several9s

Database automation behind Sweden's new electronic identity Freja eID

FREJA

FREJA EID GROUP AB

Industry: Security
Technologies: MySQL
Products: ClusterControl

USE CASE

A database management solution to power the Freja eID platform, a scalable and secure authentication and identity management platform

WHY SEVERALNINES

The entire database lifecycle could be managed by ClusterControl resulting in a reduction of time, eff ort and associated costs

BACKGROUND

Freja eID Group AB (Verisec AB (publ) until November 2020) is an international IT security company on the cutting edge of digital security, creating solutions that make systems secure and easily accessible for industries like banking, government, and businesses worldwide. The company provides a wide range of products and services within its two areas of business: Digital Identity and Information Security.

On the Digital Identify front, Freja eID offers Freja ID, an on-premise solution, and Freja eID which is a cloud-based solution. Freja eID is an electronic identity on your mobile that allows you to log in, sign, and approve transactions and agreements with your fingerprint or PIN. It also lets you monitor and control your digital activities.

Based in Stockholm, Sweden, the company has offices in London, Belgrade, Madrid, Mexico City, Dubai, and Frankfurt.

CHALLENGE

Freja eID was storing the transactional and binary object data being used by its new flagship product Freja eID, in a standalone relational database. The database was at the heart of managing session states of connected authentication devices, storing binary object data (such as facial templates and images), and also as the persistent storage of the Public Key Infrastructure (PKI) which was operated behind the scenes. Because of the sensitive nature of the data as well as the necessary regulatory compliance, Freja eID required 'safe' and proven management procedures as well as strict controls on who had access to the databases and how they were managed.

Ensuring that the application had a sufficient level of redundancy and maintained high availability was key to the application. Another requirement was easy scaling, in line with user growth. The need for high availability led the

Freja eID Research & Development team to seek out clustered MySQL solutions.

The requirements for this clustered solution included high availability and fault tolerance for the data stored. The Freja eIDteam also wanted the simplicity of management to ensure the entire system was in good health, and procedures could be easily automated e.g., upgrades, backup and restore, anomaly detection, and automatic recovery.
The Freja eID team took to the web and began searching for both a technology and system that would fulfill their needs.

SOLUTION

After discovering Severalnines, the team leveraged our support resources to determine which technology would work best for their application. As ClusterControl supports more than two dozen SQL and NoSQL database technology versions, they were able to discuss a wide range of possibilities. The Verisec team also engaged with several database technology & support providers.

"Severalnines had the competence to advise us on the pros and cons of various options, as well as the product, ClusterControl, that simplified the setup and day to day operation of the selected clustering technology," said Dragoljub Nesic, Chief Information Officer at Freja eID.

> *Without ClusterControl we would have had a much steeper learning curve and simply would not have been able to deliver the project within the ambitious time constraints.*
>
> Dragoljub Nesic, Chief Information Officer at Freja eID

"And without ClusterControl we would have had a much steeper learning curve and simply would not have been able to deliver the project within the ambitious time constraints."
Without ClusterControl we would have had a much steeper learning curve and simply would not have been able to deliver the project within the ambitious time constraints.

OUTCOME

In addition to adding ClusterControl to their environment, Freja eID also decided to engage the experts at Severalnines for professional services and consulting to help them transition to the new clustered technology. "We purchased a number of consulting hours to assist us in advanced details of the configuration of the underlying database. We used less than we expected because the Cluster Control product addressed most of the questions we had but we have the confidence that the consulting team is there when we need them in the future," Said Nesic.

Freja eID is a true believer in open source technology and utilizes it in quite a few areas of the development and production systems at their company. While the project and application itself as still in the early days, Freja eID reports that its database system has been working like a "Swiss clock."

Their advice to other companies… While using a management system is a compromise compared to doing it "low-level", if your organization does not have a database and the management aspects of databases as your core experience then using a system like ClusterControl is key. "Letting that part be handled by ClusterControl as a product and Severalnines as an organisation, gave us a significantly more efficient learning curve and faster time to market with our Freja eID service," said Nesic.