J. J. Keller Migrates and Modernizes Legacy Windows Applications to Enhance Performance, Manage IT Costs

J. J. Keller & Associates, Inc.®
Since 1953

Executive Summary

J. J. Keller & Associates, Inc. is a trusted leader in safety and compliance risk management. Since 1953, the company has helped businesses minimize regulatory risk and comply with complex workplace health and safety regulations. Today, J. J. Keller supports over 600,000 clients, including more than 90% of Fortune 1000® companies.

Recently, J. J. Keller was presented with an opportunity to modernize their infrastructure that supported several of the company's core solutions. Rather than simply implement another on-prem solution, J. J. Keller decided to explore how else it could upgrade its IT infrastructure. With the help of ClearScale, a leading provider of professional cloud services for Amazon Web Services (AWS), the company was able to execute a major migration and modernization project.

> "ClearScale enabled us to go from an outdated, monolithic infrastructure to a modern infrastructure as code environment. With their expertise in AWS, we were able to do that in a fraction of the time it would've taken us to learn and implement on our own."
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> **Cliff Witthuhn,** Cloud Systems Architect at J. J. Keller & Associates, Inc.

The Challenge

Up until recently, J. J. Keller was hosting 13 Windows IIS-based web applications in a colocation data center. Consequently, J. J. Keller had to update its applications to run on Windows Server 2019. In addition, the company wanted to migrate out of its existing data center and into AWS to take advantage of modern cloud computing technologies.

Another motivation for J. J. Keller was that it wanted to reduce its IT costs by modernizing its database infrastructure. Moreover, it was important to the company that it could maintain the database server replication design it was already using.

To maximize success, J. J. Keller decided to bring in a cloud expert with ample migration experience. The leadership team reached out to ClearScale, an AWS Premier Consulting Partner with a Migration Competency, for help in reviewing its database network design, deploying a new AWS infrastructure, and migrating all web application data to AWS.

The ClearScale Solution

ClearScale's first order of business was to audit J. J. Keller's existing database infrastructure architecture to obtain a full understanding of the company's mission-critical applications. That way, ClearScale's migration experts could design the optimal cloud platform for J. J. Keller's needs. It also provided an opportunity for J. J. Keller's newer engineers to learn the ins and outs of the company's legacy applications.

Next, ClearScale's team of systems engineers and solution architects developed a new architecture design and worked closely with J. J. Keller to ensure it fulfilled the company's cloud goals. Once approved, ClearScale proceeded with the migration and implemented a number of powerful cloud services according to AWS best practices. The new cloud architecture included development, QA, shared-development, and a DR environment in addition to the production environment. AWS Directory Services were integrated with J. J. Keller's on-premise Active Directory.

One service in particular that was important to the project was Amazon FSx. ClearScale used the service to create Windows fileshares and create capacity for J. J. Keller's IT team. Amazon FSx is a fully managed solution, which means that AWS takes on much of the backend administration work associated with maintaining file storage so that users don't have to. The service is also highly scalable, reliable, and performant. J. J. Keller would not have to worry about whether or not it had the throughput needed to support its Windows workloads.

Lastly, ClearScale configured a new networking tier for J. J. Keller and new Infrastructure as Code (IaC) was developed to fully automate these environments. ClearScale developed a way for the company to push updates to its new environments directly from Azure DevOps. AWS Inspector was used to allow J. J. Keller to create its audit reports, and the environments were integrated with the company's existing monitoring solution. Together, these updates provided J. J. Keller with a revamped IT infrastructure that could support the company's growth going forward.

"ClearScale had our long-term vision in mind at the onset of this project, which allowed them to help us be very well positioned for future growth and scalability."

Matthew Bingham, Sr. Development Manager at J. J. Keller & Associates, Inc.

The Benefits

Thanks to ClearScale's engagement, J. J. Keller was able to improve the resiliency, performance, and cost-effectiveness of its overall IT infrastructure. The company upgraded from an on-prem solution to a fully vetted IaC cloud based solution without any hiccups and modernized its Windows infrastructure on the AWS cloud with efficient managed services.

By carefully evaluating J. J. Keller's applications, ClearScale was able to ensure the success of the company's large-scale migration. In addition, ClearScale was able to consolidate services, database users, and dependencies - increasing the efficiency of J. J. Keller's operations. The company also spends less today on its database costs, freeing up capacity for new investments that will further enhance the customer experience. Lastly, ClearScale provided consistent and clear documentation so that J. J. Keller's engineers know how the new environment works.

Looking ahead, J. J. Keller can now leverage powerful AWS cloud services that were previously out of reach, in its continuing position as a leader in the safety and compliance risk management space.