



Case Study

Processing Millions of Log Events With a Serverless Pipeline

Clearscale designed a high-throughput architecture on AWS that automated ingestion, strengthened governance, and reduced overhead.

Client Profile



Industry

Technology / SaaS



Technology

Migration and Modernization

DevOps

Overview

A global technology enterprise needed a way to unify log management across its sprawling AWS accounts and regions. Clearscale implemented a scalable, serverless log aggregation pipeline that centralized visibility, improved governance, and simplified troubleshooting. The solution gave teams faster access to actionable insights while ensuring compliance in a complex environment.

Meet Our Hero:

This enterprise operates a sophisticated cloud ecosystem with workloads running across multiple AWS accounts and regions. Logging was fragmented, which slowed down troubleshooting and limited the organization's ability to enforce consistent governance.

The company required a solution that could centralize log management, process millions of events in real time, and scale seamlessly with unpredictable workloads. Above all, the platform needed to be automated and repeatable to reduce operational overhead.

The Goal

- Build a centralized logging framework across multiple AWS accounts
- Handle unpredictable volumes of log events with scalable ingestion
- Enable intelligent processing and routing of logs
- Provide audit-ready visibility and strengthen governance
- Automate deployments with Infrastructure-as-Code

The Challenge

Challenge 01

Fragmented logging across accounts and regions created silos

Challenge 02

Inconsistent visibility made troubleshooting complex

Challenge 03

Manual processes slowed operations and risked human error

Challenge 04

Governance and compliance were difficult to enforce

Challenge 05

Needed high-throughput ingestion and intelligent processing at scale





The Solution

Clearscale delivered a serverless, event-driven logging pipeline using AWS native services.

Step 01: Event-Driven Aggregation

- Used CloudWatch subscription filters to capture logs across accounts
- Streamed logs into Amazon Kinesis Data Streams for scalable ingestion
- Processed logs with AWS Lambda functions for intelligent filtering and routing

Step 02: Centralized Storage

- Aggregated logs into centralized CloudWatch log groups
- Integrated Amazon S3 for durable, cost-effective storage

Step 03: Automation and Repeatability

- Built Terraform modules to automate infrastructure deployment
- Delivered a repeatable, auditable framework that could be extended as needed

Step 04: Governance and Compliance

- Applied AWS IAM and Organizations for consistent access control
- Strengthened audit readiness and security posture across environments

The Impact

Unified visibility across all accounts and regions

High-throughput ingestion pipeline capable of processing millions of log events

Faster troubleshooting, with centralized, searchable logs

Enhanced security and compliance, with governance embedded into the architecture

Scalable, serverless design, reducing operational overhead

Turn Cloud Chaos Into Clear Results On AWS

Clearscale helps enterprises break free from cloud chaos and experience clear results on AWS. If your organization is struggling with fragmented logging, let's talk.

[Talk to an Engineer](#)

