

# AWS Cloud Cost Optimization Pipeline

**Case Study** 



partner network

SaaS Architecture Competency

# AWS Cloud Cost Optimization for Finance Collaboration

Learn how CloudGeometry enabled a leading SaaS platform in finance to optimize AWS cloud costs. Discover the benefits of standardized reporting and improved decision-making for cost management.

## **INDUSTRY**

Financial Services, FinTech

# SOLUTION

FinOps, SaaS, Visual analytics, Data Engineering

# **CLIENT**

Top-Tier Secure Compliant Collaboration SaaS Platform

# **Top-Tier SaaS**

As the booming FinTech sector accelerates innovation in financial markets, secure compliant collaboration has become ever more essential. Live, seamless, asynchronous sharing of conversation and content that meets stringent regulatory standards is critical to all manner of finance professionals wherever they work around the world. Our client, a leading SaaS platform for the financial services industry, offers a secure, encrypted cloud-native automated collaboration and messaging.

Over the last two years, the company has targeted growth by expanding its market to create new opportunities for person-to-person collaboration via seamless chat-based, file sharing, automation of trade workflows all in real-time. Their clients range from global mega-banks to boutique specialty firms, all of whom rely on worldwide synchronous and asynchronous collaboration to keep their financial transactions ahead of the curve.

### **The Challenge**

As the 2020 pandemic disrupted almost all other forms of cooperation in the industry, the collaboration SaaS company doubled down on the evolution of its architecture – aiming to do so without sacrificing profitability and development efficiency. Certainly, modern cloud software engineering has made great strides in solving problems of security, reliability, and performance. For example, deep and detailed performance data is available in near real-time through a host of tools and techniques for observability.

But solving for cost transparency too often means waiting for a spreadsheet and a bill at the end of the month. Millions of EC2 instances across the user base spin up and down in tandem with the daily ebb and flow of frenetic activity in the financial markets. Too often, a single minor configuration change or innocent resource commitment in the development organization resulted in a five-or-six figure expense spike.

# Athena & Glue Provide Data Catalog well-structured ETL and job management from native CUR for all AWS service events. Lambda / Step Automate entity **Function** mapping into Automation Aurora PostgresSQL. enables standard **RDBMS** analytics at scale. Visual **AWS Best Practices** Analytics for Well **Architected Cost** Dashboard **Optimization** using QuickSight & Domo.



# **Top-Tier SaaS**

#### The Challenge

Using the industry-standard FinOps Foundation Framework would help bring financial accountability to the variable spend model of the cloud. Timely, accessible data and reports were the missing ingredients for enabling distributed teams to make business trade-offs between speed, cost, and quality.

Product operations at the company needed to boost organizational accountability for cost management and cost awareness among their developers. Like many fast-growth B2B SaaS organizations, they set out to put FinOps discipline on par with security, compliance, and governance. Problems they took on:

- Finance and Operations execs needed to attribute engineering cloud expenditures to release productivity, customer revenue, and profitability of some features over others.
- Inconsistent cost observability, compounded by dynamic organizational and team structure, made it too hard to chase down the source of cost spikes, especially in upstream development.
- Friction in software development processes, especially in the rush to release, created a temptation to spin up (and abandon) costly on-demand resources and ignore potential discounts.

Athena & Glue Data Catalog Provide well-structured ETL and job management from native **CUR** for all AWS service events.

Lambda / Step Function Automation

Automate entity mapping into Aurora PostgresSQL, enables standard RDBMS analytics at scale.

Visual Analytics Dashboard AWS Best Practices for Well Architected Cost Optimization using QuickSight & Domo.



# **Top-Tier SaaS**

#### **The Solution**

CloudGeometry combined its expertise in DevOps, SaaS architecture, and data engineering to build out a scalable foundation for FinOps data, integrated with existing financial controls and business operations. AWS Cost and Usage Reporting (CUR) information, normally only seen via AWS APIs and the AWS systems management console, became a standard part of business operations, integrated with the Domo BI & Visual Analytics platform.

The data platform opened up new ways to drive decisions based on business value.Trending and variance analysis helps to show why costs increased. As a result, internal team benchmarking could drive best practices and enable continuous improvement.

#### The Benefits

By structuring, standardizing, and streamlining global FinOps data, CloudGeometry gave the business and financial managers at our client company a level playing field with their engineering counterparts. Now, everyone was speaking from a single set of facts in deliberations over ongoing cloud product and customer operations.

In parallel, software delivery efforts can be measured beyond classic IT metrics like performance and reliability. It meant the product development organization could "keep score" on the ROI of architectural changes directly through to the bottom line. Cost anomalies could be resolved rapidly, further enabling continuous improvement.

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# **Technology Solutions & Services** to build, optimize and run your cloud software and operations.

## **TECHNOLOGY SOLUTIONS**

**APPLICATION MODERNIZATION** 

Transform Legacy Systems for Future-Ready Innovation

**CLOUD COST MANAGEMENT** Optimize Cloud Spending for Maximum ROI and Efficiency

## FOUNDATION SERVICES

#### **CLOUD INFRA & OPS**

Robust Infrastructure Solutions for Seamless Operations

- DevOps as a Service
- Managed Cloud Operations
- Cloud Spend Optimization
- Resilience, Continuity & Backup
- AWS Well-Architected

#### AI & DATA

Achieve breakthrough automation and analytic insights via cutting-edge data strategies

#### SECURITY AND COMPLIANCE

Reinforce your cloud infra, workload, operations, and development end-to-end

#### **MODERNIZATION & MIGRATION**

Smooth Transitions to Modern Architectures with Minimal Disruption

- Application Modernization
- Kubernetes Adoption
- AWS Database Migration
- Data Engineering Operations
- Data Integration
- Data Migration
- Cloud Migration & Adoption

## ADVANCED SERVICES

#### **CLOUD-NATIVE DEVELOPMENT**

Build Scalable, Resilient Applications with Cloud-Native Technologies

- CI/CD
- Multi- Platform App Design & Development
- Cloud-Ready Teams
- Enterprise SaaS Modernization
- Multi-Tenancy SaaS
- B2B Customer Success Engineering

### AI/ML & DATA SERVICES

#### AI/ML & DATA

Leverage Advanced Analytics and Machine Learning to achieve exponential acceleration in the ROI of your data assets

#### **CLOUD-NATIVE OPERATIONS**

Streamline Operations with Advanced Cloud-Native Practices

- Platform Engineering
- Workload Management
- Monitoring & Observability
- Infrastructure Management

- AI/ML Engineering for Data Analytics
- Generative AI
- Traditional ML for Data Analytics
- AI/ML Development and and Data Science
- Data Engineering for MLOps



# CloudGeometry

San Francisco

**CloudGeometry** delivers expert technical services, helping our clients unlock the full potential of cloud-native open source tooling and commercial platform technologies.

New York

With roots in Silicon Valley, we've seen firsthand what works (and what doesn't). Count on CloudGeometry to accelerate application modernization, Kubernetes adoption, developer enablement, secure multi-tenancy, AI/MLOps, DevOps automation and more.

- As AWS Advanced Consulting partners, our certified solution architects and platform engineers help address the range of challenges facing enterprise innovators and venture funded startups alike.
- The Cloud Native Computing Foundation has accredited us as a Kubernetes Certified Service Provider.
- We serve as charter contributors to the Linux Foundation Data & AI Commons (LF Data & AI), supporting a diverse, sustainable ecosystem for open source data and AI technologies.

Over the last decade, we've built and deployed hundreds of big, fast full-stack apps with well-engineered cloud infrastructure across industries: Financial Services, Industrial Automation, Healthcare, AdTech, Consumer-grade Mobile, smart devices, and more.

From enterprise upgrades to data engineering to cloud-native scale-out, CloudGeometry helps you plot the shortest path across all dimensions of modern cloud software engineering.



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## Advanced Consulting Partner

SaaS Amazon Kinesis AWS Lambda Amazon Redshift AWS Database Migration Service







# CloudGeometry

Expert Platform Engineering & DevOps

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AI & Machine Learning Data Services

Open Source



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