
AWS
re:Invent
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ANT001

Interact with streaming data using Amazon Kinesis Data Analytics Studio

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Agenda

What is real-time analytics and data streaming?

AWS streaming data services

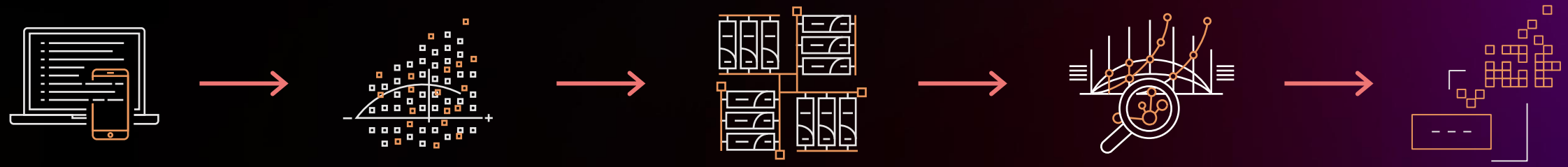
Amazon Kinesis Data Analytics Studio

Demo

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Data streaming workflow

Ingest, process, and analyze high volumes of high-velocity data from a variety of sources in real time



Source

Devices and/or applications that produce real-time data at high velocity

Stream ingestion

Data from tens of thousands of data sources can be collected and ingested in real time

Stream storage

Data is stored in the order it was received for a set duration of time – and can be replayed indefinitely during that time

Stream processing

Records are read in the order they're produced, allowing for real-time analytics or streaming ETL

Destination

Data lake

Data warehouse (most common)

Database (least common)

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Streaming data with AWS

Easily collect, process, and analyze data streams in real time

Amazon Kinesis Data Streams



Collect and store data streams for analytics

Amazon Kinesis Data Firehose



Load data streams into AWS data stores

Amazon Kinesis Data Analytics



Analyze data streams with Apache Flink

Amazon Managed Streaming for Apache Kafka



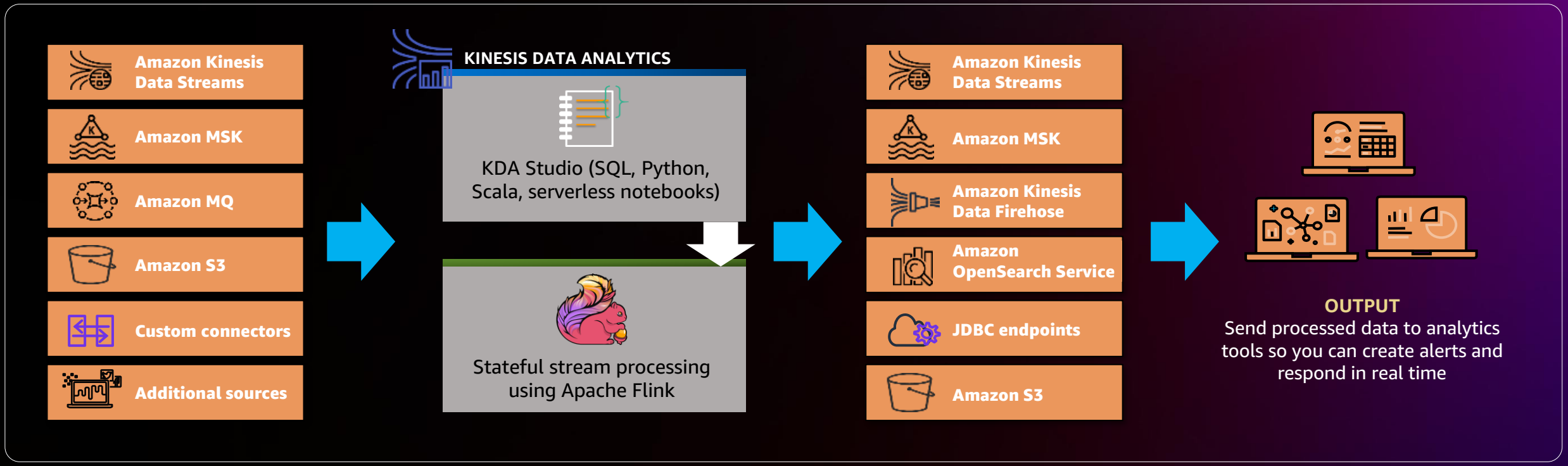
Fully managed, highly available, and secure

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Amazon Kinesis Data Analytics





- Interact with streaming data in real time using SQL, Python, Scala, and Java or integrated Apache Flink applications
- Deploy KDA studio adhoc analysis as a durable state application with in KDA for Apache Flink
- Build fully managed and elastic stream processing applications

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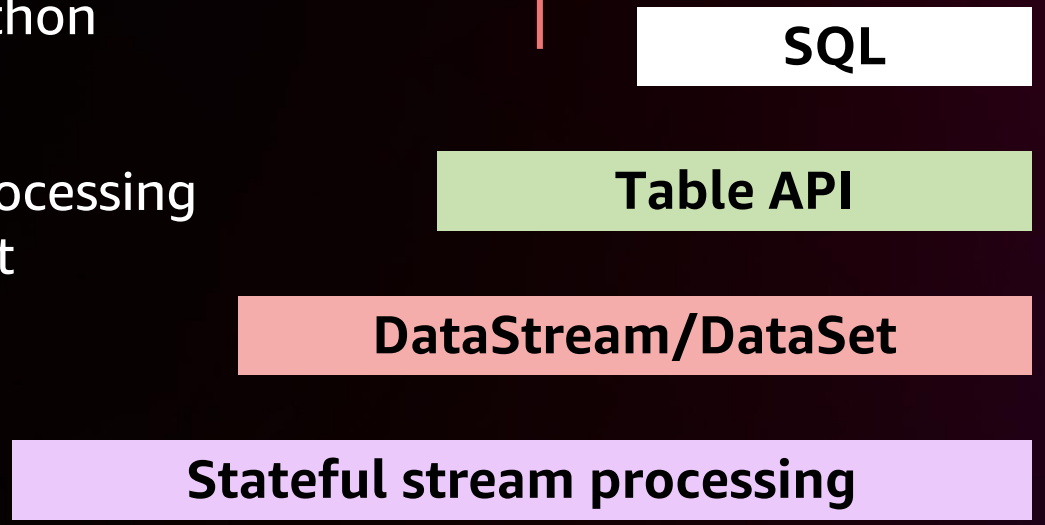
Apache Flink APIs and your language of choice

Capabilities

- Exactly once
- State
- Elegant constructs for stream processing (Windowing, etc.)
- Java, Scala, SQL, Python

APIs

- Low-level stream processing
- DataStream/DataSet
- Table API
- SQL



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Kinesis Data Analytics Studio

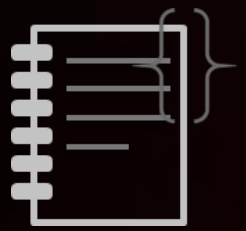
Serverless, rapid development of stream processing applications



Stream inspection and visualization



Simple build and run environment



Process using SQL, Python, or Scala



Open source



Integrates with AWS Glue Data Catalog

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Thank you!

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