

Building a Real Data Fabric from Edge to Core

A streaming contract that bridges edge and core without fragile ETL.

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A real data fabric functions as a **streaming contract** bridging edge and core operations. Ensuring reliable event publication at the edge is crucial to the accuracy of AI processes.

Key Practices

- **Utilize Confluent (commercial Kafka)** as the robust backbone, offering durable and replayable streams resilient to connectivity disruptions.
- **Incorporate Governance:** Leverage Schema Registry for defining contracts, Connect for seamless system integration, and Cluster Linking for effortless replication.
- **Empower Edge Autonomy:** Enable local buffering during disconnections; synchronize with order, lineage, and access controls upon reestablishing links.
- **Enable Data Accessibility:** Facilitate multiple perspectives with a single publication for analytics, AI/ML, and security—eliminating the need for fragile ETL processes.

The Result

By following these strategies, you can achieve real-time insights and audit trails without the need to create distinct data stacks for each site.

Odin's Edge enhances these capabilities at the tactical edge, empowering operators with rapid decision-making at the millisecond level while preserving data provenance.

Why This Matters for National Security

Legacy federal data architectures built around batch processing introduce hours or days of lag between event and insight. In tactical and security operations, that latency is measured in missed opportunities and undetected threats.

When edge nodes lose connectivity and reconnect, Confluent-backed pipelines replay events in order—preserving the temporal relationships that matter for AI and analytics. Single publication, multiple consumers: publish each event once and let analytics, AI/ML, security monitoring, and compliance systems consume independently from the same stream.

Explore **Real-Time Analytics**, **Data Lakehouse Architecture**, and **Odin's Edge**. Contact **Norseman** to discuss your data fabric requirements.

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