Case Study - ASI





AARP is a nonprofit, nonpartisan social welfare organization with a membership of nearly 38 million that helps people turn their goals and dreams into real possibilities. It does so by strengthening communities and advocating for the issues that matter most to families, including healthcare, unemployment, income security, and protection from financial abuse. AARP offers discounts and benefits in various healthcare and lifestyle categories to its subscription members.

AARP Services Inc. (ASI) manages relationships with companies that provide AARP member benefits. Influent50 is an AARP agency and an expert in the 50+ age market. The firm studies trends in that segment, including attitudinal patterns, behavioral tendencies, purchasing trends, and more. It has strategic partnerships with other businesses, offering valuable and relevant insights—such as research on the 50+ age segment—through positive communication channels for a fee.

CHALLENGE:

AARP Services Inc. (ASI) needed to migrate large volumes of Clickstream data from its existing on-premise servers to the AWS Cloud. The challenge was not only to ensure a seamless, secure transition but also to automate the data pipelines for continuous updates—ensuring real-time accessibility for ASI's analysts and data scientists.

Post-migration, ASI required robust ongoing support to manage the new AWS infrastructure. This included monitoring performance, resolving incidents, maintaining configurations, and ensuring security compliance—all while minimizing downtime and operational disruption.

Management & Maintenance Challenges	Technical Challenges
Hardware nearing end-of-life	Lack of high availability and fault tolerance; reliance on hardware-dependent accessory services
Rising hardware and software licensing costs	Performance degradation with increasing data volume and frequency
Inability to support new feature rollouts	Servers unable to handle evolving demands and workloads
	Inefficient data backup and restore processes
	Difficulty achieving operational excellence
	Need to define high-level architecture best practices that ensure security and scalability



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SOLUTION:

The Idexcel implementation team evaluated the existing workload and infrastructure to identify common bottlenecks and critical parameters. To ensure the new solution met performance expectations and supported evolving workload demands with resilience, high availability, and fault tolerance, the application was migrated to Amazon Web Services (AWS).

The team held comprehensive discussions with business and technical stakeholders to define the best deployment approach, carried out through the following phases:

- 1. Cloud Readiness Assessment
- 2. Migration Readiness Assessment
- 3. Portfolio Assessment

Based on the insights from these sessions, Idexcel determined the optimal migration strategy and executed the

following steps:

Idexcel's solution included:

- 1. Migrated MS SQL database workloads to Redshift to gain the following performance benefits:
 - a. Fully managed and hosted solution
 - **b.** Better disaster recovery strategy
- 2. Used Amazon Elastic Compute Cloud (Amazon EC2) to process ETL computing workloads.
- 3. Deployed Amazon Virtual Private Cloud (VPC) and associated services to securely isolate cloud resources.
- 4. Enabled infrastructure health monitoring and alerting using CloudWatch and SNS.
- 5. Implemented AWS CloudFormation to deploy infrastructure as code.
- 6. Performed a one-time data migration using S3 Copy and Redshift load processes.
- 7. Facilitated data extraction using native Redshift commands.
- 8. Adopted an event-driven approach using Lambda to trigger ETL processes.

Once the migration was complete and validated for performance, stability, and reliability, the team focused on cost optimization for EC2 instances and Redshift clusters.

BENEFITS:

With proper assessment, planning, and design, the Idexcel team successfully completed the migration process within the original timeframe.

Key benefits achieved through the new solution include:

- 1. Performance efficiency of certain workloads improved by up to 10x.
- 2. Support for new workloads and growing data volume.
- 3. Reduction in software licensing costs.
- 4. Cost savings on infrastructure usage.
- 5. Highly available and resilient solution.

OUR AWS COMPETENCIES



DevOps Services Competency Financial Services Competency Migration and Modernization Services Competency

Contact us

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