Let BI Drive

Let BI Drive BI
A vision for a BI Driven World

In 2020 the world will generate 50 times the amount of data as in 2011. And 75 times the number of information sources (IDC, 2011).

Let BI Drive BI
A vision for a BI Driven World

Process improvement tools filled the gap in moving to the right BI Strategy.

Let BI Drive BI
A vision for a BI Driven World

Process improvement tools filled the gap in moving to the right BI Strategy.

Let BI Drive BI
A vision for a BI Driven World

We strive to develop BI strategies that Harnesses the power of our data to drive our business with the touch of finger and brilliant analysis.

BI Opportunities

"Cross Mobile"

Challenges

"Cross Mobile" global cell phone company needs real-time data analytics and customizable reporting for its sales and service center representatives around the globe, so they can offer personalized service using on-demand customer analytics.

- Dashboard that appears on reps business tablets, PC and mobile phone that tells them about customer's usage and personal interest such as travel
- Doesn't want to maintain a highly customizable solution
  - Scalability
  - Ease of integration

Solution - Pentaho

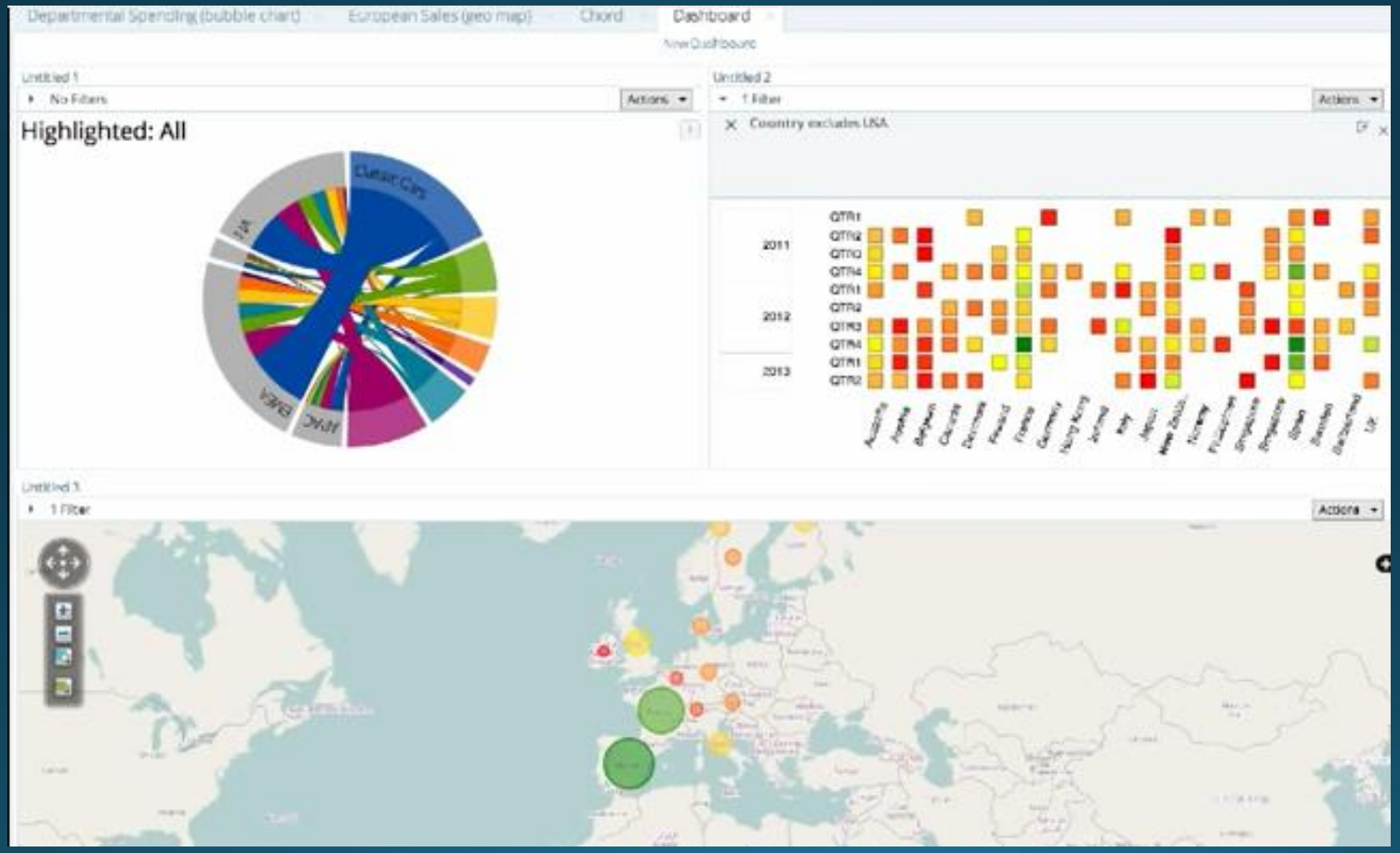
- Business Intelligence Platform
- Plug and Play Connectivity to Data source
- Scalability
- Ease of integration
- DBA/BI Developer Access / Integrate / Cleanse / Enrich
- no-code integration for Hadoop, NoSQL, & other emerging stores
- Data visualization Custom analysis Dashboards Interactive reporting and Data integration

Value

Create more relevant and targeted sales and service solutions

Allow sales and marketing analysts to view metrics though interactive dashboards and real-time reports

"Cross Mobile“ Pentaho



"Cross Mobile" Pentaho

How do we Get to the Solution We Need

We use Tools and Techniques from Process Improvement, Business Analysis and Project Management Methodologies such as Lean Six Sigma, CMMI and Agile. Often times they have overlapping concepts, tools and techniques.

Use throughout the organization:

- Developers
- Analysts
- Managers
- Executive

"Cross Mobile" Pentaho

How do we Get to the Solution We Need

Discover

- What is critical to the customer and what the business can reasonably support
  - VOC – Voice of the Customer
  - VOB – Voice of the Business

Realize

- Identify and Prioritize processes
- Current State and Future State

Innovate

- BI solution that looks across Organization allowing each employee to access the data they need, when they need it, the way they need it

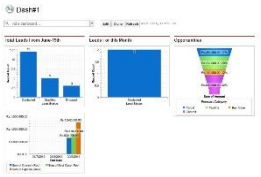
Verify

- DOE Design of Experiment, Pentaho Open Source (Test Solution)

Establish

- Repeatable Processes
- Set indicators so when the Sales Rep and Customer Service processes go off Track

"Cross Mobile“ Pentaho



MongoDB
useful in routing time sensitive information that can be distributed across servers

"Beans and Leaves" Our Global Café

Challenges

"Beans and Leaves" noticed sales were slightly low. The economy is fine so they check customer complaint data and it looks normal.

Then they check customer data coming from Social media.

They find that their customers who drink Green Tea lattes are complaining that the wait is too long or the drink doesn't taste good anymore and they have started to drink other cheaper products or go somewhere else.

Based on Sales Reports it is their most popular drink so there is a noticeable impact on revenue when the sales drop.

They investigate more and find out that the wait is long at many places across Beijing because of the brewing process for the tea.

Only a few employees know the process well and can deliver the drink on time. The process has eroded over time and the new employees were not trained in the old ways.

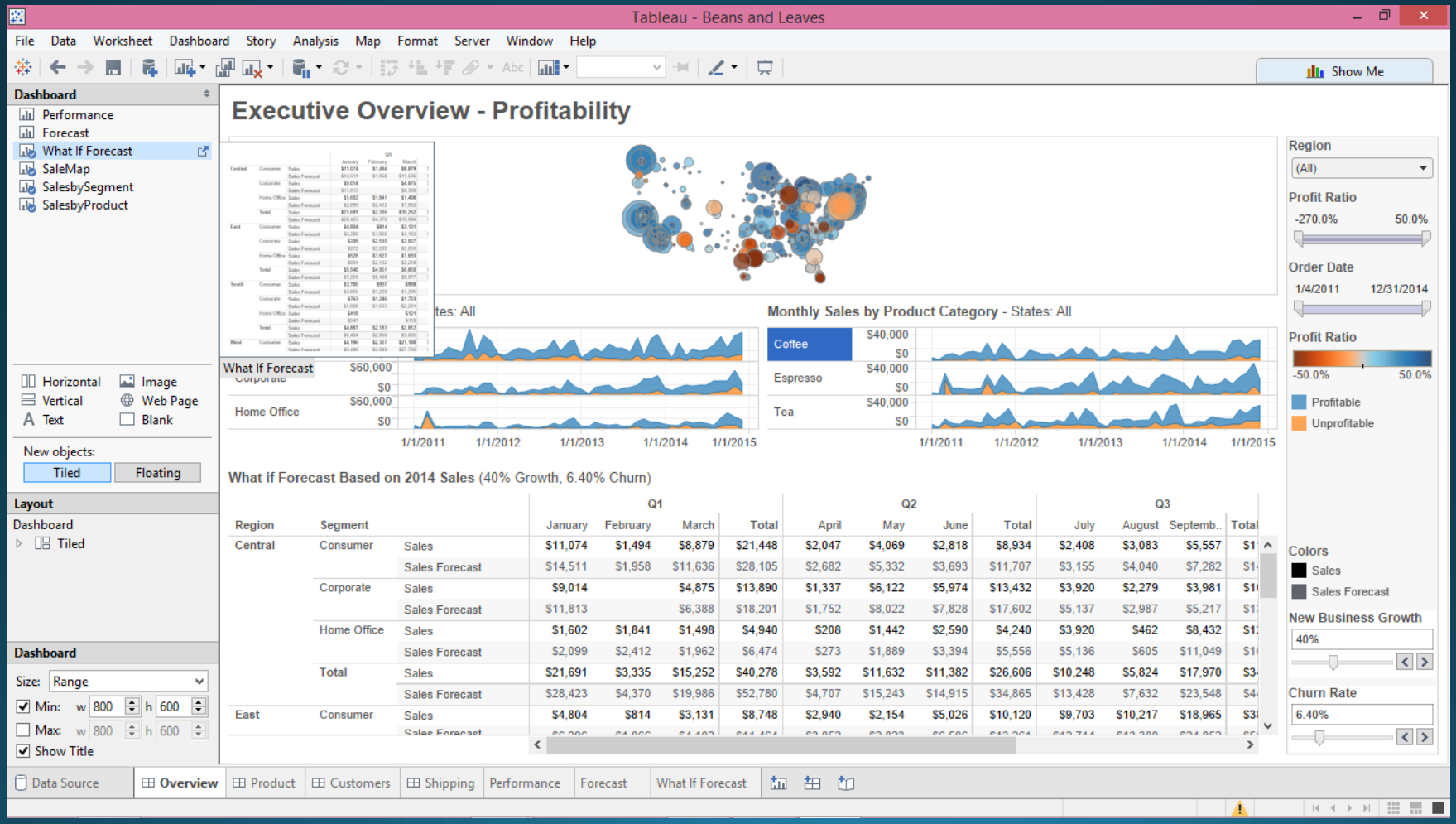
Solution - Tableau

- Scalability
- Ease of integration
- Connects to Multiple Data sources
  - Plug and Play
  - Great Data Visualization
  - Shows Summary and Detailed Data

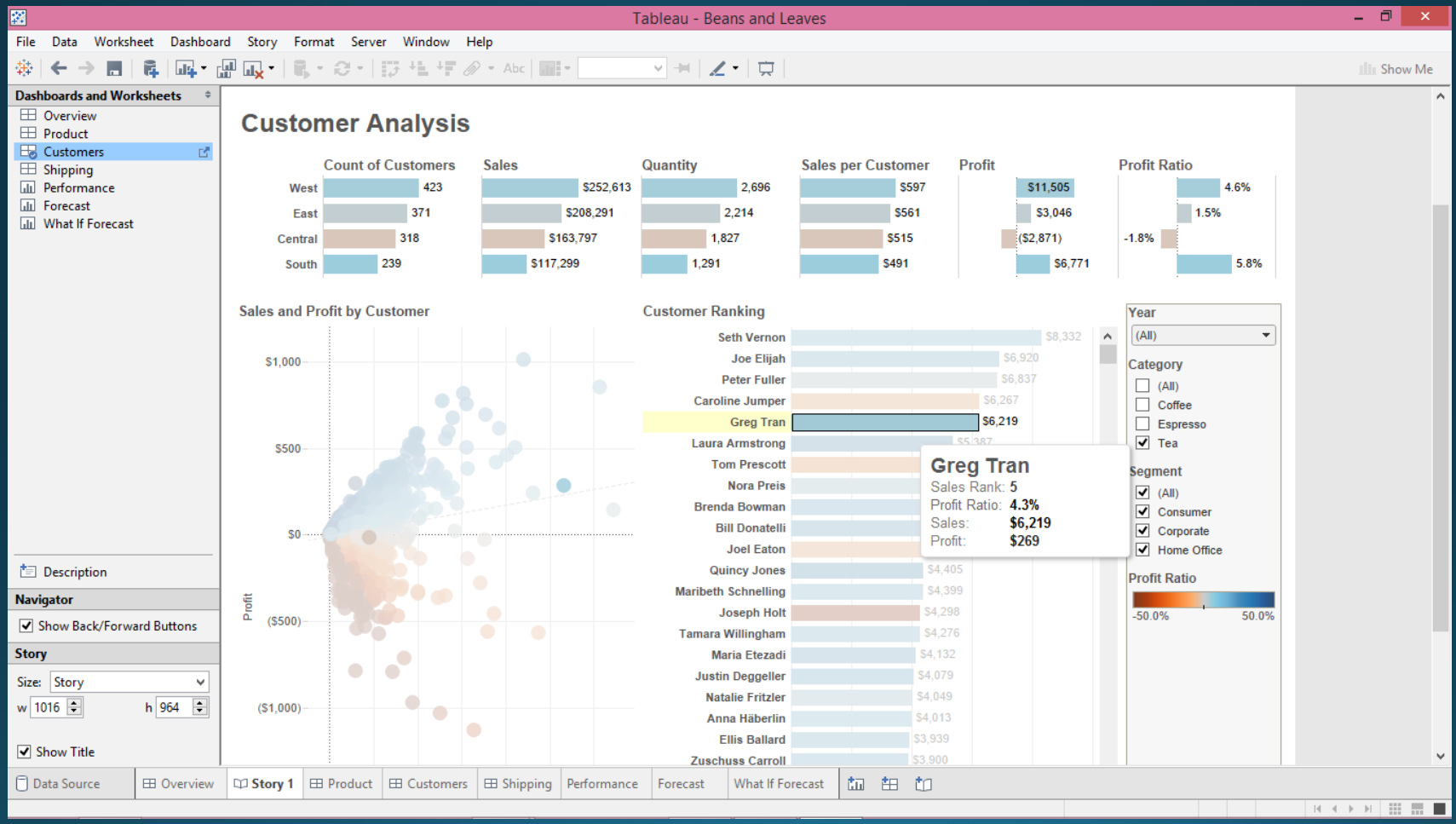
Value

Indicators help control processes and keep business aligned with customers demands

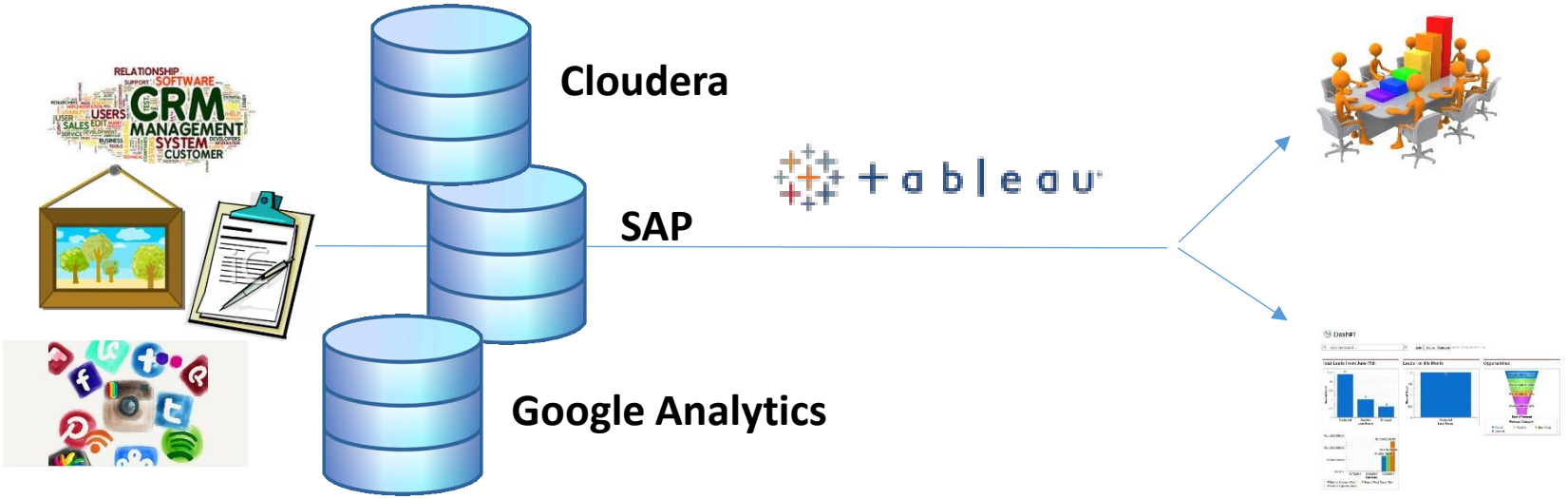
“Beans and Leaves” Tableau



“Beans and Leaves” Tableau



“Beans and Leaves“ Tableau



"Beans and Leaves" Tableau

How do we Get to the Solution We Need

Discover
- What is critical to the customer and what the business can reasonably support
  - VOC – Voice of the Customer
  - VOB – Voice of the Business

Realize
- Identify and Prioritize processes
- Current State and Future State
- Cause and Effect Diagram

Innovate
- BI solution that looks across the Organization allowing each employee to access the data they need, when they need it, the way they need it

Verify
- DOE Design of Experiment, Tableau Trial (Test Solution)

Establish
- Set indicators so analysts and executives can lead the organization in staying in line with customers' needs

DRIVE DISCOVER REALIZE INNOVATE VERIFY ESTABLISH

"Mercy Health"

Challenges

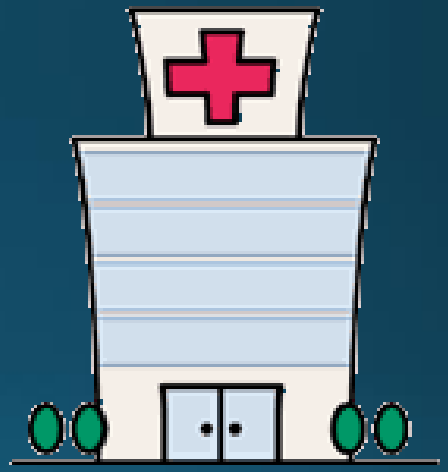
"Mercy Health" a provider and insurer which operates 14 hospitals and 350 outpatient sites, deals with a massive amount of data that if not managed properly could damage the organization.

Solution – Pentaho and Hadoop

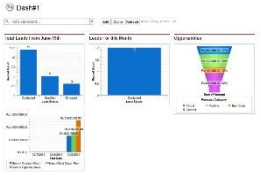
- Scalability
- Plug and Play Connectivity to Data source
- no-code integration for Hadoop
- Data Visualization, Data integration, Custom analysis Dashboards and Interactive reporting

Value

- offload some data
- predict the impact of the Cold Season
- avoid regulatory fines by reducing the number of readmissions



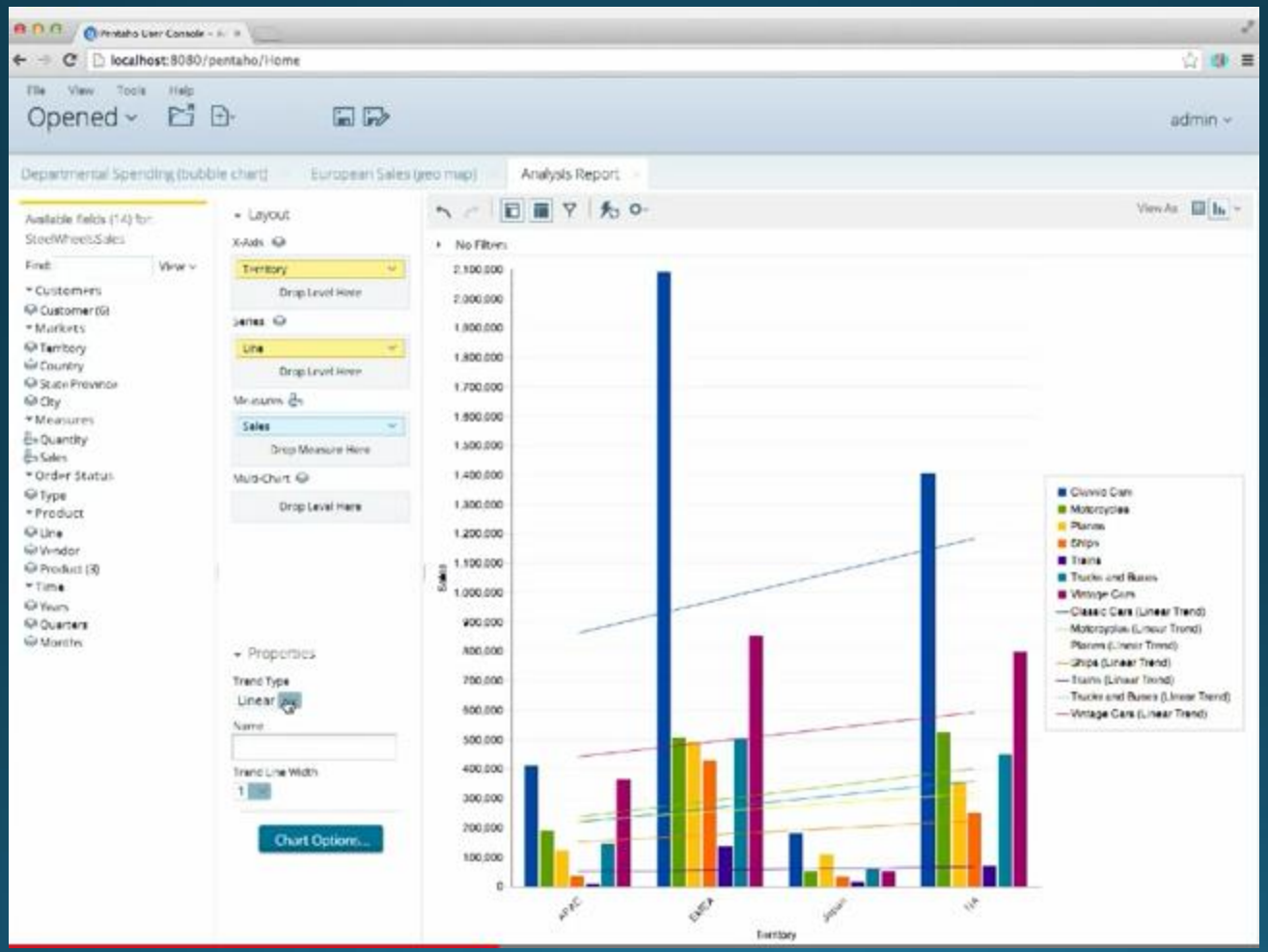
"Cross Mobile“ Pentaho and Hadoop



Oracle

Data Warehouse

“Mercy Health“ Pentaho and Hadoop



“Mercy Health“ Pentaho

How do we Get to the Solution We Need

Discover

- What is critical to the customer and what the business can reasonably support
  - VOC – Voice of the Patient
  - VOB – Voice of the Facilities

Realize

- Identify and Prioritize processes
- Current State and Future State

Innovate

- BI solution that looks across the Organization allowing each Dr., Nurse and other employees to access the data they need, when they need it, the way they need it

Verify

- DOE Design of Experiment, Pentaho Open Source (Test Solution)

Establish

- Set indicators to help implement preparedness measures

"Cross Mobile"

Challenges

"Cross Mobile" global cell phone company would like to monetize their data. They saw an opportunity to combine their location and demographics data and sell it by organizing and removing identity information.

Value

Additional revenue streams.

"Cross Mobile" Pentaho

How do we Get to the Solution We Need

Discover

- What is critical to the customer and what the business can reasonably support
  - VOC – Voice of the Customer
  - VOB – Voice of the Business

Realize

- Identify and Prioritize processes
- Current State and Future State

Innovate

- BI solution that looks across Organizational allowing each employee to access the data they need, when they need it, the way they need it

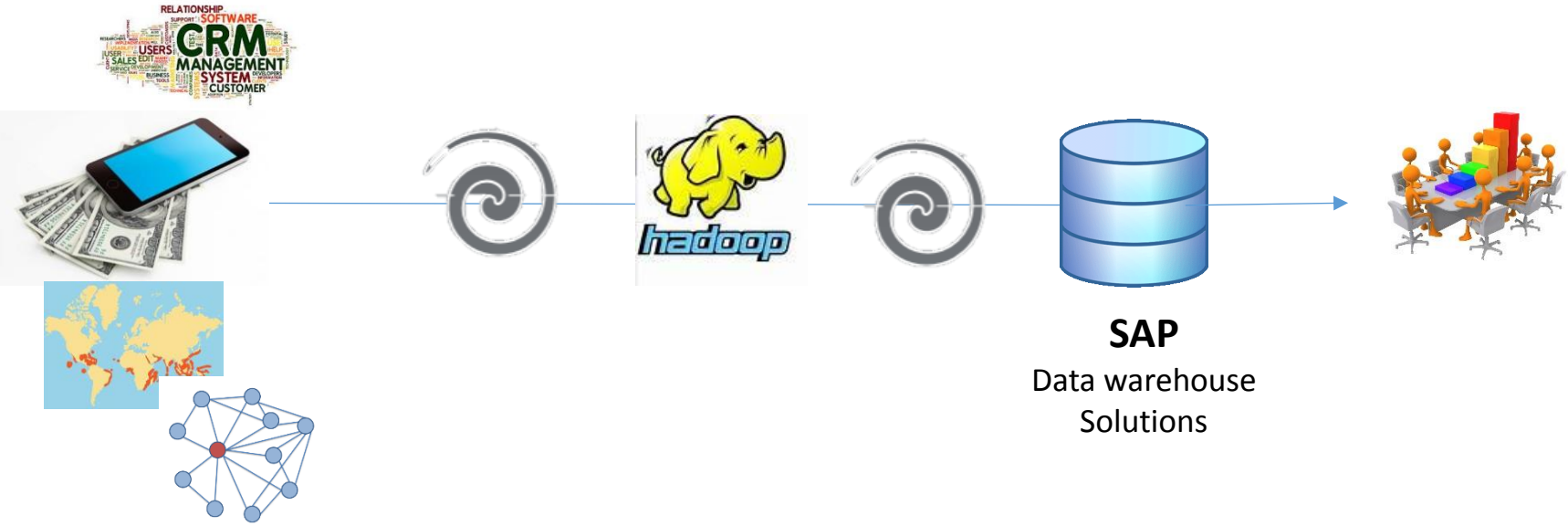
Verify

- DOE Design of Experiment, Pentaho Open Source (Test Solution)

Establish

- Repeatable Processes
- Set indicators so to see changes in the market and sales opportunities

"Cross Mobile“ Pentaho



SAP
Data warehouse
Solutions

DRIVE LSS and BI

Lean Six Sigma Tool(s)

Lean Six Sigma Tools and Techniques

Business Intelligence Tool(s)

Business Intelligence Tools and Techniques

LSS and BI comes together because the advent of Big Data tools creates an opportunity to control the flow of data for better insight .

Will the solution let me see across my entire organization?

- The ideal BI solution looks across Organizational Silos, Groups and Teams. It will access data from all types of data sources and organize the data in an integrated model for analysis

- Examples: Tableau, Pentaho, Domo (BI Applications)

Does the solution offer visualization with drill down options?

- Summary and Details, Triggers and Indicators to tell us why a product isn't selling or if there is a significant change in the market.

- Detailed transactional process data so we can look at customer behavior.

Can we easily keep the data current?

- We have to consider what our current systems can handle and or the resources needed to upgrade (GAP Analysis)
- We need an affordable sustainable solution that allows us to serve up the data in real time as well as easily store and access it for the future.
- Is the response time Reasonable?
- Sometimes “lookups” and “joins” from multiple sources slows things down

Can the solution easily withstand change?

- ❑ Mergers
- ❑ Acquisitions
- ❑ Changes in the data structure
- ❑ Moving tables
- ❑ Patches
- ❑ New Releases
- ❑ Versions
- ❑ New data sources
- ❑ Increased data volumes
- ❑ Additional reporting needs
- ❑ Reorganizations
- ❑ Visualization
- ❑ Analysis
- ❑ Storing

When can we see results?

- To implement a BI Strategy we want to develop our overall vision for an organization driven by BI Tools
- But initially we need projects that show the value of adopting a 360 degree BI Strategy.
- If we pick inexpensive but impactful projects that can be operational within weeks we lower the implementation risk, accelerate time to value and increase likelihood of accelerated deployment.

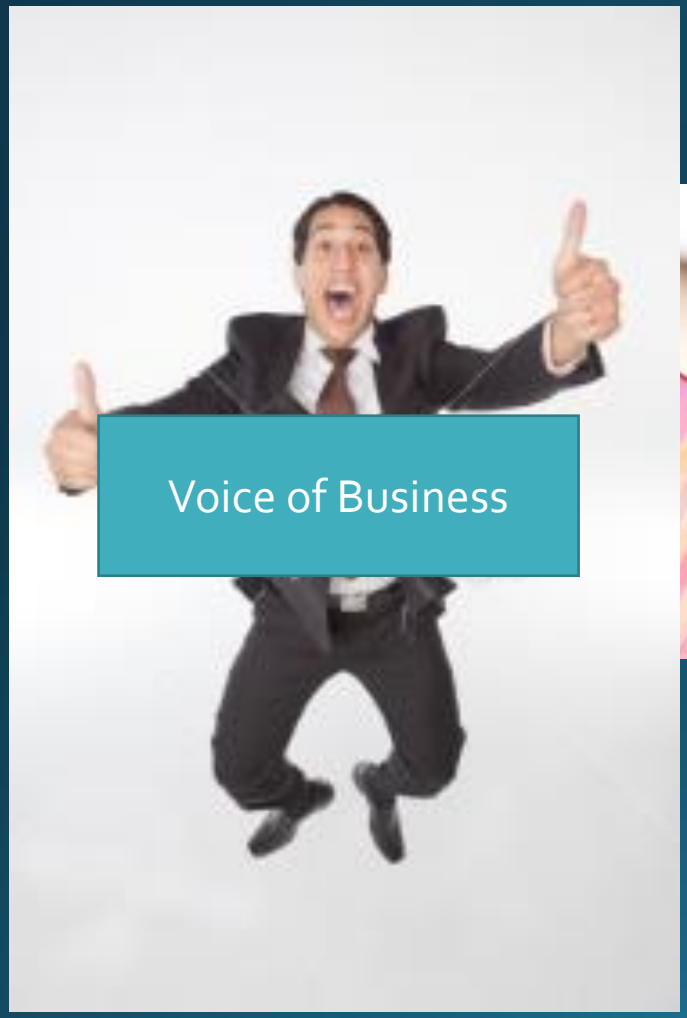
  ex. Show insights on our Banking customer once they leave our online platforms.

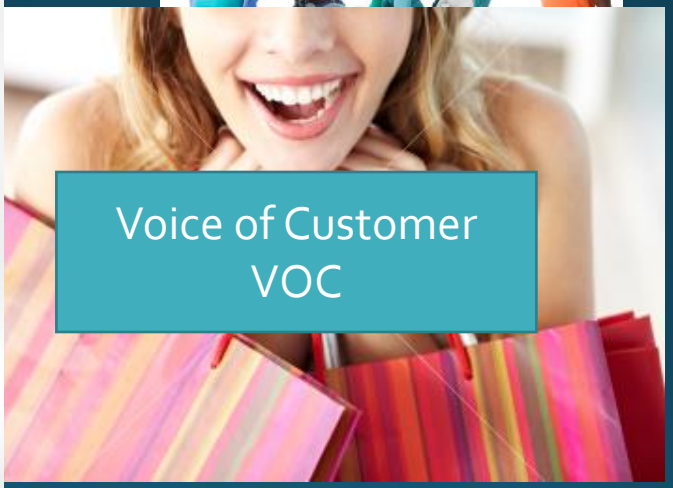
DRIVE LSS and BI

Business Intelligence Tools and Techniques

Business Intelligence is a wide term, we are using it to describe a strategy that brings together the right tools to push and pull your data through streamlined processes and let the business stay aligned with the needs of the customer. We are also pushing a dashboard driven strategy that empowers each employee to visualize and utilize the data they need to stay aligned with the business objectives.

Happy Employees and Happy Customers





Questions?

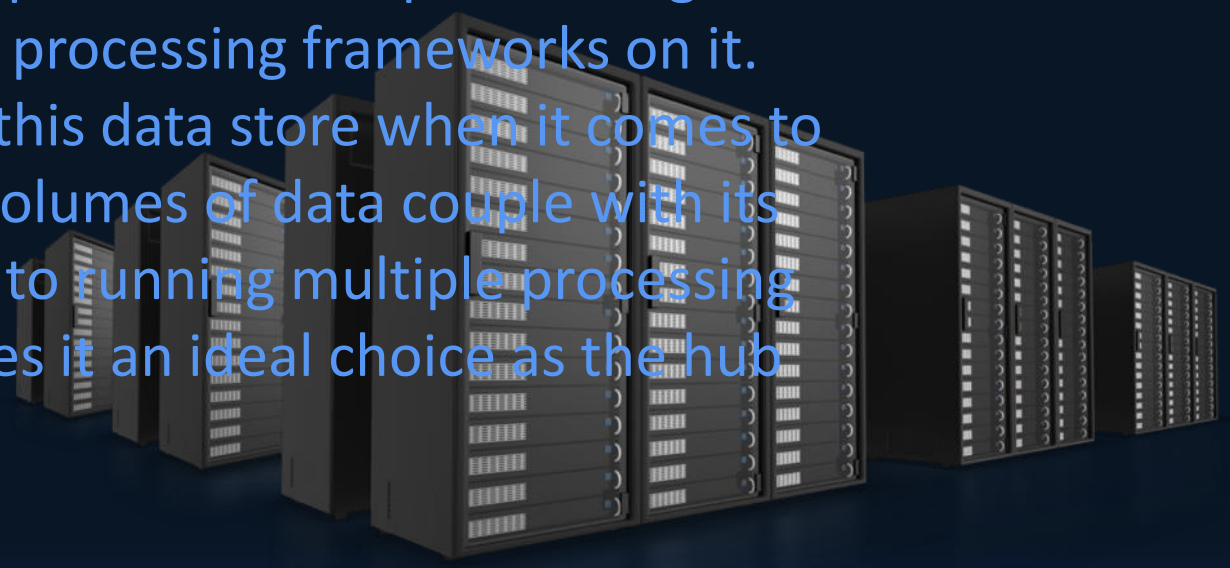
More Information?

@LetBIDrive

How Do We Get There – DRIVE

Innovate *with* Hadoop

"At its core, Hadoop is a distributed data store which provides a platform for implementing powerful parallel processing frameworks on it. The reliability of this data store when it comes to storing massive volumes of data couple with its flexibility related to running multiple processing frameworks makes it an ideal choice as the hub for all your data"



About Pig and PigLatin

"For those of you who are not familiar with Pig, it is a platform for analyzing large data sets. It is built on Hadoop and provides ease of programming, optimization opportunities and extensibility. Pig Latin is the relational data-flow language and is one of the core aspects of Pig."

About Hive

The Apache Hive ™ data warehouse software facilitates querying and managing large datasets residing in distributed storage. Hive provides a mechanism to project structure onto this data and query the data using a SQL-like language called HiveQL. At the same time this language also allows traditional map/reduce programmers to plug in their custom mappers and reducers when it is inconvenient or inefficient to express this logic in HiveQL.”

Data Warehousing

Data warehousing incorporates data stores and conceptual, logical, and physical models to support business goals and end-user information needs. A data warehouse (DW) is the foundation for a successful BI program.

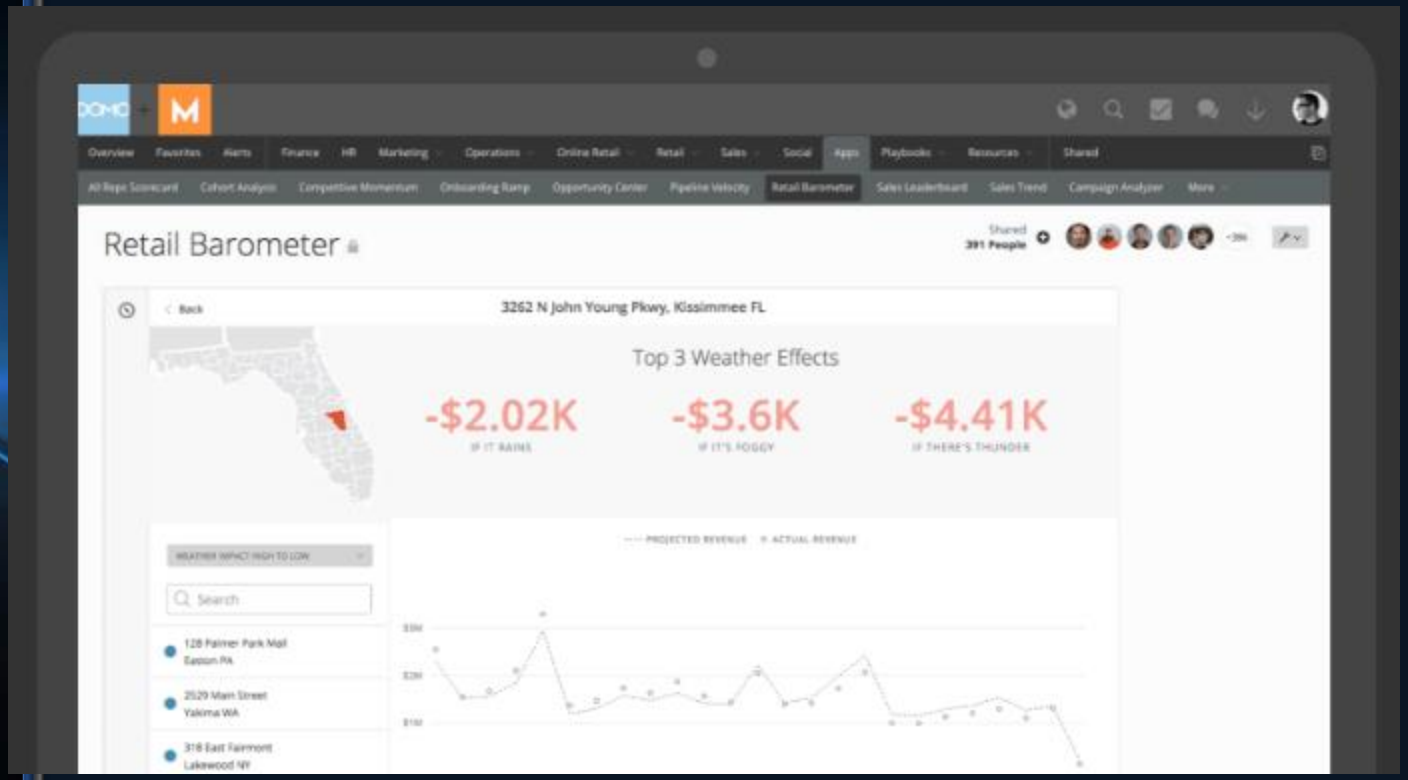
Creating a DW requires mapping data between sources and targets, then capturing the details of the transformation in a metadata repository. The data warehouse provides a single, comprehensive source of current and historical information.

Data warehousing techniques and tools include **DW appliances**, **platforms**, architectures, data stores, and spreadmarts; **database architectures**, structures, scalability, security, and services; and **DW as a service.**

HDFS

Hadoop Distributed File System (HDFS). Data in a Hadoop cluster is broken down into smaller pieces (called blocks) and distributed throughout the cluster. In this way, the map and reduce functions can be executed on smaller subsets of your larger data sets, and this provides the scalability that is needed for big data processing.

DOMO


Retail Barometer
3262 N John Young Pkwy, Kissimmee FL
Top 3 Weather Effects
-$2.02K
-$3.6K
-$4.41K

HDFS

Hadoop Distributed File System (HDFS). Data in a Hadoop cluster is broken down into smaller pieces (called blocks) and distributed throughout the cluster. In this way, the map and reduce functions can be executed on smaller subsets of your larger data sets, and this provides the scalability that is needed for big data processing.

Cluster

Group of independent servers (usually in close proximity to one another) interconnected through a dedicated network to work as one centralized data processing resource. Clusters are capable of performing multiple complex instructions by distributing workload across all connected servers. Clustering improves the system's availability to users, its aggregate performance, and overall tolerance to faults and component failures. A failed server is automatically shut down and its users are switched instantly to the other servers.

MongoDB and Map Reduce

MongoDB is a document database that provides high performance, high availability, and easy scalability.

A MapReduce program is composed of a **Map()** procedure that performs filtering and sorting (such as sorting students by first name into queues, one queue for each name) and a **Reduce()** procedure that performs a summary operation (such as counting the number of students in each queue, yielding name frequencies).

The "MapReduce System" (also called "infrastructure" or "framework") orchestrates the processing by marshalling the distributed servers, running the various tasks in parallel, managing all communications and data transfers between the various parts of the system, and providing for redundancy and fault tolerance.

http://www.mongodb.org/about/introduction/