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TEL AVIV

Serverless data pipeline and ETL

Michael Haberman | 2018

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Feeling the buzz?

Everyone talks about serverless
Everyone talks about data

So lets merge them together!

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Our Goal

Create a clickstream **data pipeline** with **ETL** process which is **serverless**!

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Save the events

Basic transformation

Some Storage

Data is ready / after some time

Extract

Transform

Load

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Kinesis

- Ingest big data - sharded
- Multiple producers and consumers
- Data retention (7 days max)
- Sub products
  - Data analytics - SQL queries over windows
  - Firehose - transformation (Lambda, json to parquet), really fast
- Scale defined by numbers of shard

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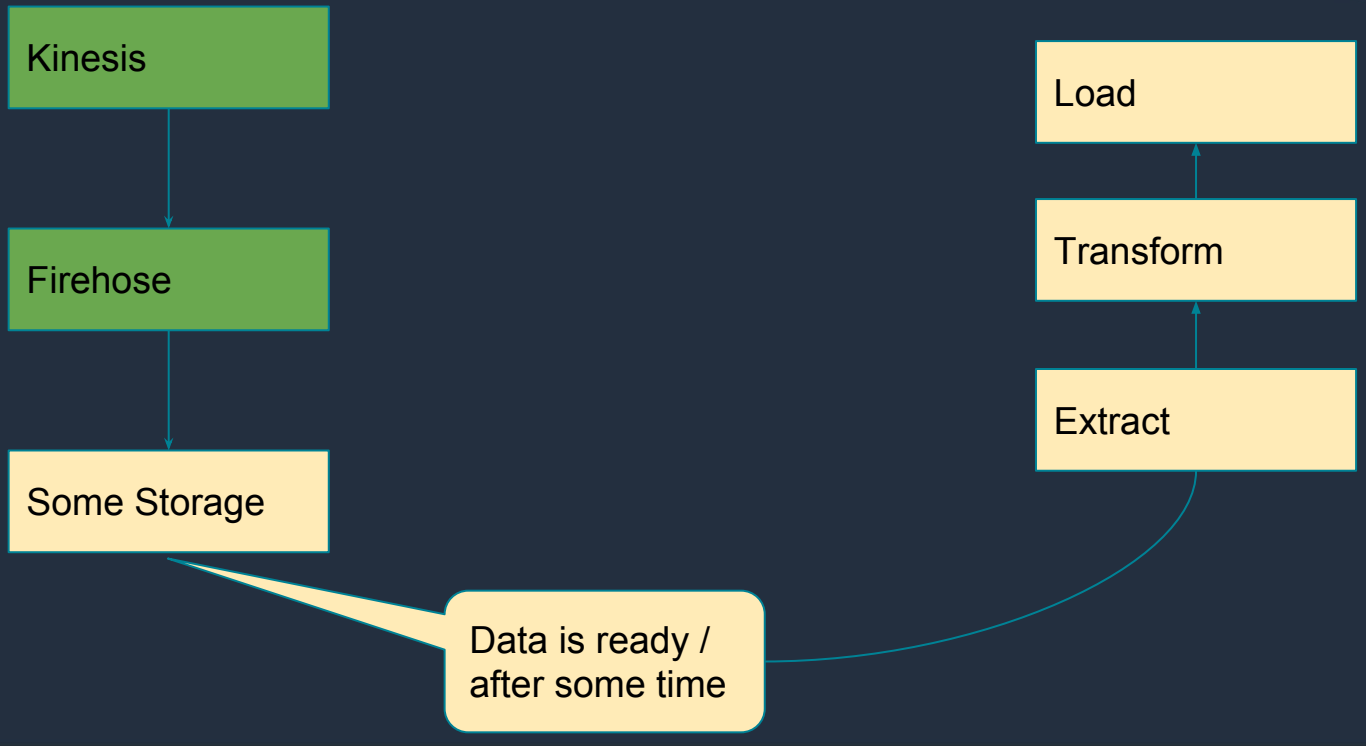

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Firehose

- Input
  - Kineses
  - Direct
- Transformation
  - Using Lambda
  - Changes schema and type using AWS Glue
- Output
  - S3
  - Redshift
  - Elastic search
- No scaling definition
- Paying per event + Lambda execution

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S3

- I guess you know S3…
- What if I want to query S3?

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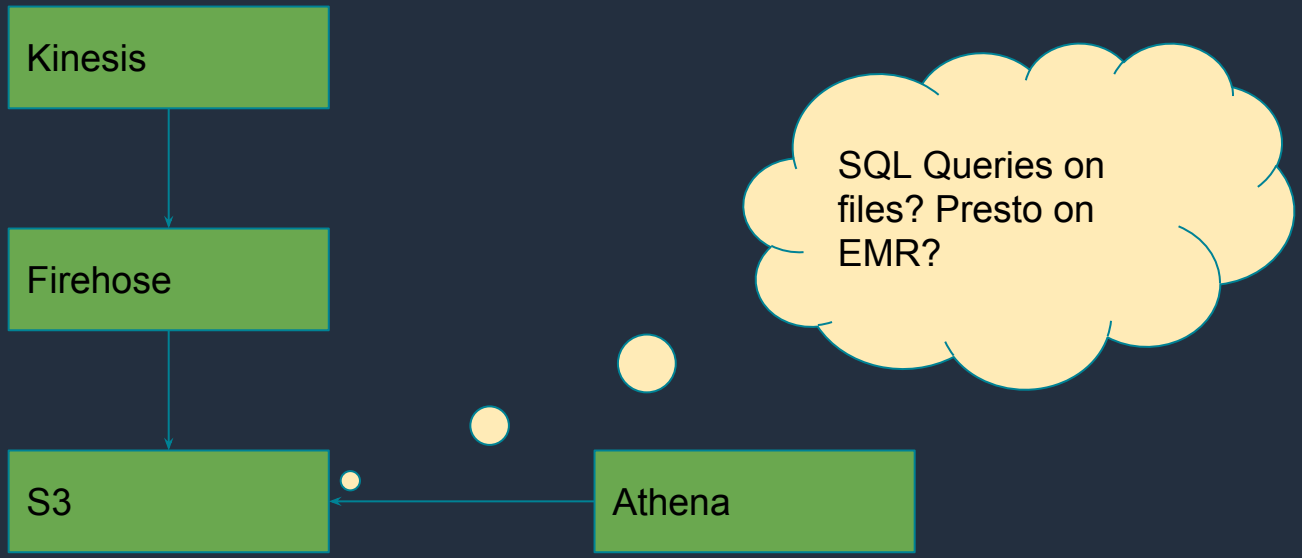

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Athena

- Basically Presto
- Paying for scanned data (1TB = 5$)
- Using AWS Glue for metastore
- Can’t insert data

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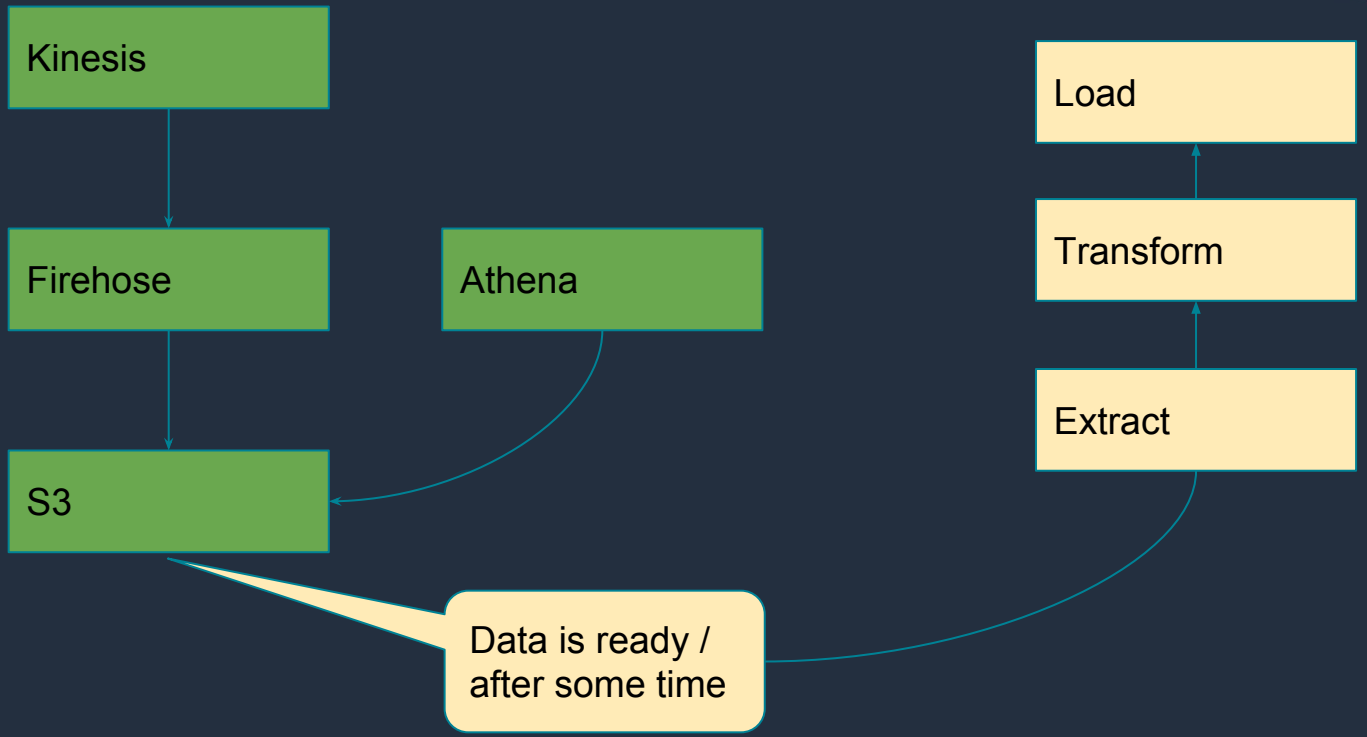

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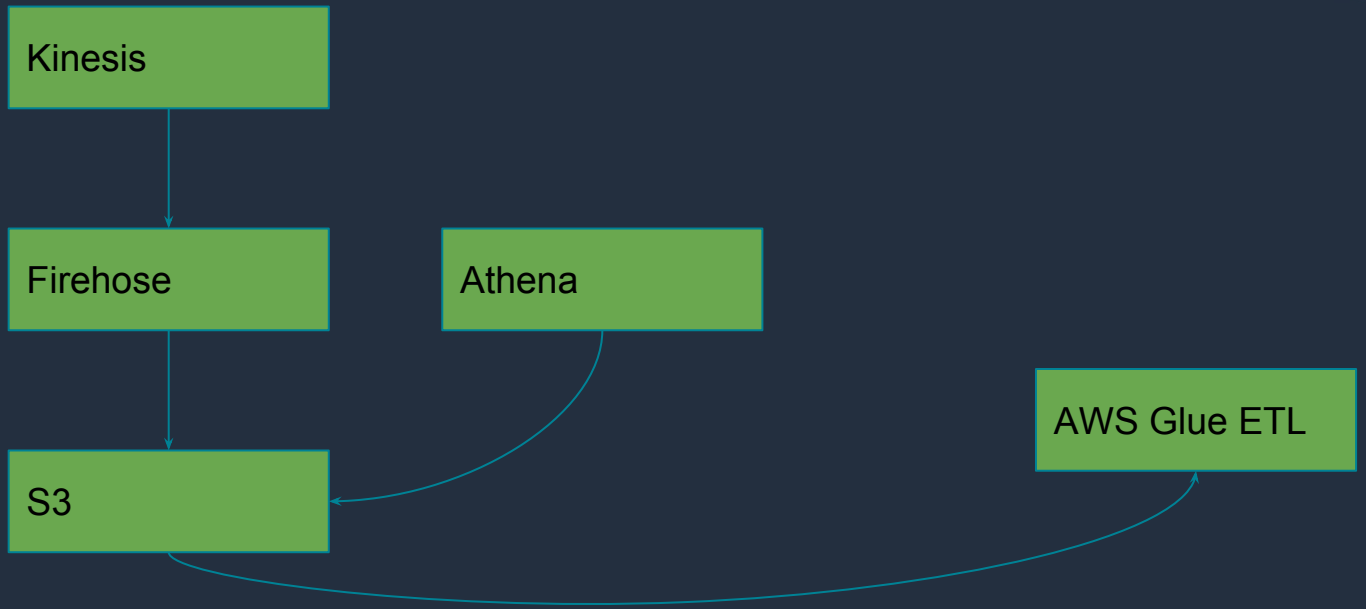

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Glue

- Extract - using metastore
- Transform - python code
- Load - S3, Redshift

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Quicksight

- Analytical dashboards

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Thanks!

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