The Road to Big Data Analytics

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■ Big Data – high-volume, highvelocity and/or high-variety information assets that demand costeffective, innovative forms of information processing that enable enhanced insight, decision making, and process automation



□ Data Science – an interdisciplinary field about processes and systems to extract knowledge or insights from data in various forms, either structured or unstructured, which is a continuation of some of the data analysis fields such as statistics, machine learning, data mining, and predictive analytics



- □ Data Lake is a method of storing data within a system that facilitates the collocation of data in various schemata and structural forms, usually object blobs or files
- Hadoop Hadoop Distributed File System and Map Reduce



- R Programming Language and software environment for statistical computing and graphics
- Internet of Things the internetworking of physical devices, items—embedded with electronics, software, sensors, actuators, and network connectivity that collect and exchange data



Why "Big Data"? Why Now?

- Convergence of
 - Increasing data/content creation (sensors, social media, ubiquitous personal content creation devices)
 - Commoditization of super computing power
 - Cloud allowing subscription access to tremendous variety of sophisticated capabilities
- Business Creativity Its only just begun



Questions



BI – Overview Lifecycle

What happened? PREDEFINED & ADHOC

REPORTS

What is happening?
DASHBOARDS
SCORECARDS
ALERTS

What will happen?
FORECASTING

Business Process

What do I want to happen?
PLANNING
BUGDGETING
DATA MINING

Why did it happen?
ADHOC
EXPLORATION



Enterprise Reporting Consumers

Sr. Management (1%)



Dashboards, Scorecards, Mobile Report Delivery*, Paper

Data Analyst (9%)

Data Explorers (30%)

Data
Consumers (60%)

Pre-built Reports, Report Writers Excel, Analytics, Data Mining, Dashboards

Pre-built reports
Analytics, Ad-hoc
Reporting

Pre-built Reports, Online Screens

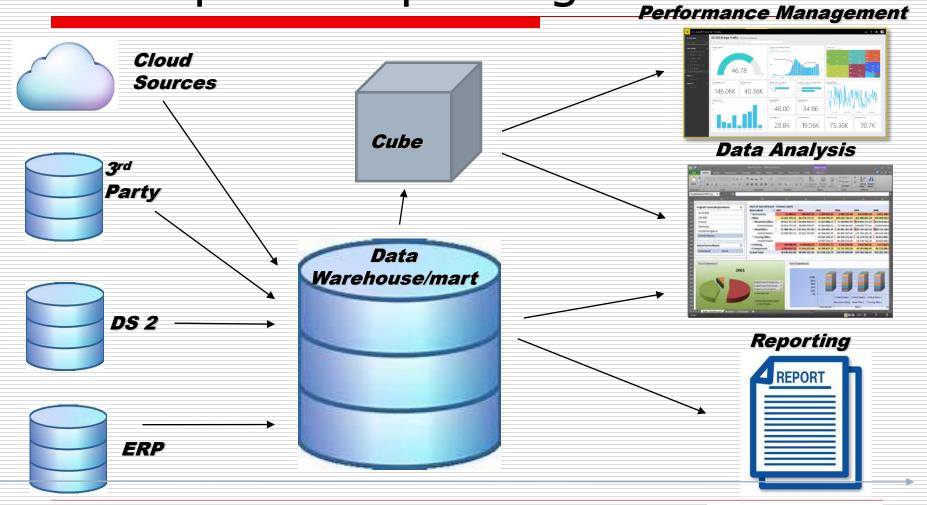
*Depends on Mobile Device



DataMart



Enterprise Reporting



The New Data Warehouse

