

State of Fribourg Office for IT and telecommunications

Success Story



Complete lifecycle management of digital certificates

Enhanced search and reporting functionalities

Third-party certificate monitoring

Microsoft PKI unleashed

The lifecycle of digital certificates must be managed accordingly. To gain an overview of these certificates and their status as well as an easy renewal and revocation process, the Office for IT and telecommunications (SITel) required a solution that would enhance their existing Microsoft PKI. Keyon successfully extended the Microsoft PKI features with their product line.

SITel issues digital certificates using the Microsoft PKI. The management of those certificates is restricted and involves manual processes.

The goal was to enhance the issuance and management of digital user certificates, as well as a role-based cockpit for processes and status inquiries.

The enhancement should run on the existing Microsoft PKI.

Based on Microsoft PKI, Keyon's true-Xtender unleashes the full features of the lifecycle management of digital certificates. Keyon successfully integrated the product and assisted SITel with their know-how.

The customer

The Office for IT and telecommunications (SITel) is the central IT department of the State. Its primary task is to take care of IT matters of the departments of the State and its data protection.

With around 10'000 jobs, 950 servers, 8'000 telephone lines, 350 applications, and an efficient telecommunications network, SITel ensures that all IT-activities are well organized and synchronized.

SITel provides the users with the required IT tools and ensures the full functionality with the respective support.

SITel also puts up control structures appropriate for each IT project as part of the acquisition, development, and integration of sectoral and cross-industry solutions as well as support and application maintenance. It has an overview of all projects of the cantonal administration and institutions in widely diverging fields.

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Requirement

The existing Microsoft PKI involved several manual steps for the digital certificate management. SITel wanted a solution to facilitate these processes and gain a better overview of the certificate lifecycle, without having to change the entire setup.

Solution

With Keyon's know-how in the field of Microsoft CA, existing processes were improved. Moreover, Keyon was responsible for the successful technical and organizational implementation of the solution.

The existing CA has been reasonably expanded by using the true-Xtender Suite. The full lifecycle (issuance, renewal, and revocation) of digitally issued certificates can now be entirely managed based on customer specific requirements and regulations.

The innovative solution was implemented cost-effectively and on schedule. With the implementation of following components, the PKI management is considerably simplified:

- **Keyon true-Xtender Registration Authority**
Enables the seamless integration of the certificate management into the companies internal processes and offers next to a browser-based GUI a web service for automated processes;
- **Keyon true-Xtender Cert Expiration Service**
Checks periodically whether certificates expire within a specified time limit and provides the respective notification service;
- **Keyon true-Xtender Auto-Revocation Service**
As a counterpart of Microsoft's Autoenrollment, the Auto-Revocation Service revokes a certificate as soon as its associated computer or user object is deleted in Active Directory;
- **Keyon true-Xtender CRL Management Service**
Applied in connection with the distribution of revocation lists to different CRL Distribution Points (CDPs) and the monitoring of CRL Distribution Points;
- **Keyon Third Party Certificate Manager**
The application "Third Party Certificate Manager" is used to monitor third party certificates. Multiple notification services can be set up, which will notify a user as soon as a certificate reaches the end of its lifetime.