

A hand is shown reaching out from the bottom left towards a wireframe globe on the right. The globe is composed of a network of white lines and dots, representing a global network or data flow. The background is dark and blurry, with a cityscape visible in the distance. The text 'BIG DATA Ecosystem' is written in a light blue, sans-serif font, with 'BIG DATA' on the top line and 'Ecosystem' on the bottom line. A small blue dot is positioned to the left of the text.

# • BIG DATA Ecosystem

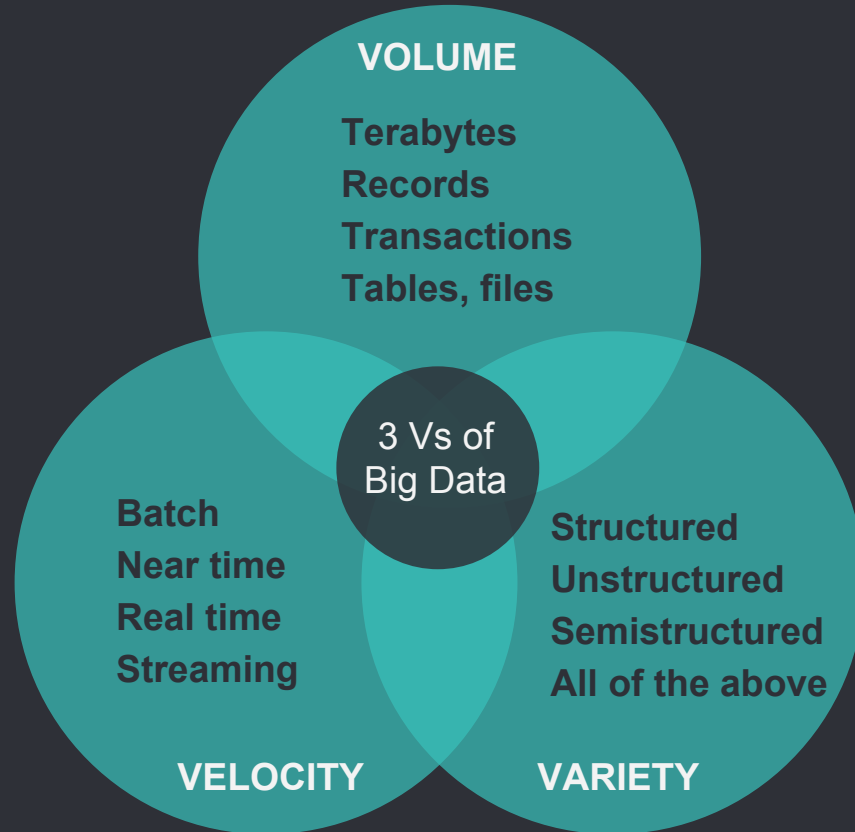


1

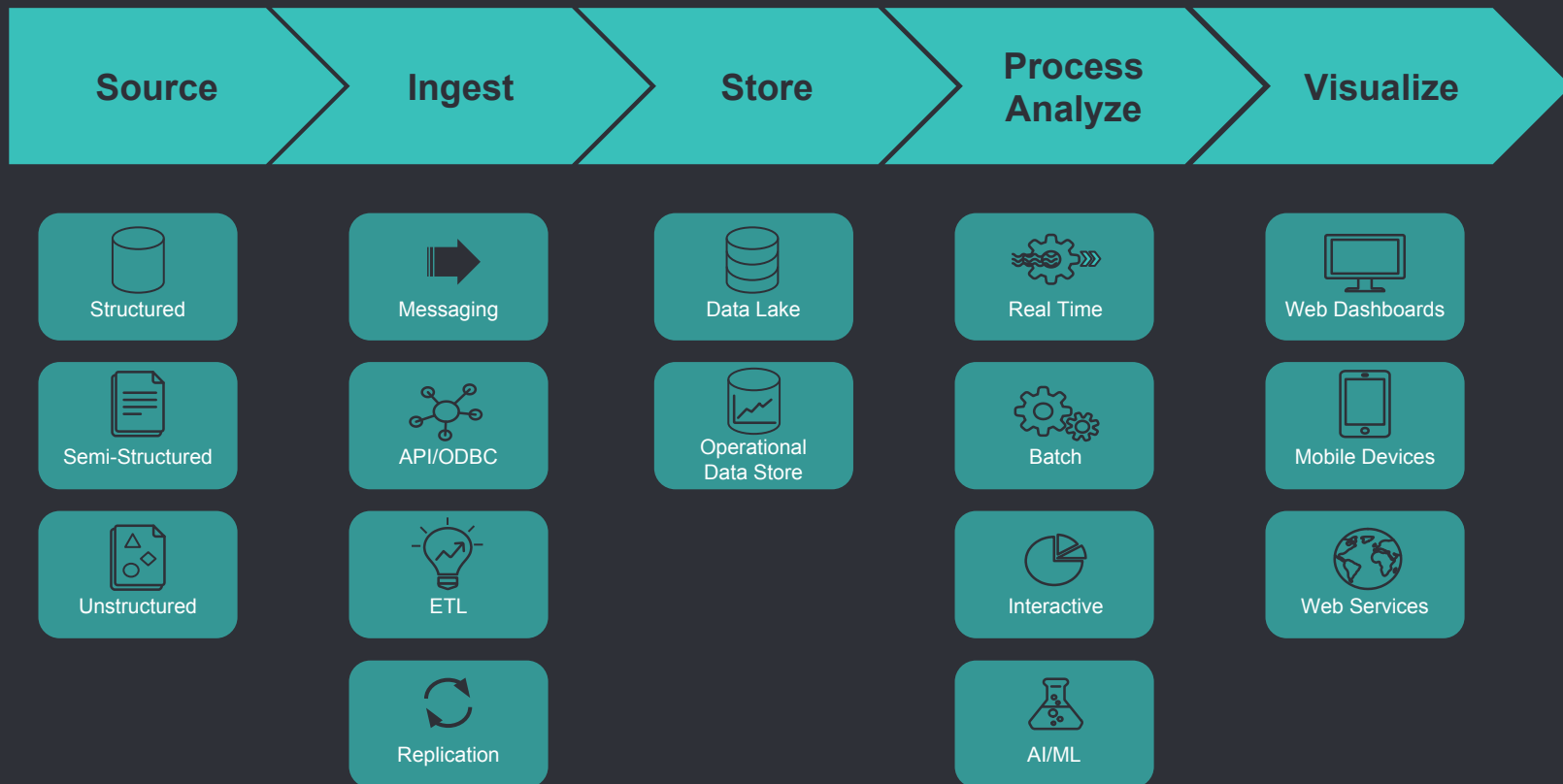
# Introduction

Let's see what is Big Data

# BIG DATA CHALLENGES



# BIG DATA PIPELINE



# BIG DATA POPULAR USE CASES



“

***Big Data** is data sets that are **too large**, **complex** and **dynamics** for any conventional data tools to **capture**, **store**, **manage** and **analyze**.*



2

# Ingest

Big Data Component

# DATA INGESTION

## WHAT IS

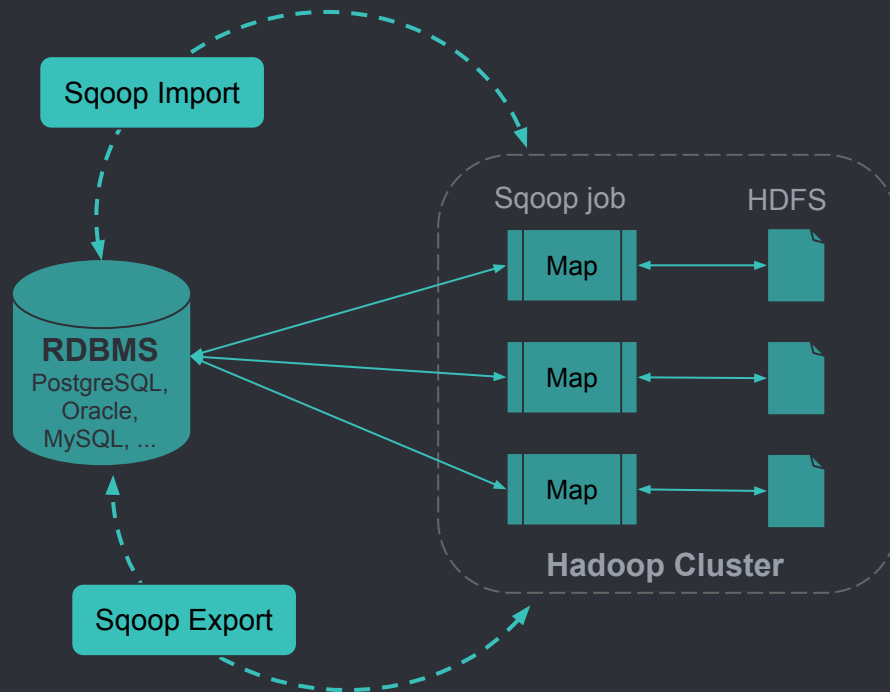


## CATEGORIES OF DATA

- Data in motion
- Data at rest



# DATA INGESTION SQOOP



# DATA INGESTION KAFKA

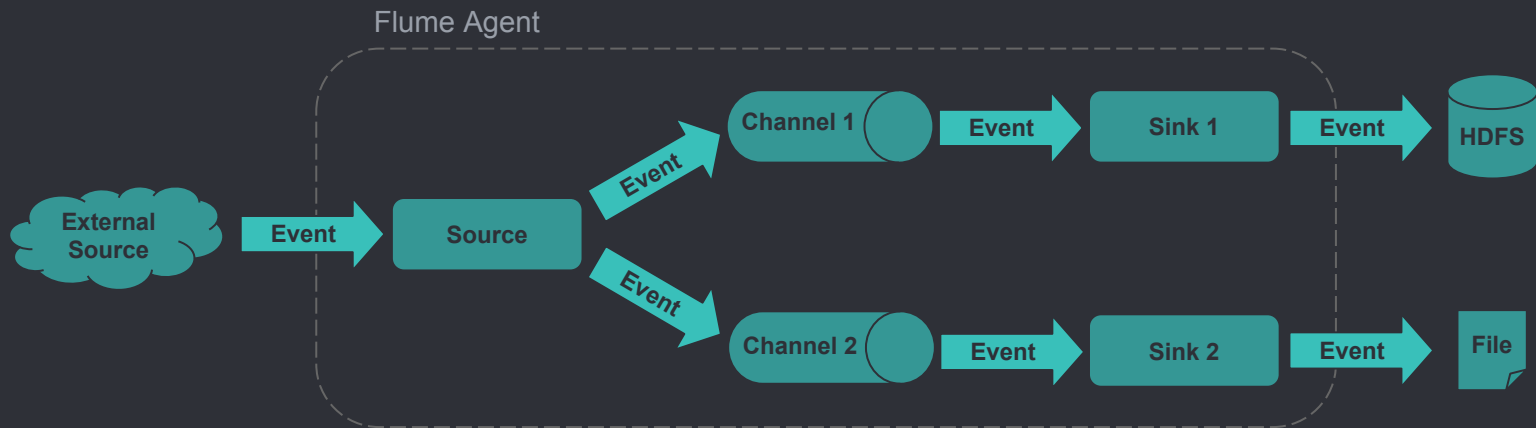
## CONNECT



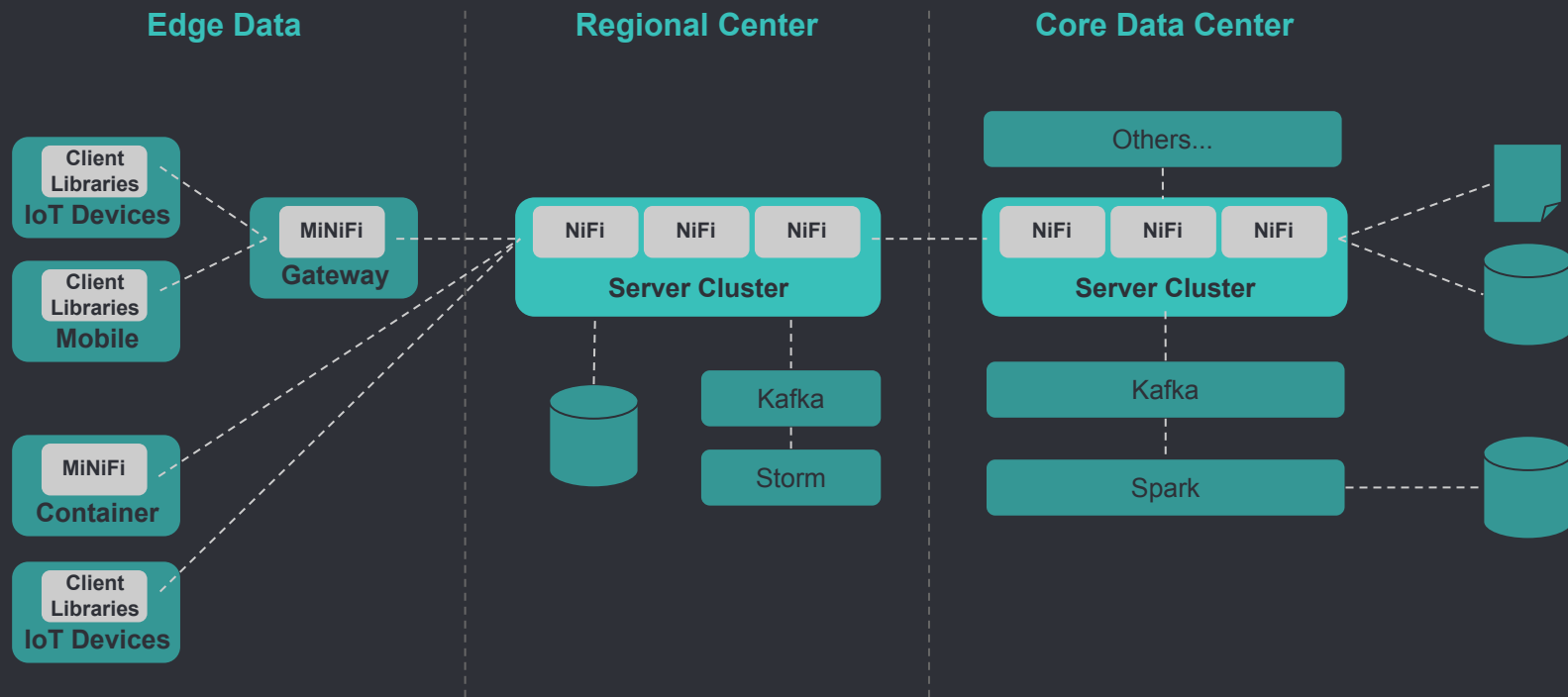
## PRODUCER-CONSUMER



# DATA INGESTION FLUME



# DATA INGESTION NIFI



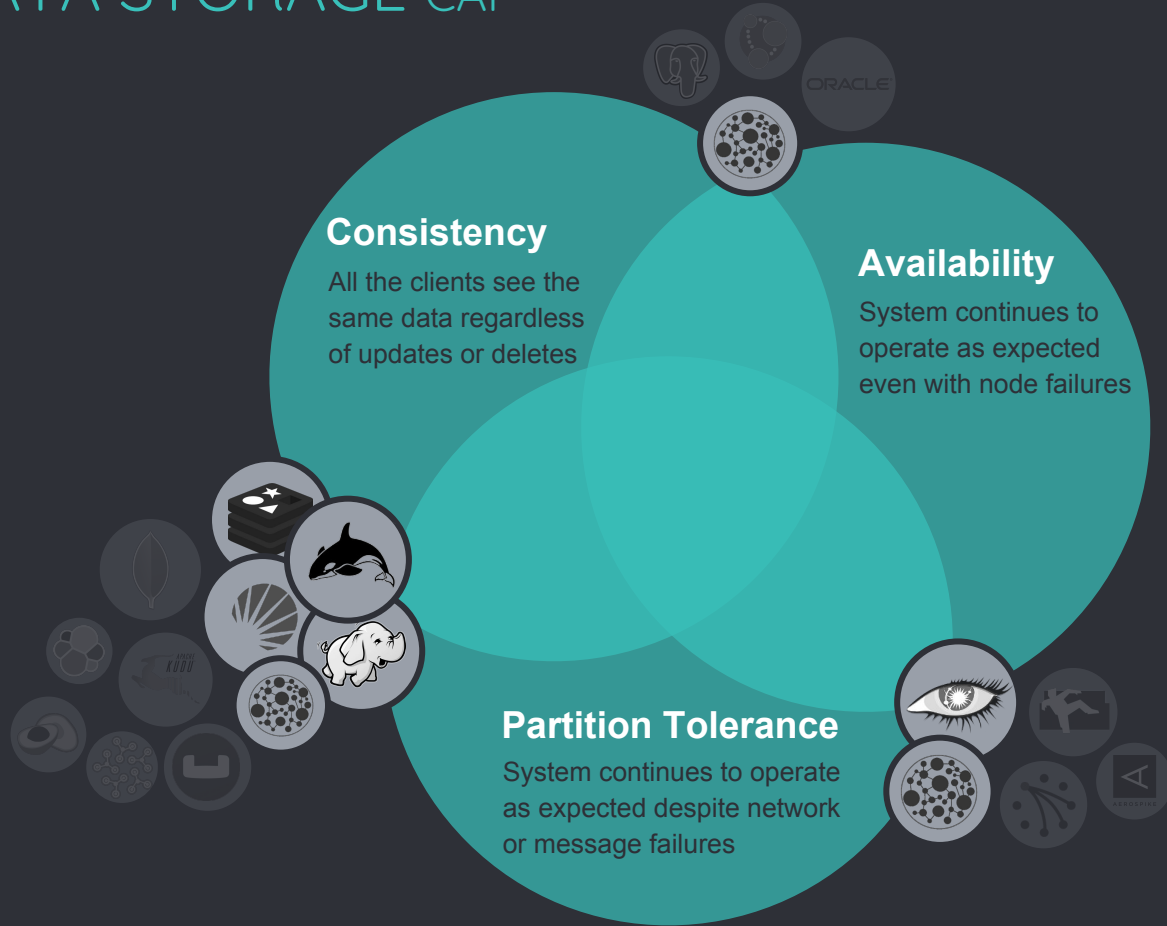


3

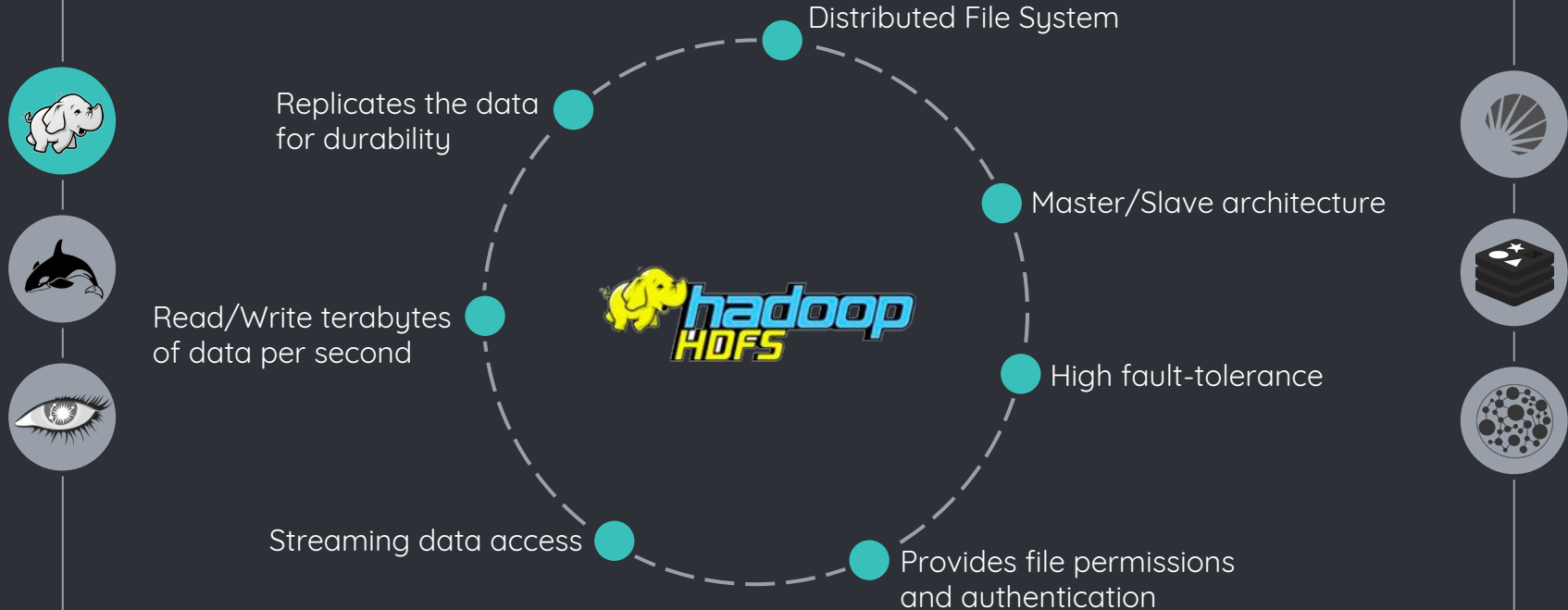
## Storage

Big Data Component

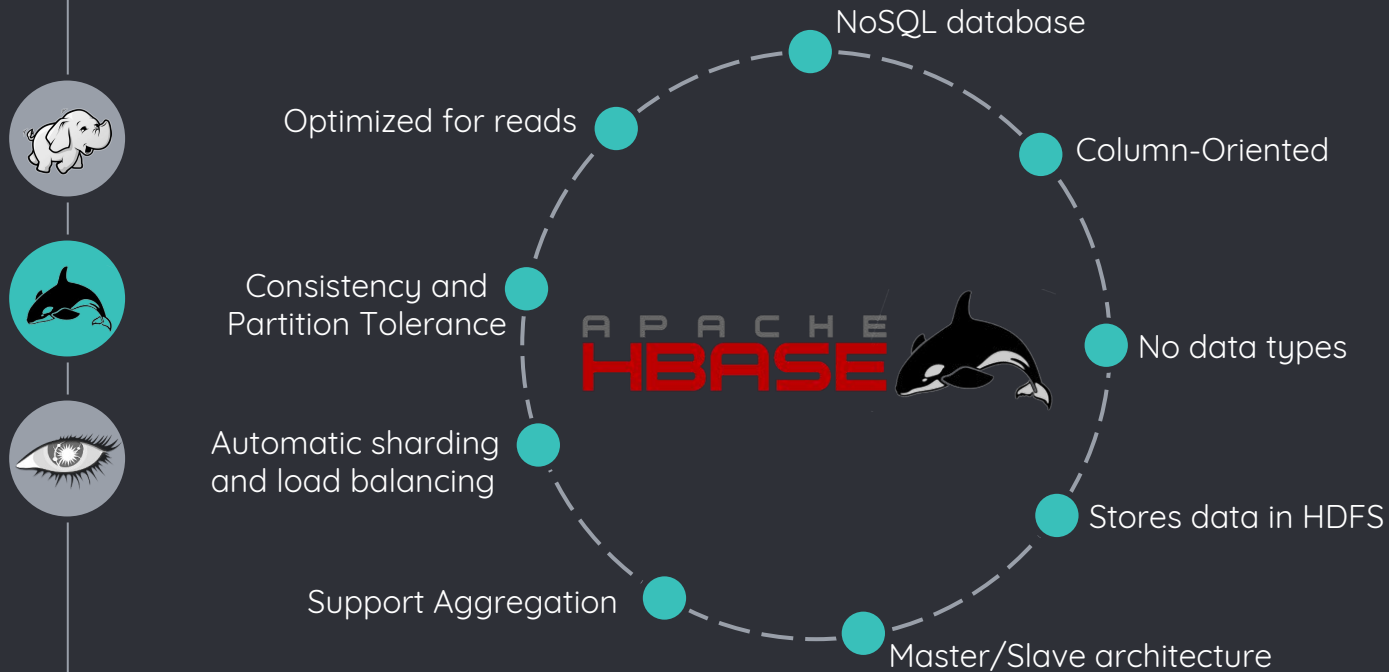
# DATA STORAGE CAP



# DATA STORAGE HDFS

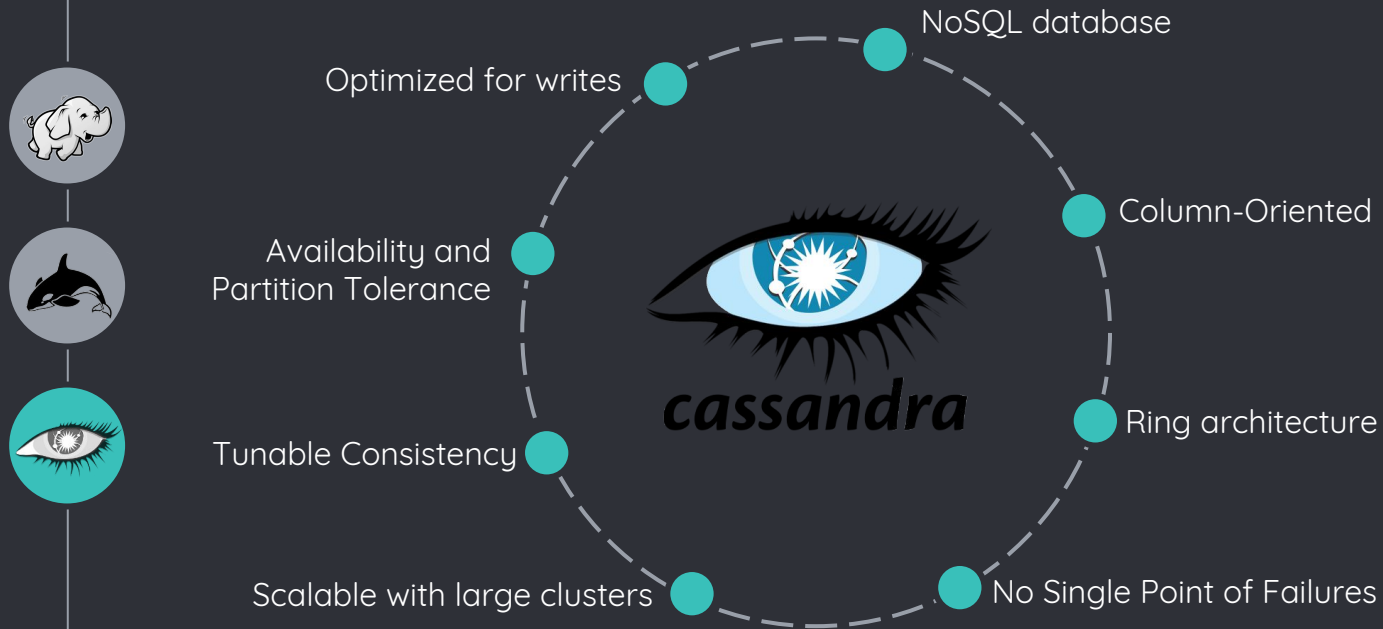


# DATA STORAGE HBASE





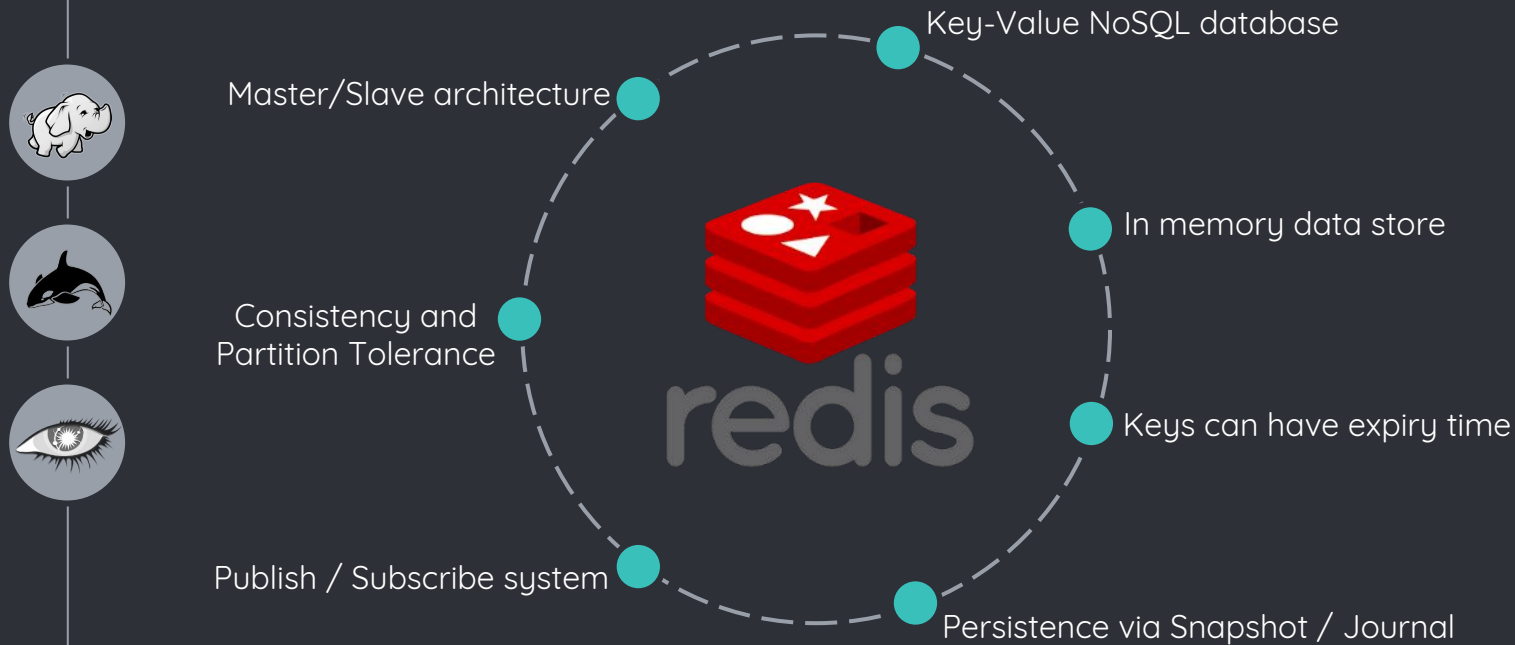
# DATA STORAGE CASSANDRA



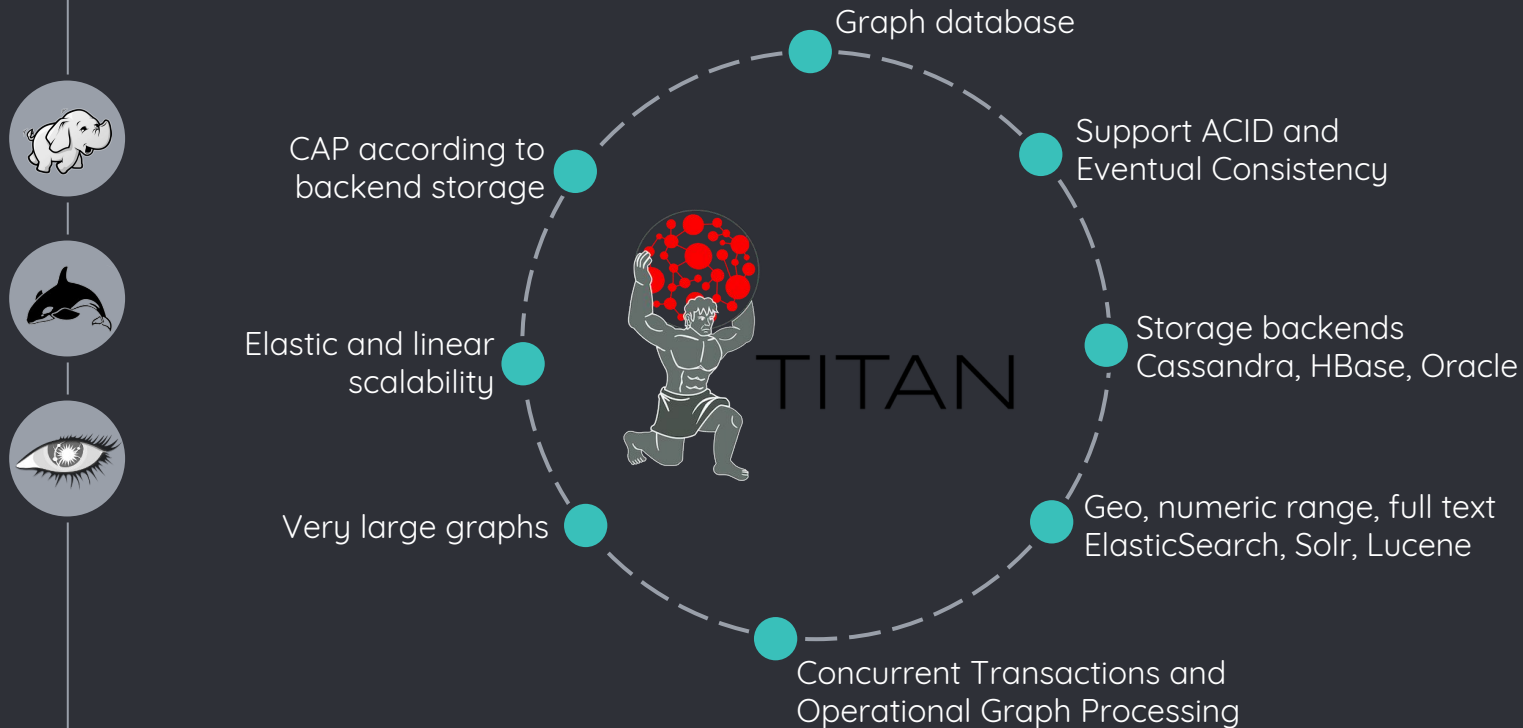
# DATA STORAGE SOLR



# DATA STORAGE REDIS



# DATA STORAGE TITAN





4

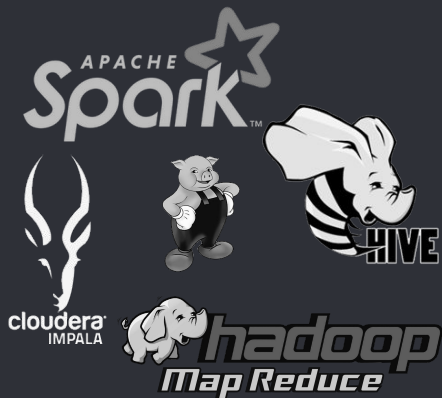
# Process & Analyze

Big Data Component

# DATA PROCESSING

## BATCH

Data arrives and is processed at certain interval.



## NEAR REAL-TIME

The time between when data arrives and is processed is very small (*micro-batches*).



## REAL TIME

Data arrives and is processed in a continuous manner.



# DATA ANALYTICS

## INTERACTIVE

Set of approaches to explore data, supporting exploration at the rate of human thought.



## MACHINE LEARNING

Turning data into information using automated methods without direct human intervention.





5

# Visualization

Big Data Component



# DATA VISUALIZATION

## Monitoring



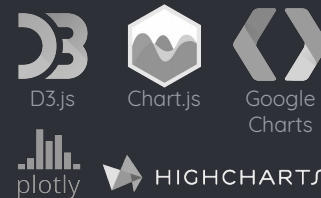
## Business Intelligence



## Notebooks



## Frameworks



Business users

Data scientist,  
developers



Thank You !

