



Integration of Data & Adaptation

*How the City of Tampa made data
understandable and useful to decision-
makers*

Wednesday December 9, 2015

The Buckhorn Plan



Technology will play a critical role in the economic future of the City. Buckhorn will appoint a **Chief Technology Officer**. The CTO will serve as a member of the Mayor's Council and will be responsible for all of the City's tech-related activities.

- e-Services



City staff will be focused on outputs, not processes, under Bob's leadership. The plan also includes a focus on customer and constituents needs, using technology to modernize how government works, and implementing organizational changes inside city government.

Evaluation of Current State

- Historically our data was application centric
 - Reports were generated nightly, weekly, monthly
 - Data became stale and often ignored
- Systems had become warehouses of 'dead files' and incomplete information

Three black metal safes of increasing size are shown in a row. Each safe has a glass door that reveals internal compartments, drawers, and drawers. The safes are made of heavy-duty metal and have a sturdy, industrial design.

Documents

Excel

[illegible]

 Individual Critical Documents Record Sheet			
Birth		Individual Record Family Group or Time Number	
Individuals	Weight/Length	Gender	Father
Location/Height	Days, Hours, Mins	Mother's Origin	Father's Origin
Given Name		Record Number/Number	
Marriage			
Given Name	Birth Name	Given Name	
Location	Birth Age	Given Age	
Witnesses at Birth/Spouse		Record Number/Number	
Death			
Given Name	Operational Name	Gender	Location
Mother Name	Father Name	Occupation	Birthdays, Anniversary, Etc.
Interment(s), Other Name(s), Date	Record Number/Number and Other Information		
Notes:			

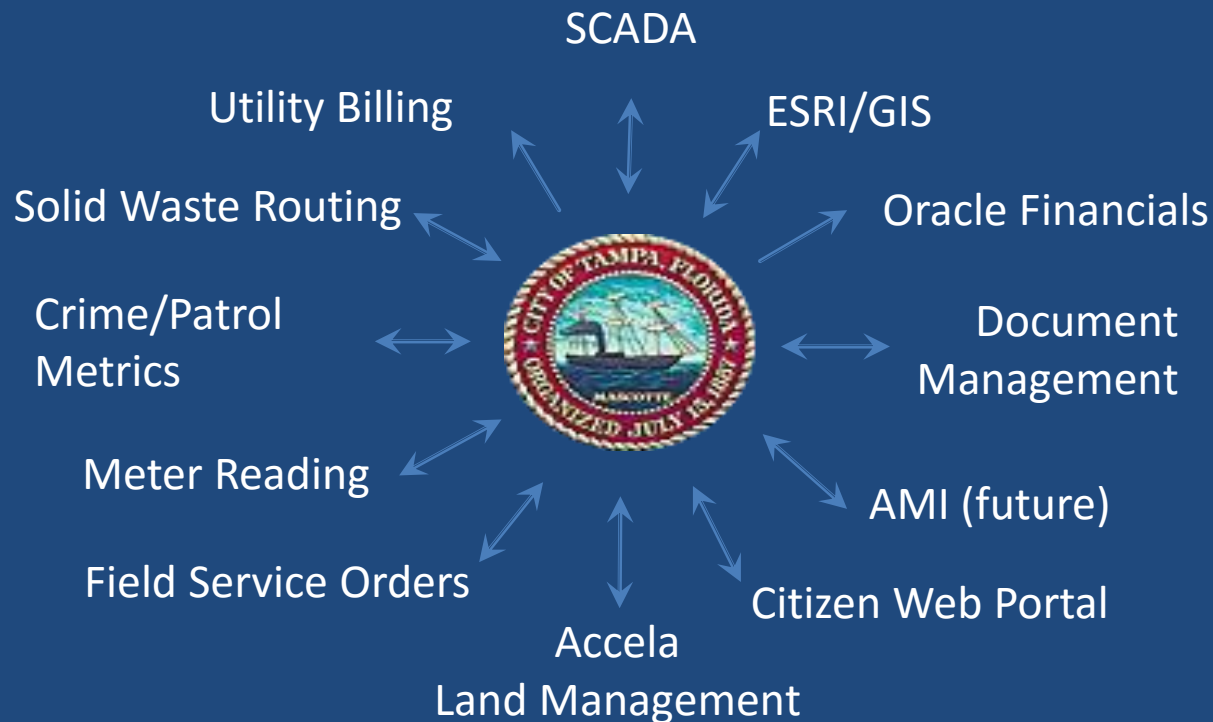
The screenshot shows the Microsoft Excel 2010 interface. The title bar reads 'Microsoft Excel - [Book1]'. The ribbon is set to 'PivotTable Tools' with the 'PivotTable' tab selected. The PivotTable is titled 'Sales' and is located in the 'PivotTable' area. The PivotTable is filtered by 'Region' (North, South, East, West) and shows sales data for various periods. The columns are 'Period', 'Region', and 'Sales'. The data is organized into a PivotTable with 'Period' on the rows and 'Region' on the columns. The 'Sales' column shows the total sales for each period and region combination. The data is as follows:

Period	North	South	East	West
Q1-2010	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q2-2010	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q3-2010	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q4-2010	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q1-2011	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q2-2011	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q3-2011	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q4-2011	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q1-2012	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q2-2012	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q3-2012	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q4-2012	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q1-2013	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q2-2013	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q3-2013	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q4-2013	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q1-2014	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q2-2014	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q3-2014	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q4-2014	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q1-2015	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q2-2015	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q3-2015	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q4-2015	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q1-2016	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q2-2016	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q3-2016	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q4-2016	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q1-2017	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q2-2017	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q3-2017	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q4-2017	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q1-2018	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q2-2018	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q3-2018	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
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Q4-2020	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q1-2021	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q2-2021	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q3-2021	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000
Q4-2021	\$4,000,000	\$4,000,000	\$4,000,000	\$4,

A Change Was Needed

- Directors and Managers needed real-time KPIs and rich datasets to make decisions
- Citizens required information on service delivery
- Employees needed access in real-time to account records

Sources and Types of Data



With many sources of data it would be easy to become overwhelmed.....

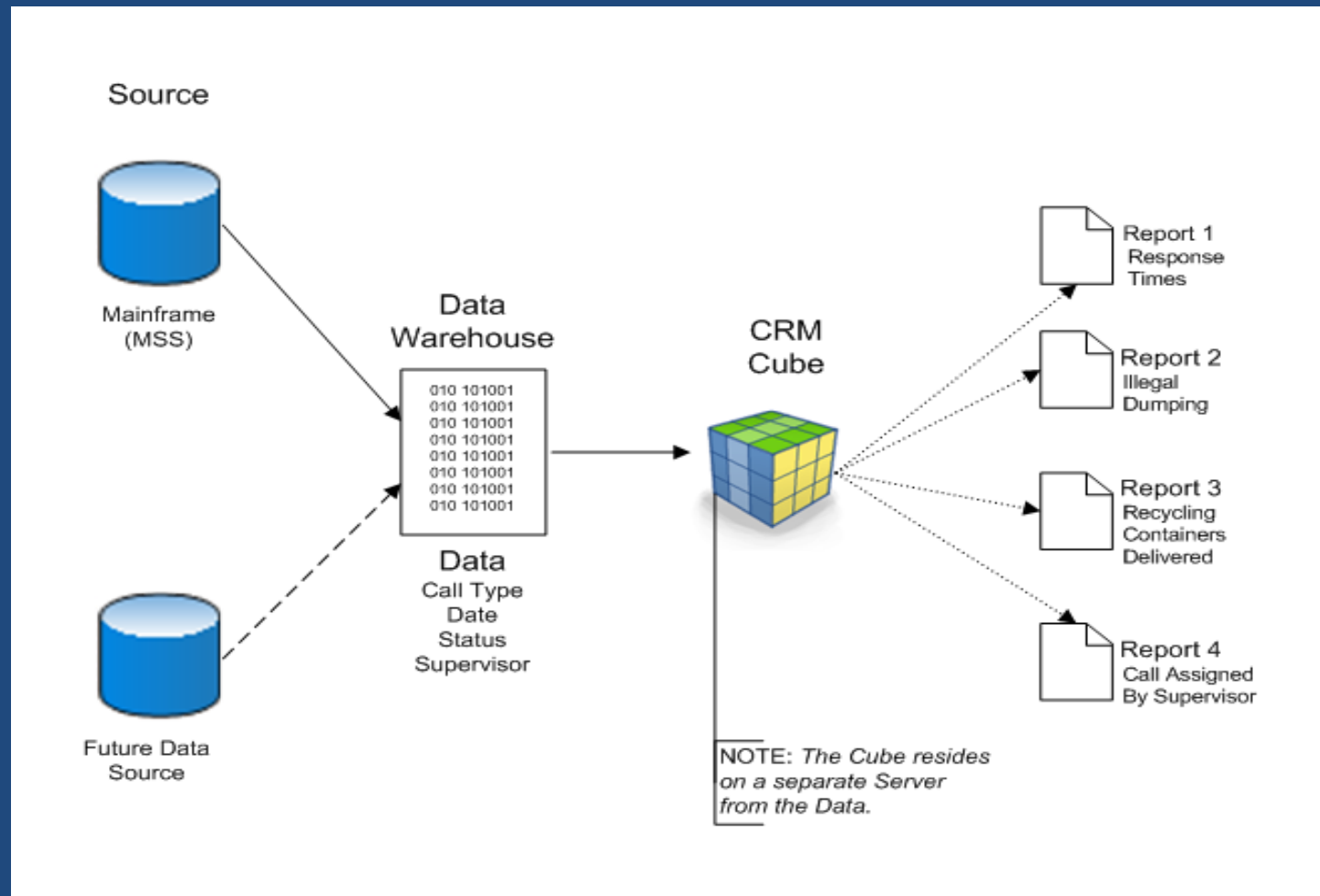
Who Uses the Data and How?



First Steps Toward a Solution

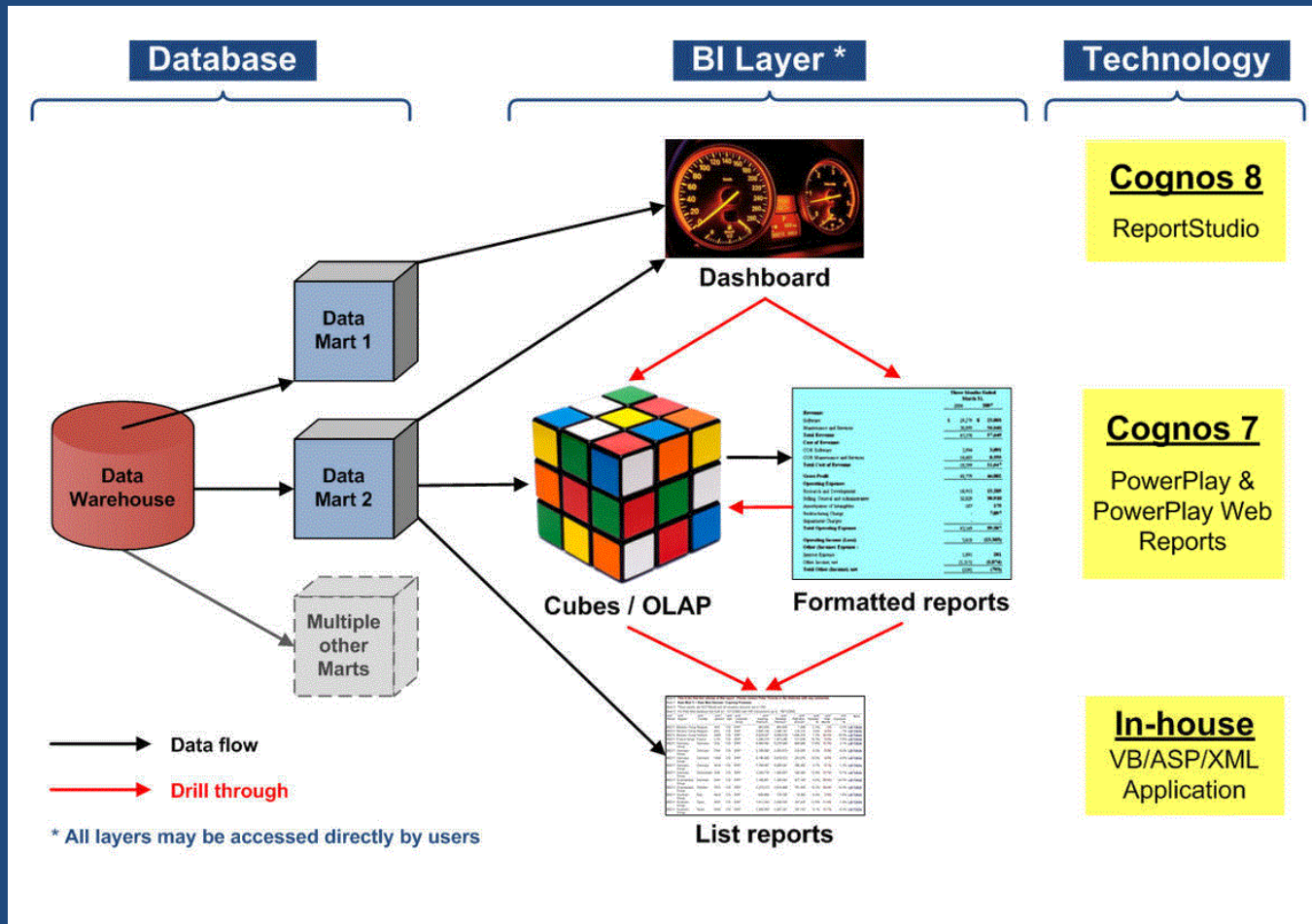
- Investment in Virtual Machine (VM) Servers
 - Allows for increased data storage at a fraction of the cost
 - Allows greater flexibility to respond to business' needs
 - Improved response time with data queries and analysis

Better But A Ways To Go



New Environment for Data

SAP Business Objects Enterprise (OBE)

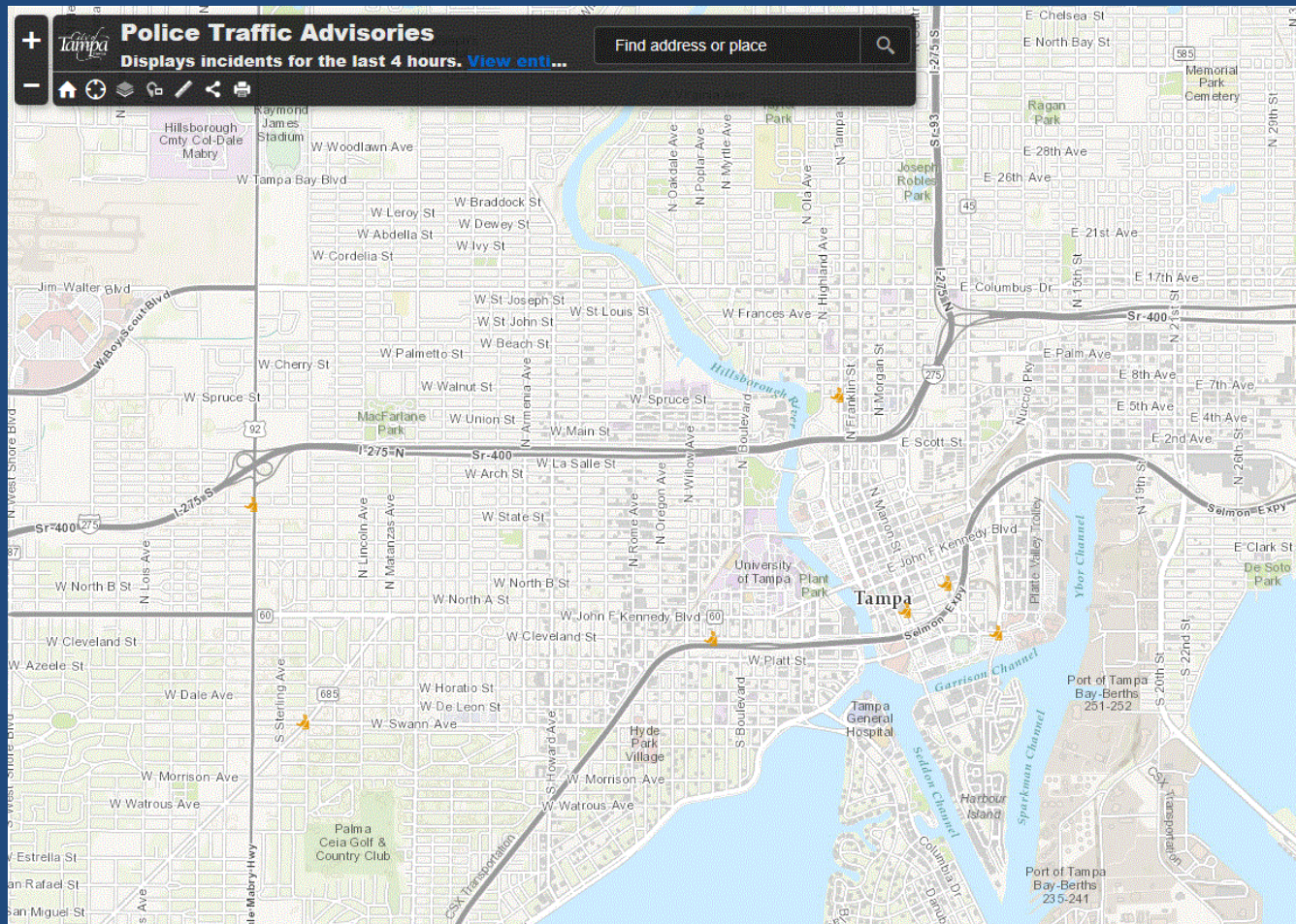


Metrics for Citizens

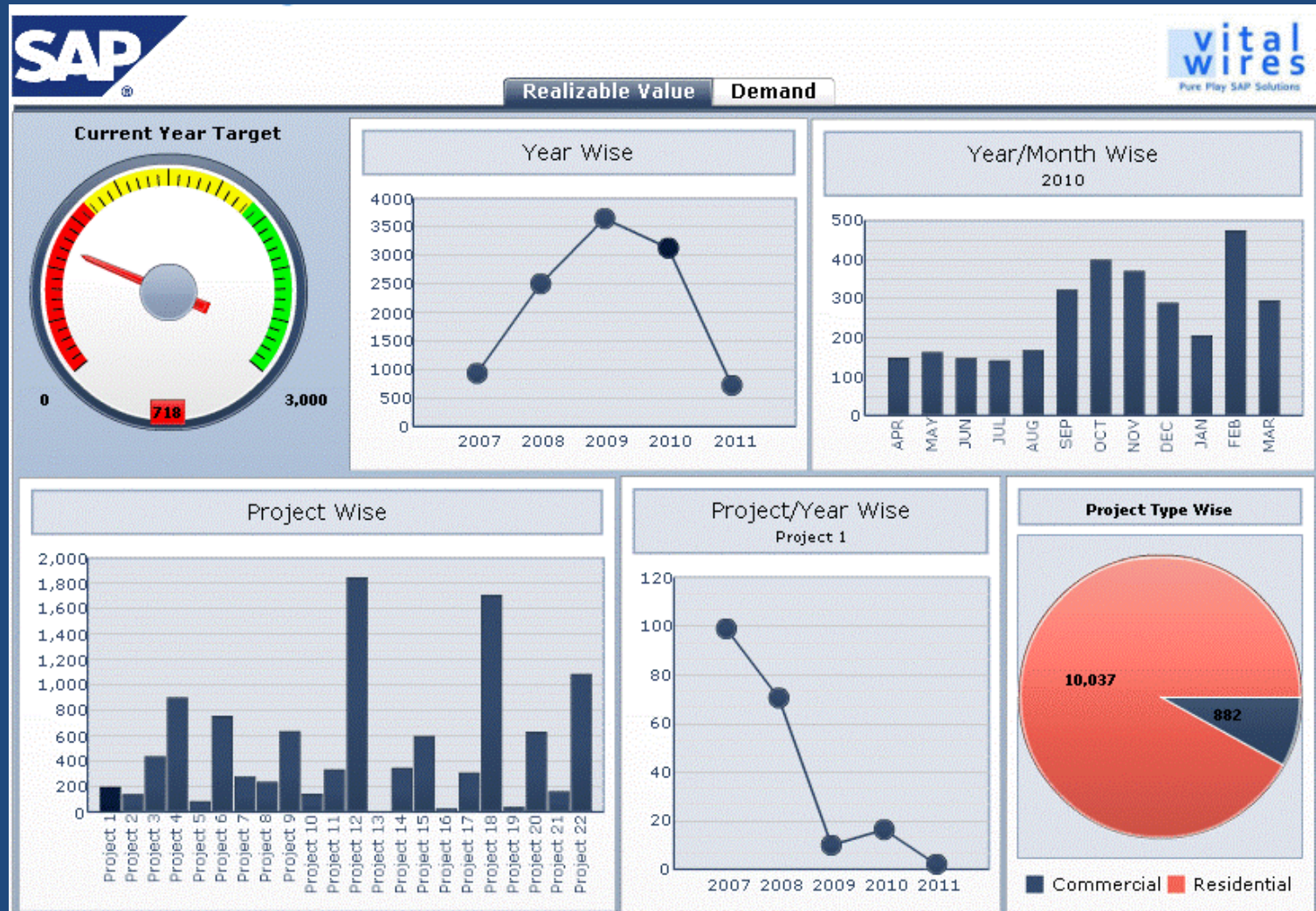


There are approximately 7,000 potholes patched each year within the City. The City's performance standard is to repair potholes no longer than three business days after notification. This work is done to enhance driving safety and reduce personal property damage.

Better Tools and Services on WWW

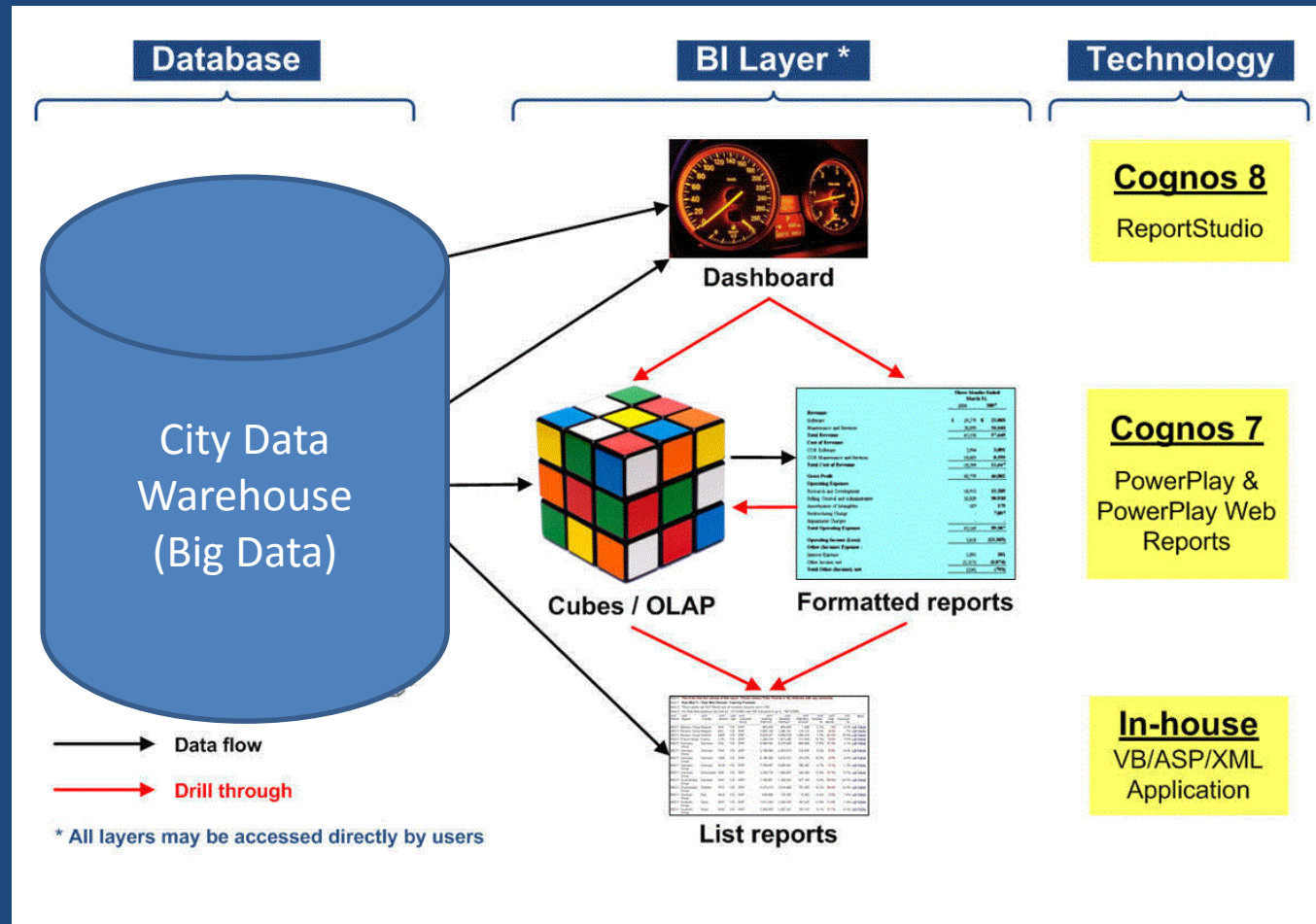


Better Information for Managers



Big Data Capabilities

SAP Business Objects Enterprise (OBE)



Code Enforcement Issue

- Problem
 - Leadership wanted to create a new policy to inspect every rental property in the City.
 - Staff already overwhelmed with existing code enforcement cases
 - Would have required outsourcing at \$\$\$\$
- Analysis
 - Combined datasets showed only 25% of properties have code issues, < 15% of which become nuisances
- Solution
 - Changed a fee based inspection based model into a violation/fine based enforcement model

Utility Billing Issue

- Problem
 - Customer complaints of high bills became a major media event
 - Initial reaction was to assume the bills were incorrect
- Analysis
 - Combining meter reading, billing, rainfall, temperature, irrigation, and conservation program data revealed billing was correct and water consumption was consistently high for some customers

Final Thoughts

- Big Data Analysis Tools allow for greater agility and analysis
- Decision-makers need to adjust and include available data and analysis into their process
- New Data Platform is another opportunity for Information Technology and Business to work together to solve business issues

Thank You

