

Scaling Financial Services with Sonata's CI/CD Automation and AWS DevOps Platform



Sonata helped a leading financial services provider to achieve seamless, secure, and efficient operations across 500+ applications globally. Facing challenges with manual processes, compliance, and fragmented source code management, Sonata implemented an AWS-based DevOps platform that automated CI/CD pipelines and bolstered security. This solution reduced manual efforts by 70-80%, cut release cycles by 30%, and improved collaboration and compliance standards.

A top financial services provider with a strong presence in retail, corporate, and investment banking. With an annual revenue exceeding several billion dollars, the client manages a diverse range of financial applications and services across the globe.

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graph TD; A[Lack of Source Code Management and CI/CD Practices] --- B[Manual Processes and High Operational Costs]; B --- C[Inefficient Collaboration and Security Compliance]; C --- D[Dependency on Key Personnel]; D --- A;
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Lack of Source Code Management and CI/CD Practices
Managed over 500 applications without unified source code management or efficient CI/CD pipelines.

Manual Processes and High Operational Costs
Manual deployment and release processes resulted in delays and increased costs.

Inefficient Collaboration and Security Compliance
Disconnected tools and platforms made it difficult to maintain security standards and foster team collaboration.

Dependency on Key Personnel
Approval and task execution relied heavily on specific individuals, causing bottlenecks.

Sonata implemented an integrated DevOps platform on AWS to address these challenges, focusing on automation, security, and efficient resource management:

<p>Branching Strategy Implementation</p> <p>Developed a clear and structured branching model to streamline development and deployment processes, ensuring smooth collaboration across teams.</p>	<p>Automated CI/CD Deployment Process</p> <p>Code commits triggered automated CI workflows:</p> <table><tr><td>Build artifacts were stored in GitHub Releases.</td><td>Post-approval, CD workflows deployed artifacts to staging and production environments, reducing manual intervention.</td></tr></table>	Build artifacts were stored in GitHub Releases.	Post-approval, CD workflows deployed artifacts to staging and production environments, reducing manual intervention.
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<p>Enhanced Release Management with Three-Gate Review Process</p> <p>Introduced a three-gate review process for code quality and automated release workflows, enabling efficient stakeholder interactions directly from GitHub.</p>	<p>Enhanced Security and Compliance</p> <p>Implemented mandatory code reviews, source code versioning, and integrated SAST security checks, ensuring compliance with industry regulations.</p>		

- **Automated CI/CD Pipelines with GitHub Actions**
Enabled robust CI/CD workflows integrated with quality gates for streamlined deployment.
- **High Availability and Reliability with AWS EKS**
Deployed Dockerized applications using AWS Elastic Kubernetes Service (EKS), ensuring scalability and minimal downtime.
- **Enhanced Security with AWS Integrations**
Utilized GitHub's security features alongside AWS IAM policies for secure access control and compliance.

- **AWS Lambda** for automation and serverless workflows
- **AWS Elastic Kubernetes Service (EKS)** for container orchestration and scalable deployments
- **AWS Elastic Container Registry (ECR)** for secure container storage
- **AWS IAM** for secure access control
- **AWS CloudFormation** for infrastructure automation
- **AWS CloudWatch** for monitoring and observability

The implementation of Sonata's DevOps platform delivered substantial benefits to the client's financial operations:

The diagram consists of five light blue rounded rectangular boxes arranged in two rows. Each box contains a bold title and a descriptive paragraph. The first row contains three boxes, and the second row contains two boxes. The boxes are connected by a light blue line that forms a continuous path through them.

- 70-80% Reduction in Manual Efforts**
Automated workflows minimized manual tasks, saving time and resources across the software lifecycle.
- Improved Process Efficiency**
Achieved faster build, testing, and deployment cycles, reducing the overall release time by 30%.
- Enhanced Collaboration and Security**
The integrated tools improved team collaboration and adherence to security standards.
- Scalability and Productivity Gains**
Optimized resource utilization and dynamic scaling allowed teams to focus on high-value tasks.
- Compliance and Audit Readiness**
Detailed tracking and logging ensured all processes met compliance and audit requirements, boosting confidence in regulatory adherence.