

20X Faster Deployments: A Fortune 50 Financial Giant Transitions to Argo CD in 2 Weeks

About

Our client is a Fortune 50 global leader in financial services, providing investment banking, asset management, and financial solutions to millions of customers and businesses worldwide. With over \$3 trillion in assets and operations across more than 100 countries, the company is at the forefront of digital transformation, leveraging cutting-edge technology to enhance financial services.

Objective

To maintain its market leadership, the company continuously modernizes its IT infrastructure, adopting cloud-native solutions and DevOps best practices to improve software delivery speed, reliability, and security. As part of this transformation, the company's DevOps team explored GitOps with Argo CD to streamline application deployments across its large-scale Kubernetes environments.



Challenge

As part of its digital transformation initiatives, the company's DevOps team conducted a proof of concept (PoC) with Argo CD after realizing that GitOps was the future for managing and automating deployments. Their existing deployment approach relied on Jenkins pipelines, which followed a push-based model, making deployments slow and inefficient. Argo CD, with its pull-based and auto-reconciliation capabilities, offered a more streamlined and reliable alternative.

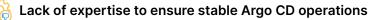
Key Challenges Faced by the company:

📩 Push-based deployments were slow and inconsistent

- The company wanted Git to be the single source of truth for application definitions, configurations, and environments in a declarative format.
- They aimed to automate and audit deployments while ensuring consistency across all environments (dev/test/staging/prod).

Scaling Argo CD across 1000+ applications was a challenge

- The PoC was successful in a test environment, but scaling Argo CD to an enterprise level was a challenge.
- They had over 1000 applications running across 30+ AWS EKS clusters and needed expertise to efficiently manage deployments across these clusters.
- The goal was to replace Jenkins-based CD pipelines and integrate Argo CD seamlessly into their existing CI/CD workflows.



- Since hundreds of applications would be deployed daily, the company needed a stable and continuously monitored Argo CD setup.
- They sought expert guidance to proactively monitor Argo CD's health, detect failures early, and optimize its performance for large-scale operations.



Implementing complex deployment scenarios was hard

- The company's architecture required Argo CD to support complex deployment use cases such as deploying multiple applications from one or multiple Git repositories.
- Another challenging use case was ensuring seamless synchronization between manifests and multiple clusters (for multiple environments) upon any change.

Lack of visualization of deployment KPIs

- The DevOps managers needed real-time insights into deployment metrics such as deployment speed across teams and applications, and failure rates and patterns over time.
- These insights would help the team continuously refine and improve the deployment process.



Given these challenges, the company's DevOps team sought expert guidance to integrate Argo CD at scale within their enterprise ecosystem, ensuring seamless adoption and long-term reliability.

Solution

To help the finance company successfully adopt Argo CD at scale, OpsMx provided ISD for Argo, a purpose-built solution designed to enable enterprise GitOps adoption while ensuring security, compliance, scalability, and visibility.

Key Solutions Implemented by OpsMx:

🌮 Seamless onboarding to GitOps with Argo CD

- OpsMx gradually onboarded all developers and applications from Jenkins-based CD to Argo CD to initiate GitOps-driven deployments.
- This transition was completed in less than two weeks, enabling the company to kick-start GitOps deployments quickly.

Role-Based Access Control (RBAC) for secure deployments

- ISD for Argo empowered the DevOps team to define RBAC policies, ensuring that only authorized developers could deploy applications.
- Deployment access was restricted to specific teams and target clusters, enhancing security and compliance.

Complex multi-cluster deployments with Argo CD

- OpsMx enabled multi-cluster deployments across the company's 30+ AWS EKS clusters using ApplicationSets configurations in Argo CD.
- This ensured that applications could be efficiently deployed and managed across multiple environments without manual intervention.



Enhancing reliability of production releases

- ISD for Argo introduced Progressive Sync policies (i.e., sync of prod will take place only if the health of a release in the previous stage(s) is fine).
- OpsMx helped in implementing out-of-the-box rollout strategies such as canary to make deployments more reliable, and automated rollback mechanisms in case of failures, ensuring system stability.

Real-Time deployment metrics and insights

- ISD for Argo provided DORA metrics from Day 1, allowing DevOps managers to measure critical deployment KPIs, including: deployment frequency, change failure rate, lead time for changes, and mean time to recover (MTTR).
- This data enabled continuous improvement in the CI/CD process.

Strengthening security and compliance with policy and approval

- Integrating Approvals with ITSM tools- ServiceNow .
- Every deployment now can go through policy checks, such as requiring a manager's approval (in the incident/ticket management tools) before execution.

Ensuring high availability and continuous monitoring of Argo CD

- OpsMx configured Argo CD instances for high availability, ensuring that deployments were not disrupted.
- Prometheus-based monitoring and Grafana dashboards were set up to continuously track the health of Argo CD servers and controllers, preventing failures.

By implementing ISD for Argo, OpsMx helped the company scale Argo CD enterprise-wide, ensuring that deployments were automated, secure, and continuously monitored, while providing actionable insights for ongoing optimization.

Results

With OpsMx ISD for Argo, the company successfully transitioned to an enterprise-scale GitOps framework, achieving faster deployments, improved security, and enhanced operational efficiency.





Key Outcomes:

- **20X Faster Deployments –** Deployment waiting time reduced **to less than 3 minutes**, accelerating software releases.
- 100% Security & Compliance Role-based access controls and approval policies ensured secure and auditable deployments.
- **50% Fewer Deployment Failures –** Automated rollbacks and progressive sync strategies improved **deployment reliability.**
- **Enterprise-Scale Multi-Cluster Management** Seamless integration of **30+ AWS EKS clusters and 1000+ applications** into Argo CD.
- Real-Time Deployment Insights DORA metrics from Day 1 enabled data-driven DevOps improvements.
- High Availability & Stability Continuous monitoring via Prometheus and Grafana ensured zero downtime and proactive issue resolution.

Conclusion

Through OpsMx ISD for Argo, the fintech giant scaled GitOps adoption across the enterprise, leading to faster software delivery, enhanced security, and real-time deployment visibility, empowering their DevOps teams for long-term success.

ABOUT US

OpsMx secures and intelligently automates software delivery from developer to deployment, building on an Open Software Delivery architecture and AI/ML-powered DevSecOps. OpsMx products and services enable hundreds of thou-sands of developers at Google, Cisco, Western Union, and other leading global enterprises to ship better software faster.

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