

Case Study

New Era Technology's Leap to the AWS Cloud: Innovating Field Services Tools by Migrating 30+ Servers with Datavail

New Era Technology is a global managed service provider that serves as a trusted adviser to more than 14,500 customers worldwide. Customers rely on its seamless blend of solutions that securely connect people, places, and information in a rapidly changing digital world. Before the migration, these workloads were running on on-premises VMware.

Technologies

- Amazon CloudWatch
- Amazon Simple Storage Service (S3)
- Amazon Route 53
- Amazon CloudTrail
- AWS Web Application Firewall
- Amazon Elastic Compute Cloud (EC2)
- AWS Application Migration Service
- AWS Key Management Service
- AWS Elastic File System (EFS)
- AWS Systems Manager
- AWS Secrets Manager
- AWS RDS for SQL Server
- AWS IAM Access Management
- On-premises VMware

Challenge

New Era Technology's Corporate IT was planning on a cloud migration, making it the perfect opportunity for the Field Services to look into the same. However, with a large roster of name-brand clients depending on its services for monitoring credit card readers, cash registers, and other critical systems, an on-premises to cloud migration would need to have minimal downtime.

The local backups were growing over time and lacked standardization. This project not only aimed to migrate to AWS but also provide high availability (HA) and disaster recovery (DR) in the cloud to add more business-critical redundancy and establish a more uniform and consistent environment. These workloads were running on on-premises VMware. By moving to AWS, New Era was able to use the built-in hypervisor layer provided by AWS.

Adding to the challenge, there was no non-production environment to test. The database and application environments were complex and required careful handling to ensure that their functionality in the cloud matched that of the on-premises systems.

For this particular initiative, New Era Technology wanted to migrate its field services application, Fieldpoint, and many other related and dependent systems, to Amazon Web Services (AWS). This tool helps the company deploy its solutions at its customer sites.

The initial phase involved moving 30+ production servers into AWS Elastic Compute Cloud (EC2). The environments had a mix of Windows and Linux operating systems across multiple versions, as well as Microsoft SQL Server databases that ranged from 2012 to 2017 editions.

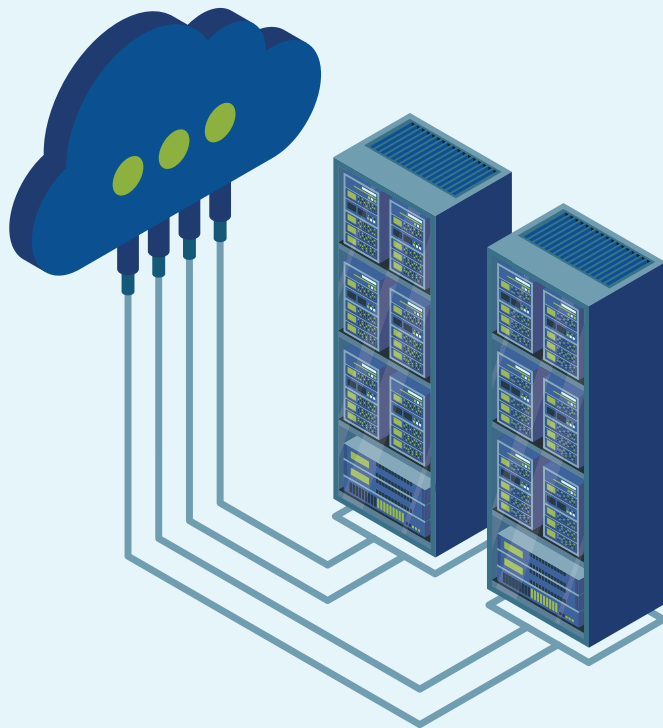
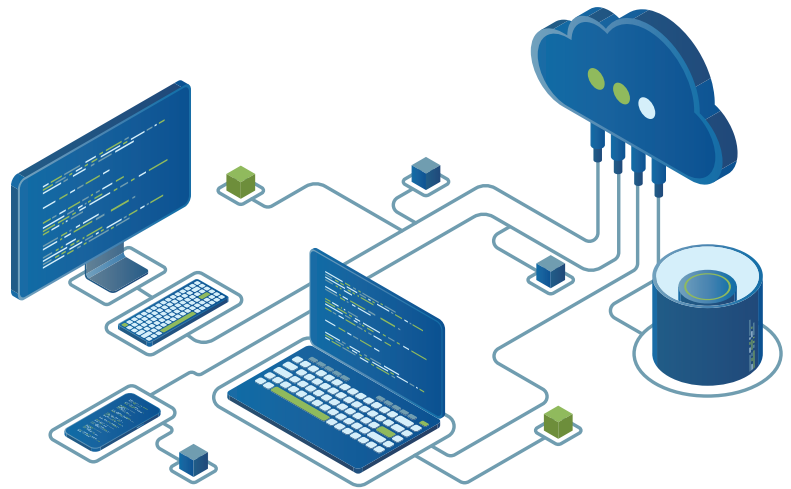
Not all of New Era Technology's servers were moving to the cloud, so the solution needed to support a hybrid environment where on-premises and cloud servers could talk to each other with low latency.

New Era went through an AWS Optimization License Assessment to better understand its options and the costs associated with varying migration paths to the cloud. With this information in hand, New Era Technology came to Datavail to access the specialized expertise required to handle a complex cloud migration to AWS.

Solution

Some applications were legacy software requiring substantial changes to move to the cloud. By moving the production databases associated with these applications into the cloud, New Era could begin harnessing cloud benefits without needing to immediately refactor the applications. Several custom-built servers were also included in this project.

As is common with complex environments and migrations, the business needs changed over time. Datavail and New Era Technology's teams collaborated closely to adapt and achieve the ideal technical and business outcomes. Datavail's close partnership with AWS also helped guide the company in making the best use of its AWS credits.



As New Era Technology did not have an existing AWS environment, Datavail first deployed stable and scalable infrastructure to support the migrated workloads in an AWS Landing Zone. This included creating and enabling required AWS core services, including Route 53 records, CloudTrail, CloudWatch logs, S3 buckets for logs, security groups, IAM roles, VFC flow logs, NAT gateway, and internet gateway.

Following this, over 30 servers needed to be migrated to AWS EC2. The instances were set up with a minimum of two availability zones for redundancy and business continuity purposes.

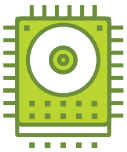
To keep downtime at a minimum, the Datavail team selected the AWS Application Migration Service (MGN) for this cloud migration. This service is designed to speed up lift-and-shift (rehost) migrations through automated processes and short cutover windows, made possible by replicating most of the data into the cloud well in advance of the migration.

Results



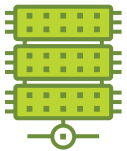
Migrated to the Cloud with Minimal Downtime

New Era didn't have to worry about major disruptions to its customers and their critical systems. Datavail's AWS migration experts and cloud engineers used their extensive hands-on experience in complex migrations and powerful AWS services to achieve this goal. The databases kept the same functionality as they had on-premises and could now start delivering on cloud benefits like high availability and scalability.



Reduced the Number of On-Premises Backups Required

New Era no longer needed to support as many on-premises backup servers for its field services application, freeing up resources for other projects and reducing the complexity of maintaining a hybrid environment.



Established a Uniform and Consistent Environment

By using the Infrastructure as Code through Terraform when setting up the AWS Landing Zone, all of the server environments are uniform, consistent, and simple to keep standardized.



Equipped the In-House Team with Essential Cloud Skills

The New Era team grew their cloud knowledge exponentially while working closely with Datavail's experts. The in-house team became the expert in AWS services and expanded their capabilities beyond on-premises systems.



Reduced VMware Licensing Costs

By moving to the built-in hypervisor layer provided by AWS, New Era was able to migrate away from VMware and reduce the associated VMware licensing costs and related spend.