



AUTOMATED IDENTITY MANAGEMENT WITH SAM
IN A DIRECTORY-DRIVEN SECURITY ARCHITECTURE

Reference Project



ONE OF THE WORLD'S
LARGEST AIRLINES

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Interconnecting all Relevant Security Systems

An international airline with a vast number of employees spread across its numerous subsidiaries responsible for passenger transport, cargo, technical service, IT service and others. This highly complex organizational structure made it increasingly difficult for the company to effectively administrate the 160,000 users, who access the group's various systems and applications.

In addition, the airline required a provisioning solution in order to keep the corporate directory up to date and to meet all internal needs in terms of security and efficient auditing and monitoring.

The management came to the conclusion that only a sophisticated identity management system would enable them to set up a centralized and automated user administration process.

This called for a new system capable of bundling and processing all user and corporate data from various sources and then passing it on to the respective target systems.

After carefully sounding out the market, the airline chose SAM for its powerful provisioning features, high scalability and the ability to seamlessly integrate into a directory-based IT landscape. Moreover, SAM is capable of reliably integrating the various corporate systems.

The Challenge

The aviation company operates one of the world's largest Novell networks. The new IdM solution therefore needed to provide seamless integration with Novell NetWare and various systems such as RACF, numerous Windows 2000 domains, diverse SAP systems, the corporate directory and other LDAP directories as well as several home-grown applications, including a Unisys-based accounting system.

The next challenge was to manage the 160,000 user profiles of the corporate directory with over 50 different attribute types per user. The provisioning solution therefore needed to be able to support various input sources to ensure that the directory is always up to date, prevent security gaps and facilitate accurate and extensive monitoring of all processes. As the solution was required to perform these functions without manual administrator intervention, it had to automate all workflows. For management considerations, it was necessary to treat the subsidiaries connected to the same IdM system as independent companies in order to ensure confidentiality of data traffic and clean administration.



About the Company

The global airline is one of the most successful leaders in the aviation industry. The group is divided into six strategic business units comprising over 400 international subsidiaries and partners. The core business is domestic and international passenger and cargo transportation.

In addition, the airline offers a broad range of associated services including maintenance, repair and overhaul (MRO), catering, IT services and training of cockpit and cabin crew.

The financial and general services are also performed by separate subsidiaries and cater to the needs of partners and other members of the alliance the airline is affiliated with. In recent years, the company has expanded into new international markets of an increasingly globalized industry.

Implementation

First Steps

In order to achieve rapid ROI, the aviation group first focused on optimizing and automating its user administration processes. As an initial measure, the Novell NetWare network, RACF and the Windows and Unisys systems were integrated in SAM, together with automating administration of the passenger transport unit.

This involved connecting two HR systems, a database of external partners as well as two data sources for corporate information with SAM. Changes in these systems were communicated to SAM, where a rule-based process converted them into user accounts, group associations and authorizations for the various security systems.

Implementing the New Administration Scheme for Additional Subsidiaries

After the system had successfully gone live at the pilot subsidiary, the project team next went about introducing the solution at the large Cargo business unit. SAM makes it easy to manage multiple organizations within a single IdM solution, so connecting the subsidiary to the administrative framework was a simple task. SAP was integrated as a second target system to further automate user administration workflows.

A Constantly Growing and Evolving Solution

The company had already started to build their new IdM solution around SAM Jupiter in 2000. Over the years, the airline added several new features, including biometric password reset via voice recognition, self-service functions, an SPML interface for user data, as well as Web service capability. Finally a project was set up to migrate from SAM Jupiter to SAM Enterprise, which was concluded in September 2011. The new version offers additional features that fully meet all corporate IdM needs of the customer. Alternative solutions had also been considered at the evaluation stage, but the excellent track history of Beta Systems made the airline decide in favor of their IT partner of many years.

Over time, more and more subsidiaries also adopted SAM – at present the Beta Systems solution is used to administrate approx. 200,000 employees of the group. Third-party systems are also being connected step by step, most recently Peregrine Asset Center.



The Solution

Direct Integration in Novell eDirectory with SAM eConnect

The corporate directory comprising 160,000 users is based on Novell eDirectory. The internal PKI (Public Key Infrastructure) and numerous applications depend on reliable and up-to-date user data. From the very start there was no doubt about the advantages of having a provisioning solution that seamlessly integrates with the corporate directory via the SAM eConnect standard connector: Consolidation of data sources in combination with powerful SAM eConnect features made it possible to introduce an automated workflow to shorten the update cycle for user data, including user attributes and security definitions of the corporate directory. As a result, 80% of all business-related security administration is now processed automatically.

Higher Service Levels with SAM

In addition to the provisioning functions described above, SAM offers and supports various additional user administration features. For example, central administrators can use SAM to manually perform complex administration tasks. The support team, on the other hand, benefits from SAM's helpdesk feature, which provides a convenient interface for creating and deleting users or for changing passwords.

SAM is connected to the customer-specific intranet portal, which allows internal staff and external partners to request accounts and user rights based on a harmonized approval workflow. Approved accounts and access rights are transferred to SAM, which, in turn, executes the required changes in the linked systems and directories. Thanks to this process, the IT department is in a position to offer its clients a very high quality of service, and a workflow system integrated in SAM allows all security systems to be updated within just a few minutes after approval.

Reliable Auditing with SAM

Drawing on SAM's cross-platform reporting and monitoring functions, the internal IT service provider can generate fully automated monthly audit reports on all relevant user and security settings and then send these to the responsible managers via e-mail. In addition, a weekly report on changed, disabled or deleted accounts is generated for each affiliated company and delivered to the administrators in charge of the various target systems.

These centralized and automated user administration workflows also resulted in significant cost savings. SAM provides the airline with a consistent provisioning solution for the corporate directory and the strategic security systems, thus reliably ensuring that all connected systems rapidly obtain the required user data.

All these features of SAM allow the airline to perform extensive user management with great efficiency, with the added benefit of providing a high service level to affiliated companies. As a highly scalable solution, SAM can connect new subsidiaries or external customers at any time, which has a highly positive impact on the TCO.

Migration to SAM Enterprise

Two key factors drove the decision to migrate to the latest release of the Beta Systems IdM solution: SAM Enterprise perfectly integrates into the group's new target architecture, which had been changed from a different platform to Microsoft in the recent past. While SAM Jupiter was based on a mainframe platform, SAM Enterprise is run on distributed servers and also draws on Microsoft databases. The current operation of SAM on a distributed Microsoft architecture is much more cost efficient than a mainframe-based design, so the customer benefits from much lower operating costs as a result of abandoning mainframe DB2 and introducing SAM Enterprise.

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