REGULATORY REPORTING OF ASSET TRADING USING SPARK

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Regulatory Reporting – Current Challenges

Financial Institutions need to report asset trade based on defined regulations

Reporting has to comply within a time window from the trade execution

Rules are subject to change and adjustments based on the change in regulations

The transaction volume is high
Transactional systems are diverse

Case Study

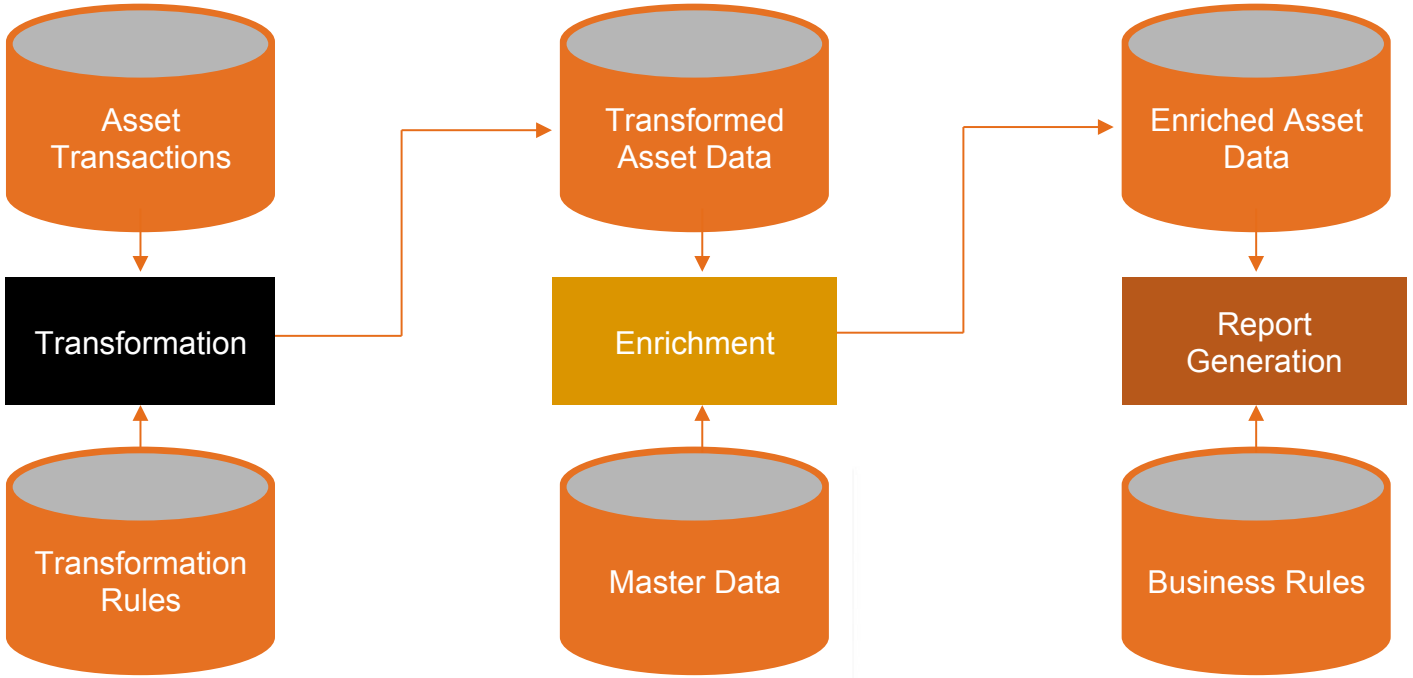
Leading global Financial Institution engaged in around 6 million trades a day in the financial markets

Regulatory requirements necessitates reporting in a specified reporting format within a 15 minute window

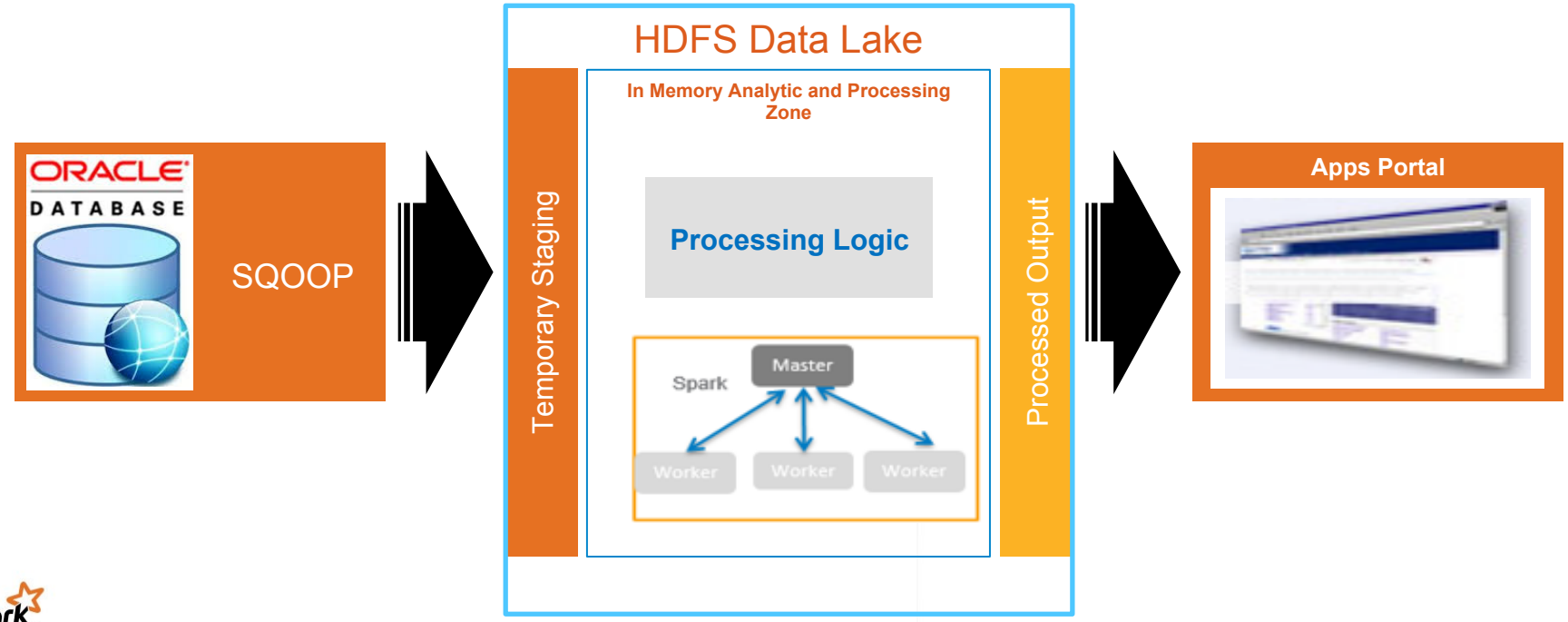
The trades are identified for reporting based on steps

- Transformation
- Enrichment
- De-duplication checks
- Business Rules

Report Generation Process Flow



Architecture Diagram



Statistics

01

Ingestion throughput >130,000 records/second or 18.22 MB/ second (per node)

02

Report execution time -> 35 seconds for 30,000 trade records

03

Overall Data Volume -> 596 million trade transaction records

04

Hardware Configuration -> Spark Installed in 10 node 32 GB RAM , 16 Core m/c

DEMO

IIP - Leveraging Power of Spark

Open Source / Spark Components

Spark ML

Spark Streaming

HIVE / Spark SQL

Hadoop / FS Storage / Infra Mgmt

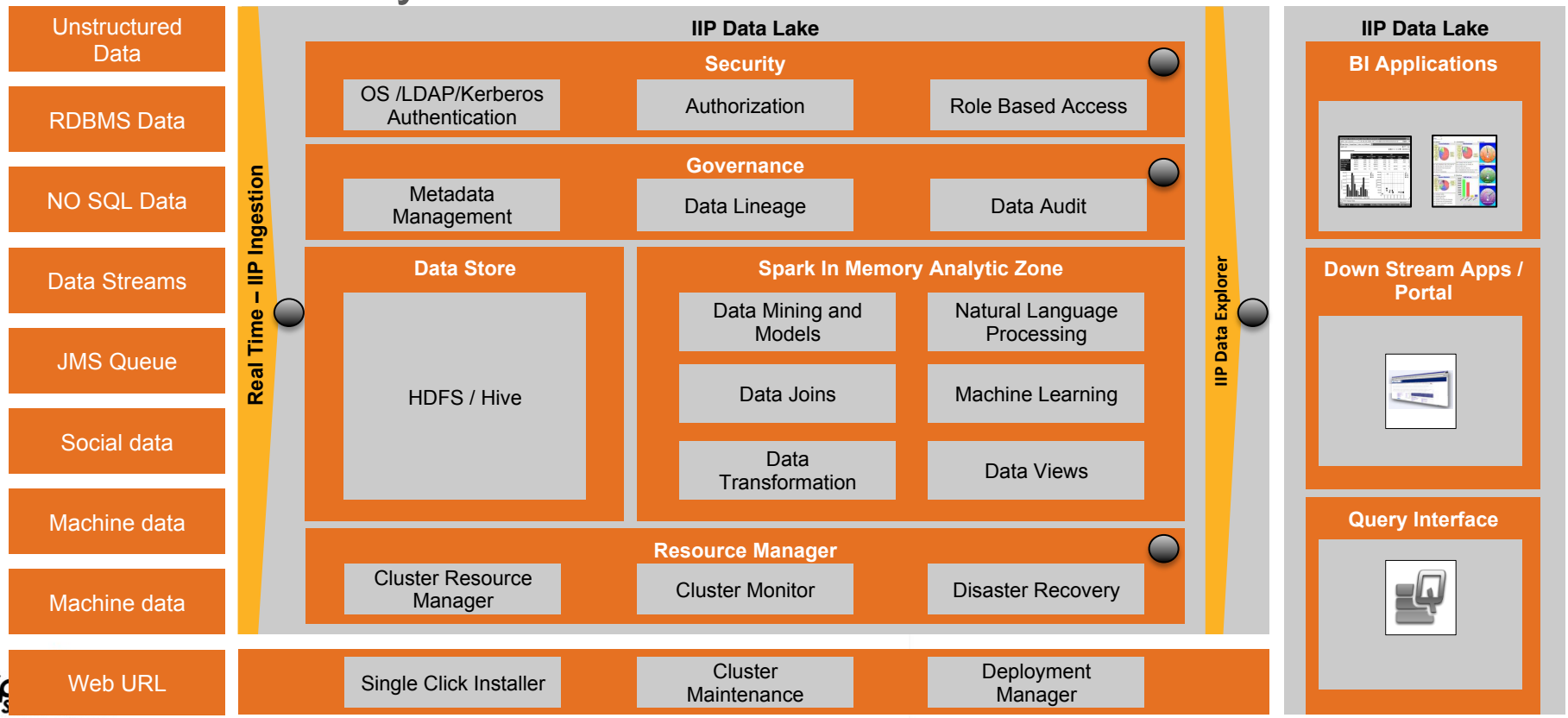
Infosys & Partner IP Components

Tools | Data Extractors | Algorithms | Packaging & Support

Customization, Integration & Implementation Services

Data Modeling & Cleansing | Agile App Development
Data Science & Analytics | Security & Governance
Custom Data Extractors

Infosys Information Platform - Architecture



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Thank You

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