The Knorr-Bremse Group is the world’s leading manufacturer of braking systems for rail and commercial vehicles. With thousands of users spread over the organization’s global operations, secure access to the company’s systems, including Citrix and VMware ESX, is essential.

The Organization

The Knorr-Bremse Group, based in Munich, Germany, is the world’s leading manufacturer of braking systems for rail and commercial vehicles. For more than 100 years now the company has pioneered the development, production and marketing of state-of-the-art braking systems. Other lines of business include automatic door systems, rail vehicle air conditioning systems and torsional vibration dampers for internal combustion engines.

The Business Need

With thousands of users spread over the organization’s global operations, secure access to the company’s systems is essential. The company was using a competitive solution for their remote access, but wished to replace it with a more efficient solution that would enable them to expand to certificate-based (PKI) authentication with ease in the future. They also wanted a secure remote access solution that would enable one strong authentication device per user for securing access to their existing Check Point IPSec VPN solution and Citrix applications. They also wished to add support for a new SSL-VPN portal that utilized X.509 certificates, integrated with their Microsoft Certificate Authority (MS CA) PKI solution. In addition, the company wanted a solution that enabled installation of the backend in a virtualized environment (VMware ESX). They also required a deployment that would enable parallel use of the old solution while migrating to the new solution.

The Solution

Ably supported by Computacenter, Europe’s leading IT infrastructure services provider, Knorr-Bremse evaluated a variety of solutions. Impressed by Thales’s (formerly Gemalto) broad range of authentication options, and attractive TCO, the decision to choose Thales’s SafeNet Authentication Solutions was unanimous. The group selected a Thales Strong Authentication management platform, eToken PASS and the SafeNet eToken USB Authenticators. In a short pilot phase, the IT department tested interfaces to other systems and basic functionality.

Confident of success, Knorr-Bremse insisted that the proof of concept (POC) be carried out on production servers at headquarters. During the initial POC deployment, Thales’s authentication management platform was easily integrated with the existing certificate authority (MS CA), enabling both the first stage

“Gemalto’s market-leading innovation and flexibility covered our current needs without restricting upcoming new authentication methods such as digital certificates. The solution’s intuitive web-based self-service was a winning factor in our decision-making process.”

– Alireza Sha-Esmaeili, Senior Architect Corporate Network Security, Knorr-Bremse
roll out of eToken PASS for OTP-based authentication and SafeNet eToken USB Authenticators for future use of certificate-based authentication.

Thales products are designed according to industry standards, and this enabled quick and easy integration into the existing User-Repository (Microsoft Active Directory), RADIUS servers and Thales’s authentication processes. Based on the success of the POC, the actual deployment for HQ and the EMEA region was completed within 15 days, and the entire project took less than three months.

As a global organization, Knorr-Bremse required a high availability solution that would enable redundancy worldwide. Computacenter ensured the high availability of the system by supporting the installation of the Backend in a virtualized environment (VMware ESX) and installing two additional redundancy systems in APAC and NAFTA to grant high availability and failover functionality as well as 24/7 internal helpdesk. Utilizing a single database for all three authentication management platform instances, including several RADIUS Servers and dedicated configurations on the authentication systems (Checkpoint, Citrix, Juniper) in case of downtime in one location, the failover functionality using one of the two remaining sites can be realized very quick and easily.

To enable ease of management, the service, helpdesk, and administration was set up so that every team is able to manage their regions, groups, users and tokens with the necessary rights and duties. The Computacenter team provided “on the job” training to administrators and helpdesk staff during the installation and rollout of the pilot group. An intuitive web interface has made the rollout and management within the helpdesk processes simple and effective.

The Benefits

- **Rapid ROI** – SafeNet Authentication Solutions save thousands of Euros a year, especially when compared to the previous solution which used a hardware token with a built-in end of life.
- **Enhanced productivity** – High availability and worldwide redundancy ensure Quality of Service 24/7.
- **User self-service** – Users can easily manage their own tokens, significantly reducing the number of help desk calls and limiting employee downtime.
- **Flexibility to evolve** – SafeNet Authentication Solutions ensure seamless migration from an OTP-only to a combined OTP and certificate-based (PKI) strong authentication solution without investing in additional backend support.
- **Ease of use** – The administration and help desk staff were trained “on the job” with ease. Users have responded positively to the new authenticators and to the Self-Service Portal, especially the remote capabilities which were not offered by the company’s previous solution.

Challenge

With thousands of users spread across the globe, Knorr-Bremse needed a secure remote access solution that would enable users to connect to their CheckPoint VPN, Citrix applications, and a new SSL VPN portal, and was able to be installed in its back-end VMware ESX environment.

Solution

Thales’s SafeNet Authentication Solutions offer token management systems and a variety of form factors so Knorr-Bremse could implement One Time Password (OTP) and certificate-based USB tokens.

Benefit

SafeNet Authentication Solutions ensured a seamless migration from OTP-only to a mix of token form factors, along with back-end integration with Knorr-Bremse’s VMware ESX environment so the company was able to upgrade their security without investing in additional backend support.

About Computacenter

Computacenter is Europe’s leading multi-vendor IT infrastructure services provider. To us, customer proximity means understanding business requirements and reacting to these in a precise manner. On this basis, we develop, implement and operate tailor-made IT solutions for our customers. We evaluate the benefits of new technologies and swiftly and professionally integrate these into existing IT environments.

About Thales’s SafeNet Access Management and Authentication Solutions

Thales’s industry-leading Access Management and Authentication solutions let enterprises centrally manage and secure access to enterprise IT, web and cloud-based applications. Utilizing policy-based SSO and universal authentication methods, enterprises can effectively prevent breaches, migrate to the cloud securely and simplify regulatory compliance.