Organizations build streaming data pipelines on Apache Kafka® to harness the power of real-time data and access high-quality data streams. Confluent makes building them faster and easier with Stream Designer, a visual pipeline builder, so that more teams can set data in motion. Stream Designer enables you to rapidly build, test, and deploy streaming data pipelines on a graphical canvas that’s extensible with SQL.

**Why Stream Designer?**

Data pipelines continue to perform the heavy-lifting in data integration solutions. With the need to act on immediate insights, companies have turned to Kafka to build streaming data pipelines that connect and decouple data sources and sinks, process data continuously, and trigger actions based on real-time events across your business.

However, there are still major challenges with trying to build reusable data pipelines on open-source Kafka. First, an over-reliance on specialized Kafka engineers limits the number of teams that can easily access data streaming. Second, seasoned Kafka engineers still spend cumbersome development cycles writing boilerplate code across multiple systems—Kafka, Kafka Connect, and Kafka Streams. Last but not least, teams spend duplicative efforts rebuilding pipelines across environments and similar use cases, increasing their overall total cost of ownership.

Stream Designer is a visual interface for quickly and efficiently building streaming data pipelines natively on Kafka. Developers can start build pipelines visually in minutes by leveraging fully managed connectors, ksqlDB for stream processing, and Kafka topics from a unified view. Stream Designer provides both speed and simplicity, fitting into your existing workflows for CI/CD and version control by allowing you to seamlessly switch between the graphical canvas and full SQL editor. Organizations can now accelerate their real-time initiatives and democratize access to data streaming by reducing their reliance on specialized Kafka expertise.
Boost developer productivity by reducing the need to write boilerplate code

**Complete Visual UI**
Use a point-and-click interface to start building pipelines in minutes. Speed through iterative testing as part of agile practices.

**Cloud-native Performance**
Experience low latency and massive scale on Confluent Cloud with no additional runtime layers or performance trade-offs.

**Full ksqlDB Integration**
Visualize common stream processing operations like filtering data, mapping fields, aggregates, and joins as pre-built pipeline building blocks you can easily configure.

**70+ Fully Managed Connectors**
Save time integrating your data systems with our pre-built, fully managed connectors. Perform simple data transformations in-flight with single message transforms.

**Unlock a unified end-to-end view to update and maintain pipelines throughout their lifecycle**

**SQL Round Tripping**
Translate pipeline definitions to ksqlDB code (SQL queries) automatically under the hood and switch seamlessly between the graphical canvas and built-in SQL editor.

**Future-proof and Flexible**
Add or replace data systems or edit stream processing logic with just a few clicks.

**Built-in Troubleshooting**
View built-in alerts and pipeline validations to get instant feedback or catch potential errors.

**Enterprise-grade Security**
Provide different levels of pipeline access with role-based access control (RBAC) for security and compliance.

**Accelerate real-time initiatives with shareable and reusable pipelines on an open platform**

**Exportable Pipelines**
Export pipelines as SQL for CI/CD, source control, deployment in another environment, or sharing/reusing across teams.

**Quick Starts and Recipes**
Start from a source connector, an existing Kafka topic, a stream processing use case recipe, or your own SQL code.

**Multi-user Support**
Collaborate live with teammates on pipelines to accelerate development.

**Fully Managed Cloud Service**
Build streaming data pipelines without infrastructure setup and operational burdens.

“Data streaming is quickly becoming the central nervous system of our infrastructure as it powers real-time customer experiences across our 12 countries of operations. Stream Designer’s low-code, visual interface will enable more developers, across our entire organization, to leverage data in motion. With a unified, end-to-end view of our streaming data pipelines, it will improve our developer productivity by making real-time applications, pipeline development, and troubleshooting much easier.”

— ENES HOXHA, ENTERPRISE ARCHITECT, RAFFEISEN BANK INTERNATIONAL