conduktor | aws

MSK Handles Infrastructure.
Conduktor Handles the Enterprise Layer.

Conduktor is the enterprise data and control plane for Apache Kafka, sitting between applications and brokers to add encryption, governance, and resilience at the protocol level. We're trusted by hundreds of organizations including Fortune 500 financial institutions, airlines, and SaaS platforms.

What Changes When You Add Conduktor Gateway

For Leadership

- Regulated workloads move to production instead of stalling in compliance review
- Kafka investment scales across business units without unclear infrastructure growth
- Accelerate MSK migrations without re-architecting applications

For Platform Teams

- Encryption, access, and data quality enforced once, not rebuilt per project
- DR failover becomes routine, not a crisis coordination exercise
- Guardrails catch misconfigurations before they cause outages

For Development Teams

- Same Kafka clients, same code, same workflows with no application changes
- Isolated environments on demand without waiting for dedicated infrastructure
- Bad data rejected at the source before it cascades to downstream systems

Whether you're using MSK today or migrating to it, Conduktor Gateway is platform-agnostic, reducing risk by giving you a consistent layer of control across mixed Kafka and Cloud environments.
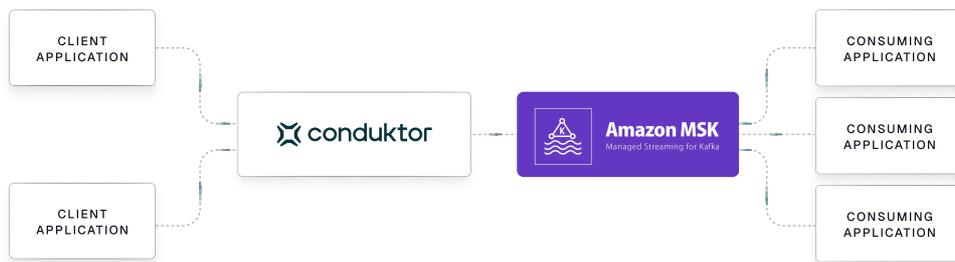
Conduktor intercepts all Kafka traffic at the protocol level. Applications connect the same way, just to a different address.

What MSK Delivers

- Encryption at rest and in transit
- IAM authentication and Kafka ACLs
- Single-region high availability
- One cluster per environment
- Cluster-level billing with tags

What Conduktor Adds

- Field-level encryption and tokenization inside messages
- Application-level access controls with per-consumer visibility
- Multi-region failover in seconds, no application changes
- Virtual clusters for multi-tenancy on shared infrastructure
- Per-topic and per-team cost attribution with self-service guardrails

Built for the AWS ecosystem

Native MSK IAM auth, KMS-managed encryption keys, S3 payload offloading, CloudWatch monitoring, and ECS/EKS deployment. Available on AWS Marketplace.

IMPACT WITH CONDUKTOR

DELIVER

$500K+

First-Year Value
Consolidation, faster migration, reduced operational overhead

REDUCE

20-40%

Infrastructure Costs
Virtual clusters & consolidation

UP TO

95%

Faster Recovery
Single-command failover vs. manual coordination

RUNNING

4,000+

Virtual Clusters
on standard infrastructure

How Conduktor Gateway Complements MSK

Gateway speaks the Kafka protocol natively, sitting between your applications and MSK brokers. It intercepts and governs traffic at the protocol level, so every capability below is enforced centrally with no application code changes.

01

Field-Level Data Protection

MSK encrypts data at rest and in transit. But any service with topic access reads the full payload, including PII and financial records.

Gateway adds field-level encryption, tokenization, and crypto shredding with per-consumer decryption controls and native AWS KMS integration.

02

Real-Time Data Quality

A single malformed message can crash consumers, break pipelines, and spread incorrect results before anyone notices.

Gateway adds protocol-level validation before messages enter MSK, enforcing schema compliance and business rules with the ability to block, route, or flag bad data.

03

Client Best Practices

Kafka's native quotas cover throughput but can't enforce acknowledgments, compression, or commit frequency, the most dangerous misconfigurations at scale.

Gateway adds protocol-level guardrails that block unsafe configurations, detect connection and rebalance storms, and give operators immediate feedback.

04

Cross-Network Connectivity

AWS networking handles IP routing but doesn't understand Kafka's broker discovery protocol. Clients need every broker individually routable.

Gateway adds Kafka-protocol-aware routing that rewrites broker metadata, giving clients in any topology (hybrid cloud, multi-VPC, on-prem) access through a single entry point.

05

Disaster Recovery & Failover

MSK Replicator syncs data across clusters, but switching hundreds of applications to a backup is the hard part and most DR plans are never validated.

Gateway adds single-command failover that redirects all client traffic in seconds, plus built-in chaos testing via protocol-level fault injection to validate resilience without production risk.

06

Virtual Clusters & Infrastructure Efficiency

Dedicating MSK clusters per team and environment creates sprawl. Large messages and high-read scenarios add unnecessary broker load.

Gateway adds logically isolated virtual clusters with independent namespaces, access controls, plus S3 payload offloading and caching for broker efficiency.

How Conduktor Console Completes the Picture

If Gateway governs traffic, then Console gives your teams visibility and ownership to operate Kafka at scale without bottlenecking on the platform team.

Unified Operations

Manage topics, schemas, connectors, and consumer groups across all MSK clusters from one interface. Works alongside the AWS Console and CLI.

Visibility & Troubleshooting

Browse and tail messages in production, monitor consumer lag, and route alerts to Slack, Teams, or PagerDuty. Adds application-level visibility alongside CloudWatch.

Federated Ownership

Developers discover, provision, and own resources within automated guardrails, catalogs, and approval workflows. Adds Kafka-level ownership on top of IAM.

Cost Attribution & Insights

Track per-team Kafka usage for chargeback and surface health and risk recommendations across clusters. Complements AWS Cost Explorer with per-team breakdowns.

See how Conduktor complements your MSK investment
Book a technical demo tailored to your environment and use cases.

↗ See it in action now