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Balai Besar Sertifikasi Elektronik

CASE STUDY

Balai Besar Sertifikasi Elektronik increases their on-premises database uptime by 30% with ClusterControl

Viafirma

Industry: Digital signature / identity solutions

Technologies: Indonesia

Products: ClusterControl

Database: Percona PostgreSQL

Environment: 4 on-premises data centers

Use case

BSrE, Indonesia's government certificate authority, needed to streamline management of clustered SQL databases across four on-prem data centers. Manual provisioning and health checks were inefficient and error-prone, limiting uptime and scalability. They required a reliable, centralized solution to automate these operations and reduce the burden on their infrastructure team.

Why Severalnines

ClusterControl was the only platform that met BSrE's on-prem needs for full-lifecycle database automation. It enabled rapid provisioning, real-time monitoring, and consistent rollouts, all without external support. BSrE saw a 30% uptime boost and reclaimed 8 hours per day from manual monitoring, making it the clear choice for operational efficiency.

Background

Operating under the National Cyber and Crypto Agency (BSSN), Balai Besar Sertifikasi Elektronik (BSrE) is Indonesia's primary government-run electronic certificate authority. BSrE issues secure digital signatures and certificates to over 745 agencies — including central and local governments, and public universities. More than 90% of its users rely on BSrE's e-signature services to ensure document integrity and efficiency in public-sector operations.

Rifky Izdihar Haidi, Head of IT Infrastructure and Databases, leads the group responsible for physical servers, virtual machines, and all database applications. As digital initiatives have expanded, so have the complexity and performance demands on underlying operations.

Challenge

On-prem environments often lack access to comprehensive, full-lifecycle automation solutions for database operations, a gap that exposes teams to slower deployments, and implementation errors, and scaling limitations.

> **"We are clustering our databases across data centers. Managing and deploying the database cluster is surely challenging."**

This was the situation at BSrE, where clustering their SQL databases across multiple data centers had become increasingly time-consuming and error-prone, with the team provisioning each database node individually and manually monitoring their health.

Solution

BSrE's team initially handled deployments manually until they recognized the need for a centralized solution tailored to their on-prem needs. After evaluating options, they selected ClusterControl by Severalnines, citing its comprehensive support for database deployment, monitoring, and automation in on-premises environments. No other tools met their criteria, making ClusterControl the clear choice.

Key Selection Drivers:

- Full-lifecycle automation for on-premises database clusters
- Centralized visibility into health, performance, and alerts
- Rapid deployment and configuration capabilities

Implementation

ClusterControl was deployed across BSrE's four data centers in under one week, without the need for external support. IT staff leveraged it to onboard their SQL clusters, configure automated provisioning work-flows, and centralize monitoring all through the platform.

Measurable results and benefits

- Drastically improved productivity, with provisioning time cut from hours to minutes and monitoring duties decreased by 8 hours.
- 30% increase in uptime thanks to real-time health status monitoring, enabling the team to proactively address faults.
- Reduced risk of misconfiguration with standardized automation, resulting in fewer errors and safer rollouts.
- Faster onboarding, enabling new hires to contribute more quickly.

> **"By using Severalnines, I'm highly satisfied as it significantly boosts my productivity and simplifies tasks that used to take much more time and effort."**
>
> **Rifky Izdihar Haidi,** Head of IT Infrastructure and Databases

BSrE plans to expand its ClusterControl deployment as digital certificate usage grows. The team is also exploring open-source innovations, particularly those with AI-driven automation.

Wrapping up

As the march toward digitalization continues, AI use cases emerge, and interest in on-premises and hybrid deployments builds, BSrE's success highlights the critical need for tools tools like ClusterControl that are uniquely positioned to eliminate manual bottlenecks and reinforce operational reliability at scale for those who are implementing their stacks in these environments.