when carrying out their duties, and transforming the workplace from being deskbound to full mobility.

“There are many exciting developments at the moment, such as the electronic flight bag (EFB), an information management device that helps crews perform flight management tasks more easily and efficiently with less paper and gives us improved mobility and reporting,” concludes Pillay. “Fujitsu has digitised our flying crew, cabin crew and flight deck crew and we are going from strength to strength.”

Fujitsu

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