



Cloud-First Transformation: Achieving Resilient IT with AHEAD's Disaster Recovery Solutions

A global industrial manufacturer launched a cloud-first IT transformation to modernize its infrastructure, improve agility, and support long-term innovation.

As part of this shift, the company required disaster recovery (DR) protection for all production applications—whether running on-premises or in AWS. They turned to AHEAD to design a scalable, automated DR solution capable of restoring operations within one hour in the event of a disruption.

TOP 3 TAKEAWAYS

A global industrial manufacturer turned to AHEAD to design a disaster recovery (DR) solution that can rapidly restore operations after a disruption event.

1

The DR solution was designed in tandem with a migration to AWS for added flexibility and scalability.

2

The solution needed to automate infrastructure reconfiguration for thousands of applications and systems across hybrid environments.

3

AHEAD designed a highly resilient, automated, cloud-native DR solution that supports business continuity and scales with its evolving IT strategy.

The Challenge

This global power systems company sought to evolve its IT environment by adopting a cloud-first strategy built on AWS. The flexibility and scalability of AWS played a central role in enabling faster innovation and cost optimization.

A critical requirement of the transformation was to ensure comprehensive DR coverage for thousands of applications and systems across hybrid environments. The solution needed to:

- Meet strict RTO and RPO goals of one hour
- Seamlessly replicate and fail over virtual machines
- Automate infrastructure reconfiguration across storage, DNS, security, and identity systems
- Adhere to modern governance and compliance standards

Specific technical challenges included rewriting security rules for AWS Network Firewall and EC2 Security Groups, reconfiguring storage connectivity, automating DNS updates, and ensuring failover servers could authenticate with Active Directory. The company also needed to monitor and tag all resources for visibility and compliance.

The Solution

AHEAD began with a detailed assessment of the client's workloads, dependencies, and business continuity objectives.

The team then implemented a hybrid DR solution using AWS Elastic Disaster Recovery (DRS), VMware, and Zerto.

- Application VM replication across on-prem and AWS environments
- Infrastructure as Code (IaC) automation to manage configurations at scale
- Automated runbooks for DR testing, failover, and failback
- Custom network and security configurations based on real-time traffic monitoring
- Integration with DNS, Active Directory, and monitoring systems
- Cloud governance automation using AWS tags and alerts

The specific AWS Services used include:

- AWS Cloud
- AWS Elastic Disaster Recovery (DRS)
- AWS S3
- AWS CloudEndure
- AWS Application Migration Service
- AWS Config
- AWS API Gateway
- Amazon Route 53
- AWS EC2
- AWS Network Firewall
- Amazon CloudWatch
- AWS Security Groups



Outcomes

AHEAD delivered a fully automated DR strategy that met the client's RTO/RPO objectives while aligning with their cloud governance policies. Key results included:

- End-to-end automation of DR workflows and infrastructure provisioning
- Seamless integration with service ticketing systems for real-time failover alerts
- A centralized process for collecting and standardizing application data
- Rapid failover and failback capabilities across thousands of workloads
- Full alignment with the organization's security and compliance standards

The organization now benefits from a highly resilient, cloud-native DR solution that supports business continuity and scales with its evolving IT strategy.



AHEAD

Combining cloud-native capabilities in software and data engineering with an unparalleled track record of modernizing infrastructure, we're uniquely positioned to help accelerate the promise of digital transformation.

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