

The Oak Ridge National Lab (ORNL) Credit Union is one of the original employer group credit unions for the Oak Ridge National Laboratory located in eastern Tennessee. Now, ORNL serves approximately 175,000 members spread out over 19 counties in the Oak Ridge and Knoxville metro area. The company has two corporate locations, 29 branches, and about 450 employees. In addition to helping its members manage their money, ORNL is deeply involved in supporting projects that benefit the communities of East Tennessee.

RESULTS HIGHLIGHTS

- Critical vulnerabilities were reduced by over 90% in just 2 months
- Saved ORNL 1,200+ hours of in-house business IT modernization, maintenance and management
- Improved Disaster Recovery strategy led to large decreases in RTO and RPO times
- Migrating to the cloud using AWS provided increased flexibility, scalability, and resilience
- Staffing and skill gaps have been eliminated due to VAST's managed services and the ability to attract and retain experienced IT experts



Problem

ORNL's biggest IT-related problem was the ability to attract and retain senior-level employees with the skill sets necessary to address the rapidly evolving and changing technology landscape. The lack of skilled resources limited ORNL's ability to maximize its cloud presence, run day-to-day operations efficiently, and manage projects to update and modernize its computing environment.

"We found it very difficult to staff up to the level we required," said Steve McAtee, ORNL's Chief Technology Officer.

"We had difficulties justifying the compensation necessary to attract the people we needed to optimize our IT environment."

Additional staffing issues resulted in excessive system vulnerabilities due to the inability to maintain a viable and effective patching schedule. ORNL was also challenged with efficiently migrating from an on-premise IT environment to a hybrid cloud model that incorporated the computing power of Amazon Web Services (AWS).

"We had difficulty getting project managers to focus on IT-centric versus business projects," said Steve. *"The IT department suffered from a lack of staff possessing the requisite skills to provide the level of service and performance we desired."*

Solution

ORNL partnered with VAST to fill its staffing gaps, researching and implementing new technologies into their environment, and providing project management skills that enabled it to move forward with cloud migration plans while effectively addressing the patch management issue.

VAST supplied certified engineers skilled in AWS, VMWare, and other areas of the IT environment that required attention. *"VAST's project management team was able to address the backlog of projects by scheduling meetings, working with vendors, and pushing the project through"*, said Steve. *"When we move to production, VAST develops server checklists, playbooks, and procedures and works as a remote support team."*

VAST's involvement was instrumental in facilitating ORNL's technology modernization. *"VAST helped promote the idea of migrating from an on-premise data center to the cloud by detailing the organizational benefits of reducing hardware costs and taking advantage of cutting-edge technology,"* said Steve. The increased flexibility, scalability, and resilience of the cloud made sense to ORNL's decision-makers and they were able to move forward with VAST's recommendations for cloud migration and improved disaster recovery plan. Additionally, multi-factor authentication protection was implemented, FSx backup capabilities, AWS cloud security, and so much more.

It was equally important that VAST help maintain support for ORNL's legacy solutions while they worked towards upgrading their IT environment. VAST supported a hybrid backup approach necessary to keep everything protected, while moving to the cloud by implementing cloud backups as workloads were migrating to AWS. VAST also created a disaster recovery strategy that utilized the AWS Elastic Disaster Recovery approach. *"Our DR strategy has been streamlined with cloud and on-premise workloads using the same AWS DR solution,"* said Steve.

In addition, ORNL transitioned from a CapEx to an OpEx mindset by eliminating capital spending on hardware purchases that may not efficiently meet business objectives. *"Moving to AWS provides ORNL with on-demand scalability to cost-effectively address fluctuating business needs,"* said Steve.

VAST's engineers occasionally visit ORNL's facilities and have developed a relationship with the internal staff. *"The transfer of knowledge from VAST's engineers to our staff has been instrumental in facilitating our cloud migration plans,"* said Steve.

"VAST's team can draw on a history of successful migrations that help our team understand the benefits to them and the company. They have come to appreciate not having to come in or go to a datacenter on the weekend to move equipment because workloads are now being run on public cloud infrastructure."



Results

Since partnering with VAST and implementing patch management procedures, any critical vulnerabilities affecting ORNL's IT assets had been reduced by over 90% in 2 months. Security patches are now installed promptly, ensuring system vulnerabilities are addressed before they become exploited by threat actors. *"When you look at historical charts, you can tell when VAST got involved in our patching,"* said Steve. *"There was an immediate downhill trend in the number of vulnerable systems which has continued to decrease until it is negligible, with all systems patched as soon as possible."*

VAST's work with ORNL to improve its organization's disaster recovery strategy and procedures was also key. *"We have improved resiliency by using services in two AWS regions and using AWS Elastic Disaster Recovery to restore in minutes to either region. In addition to this increased resiliency, we have seen performance benefits with a dramatic decrease in RTO and RPO times since migrating to AWS Elastic Disaster Recovery."*

Bringing on VAST to modernize ORNL's technology environment allowed their team to stay focused on running the business. VAST was able to save their in-house systems team over 1,200 hours of time on necessary IT projects. Without the knowledge and expertise to manage key activities, VAST was able to provide the company with the IT skills and resources necessary to address its problems effectively. *"VAST offers excellent managed IT services with the ability to attract and retain skilled IT experts while matching it to our needs. They have resolved our staffing issues and given us the ability to provide the company with the modern and efficient IT environment it needs."*

In addition, the exposure of ORNL's junior IT members to VAST's team of experts has been beneficial in transmitting knowledge of best practices related to all aspects of the environment, particularly cloud computing. *"After working with VAST's cloud experts, any reluctance our staff had about moving to the cloud was alleviated,"* said Steve.

