



Operational & Transactional Monitoring for Apache Kafka

Apache Kafka is a unified, high-throughput, low-latency platform for handling real-time data feeds. It utilizes a massively scalable pub/sub message queue—designed as a distributed transaction log—as its storage layer. It is often used by Nastel clients as a transport mechanism for streaming data interconnected with other messaging and processing systems. **AutoPilot for Apache Kafka provides operational and transactional monitoring for Apache Kafka**, the open-source stream processing platform developed by the Apache Software Foundation, written in Scala and Java.



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Key Benefits

For Developers

- Make Kafka apps faster by optimizing Kafka apps and identifying latency, bottlenecks, and spots for data loss
- Improve quality and debug apps by:
 - Capturing Kafka exceptions
 - Enabling easy message capture and profiling
 - Generating message flow charts and topology displays

For Operations

- Reduce MTTR (mean time to repair):
 - Find problems and bottlenecks
 - User-defined alert conditions
 - Anomaly detection in flows
 - ID problems, data loss, latencies
 - Capture messages for problem identification
 - Message flow analytics: see the longest and shortest paths

For Business

- Extract and summarize relevant business tokens. E.g., payment amounts (max, min, avg, etc.)
- Alerts based on business conditions (SLAs and OLAs)
- Single-pane-of-glass display for business flows over Kafka infrastructure
- Risk management and audit capabilities for relevant business transactions

Fix Issues Before Users Notice Them

AutoPilot for Apache Kafka delivers a single-point-of-truth to track performance, latency, and logs, along with full message auditing and content surveillance capabilities.

It provides complete message flow analytics, relating applications to the messages they publish to Kafka, and the applications that subscribe to those messages.

Powerful network auto-discovery capabilities are included with matching visualization tools, as seen in the illustration on the next page.

In the Viewlet shown on the following page, solid lines (edges) represent send-to relationships; dotted lines represent an Acts-On relationship. Each edge has statistics showing average elapsed time and count.

AutoPilot for Apache Kafka offers powerful forensics to diagnose Kafka problems.

Kafka performance and availability monitoring is accomplished via end-to-end stream monitoring and tracking of metrics from brokers, consumers, producers and Zookeeper, Kafka's configuration service. AutoPilot for Apache Kafka examines the metrics collected for Kafka topics, producers, consumers and brokers while simultaneously offering deep-dive insight into the JVM itself.

Why Nastel?

With more than 20 years' worth of experience working with some of the world's largest enterprises, no one knows more about solving monitoring and APM issues than Nastel. We monitor any type of application:



- Web Services, Java, .NET, z/OS, IBM MQ Family of products, DataPower, TIBCO, Solace, and Apache Kafka
- Integrates with SNMP, Twitter, RSS, dashboards, event consoles
- Extensible application instrumentation (logs, SQL, syslog)

Key Features

- Auto discovery of end-to-end transactions spanning Kafka and other technologies such as IBM MQ
- Parsing of Kafka messages which are tokenized and utilized for analytics and transaction stitching

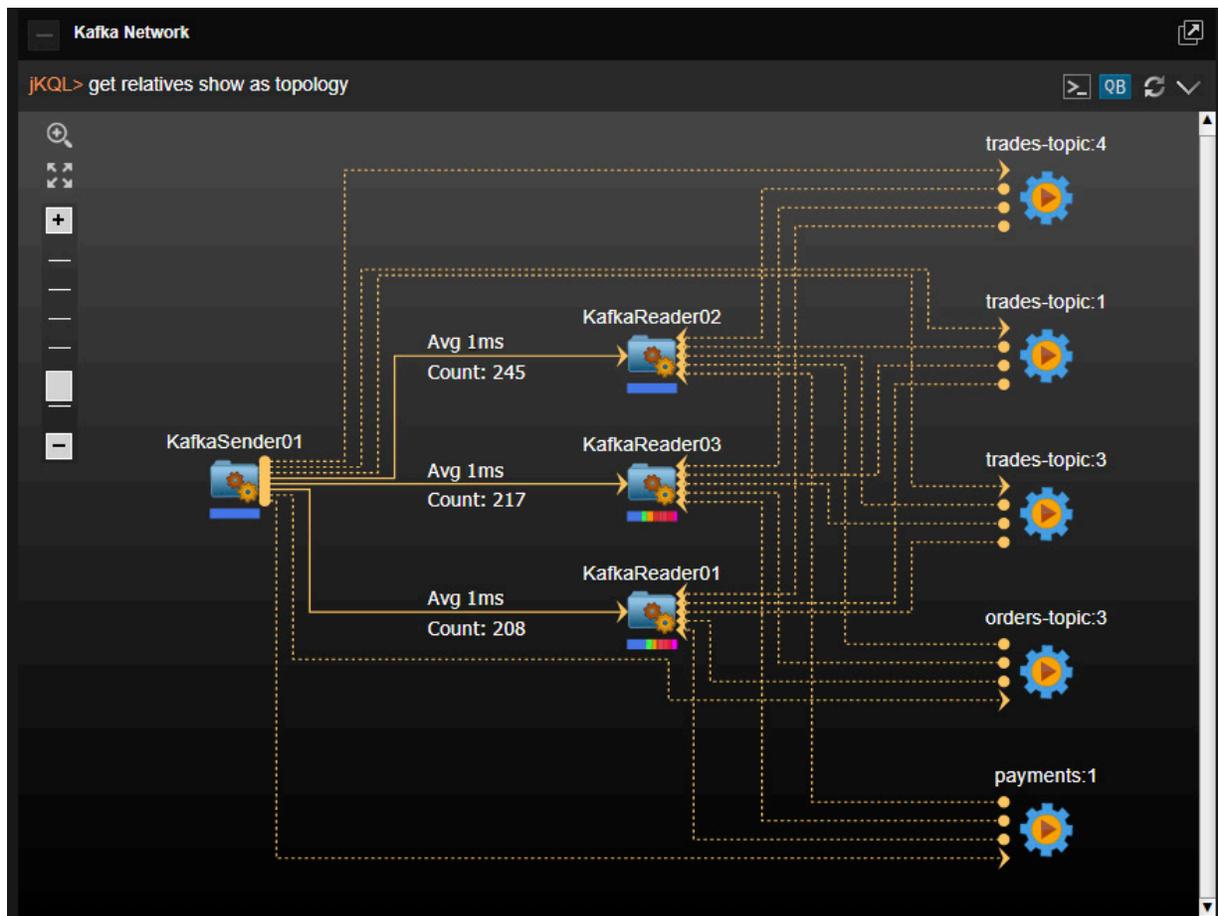
- SLA Monitoring, Analytics and Reporting
 - Deep-dive monitoring of composite application components that include Kafka
 - Proactive alerting and reduction in false alarms
- ...AutoPilot for Apache Kafka also utilizes Kafka internally as an integration technology for data transport.

Conclusion

AutoPilot for Apache Kafka provides a single point of instant analysis and visibility into business services and

application ecosystems spanning your entire enterprise.

If proven answers to challenging issues involving middleware-related monitoring, messaging, and APM—regardless of the technology stack being used—turn to Nastel. For more information, visit our website at nastel.com, or contact us at info@nastel.com for more information.



Kafka network visualization showing an auto-discovered, pub-sub topology including senders, readers, and topics



For more information regarding Nastel Technologies and to ask about a live demo, please contact us at info@nastel.com, or call +1 516-801-2100.

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