



Scandinavian Airlines

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AuRA™ implementation at SAS reduces maintenance costs and supports improved business processes and new standards

SUMMARY

Scandinavian Airlines successfully implemented the AuRA™ application from MIRO Technologies to reduce maintenance costs, improve reliability, and move forward to adopt new industry 'best practices' and data standards.

CHALLENGES

Scandinavian Airlines is the largest operator in the SAS Group that is the fourth largest airline group in Europe in terms of passengers and operating revenues. As a legacy trunk airline with a history of successful operations since 1946, the Scandinavian Airlines' fleet grew to include six different aircraft models, plus three versions of the Boeing 737. A large number of internally developed systems were created over the years to support the maintenance challenges represented by this multitude of aircraft models and configurations. Ultimately, it became too expensive to maintain these diverse systems and difficult to communicate with OEMs and partner airlines that had adopted new industry standards such as Spec 2000.

Airline management at SAS identified the need to reduce IT cost as a percentage of revenue from 5.2% down to near the industry average of 2.8%. This required a radical technology transformation to replace the variety of legacy in-house systems with a single, modern IT system. Management also saw the need to adopt industry 'best practices' throughout the maintenance organization and needed an IT tool that would enable and integrate these business processes. SAS also wanted to adopt standard OEM maintenance programs to reduce costs, which meant moving away from custom, SAS designed maintenance programs. Several technical interfaces to external systems were also required to communicate maintenance requirements to service vendors and to obtain component information from component suppliers.

SOLUTION

Scandinavian Airlines conducted an in-depth vendor analysis, which included visits to a number of operators to observe the leading aviation maintenance IT systems in use. ERP systems, which typically require extensive customization to function in the operator's world, were rejected early in the process. Ultimately, SAS selected AuRA -- a modern, 'best-of-breed' COTS application made exclusively for aviation maintenance by MIRO Technologies.

A formal 'Proof-of-Concept' (POC) was conducted in Stockholm in the autumn of 2004 in order to validate that the AuRA system could support all critical SAS, EASA Part M functions and critical SAS business functions. The POC also identified software 'gaps' and necessary technical interfaces. Thirty SAS staff members were involved in the 18 day POC, which was supported onsite by three subject matter experts from MIRO Technologies. After the results of the POC were compiled and analyzed, an enterprise deal was executed between MIRO and SAS Group. The enterprise deal was structured such that SAS all other SAS Group subsidiary airlines, plus certain third-party affiliates have the opportunity to benefit from AuRA implementations in subsequent phases.

After the contract was signed, plans were made to commence the AuRA implementation in April 2005, starting with the Airbus A321 fleet, with other aircraft models to follow. This plan afforded SAS several months to conduct some data 'cleanup' and put together their internal support team. SAS relied on Computer Sciences Corporation (CSC) to provide technical support for data conversion activities, testing, program management and development of technical interfaces to link AuRA to several legacy systems that were retained at the Maintenance provider, SAS Technical Services. The CSC program manager worked closely with MIRO and SAS on planning and managing the project from start to finish.

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"The AuRA implementation gave us the powerful system we needed to strengthen our maintenance and Engineering operations and substantially improve efficiency and lower costs." This important IT initiative saves us thousands of dollars annually in systems operations and maintenance."

**Ulf Nystrom, Head of Technical Operations,
Scandinavian Airlines**



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**SAS**

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RESULTS

The AuRA system was implemented at SAS - Stockholm, with 'go-live' of the first A321 aircraft occurring in April 2006 -- only 13 months after the start of the implementation effort - and with the final aircraft coming on line in November 2006. The scope of the project provides an AuRA solution for SAS for EASA Part M activity that includes engineering management, technical records, maintenance control, maintenance planning and work package management.

AuRA replaced a variety of legacy IT systems at SAS, thus reducing IT costs and allowing SAS to achieve its goal of reducing IT costs to 2.8% of revenue. SAS has calculated the project Return on Investment (ROI) between 18 - 24 months.

Ulf Nystrom, head of Technical Operations at Scandinavian Airlines said, "The AuRA implementation gave us the powerful system we needed to strengthen our maintenance and Engineering operations and substantially improve efficiency and lower costs." He added, "This important IT initiative saves us thousands of dollars annually in systems operations and maintenance." Maintenance cost reductions, now possible with more accurate information that allows more efficient scheduling of maintenance intervals, comprise the lion's share of the anticipated savings. About 15% of the projected savings are attributed to the operation and administration of the old legacy MRO system being replaced.

The AuRA project is now being extended in scope to seamlessly integrate JAR145 functions within SAS Technical Services (STS). STS will leverage the AuRA technology as parts of its Engineering services offering to its airline customers. In fact, MIRO and STS have already implemented AuRA at Estonian Air, an affiliate airline of the SAS Group. Plans are now in work to next bring AuRA to SAS Braathens, an SAS subsidiary airline that operates 52 Boeing 737s and 6 Fokker 50s.



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