



PubSub+ Connectors for Kafka: Source and Sink

Source and sink connectors help extend Apache Kafka throughout your distributed enterprise, helping you to bring all your event streaming data together.

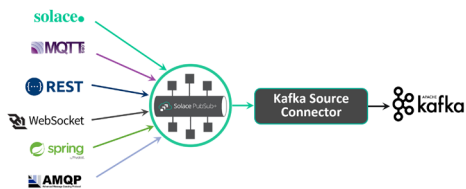
If you use Kafka, you're probably wondering why you need PubSub+ Platform. Although there may be some functional overlap between the two technologies, they excel at event streaming for different use cases.

Kafka excels at event streaming for storage and analytic use cases such as log aggregation, event stream processing, event sourcing, website activity tracking and aggregating statistics from distributed applications for metrics and monitoring. PubSub+ Platform excels at event streaming and management for transactional and operational use cases such as enabling event-driven microservice, hybrid/multi-cloud event distribution and management, event-driven integration, IoT enablement and enabling real-time applications.

Solace provides two supported open source connectors based on the Kafka Connector specification -- one source and one sink -- that make it easy to integrate Kafka and PubSub+ so information can flow seamlessly across your distributed enterprise — on-premises, private cloud or public cloud.

Source Connector

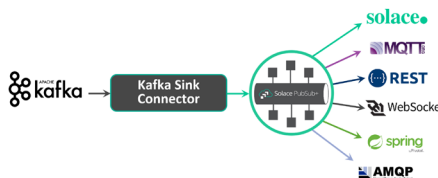
Solace PubSub+ Connector for Kafka Source uses the Kafka Connect API to consume PubSub+ queue or topic data events and stream them to a Kafka topic.



The source connector uses Solace's high performance Java API to move PubSub+ data events to the Kafka Broker. PubSub+ supports popular messaging APIs and protocols like AMQP, JMS, MQTT, REST, WebSocket and more so the connector can move any message to a topic (keyed or not keyed) on the Kafka broker.

Sink Connector

Solace PubSub+ Connector for Kafka Sink uses the Kafka Connect API to consume Kafka topic records, then stream the data events to PubSub+ event brokers as a topic and/or queue data event.



From the sink connector, any Kafka topic (keyed or not keyed) sink record is instantly available for consumption by any consumer that uses one of the many languages, protocols or APIs that PubSub+ supports.

Flexibility

Easy access to the rich functionality and multi-protocol support of PubSub+ eliminates the need to write connectors for other services.

Scalability

Enables connections and communications between a virtually unlimited number of applications and IoT devices.

Dynamic Routing

Support for hierarchical topics and wildcards, combined with dynamic intelligent routing, enables all kinds of fan-in, fan-out and filtration.

Global/WAN Distribution

PubSub+ lets you establish an event mesh that dynamically routes events between applications and connected devices no matter where they are deployed, what API they use, or which broker they are connected to.

Bi-Directional MQTT

The ability to not just collect data via MQTT, but to send alerts and instructions to specific devices or vehicles, enables sophisticated command and control use cases.

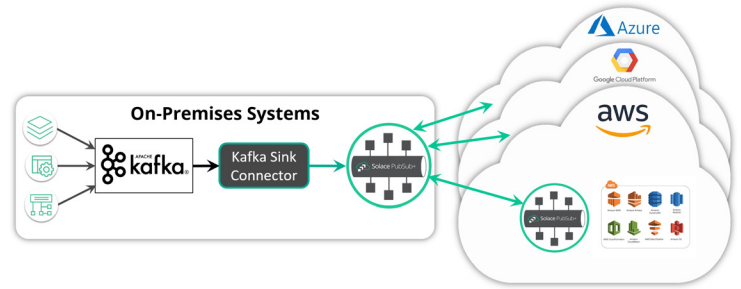
To learn more visit solace.com/kafkaconnectors

Applications and Advantages

Running Real-time Analytics across Hybrid Cloud

Connect a Kafka event stream to PubSub+ Event Broker to route a filtered set of information to a cloud analytics engine. PubSub+ keeps bandwidth consumption low by using fine-grained topic filtering to deliver exactly and only the events required.

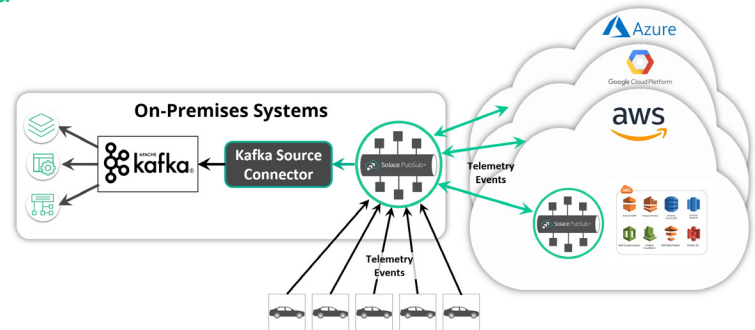
For example, if you're using Kafka to aggregate log data and perform offline analytics on it, but want to use a real-time analytics service running in the cloud to promote products based on sentiment analysis or real-time weather conditions, PubSub+ can take the event stream from Kafka and route a filtered set of information to the analytics engine.



Ingesting High-Volume Web and Mobile Data to Kafka for Aggregation and Analytics

PubSub+ supports MQTT connectivity at massive scale, able to establish reliable, secure, real-time communications with tens of millions of devices or vehicles so you can collect data and hand it off to Kafka for aggregation or analytics.

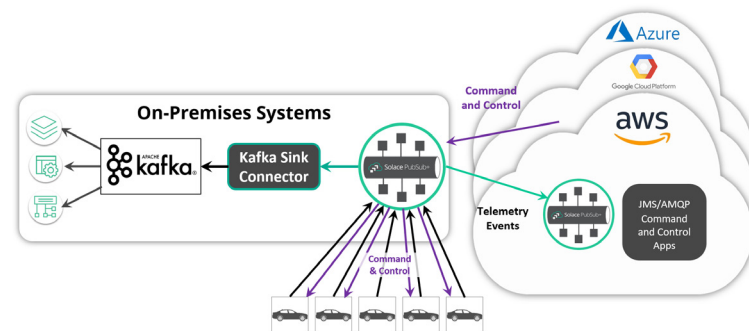
Since PubSub+ can also stream events via other popular open protocols and APIs, you can stream events from all of your applications, running in all kinds of cloud and on-premises environments, to Kafka via the same source connector.



Streaming Events Recorded in Kafka to Connected Devices or Vehicles

In addition to supporting the inbound aggregation of events from millions of connected devices, PubSub+ supports bi-directional messaging and the unique addressing of millions of devices through fine-grained filtering.

For example, with PubSub+ and Kafka working together you could send a tornado warning alert to a specific vehicle, or all vehicles in or approaching the affected area. The sink connector allows PubSub+ to send record events placed in a single Kafka topic to whatever vehicles satisfy a given condition or topic, whether that's as general as being in the tri-county area or as specific as a single vehicle.



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Solace helps large enterprises become modern and real-time by giving them everything they need to make their business operations and customer interactions event-driven. With PubSub+, the market's first and only event management platform, the company provides a comprehensive way to create, document, discover and stream events from where they are produced to where they need to be consumed – securely, reliably, quickly, and guaranteed. Behind Solace technology is the world's leading group of data movement experts, with nearly 20 years of experience helping global enterprises solve some of the most demanding challenges in a variety of industries – from capital markets, retail, and gaming to space, aviation, and automotive. Established enterprises such as SAP, Barclays and the Royal Bank of Canada, multinational automobile manufacturers such as Renault and Groupe PSA, and industry disruptors such as Jio use Solace's advanced event broker technologies to modernize legacy applications, deploy modern microservices, and build an event mesh to support their hybrid cloud, multi-cloud and IoT architectures. Learn more at solace.com.