

Case Study

Bundeswehr



Nexus products comprise the Bundeswehr PKI

Bundeswehr

Multifunctional electronic identity cards (eDTA) will replace paper documents for 250,000 soldiers and employees of the German military organisation, the Bundeswehr. PKI certificates are required to provide security in the deployment of the new ID cards. The Bundeswehr's very own Trust Centre is the high security component that comprises the backbone of the public key infrastructure of the Bundeswehr (PKIBw). Nexus was the principal supplier and provided important software components for this project.

Higher security and efficiency

Amendments to the joint regulations for identification documents led to new standard electronic ID cards for all government departments. The new ID cards are issued and delivered by the Bundesdruckerei, but responsibility for installing security functions on the cards falls to each department. The Bundeswehr has chosen Nexus as a partner for this project.

With the multifunctional ID cards the Federal Government aims to increase efficiency and security in administration and army leadership. They are not only used for physical access control, but also for secure logins and policy implementation in IT workspaces (secure e-mail, disk or data encryption, authentication for web services or distributed applications, digitalisation of business processes, such as electronic approval procedures, e-procurement, etc.).

One major challenge was the implementation of the high security demands based on the public service PKI (V-PKI) policy and the stipulations of the German Signature Law for the issuing of qualified signatures. A further challenge was the integration of Nexus software with a proprietary HR system.

“After successful testing it is up to the authorities to distribute the new identity cards.”

Bernhard Beus,
Resident IT Coordinator of
the Federal Government





Nexus products in service

Nexus Origo Certificate Manager

CC EAL3+ had been evaluated and certified according to the German Signature Law (SigG) and supports the issuing of certificates and the electronic personalisation and lifecycle management of the eDTAs.

Nexus TSP Time Stamp Responder

is also an evaluated and certified product that provides timestamps for electronic signatures in compliance with legal regulations.

Nexus Servant OCSP Responder

delivers revocation status information according to V-PKI policy and the German Signature Law (SigG).

Nexus Personal Security Client

Security Client is middleware that provides computer applications with access to the electronic security functions of the eDTAs.

Several stages of development

In 2005 and 2006, a syndicate of Nexus and T-systems, later BWI Systeme GmbH, built up the Bundeswehr Trust Centre in a major project. As a result of this project stage, the PKIBw Trust Centre was able to issue signature cards (PKIBw cards) with additional PKI functions for encryption and authentication. Nexus had to develop additional software components to meet the specific requirements of the Bundeswehr IT environment.

After completion of the eDTA card specifications, additional Nexus software was introduced for the integration of the eDTAs. In 2008, this enabled the issuing and electronic personalisation of the eDTAs.

The eDTA cards can be used for electronic processes complying with V-PKI security policies and the German Signature Law.

Progress

The Nexus suite is the central PKI system in the high security Trust Centre of the Bundeswehr and covers all stages of the lifecycle management of the eDTA cards for 250,000 soldiers and employees.

According to Bundeswehr press releases, the first 120 employees of local registration authorities were trained and certified at the German Air Force in January 2009.

“The card has to stand the test of time in long-term deployment. Here at Nexus we are always prepared to maintain the operation and security of the Bundeswehr PKI,” says Sassan Schirazi, Sales Director, Nexus Technology GmbH.

