A Modern Data Architecture With SAP

**APPLICATIONS**
- Statistical Analysis
- BI / Reporting, Ad Hoc Analysis
- Interactive Web & Mobile Applications
- Enterprise Applications

**DATA SYSTEMS**
- RDBMS
- EDW
- MPP
- HANA
- Repositories

**SOURCES**
- OLTP, ERP, CRM Systems
- Documents & Emails
- Web Logs, Click Streams
- Social Networks
- Machine Generated
- Sensor Data
- Geo-location Data

**OPERATIONS TOOLS**
- Build & Test
- Provision, Manage & Monitor

**DATA ACCESS**
- Security
- Operations

**DATA MANAGEMENT**
- Governance & Integration
SAP/Hortonworks Real-Time Big Data Architecture

Real-Time Data Ingestion
Real-Time Response
Close-Looped Analytics

Real-Time Recommendation Applications
Inline Predictive Analytics for Transactional Applications
Smart Mobile Applications

SAP HANA
Real-Time Analytics, Interactive Data Exploration & Application Platform
OLAP Engine
Predictive Engine
Spatial Engine
Application Logic & Rendering(XS)

Federated Smart Data Access
Transfer Datasets

Hortonworks Data Platform
Data Reservoir
Large Scale Data Capture, Generate Analytical Datasets, Train and Validate Predictive Models

Transactional, Analytical, Online Applications
Customer Mobile Applications
SAP Business Objects BI Suite Exploration, Reporting, Dashboarding, Predictive, Mobile

Streaming Data Events, Replicate Data Tables from Transactional Applications
Real-Time Data Acquisition
Sybase Event Stream Processor
Sybase Replication Server
SAP SLT

Real-time

SAP BusinessObjects Data Service
Transaction Systems, Databases, Flat Files, Batch Data Feeds

Batch Data Feeds
SAP/Hortonworks ETL Rationalization (loading data faster)

- Low Latency ingestion of data from operational systems
- Tiered Storage model offers partitioning into Hot-Warm-Cold data during ingestion.
- On-the-fly transformation for Hot Data can be performed in memory using HANA
- Off-load pre-processing of data to the Hadoop Platform
Big Data Interactive Data Exploration

- Interactive high performance Analytics and Visualization
- Agile modeling and shorter turn-around on reports & dashboards
- Exploration of Data in memory and interactively with Hadoop.
- Uniform Data Science Experience on in-memory and multi-terabyte data sets
SAP/Hortonworks Real-Time Stream Processing

Real-time ingestion from operational systems, sensors and smart devices
- Pattern detection, anomaly detection and streaming analytics on data in flight.
- Scalable storage for offline model tuning and data science.
- Instant visibility across operations and corporate functions
SAP/Hortonworks Real-Time Insights and Models

- **Online apps**
- **Mobile apps**
- **Visualization and Reporting**

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**Close-Looped Analytics**

**Smart Mobile Applications**

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