# AWS Kinesis

# What is Data Streaming ?

- **Streaming data** is data that is generated continuously by thousands of data sources which typically send in the data records simultaneously  and in small size(order of kilobytes)

Examples:

Purchases from online stores(amazon, flipcart, etc)

Stock Prices

Game data

Social network data

Geospatial data (uber, ola)

# What is Kinesis ?

- **Amazon Kinesis** is a platform  on AWS to send your streaming data.

- Kinesis makes it easy to load and analyze streaming data, and also providing the ability for you to build your own custom applications for your business needs.

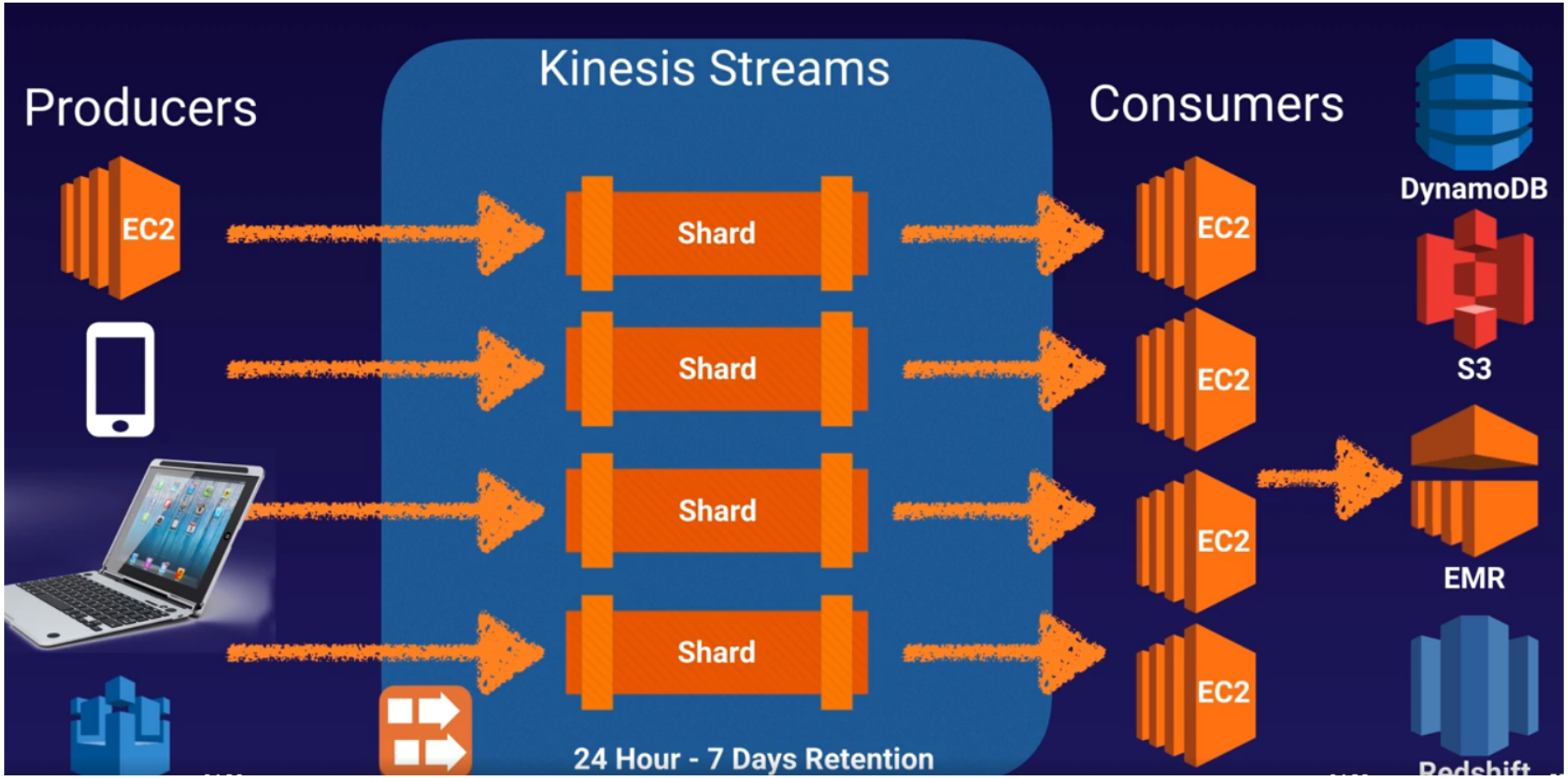
- Kinesis makes it easy to collect, process and analyze real time , streaming data.

# Types of Kinesis

- **Kinesis Streams**
- **Kinesis Firehose**
- **Kinesis Analytics**

# Kinesis Streams

Data is stored in shard, and it is persistent, data stays 24 hours, however you can have 7 days retention

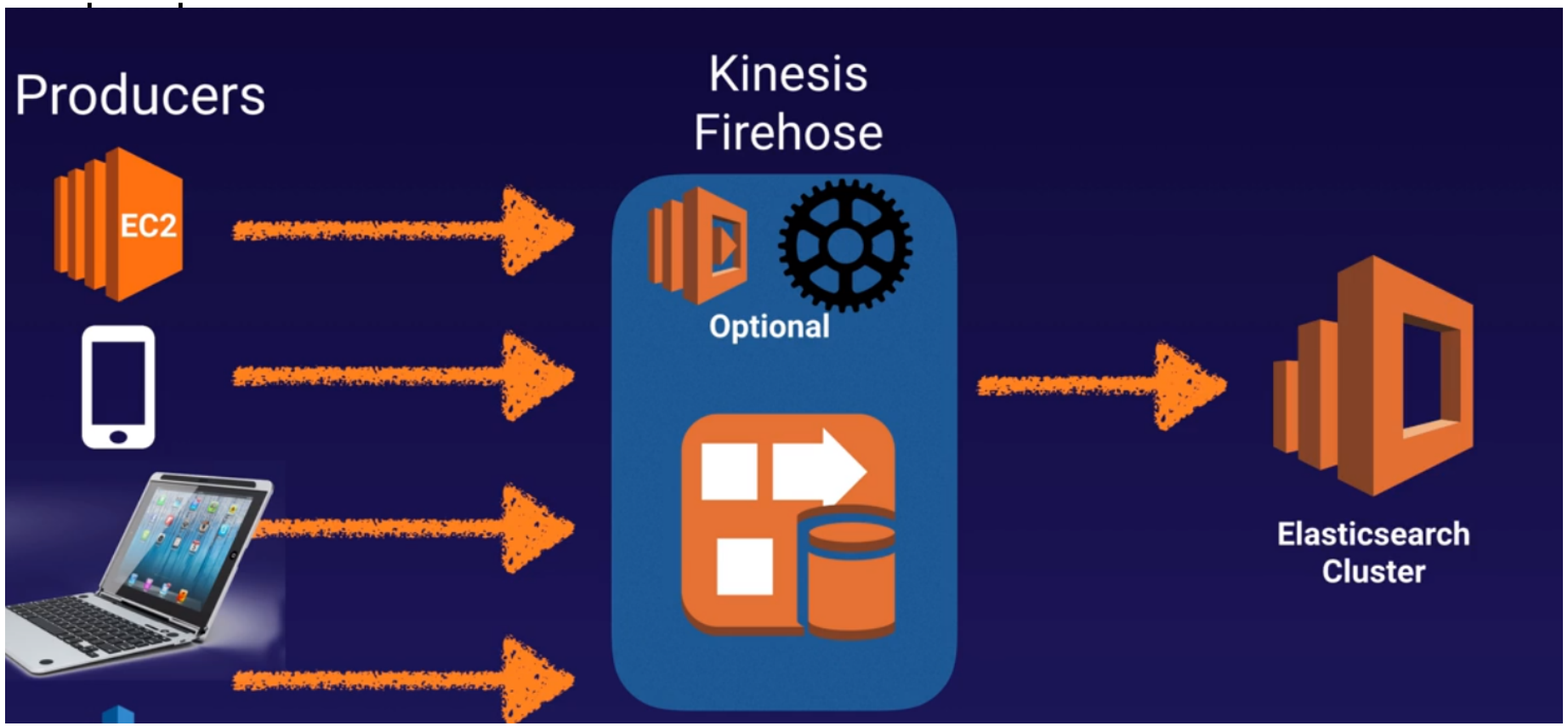


# Kinesis Streams Consists of Shards

- 5 transactions per second for reads, up to a maximum total data read rate of 2MB per second and up to 1,000 records per second for writes, up to a maximum total data writes rate of 1 MB per second
- Shard: A shard is the base throughput unit of an Amazon Kinesis stream, One shard provides a capacity of 1 MB/sec data input and 2 MB/sec data output
- The data capacity of your stream is a function of the number of shards that you specify for the stream.
- The total capacity of the stream is the sum of  the capacities of its shards.
- Kinesis stream stores the data. It is persistent

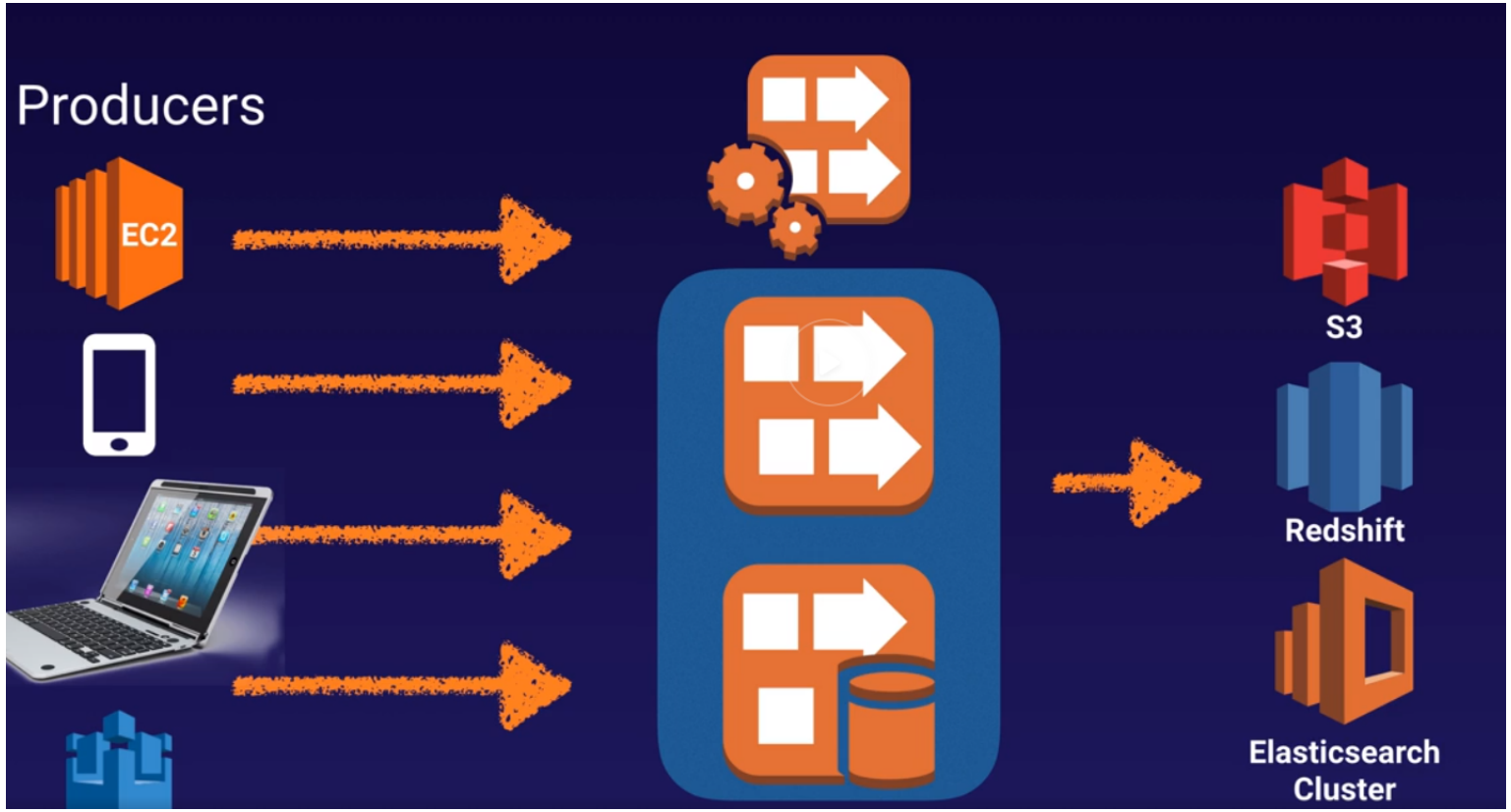
# Kinesis Firehose

- Kinesis firehose doesn't store the data, it is not persistent, it has to analysis data when it comes in by lamda. Firehose don’t have



# Kinesis Analytics

- Kinesis Analytics works with streams and firehose and analysis data on fly



# Kinesis

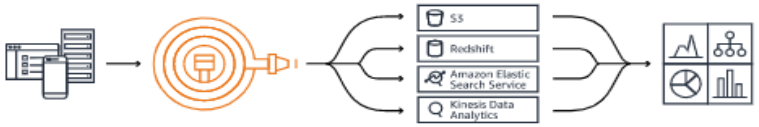
### Ingest and process streaming data with Kinesis streams

Process data with your own applications, or using AWS managed services like Amazon Kinesis Data Firehose, Amazon Kinesis Data Analytics, or AWS Lambda.

Create data stream

### Deliver streaming data with Kinesis Firehose delivery streams

Continously collect, transform, and load streaming data into destinations such as Amazon S3 and Amazon Redshift.




Create delivery stream

### Analyze streaming data with Kinesis analytics applications

Run continuous analysis on streaming data from Kinesis data streams and Kinesis Firehose delivery streams.

Create analytics application

### Ingest and process media streams with Kinesis video streams

Build applications to process or analyze streaming media.

Create video stream