Big Data Architecture & Case :
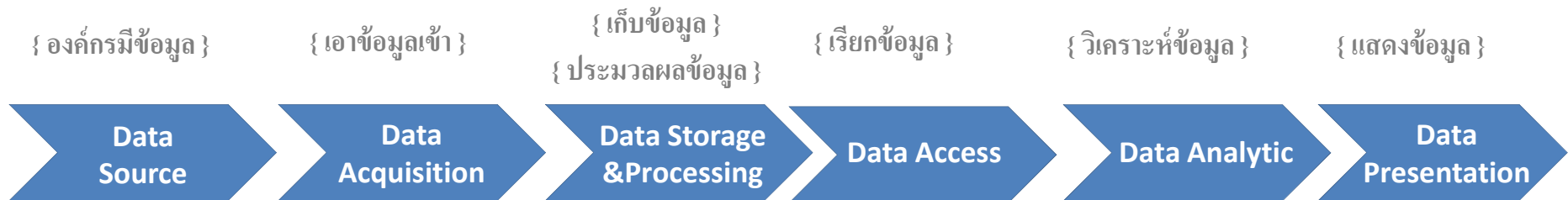
Name: อวยชัย   ภิรมย์รื่น

Tel.   : 086-813-5354

e-mail : p.Auoychai@gmail.com
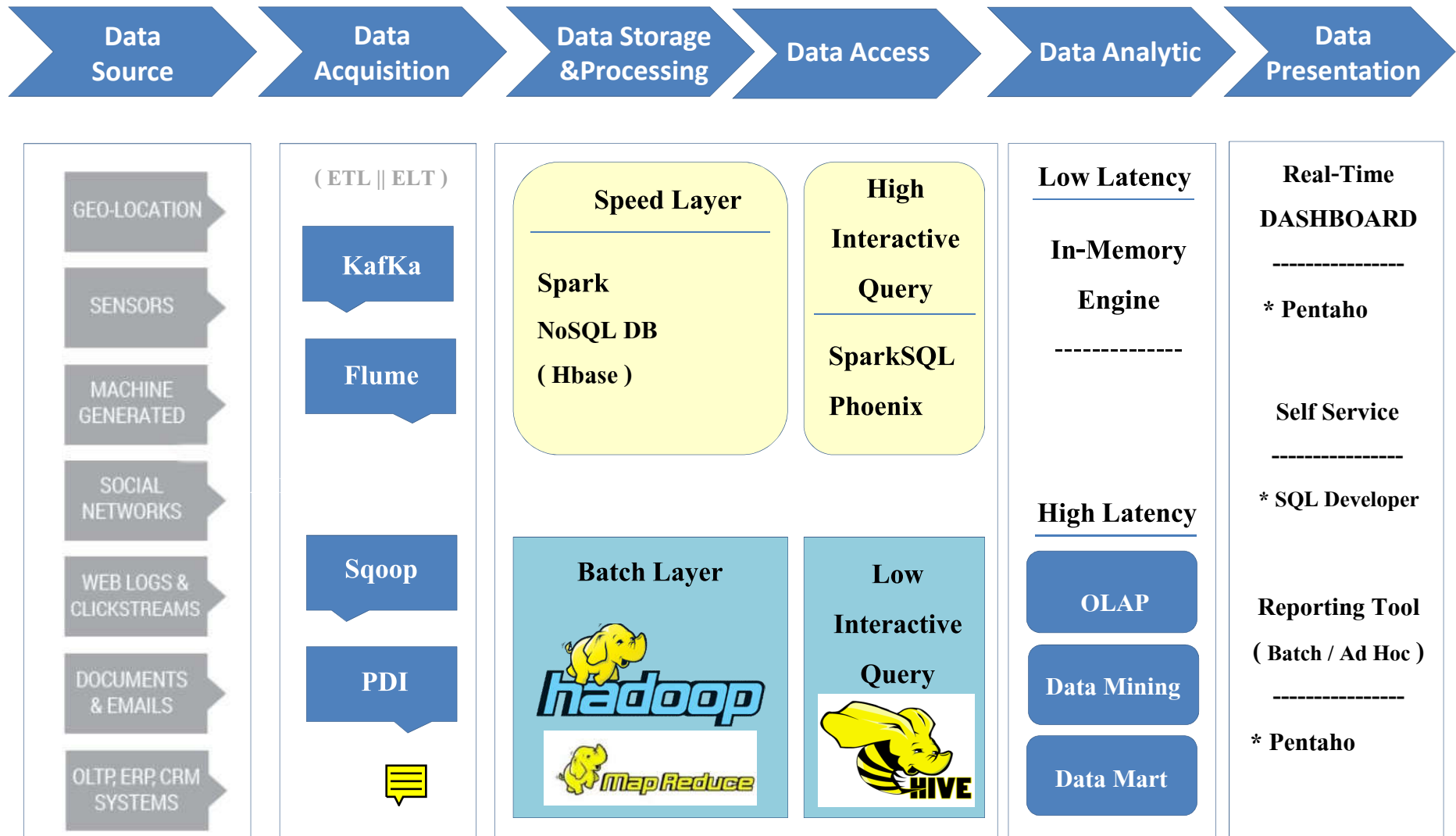
Big Data Technology & System Tier :

{ องค์กรมีข้อมูล } { เอาข้อมูลเข้า } { เก็บข้อมูล }
{ ประมวลผลข้อมูล } { เรียกข้อมูล } { วิเคราะห์ข้อมูล } { แสดงข้อมูล }

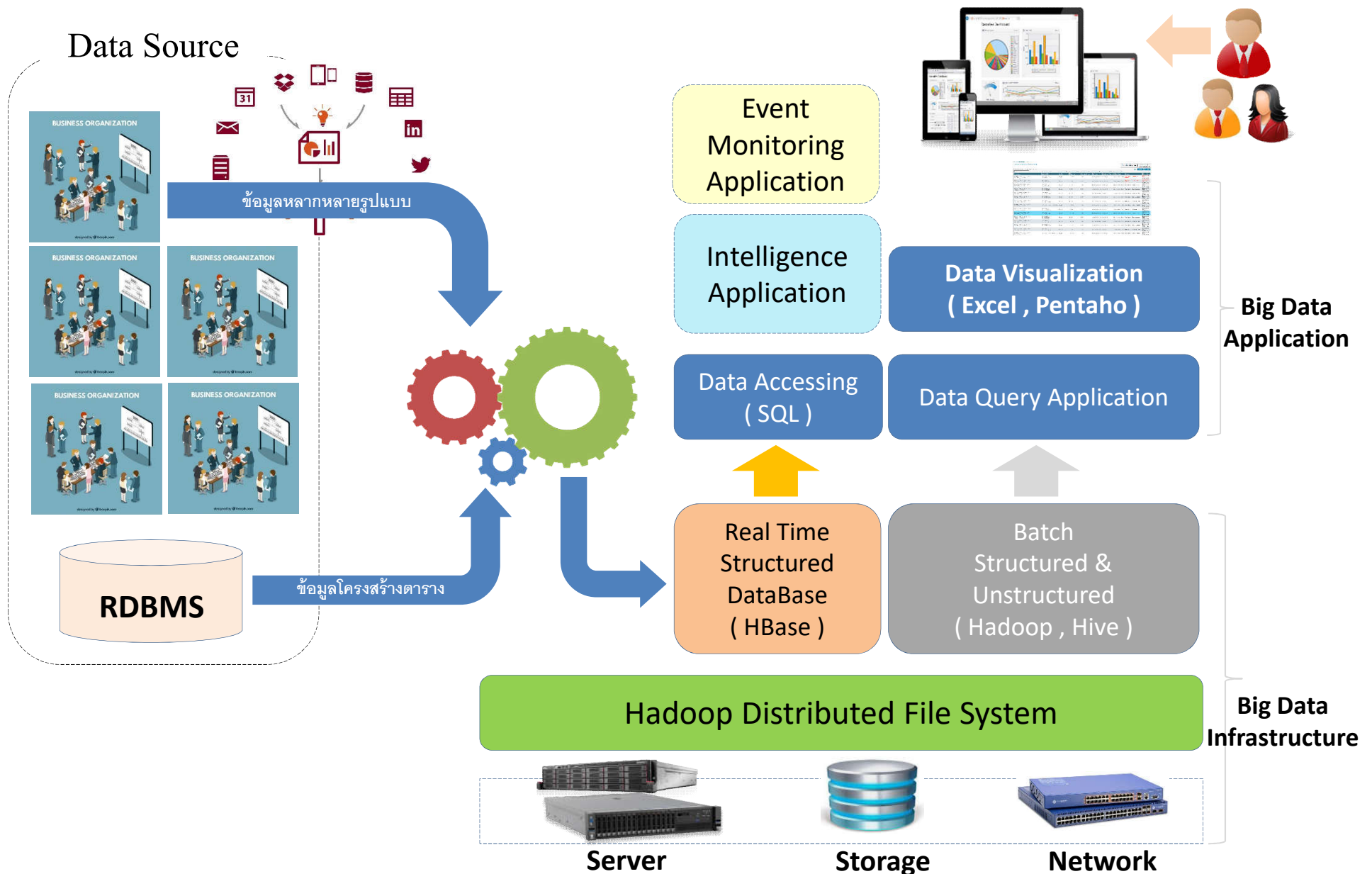| Data Source | Data Acquisition | Data Storage &Processing | Data Access | Data Analytic | Data Presentation |

Real Time Data Processing & Analytic

Batch Data Processing & Analytic

Big Data Technology & System Tier :
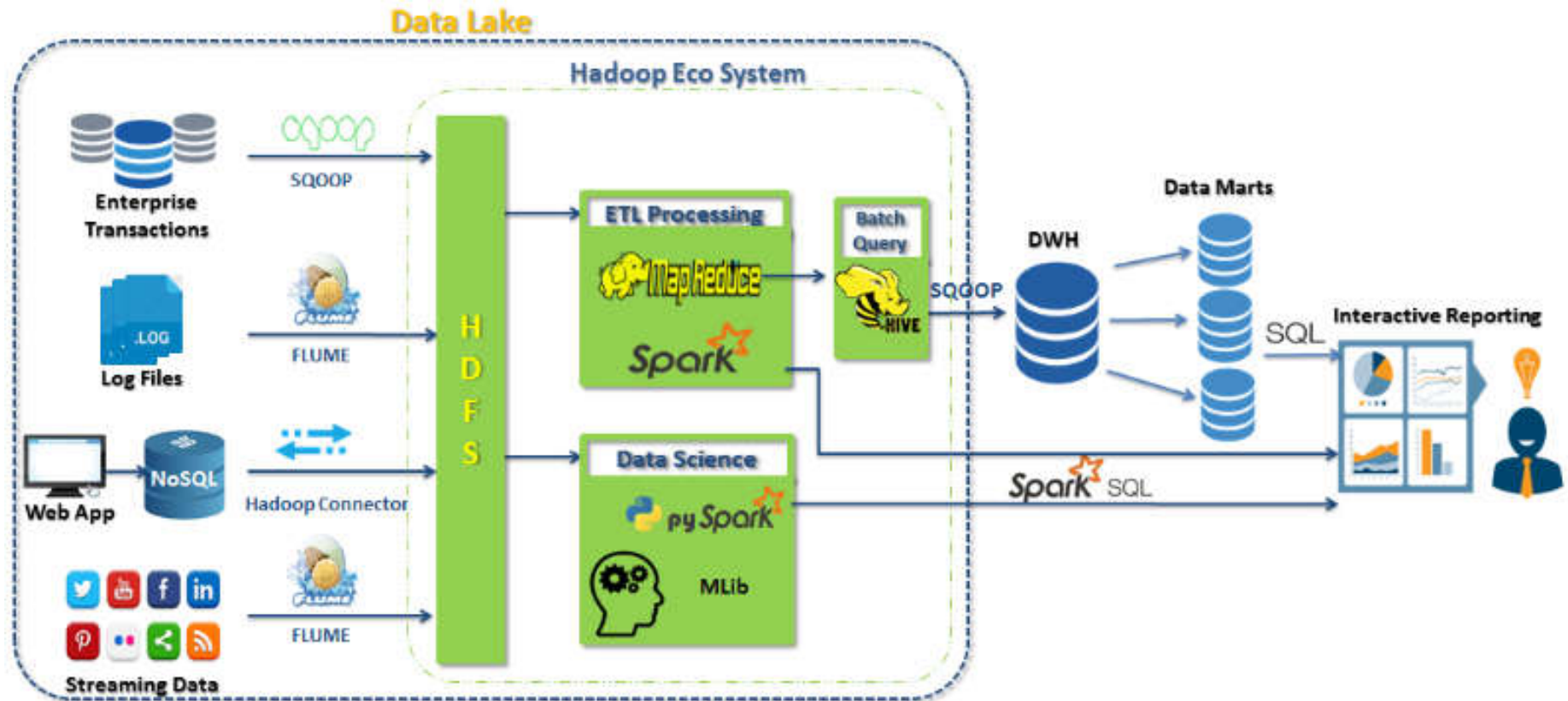
| Data Source | Data Acquisition | Data Storage &Processing | Data Access | Data Analytic | Data Presentation |

Data Source

GEO·LOCATION

SENSORS

MACHINE GENERATED

SOCIAL NETWORKS

WEB LOGS & CLICKSTREAMS

DOCUMENTS & EMAILS

OLTP, ERP, CRM SYSTEMS

Data Acquisition

(ETL || ELT)

KafKa

Flume

Sqoop

PDI

Data Storage &Processing

Speed Layer

Spark
NoSQL DB
(Hbase)

High Interactive Query

SparkSQL
Phoenix

Batch Layer

Low Interactive Query

Data Analytic

Low Latency

In-Memory Engine

High Latency

OLAP

Data Mining

Data Mart

Data Presentation

Real-Time DASHBOARD
----
* Pentaho

Self Service
----
* SQL Developer

Reporting Tool
(Batch / Ad Hoc)
----
* Pentaho

Big Data Technology & System Tier :

Data Source

ข้อมูลหลากหลายรูปแบบ

RDBMS

ข้อมูลโครงสร้างตาราง

Event Monitoring Application

Intelligence Application

Data Visualization (Excel , Pentaho)

Data Accessing (SQL)

Data Query Application

Real Time Structured DataBase (HBase)

Batch Structured & Unstructured (Hadoop , Hive)

Hadoop Distributed File System

Big Data Application

Big Data Infrastructure

Server   **Storage**   **Network**

Big Data Technology & System Tier :

Big Data Architecture#1:
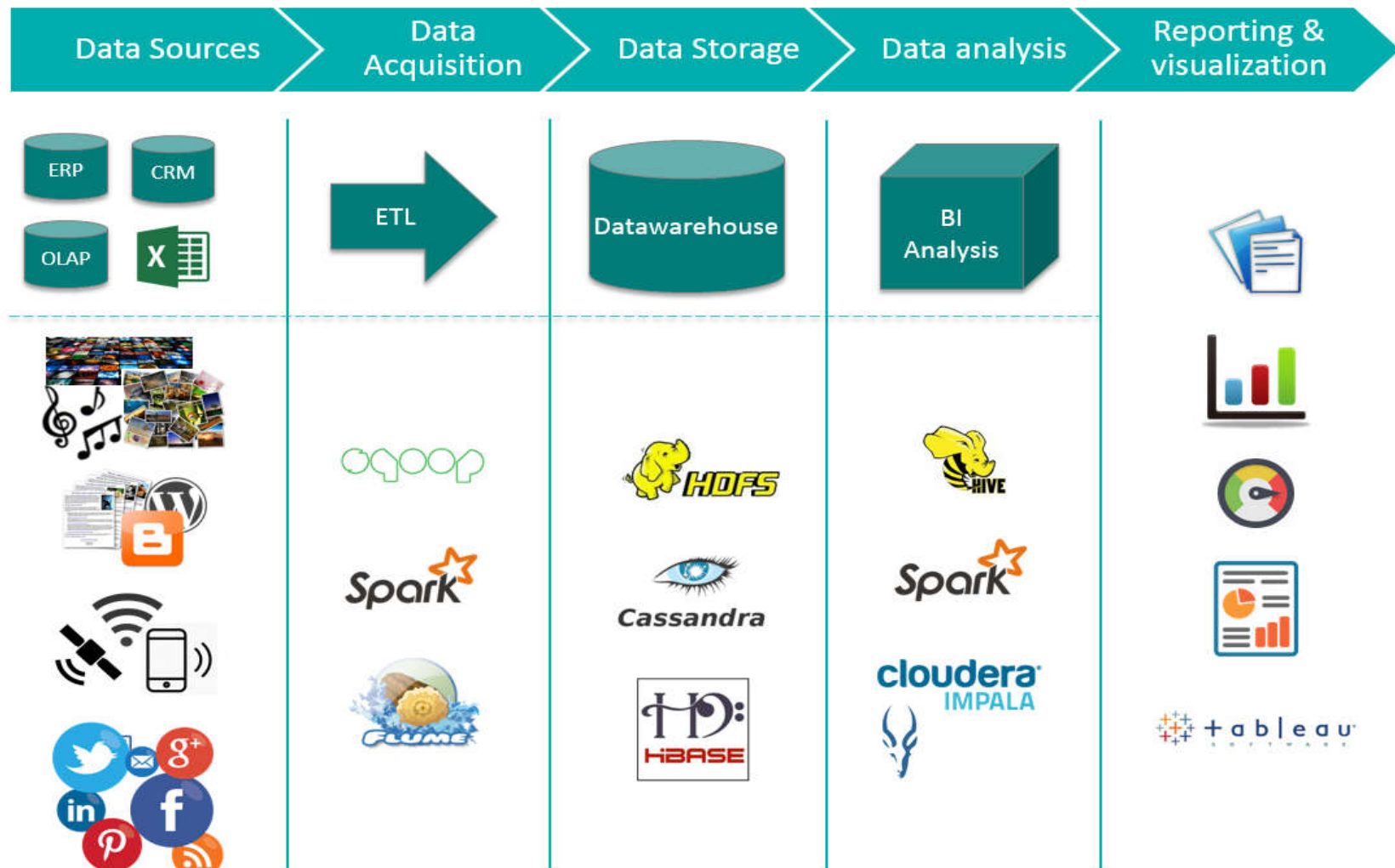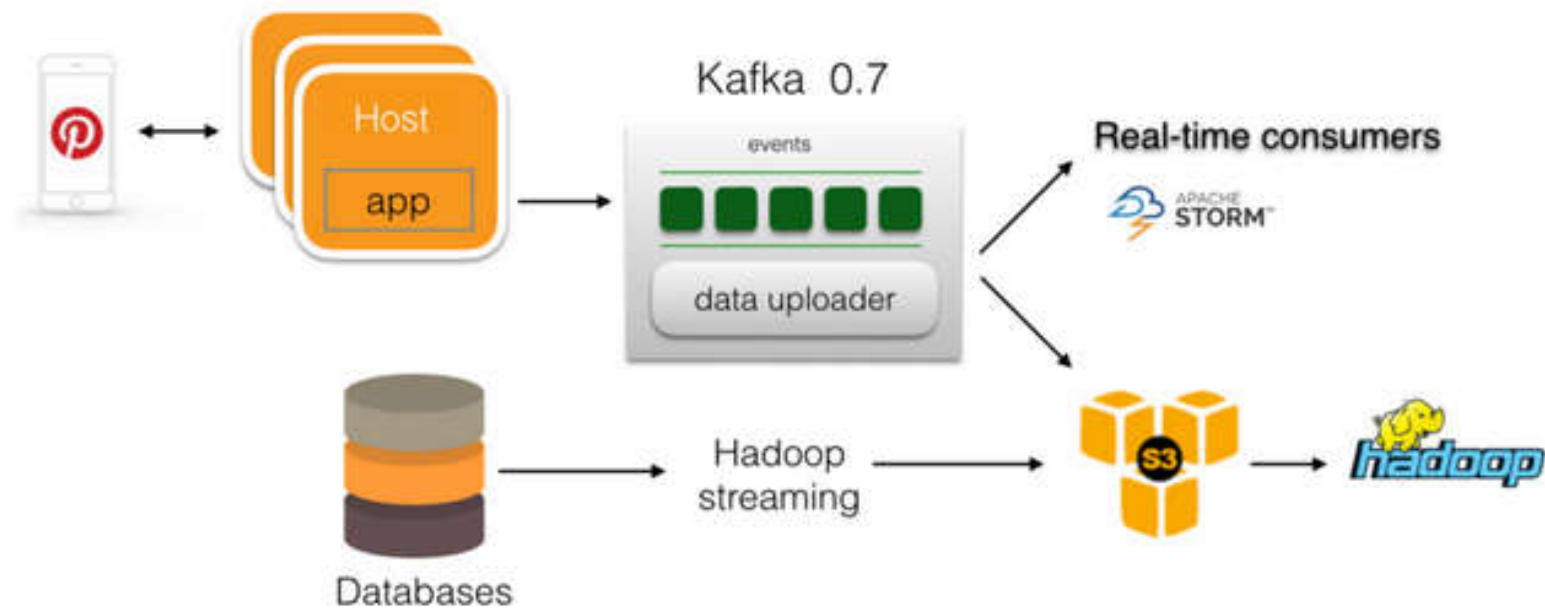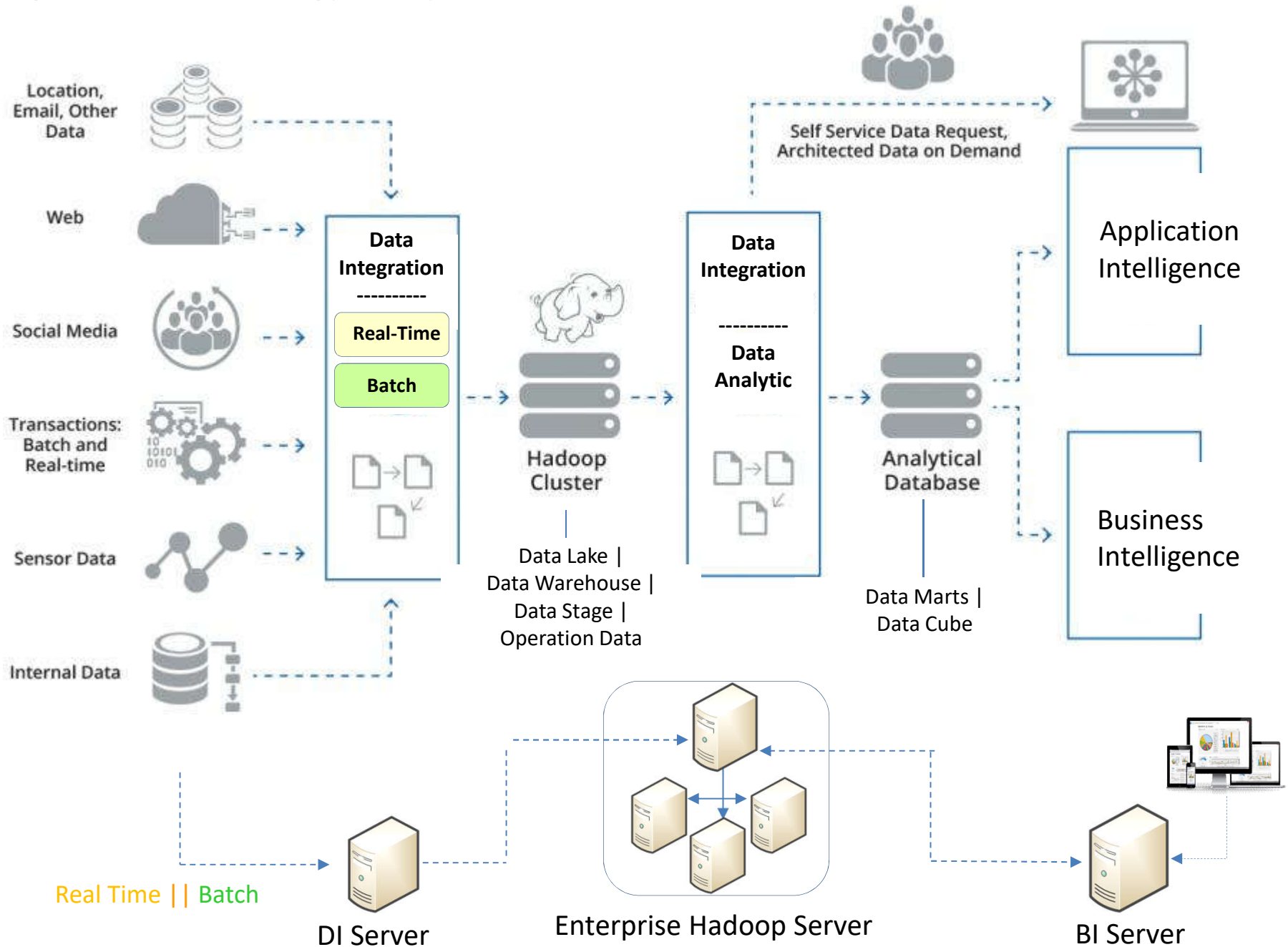
Big Data Architecture#1:
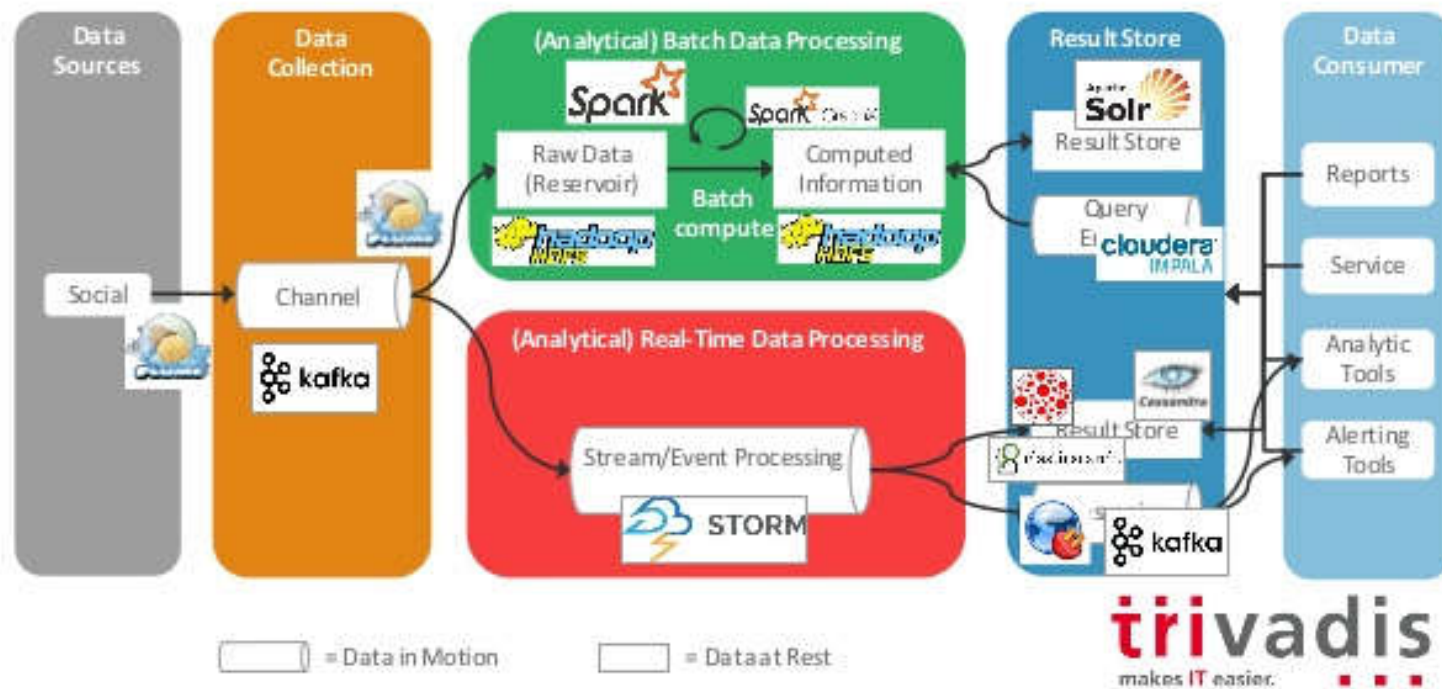
Big Data Architecture#1:

Figure 1. Data ingestion infrastructure in 2014

Big Data Technology & System Tier :

Location, Email, Other Data

Web

Social Media

Transactions: Batch and Real-time

Sensor Data

Internal Data

Data Integration

Real-Time
Batch

Hadoop Cluster

Data Lake | Data Warehouse | Data Stage | Operation Data

Data Integration

Data Analytic

Analytical Database

Data Marts | Data Cube

Self Service Data Request, Architected Data on Demand

Application Intelligence

Business Intelligence

Real Time || Batch

DI Server

Enterprise Hadoop Server

BI Server