

ČSOB Stavební: Seamless migration from OpenAM to Wren:AM

ČSOB Stavební needed to modernize its Identity Server, which, after years of running on OpenAM 13, had become limiting in terms of further development and increasingly demanding to maintain. To ensure service continuity for more than 1 million clients, nearly 1,500 sales representatives, and 19 connected applications, we designed and delivered a migration to Wren:AM.



Initial situation

Since 2017, ČSOB Stavební had been operating an Identity Server (IDS) based on a customized version of OpenAM 13 and OpenDJ storage.

Integrated systems included the Client Zone, Nová eLiška, and Salesforce. The IDS authenticates ČSOB Stavební clients (OIDC), ČSOB Stavební sales representatives (OIDC), ČSOB Stavební employees (Kerberos), ČSOB Group clients (authentication transfer), and ČSOB Group employees (RADIUS).

Over the years, the robustness of the solution built on commercially supported open-source software and its ability to respond flexibly to new requirements had proven themselves. However, after six years of operation, OpenAM 13 had naturally become outdated, and the original vendor had also discontinued open-source development. This led to increasing maintenance demands and the need either to upgrade the core of the solution or move to a new system.

The goal was to eliminate technical debt, preserve the seamless operation of integrated systems, and prepare the solution for future development.



The original application had limited options for further development. At the same time, we needed to introduce a system for user authorization and authentication for frontend applications (e.g. Client Zone)



— Pavel Jiránek, Head of IT Operations, ČSOB Stavební

Core solution: Wren:AM

Given the complexity of the entire system and the investment already made in building it, together with GEM System as the system integrator, we proposed an option to address the accumulated technical debt without requiring ČSOB to invest in a transition to a completely different system.

After evaluating the alternatives, ČSOB Stavební decided to migrate to Wren:AM, the direct open-source successor to OpenAM, with support available in the Czech Republic. This solution was the most feasible and the most advantageous in terms of total cost of ownership (TCO).

Our approach to the solution

To manage the transition, a comprehensive migration plan was developed based on task automation and the **Infrastructure as Code (IaC)** approach.

The entire process was validated in the DEV environment to ensure correct functionality. During the process, performance tests were updated, and assistance was provided for upgrades in higher environments (TEST, PREP, and PROD).

The implementation also included **performance and penetration testing** in accordance with ČSOB Stavební standards.

Key challenges

It was necessary to build a new environment and introduce a different deployment and operating model.

The biggest challenge was that AM remained live-production throughout the migration. Integrated with **19 applications which had to continue functioning after the transition without major revisions to their integrations**. It was also necessary to:

- preserve the original realm configuration and the **continuity of ESB services** (SMS / Mail Service);
- ensure uninterrupted operation of registered technical accounts for integrated systems;
- preserve the audit log format, including compatibility with storage in CEF format;
- ensure **migration repeatability**, including the possibility of switching back to the old solution if any integrated applications showed issues.

Outcomes

- We successfully migrated to a supported system and **ensured service continuity** for both applications and audits.
- **Costs and effort were significantly reduced** thanks to automation and easy updates.
- **Service availability was virtually unaffected** by the migration, and the integrated applications required no modifications.
- Both the security and throughput of the system increased.
- The new system handles the workload seamlessly:
 - **1,000 AM requests per minute**
 - **1,000 parallel sessions**
 - **10,000 active parallel tokens (CTS)**

We created an additional security layer for access to target systems that meets the highest security standards and can be extended to a wide range of other IT systems. The project also included the addition of 2FA authentication. The supplier's staff were always available on the phone and their technical expertise was very high. They proactively proposed new solutions and were very willing to share the necessary know-how with our team, even in other areas of IT.

— Pavel Jiránek, Head of IT Operations, ČSOB Stavební

About the client

ČSOB Stavební spořitelna, a.s., part of the ČSOB Group, is the leading building savings bank in the Czech Republic, with nearly a 30% market share. More than one million clients are served by nearly 1,500 sales representatives across more than 200 business locations.

About Orchitech

We help IT departments manage access in complex environments. We focus on Identity & Access Management solutions. In over 18 years on the market we have completed more than 100 projects for 50 clients. Our long-term partnerships, some spanning over 10 years, attest to our stability and reliability.