

EGM

Case Study

Highlights

To support its growth in new strategic markets, EGM recognized the need to move its operations to cloud. With the help of AllCloud, the company now operates in a full, tailored AWS landing zone designed to support optimal scalability and governance, while upholding the highest standards for performance and security – meeting the needs of EGM and its customers.

About EGM:

Electrical Grid Monitoring (EGM) provides advanced grid monitoring and analytics applications for electric utilities. It offers innovative Transmission & Distribution (T&D) grid management solutions that include sensing, communication, and analytics components. EGM's solutions consist of advanced sensors, highly sophisticated analytics and sensor management software, and secure end-to-end encrypted communications. Its comprehensive suite of grid monitoring solutions addresses critical challenges facing modern utilities, from rising operation and maintenance costs to wildfire risks. By providing their customers with real-time situation awareness and accurate data, EGM supports grid quality, reliability, and resiliency.

The Challenge:

To support global growth and its expansion into new geographic markets, EGM made the strategic decision to migrate its core operations to the cloud. Operating within a highly regulated sector – electricity transmission and delivery, EGM understood that its cloud environment had to meet the highest standards for performance and security – essential for both its internal operations and for meeting customers' needs.

Moving to the cloud was a crucial step for EGM. It would streamline DevOps processes, enable modernization, and allow them to leverage advanced data and AI capabilities. Furthermore, it would address and mitigate potential latency issues for its global customer base.

Recognizing the complexity of this transition, EGM sought to work with a proven, expert partner. The CISO selected AllCloud to design their new cloud architecture and oversee the cloud migration. This partnership would ensure the solution would meet both the technical demands of the DevOps team and its development systems, as well as the company's business goals of optimization, security, and completing the project on time and within budget.

The Solution:

EGM worked closely with the AllCloud solutions team to design and implement a tailored AWS cloud migration solution. The project focused on building a robust and dynamic cloud environment that delivered on three core requirements: security, compliance, and agility. This strong foundation allows EGM to effectively scale their operations as they grow, while meeting the strict security and compliance requirements of their clients.

The project included the development of a tailored AWS Landing Zone, modernization of EGM's main application, and app enablement.

Tailored Infrastructure

As this was their first entry to the cloud, the EGM CISO and internal team worked closely with AllCloud to fully understand the company's cloud operational and financial requirements. They developed a comprehensive project roadmap, which helped the CISO effectively communicate the benefits of the solution to management.

The foundation of the project was the development of a customized, full landing zone that was strategically configured for optimal scalability and governance. The architecture incorporated dedicated environments for development, staging, and production. Notably, the cloud environment was also designed to address the challenge of application latency, which was crucial for EGM, as their solution provides real-time updates to clients across various regions. In addition, the entire infrastructure was developed as Infrastructure-as-Code (IaC) to streamline infrastructure management, and allow for automated deployment and easy scalability as the company grows into new geographic regions.

Application Modernization

Application modernization process was an important component of EGM's engagement with AllCloud. The goal was to minimize infrastructure overhead, so the EGM team could focus primarily on software development, rather than DevOps. This included leveraging **Amazon ECS** for containerization and adopting **Aurora MySQL** to replace the legacy SQL database. Furthermore, AllCloud worked to optimize the application's configuration and connectivity, to ensure seamless and efficient communication across EGM's network.

Application Enablement & Enrichment

To empower EGM to deploy new application versions quickly and independently, AllCloud established comprehensive **CI/CD pipelines**. This foundation enabled the EGM team to work independently on AWS adoption and automation, while they continued to be supported by AllCloud experts to resolve any technical challenges as they arose.

Key Outcomes & Benefits:

The migration to the cloud delivered significant benefits to EGM – both on the technical and business levels.

- **Security & Compliance**

- EGM significantly improved its overall security posture, including seamless configuration and integration.
- EGM received expert guidance on the necessary implementation steps and best practices for achieving secure, compliant cloud operations within their AWS environment, ensuring smooth integration with their existing tools.

- **Operational Independence & Expertise:**

- Following the decision to move to a cloud environment, the company decided to change the application components from a VM configuration to containers.
- The cloud environment was designed for self-sufficiency, empowering the EGM team to independently manage their new systems. This included comprehensive training and documentation received from AllCloud.

- **Business Benefits:**

- EGM significantly upgraded their cloud and automation capabilities, drastically improving their ability to introduce new software updates and application improvements. This agility is crucial for EGM, as the company continuously develops and upgrades its solution to meet customer needs.
- Crucially, the move to the cloud addressed the issue of latency, which was a major priority for EGM. This performance improvement led to high satisfaction among EGM's customers, who actively measure and report on the improved application performance.
- The entire project was completed on time and within budget – meeting the requirements set by EGM's management team.

“The AllCloud team was extremely helpful and highly flexible, consistently adapting to our evolving requirements as we worked on our cloud migration. This successful first project and initial production deployment represent a significant achievement for us. The deployment was seamless, and we’re now able to manage many tasks internally. We continue to rely on AllCloud’s ongoing support and look forward to working with them to advance our capabilities even more, and further optimize our cloud operations.”

Oren Abramov, **CISO at EGM**