

Sonata Achieves 30% AWS Cost Reduction working with Bluestem Brands

Sonata Optimizes AWS with Bluestem Brands, Reducing Costs, Strengthening Resilience, and Establishing a Solid Foundation for Data Intelligence



About the Client

Bluestem Brands, Inc., headquartered in Eden Prairie, MN, is a coming together of Fingerhut—a renowned fintech company with years of experience providing diverse payment options backed by data modeling and analytics - and Orchard Brands, which delivers lifestyle apparel through a diverse portfolio of direct-to-consumer fashion brands.

Bluestem uniquely positions itself at the intersection of being a leading provider for consumers looking to establish, build, or rebuild credit through Fingerhut and those looking for value and exclusivity through curated solutions tailored to the mature consumer market via Orchard Brands. The company has consistently prioritized technology, recognizing tech's transformative role in enhancing competitiveness across its diverse business interests. It saw a move to the cloud as a catalyst for its digital strategy and further strengthen its efforts to modernize the company's sprawling IT infrastructure, making it future-ready, adaptable, and resilient.

Key Challenges

Bluestem Brands, a fintech company and direct-to-consumer fashion retailer, struggled with sprawling IT costs like many companies. Maintaining on-premise infrastructure for multiple environments across data centers, left little room for effective scalability. Compute and storage costs continued to increase year over year. Bluestem Brands needed a more cost-effective, yet resilient, and scalable solution.

Critical challenges: Managing costs of a scaling on-prem environment while dealing with legacy applications and aging hardware.

Escalating Migration Costs: Migrating legacy applications on an as-is basis resulted in overprovisioning, driving costs northwards. While initially expedient, the "lift and shift" approach failed to leverage cloud-native optimizations, leading to inefficient resource utilization.

Inconsistent On-Prem Environment: The Bluestem IT team was overburdened by the diverse configurations across their IT ecosystem. The variations meant an overly long discovery phase and various compatibility challenges.

Inability to Review and Optimize Costs: A quick cloud presence is the primary benefit of lift and shift, but considering this process involves 'lifting' workloads as they are, it requires constant review to ensure on-prem applications are efficiently translated to cloud environments and undergo cloud-specific optimizations. Continuous monitoring is also necessary to reduce costs by rightsizing instances and managing resource usage. Lack of bandwidth in the IT team meant this review and subsequent optimization was challenging while focusing on completing the cloud migration.

The Solutions Stack

Sonata Software partnered with Bluestem Brands to complete their migration to the cloud and optimize their AWS environment.

The partnership experienced the effects of the typical lift and shift methodology companies employ to quickly get to the cloud, a methodology that requires review during and after migration to actualize optimal cost savings. Sonata Software has considerable expertise across many industries, assisting clients to optimize their cloud environments.

Sonata Software partnered with Bluestem Brands leveraging AWS CloudWatch and Trusted Advisor, to identify various targets for computing and storage optimizations.

Amazon Elastic Compute Cloud (EC2) Optimization and Rightsizing: EC2 instances were one of the first optimizations both organizations began reviewing. Bluestem Brands recognized that the architecture was provisioned with a data-center approach and recommended this target to Sonata Software. Bluestem had previously implemented tagging schedules to automate the shutdown and startup of the non-production environment when not actively needed. Sonata was tasked with extending this automation across a broader fleet of instances, which required close coordination with stakeholders to define acceptable power-down schedules and validation testing. This approach saved charges without impacting business operations. Next, both organizations began to review the recommendations from AWS Trusted Advisor to rightsize EC2 instances. Utilizing metrics from CloudWatch and business input, Sonata and Bluestem were also able to optimize the EC2 footprint in AWS. Optimizing capacity saved costs, and reduced the number of EC2 instances, yet maintained resiliency.

Storage Optimization: The second area of focus recommended by Bluestem Brands revolved around storage. The AWS Trusted Advisor identified several key areas of optimization. A significant quantity of datasets were identified that could be moved into S3-Glacier storage. Sonata contributed significantly to reducing snapshot expense through implementation of Bluestem's updated backup guidelines for non-production systems. Development, non-production, and production systems did not need to have the same frequency of backups, allowing for additional savings for each environment. Finally, efforts focused on rightsizing of the EBS volume IOPS and throughput configurations. This led to further rightsizing of volume sizes for database servers.

AWS Accounts Cleanup: Our last area of optimization centered around cleaning up legacy AWS accounts and services from previous mergers and acquisitions. Standardizing and bringing consistency into the environment led to additional cost savings from reducing NAT Gateway costs, further reduction of the EC2 environment, and several other indirect costs. Continuing periodic reviews of recommendations from the Trusted Advisor will keep Bluestem Brands lean.

Results and Benefits

This optimization effort delivered far-reaching benefits. While many companies embark on Cloud optimization to cut costs, the process goes beyond savings. It uncovers hidden bottlenecks, strengthens security by minimizing the attack surface, and ensures technology aligns seamlessly with business objectives:

30% reduction in AWS costs: The advantage of AWS and pay-as-you-go, means customers can begin realizing savings immediately, and not at a future contract renewal. When done in alignment with natural business cycles, AWS costs will rise and fall predictably with those cycles.

Addressing key application bottlenecks: Increasing capacity improved response time, and increased resiliency. In the unlikely event of a failure, the remaining EC2 instances need enough capacity to take on the extra traffic. Optimizing ensures predictable performance and response, even considering rare failures.

Decommissioning for security and cost benefits: Decommissioning unused and unnecessary EC2 instances decreases the attack surface, reduces the danger of vulnerability exploitation, and secures while optimizing the AWS environment, resulting in both direct and indirect cost benefits.

Aligning business needs and technology: Services are configured to achieve proper Recovery Time Objectives (RTO) and Recovery Point Objectives (RPO). Spending is reduced where RTO and RPO are over-configured. RTO and RPO substantially reduced data retention, which also reduced corporate risk.