DATA ARCHITECTURE DIAGRAM - SAMPLE

Traditional Data Engineer
Tools: SQL/ETL/DW Automation, Data Catalog

IT/BI Specialist
Tools: BI tools, BI admin, data prep

Data Environment

Internal Data

MDM Hub/ ODS

External Data

Landing Area

Raw data, snapshots, increments, tagged, encrypted

Data Hub

Base Data = Formatted, clean, source data

Refined Data Master, reference & other data

DW Schema→ ←Dimensions

Data Warehouse

Data Mart

Real-time queries

Web Services

Wide, flat tables

BI Data Extract

Raw data→ ←Data sets

Data Science Sandbox

Other

Semantic Layer

APIs

Data Catalog

Casual Users
Reports, Dashboards, Smart Applications

Operational Applications

Power Users
Visualization, data prep, catalog, data mining

Data Stewards
Data Catalog, Data Glossary,

Metadata| Data Security | Data Governance | Data Curation
Systems Management and Monitoring, Backup and Recovery

Key: Inside or outside the data lake

Tools: Hive, Pig, Spark, Python, Scala, Java, SQL
Big Data Engineer