

Amazon Kinesis



Scalable and durable **real-time data streaming** service
To ingest, and analyze data in real-time from multiple source



Introduction to Kinesis

Amazon Kinesis is the AWS fully managed solution for **collecting, processing, and analyzing streaming data** in the cloud.

When you need “**real-time**” think Kinesis.

Streaming Data Examples

- Stock Prices
- Game Data (as the player plays)
- Social Network Data
- Geospatial Data
- Click Stream Data

There are **4** different types of Kinesis Streams



Kinesis Data Streams



Kinesis Firehose Delivery Streams



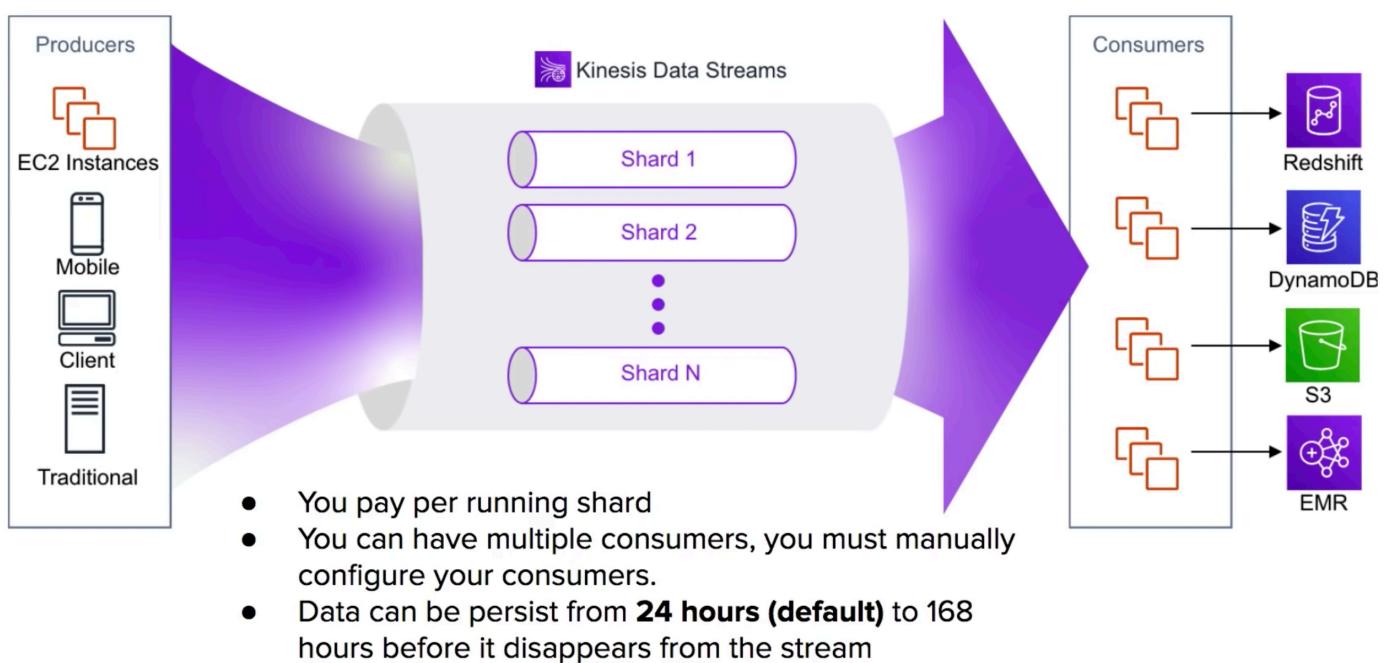
Kinesis Data Analytics



Kinesis Video Analytics

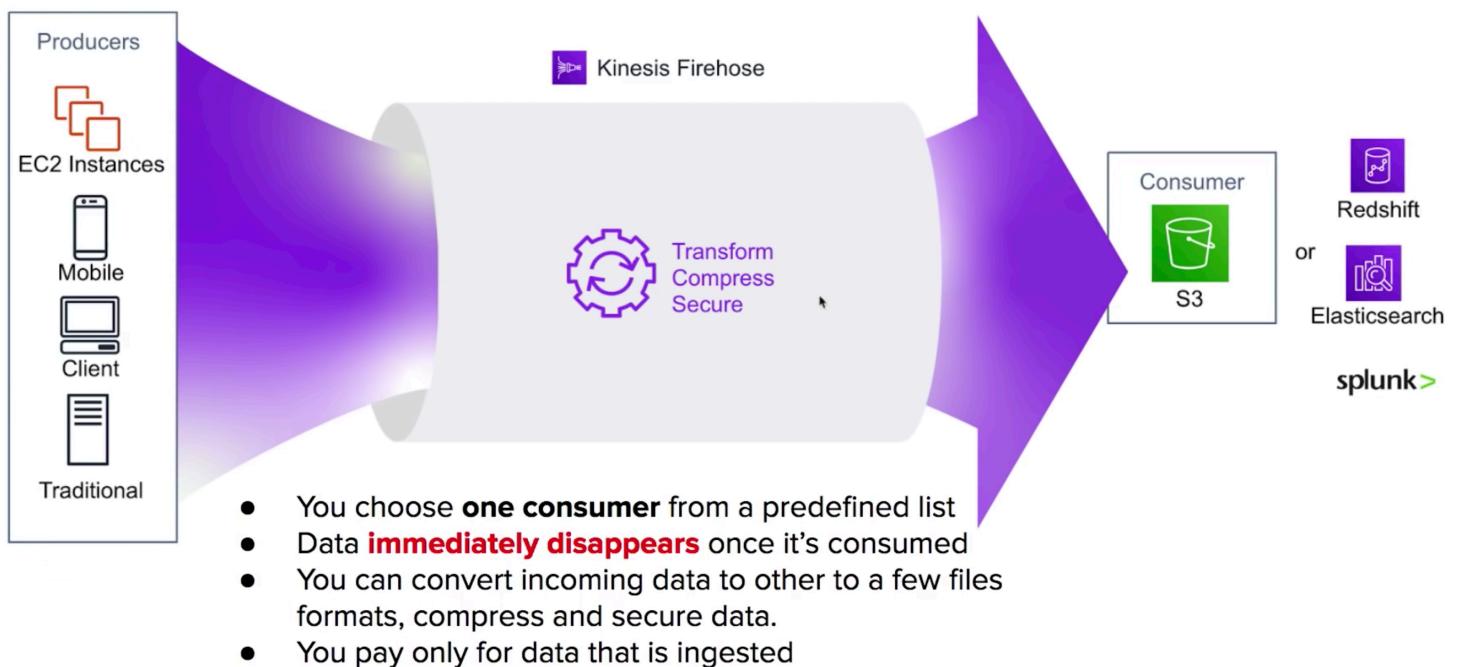


Kinesis - Data Streams



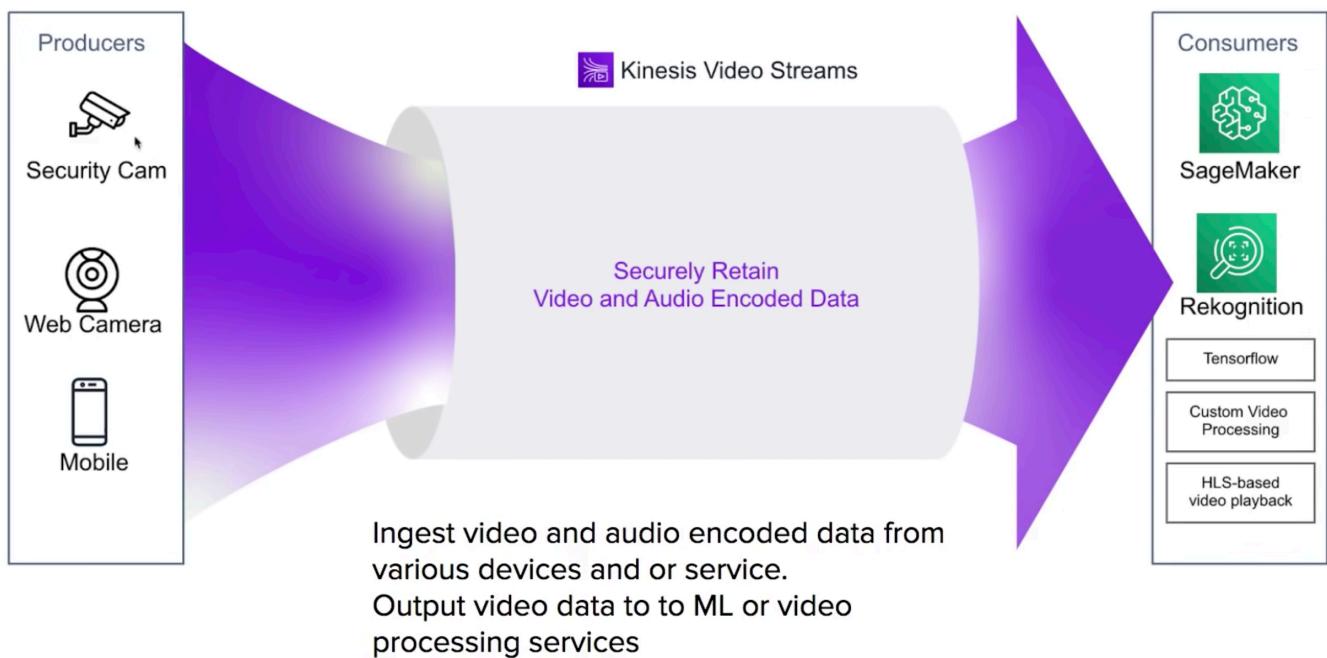


Kinesis – Firehose Delivery Stream





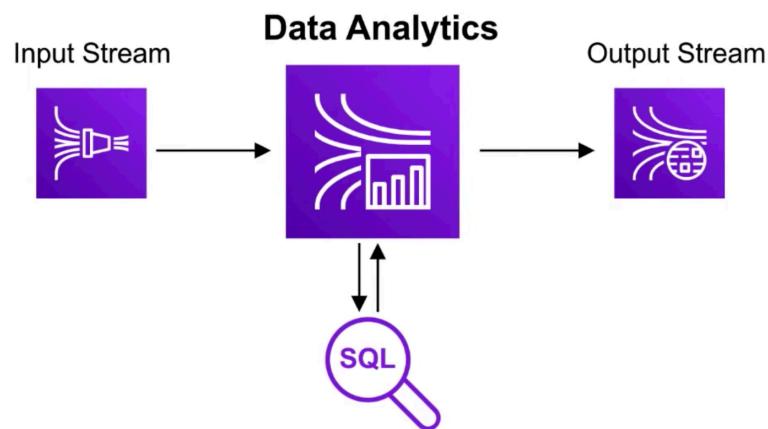
Kinesis - Video Streams





Kinesis - Data Analytics

You can specific Firehose or Data Streams as an input and an output.
Data that pass through Data Analytics is run through **custom SQL**
you provide and the results are then output.
This allows for real-time analytics of your data.





Kinesis *CheatSheet*

- **Amazon Kinesis** is the AWS solution for **collecting, processing, and analyzing streaming data** in the cloud. When you need “**real-time**” think Kinesis.
Kinesis Data Streams Per per running shard, data can persist within the stream, data is ordered and every consumer keep its own position. Consumers have to be manually added (coded), Data persists for **24 hours (default)** to **168 hours**
- **Kinesis Firehose** - Pay for only the data ingested, data **immediately disappears** once processed. Consumer of choice is from a predefined set of services: S3, Redshift, Elasticsearch or Splunk
- **Kinesis Data Analytics** - allows you to perform **queries in real-time**. Needs a Kinesis Data Streams/Firehose as the input and output.
- **Kinesis Video Analytics** securely ingests and stores video and audio encoded data to consumers such as SageMaker, Rekognition or other services to apply Machine learning and video processing.
- KPL (Kinesis Producer Library) is a Java library to write data to a stream
- You can write data to stream using AWS SDK, but KPL is more efficient