

Achieve 60% Faster Performance and Secure \$1.5T AUM via AWS Cloud Modernization Like this US-based financial service provider with Aspire systems

Industry

Financial service provider

Business Presence

Worldwide

HQ

United States (Arlington, Texas)

About the Client

A US-based financial technology and services provider that leverages over 30 years of expertise to revolutionize wealth management through innovative, data-driven solutions. Their business objective focuses on transforming complex financial data into actionable insights and building customizable tools that meet the unique needs of diverse global marketplaces. They manage an Asset Under Management (AUM) exceeding \$1.5 trillion and process more than 1 billion transactions daily for over 450,000 accounts worldwide.

Business Challenges

As a provider in the wealth management and financial technology sector, the customer aims to modernize their infrastructure and data management strategy to support rapid business growth and ensure the integrity of sensitive financial information. They faced significant operational hurdles and scalability limitations within their legacy on-premises environment, particularly regarding data mobility and system performance.

Some of the hurdles they faced due to their legacy infrastructure and manual processes included:

- ▶ Need for performance optimization due to user experience driven by average web server response times of 1.03 seconds.
- ▶ High-risk data migration requires secure transfer of 3 TB of on-premises data to AWS over the internet without compromising integrity or timelines.
- ▶ Need for database scalability so the daily incremental growth of 30 GB can be handled without impacting processing speeds.
- ▶ The backup and recovery mechanisms centered on physical tapes and disks were unreliable, creating high risks of data loss and uncertainty around business continuity.
- ▶ Security and compliance gaps were found in managing sensitive financial data.
- ▶ Need for robust encryption at rest and in transit, alongside consistent monthly patching for various Windows and Ubuntu server environments.
- ▶ Higher operational costs resulting from high disk expenses and inefficiencies in long-distance data transfer and manual infrastructure monitoring.

Aspire Systems' Approach

The client, a leading wealth management firm, faced critical operational bottlenecks due to a legacy on-premises architecture. Frequent downtime and high latency were impacting trade-critical applications, while manual backup processes created significant compliance risks.

Leveraging the AWS Well-Architected Framework, our certified architects designed a multi-phase migration and modernization strategy to build a high-availability environment:

- ▶ Executed a secure, 8-week migration of 3 TB of financial data and 10+ mission-critical database clusters using AWS DMS and specialized migration protocols.
- ▶ Minimized manual overhead and human error by automating AMI backups and implementing AWS Systems Manager for seamless patch management.
- ▶ Optimized Amazon EC2 and RDS instances, alongside application-level tuning, to drastically reduce latency for real-time wealth management dashboards.
- ▶ Established a "Defense-in-Depth" security posture using AWS IAM best practices, MFA, and AWS KMS for encryption at rest and in transit.
- ▶ Integrated AWS CloudTrail, AWS Config, and Amazon CloudWatch to ensure audit-readiness and 24/7 proactive monitoring of the financial ecosystem.

Business Benefits



60% Faster Application Performance



40% Reduction in Production Downtime



Automated “Zero-Downtime” Resilience.



Audit-Ready Compliance Posture



Increased Growth Foundation scalability to handle 30 GB daily database growth without performance degradation.



Reduced costs through Cloud Operations.

Technology Snapshots:

The solution uses AWS for core infrastructure and Cloudflare for DNS, WAF, and edge security. New Relic supports performance monitoring, while CrowdStrike ensures endpoint protection. Together, these tools provide high availability, optimized performance, and strong security.

Tools Used

- ▶ Cloudflare
- ▶ New Relic
- ▶ We are using AWS Cloud & the service list includes
 - EC2-Instances
 - VPC
 - Route53
 - CloudWatch
 - CloudTrail
 - S3
 - Lambda
 - SES
 - Key Management Service
 - Secrets Manager
 - Backup
 - SNS
 - CloudWatch Events
 - Systems Manager
 - CloudShell
 - Guard Duty
 - AWS Inspector

Platform Deployed On:

- ▶ AWS, Cloudflare, Windows & Ubuntu

Languages Used:

- ▶ Java & Dot Net

About Aspire Systems

Aspire Systems is a global technology services firm serving as a trusted technology partner for our customers. We work with some of the world's most innovative enterprises and independent software vendors, helping them leverage technology and outsourcing in our specific areas of expertise. Our core philosophy of "Attention. Always." communicates our belief in lavishing care and attention on our customer and employees.

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