



# Business Intelligence and Business Connectivity Services in SharePoint 2010

March 26, 2010

IN COLLABORATION WITH  
**Microsoft**<sup>®</sup>

A magnifying glass with a blue handle and a dark blue frame is positioned on the left side of the slide. The lens is focused on a vertical blue bar that contains the text "see more." written in white, lowercase letters. The background of the slide features vertical stripes in shades of blue and yellow.

see more.

# Introductions

- Erik Moll, Information Worker Solution Specialist, Microsoft
- Peter Carson, President, Envision IT
- Peter Mackenzie, VP, Envision IT
- Joe Seguin, Senior Consultant, Envision IT

# Envision IT

Focused on complex SharePoint solutions, Envision IT is the “go-to” partner for Microsoft SharePoint, building integrated public web sites, Intranets, Extranets, and web applications that leverage your existing systems anywhere over the Internet.



# Our Focus

- Building solutions for intranets, collaboration portals, extranets and internets with SharePoint
- Extending SharePoint past out-of-the-box features
- Supporting our focus:
  - Custom .NET Development and Business Process Automation
  - Business Intelligence
  - Business Productivity Training

# SP2010 BI Seminar Attendees

# Gartner Prediction

Gartner predicts that Collaborative Decision Making will emerge as a new style of decision support system that combines social software with BI Platform capabilities to bring decision makers together to discuss an issue, brainstorm options, evaluate their pros and cons and agree on a course of action.

# Collaborative Decision Making

## Target Audience

Knowledge Worker



Decision making a significant part of work

Decisions increasingly collaborative

Decision increasingly connected

## Business Need

Disconnect between information, collaboration and decisions



Decision Best Practices

Decision Transparency

Capture knowledge

Build consensus

## Solution

Collaborative Decision Making Environment



All Information

Collaboration

Business Intelligence

Content Management

Social Software

Decision tools

# Why are Business Intelligence Tools Important?



Efficient data consumption saves time and money

We lose 30% of each day sifting through data



Information cannot be consumed and used efficiently if it is difficult to find



# Business Intelligence

- What is Business Intelligence?
  - Analytics
  - OLAP
  - Data Mining
  - Benchmarking
- What information do decision makers need in order to make effective business critical decisions?

# BI-Related Services in SharePoint 2010

Excel  
Services

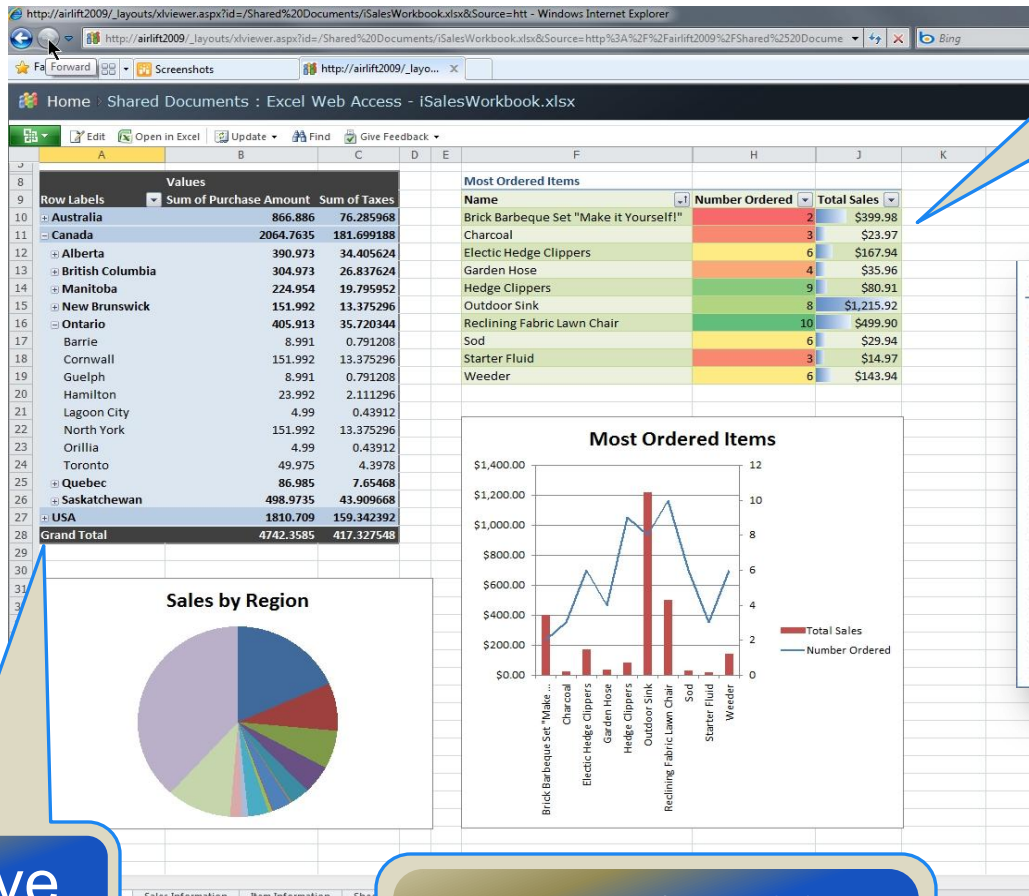
Performance  
Point  
Services

Visio  
Services

Business  
Connectivity  
Services



# Excel Services



Dashboards and heat maps

Interactive PivotTables

Access to unlimited data secured in SharePoint with PowerPivot capabilities

Data Slicers

# Visio Services



Visio diagrams within a browser

Real-time, visual data

User Interaction with shapes, graphics, and hyperlinks

Real-time updates with connectivity to any data source

# PerformancePoint Services

Visual scorecards

The screenshot displays a PerformancePoint dashboard with a navigation bar at the top and a search box. The main content area is divided into two sections:

**KPI Channel Revenue**

|                              | Q1 CY 2004   |              |       | Q2 CY 2004   |              |       |
|------------------------------|--------------|--------------|-------|--------------|--------------|-------|
|                              | Actual       | Target       | Trend | Actual       | Target       | Trend |
| <b>Revenues</b>              |              |              |       |              |              |       |
| Revenue                      | \$11,386,315 | \$11,386,315 | 0%    | \$14,371,807 | \$14,371,807 | 0%    |
| Channel Revenue              | \$7,102,685  | \$8,051,000  | -12%  | \$8,935,377  | \$10,359,000 | -14%  |
| Internet Revenue             | \$4,283,630  | \$4,283,630  | 0%    | \$5,436,429  | \$5,436,429  | 0%    |
| <b>Sales</b>                 |              |              |       |              |              |       |
| Sales Amount                 | \$11,386,315 | \$14,613,989 | -22%  | \$14,371,807 | \$12,524,947 | 15%   |
| Internet Sales Amount        | \$4,283,630  | \$4,410,140  | -3%   | \$5,436,429  | \$4,711,993  | 15%   |
| Sales Qty                    | 31,517       | 46,426       | -32%  | 43,669       | 34,669       | 26%   |
| Avg Sales Amt                | \$1,872      | \$2,461      | -24%  | \$2,087      | \$2,059      | 1%    |
| Reseller Avg Sales Amt       | \$15,997     | \$22,525     | -29%  | \$19,856     | \$17,597     | 13%   |
| <b>Margins</b>               |              |              |       |              |              |       |
| Gross Profit Margin          | 15.77%       | 18.0%        | -12%  | 15.39%       | 18.0%        | -14%  |
| Reseller Gross Profit Margin | 0.3%         | 5.0%         | -94%  | -0.4%        | 5.0%         | -108% |
| Expense to Revenue Ratio     | 24.6%        | 18.0%        | -37%  | 19.8%        | 18.0%        | -10%  |

**KPI Details**

**KPI: Channel Revenue**

**Metric:** Target  
**Measure:** Fixed Value  
**Row Path:** Revenues/Channel Revenue  
**Column Path:** Q1 CY 2004/Target  
**Page Filters:** All Customers  
**Actual:** \$7,102,685  
**Variance:** -12%  
**Calculation:** Increasing is Better  
**Banding Method:** Band by stated score (advanced)  
**Status Bands:** Stoplight

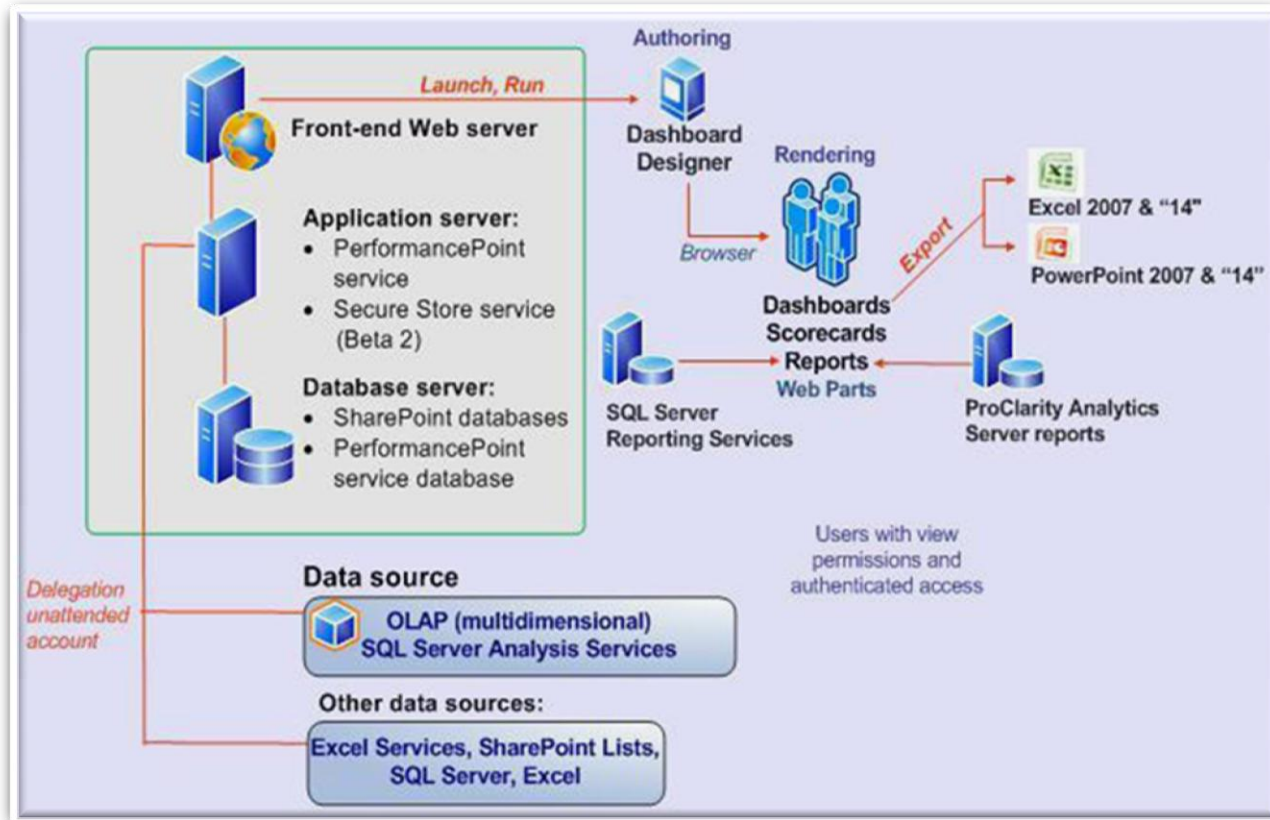
| Status Band         | Value            |
|---------------------|------------------|
| On Target           | > 0.500          |
| Slightly Off Target | 0.500 to >-0.500 |
| Off Target          | -0.500 or less   |

**Sales Last 12 Months**

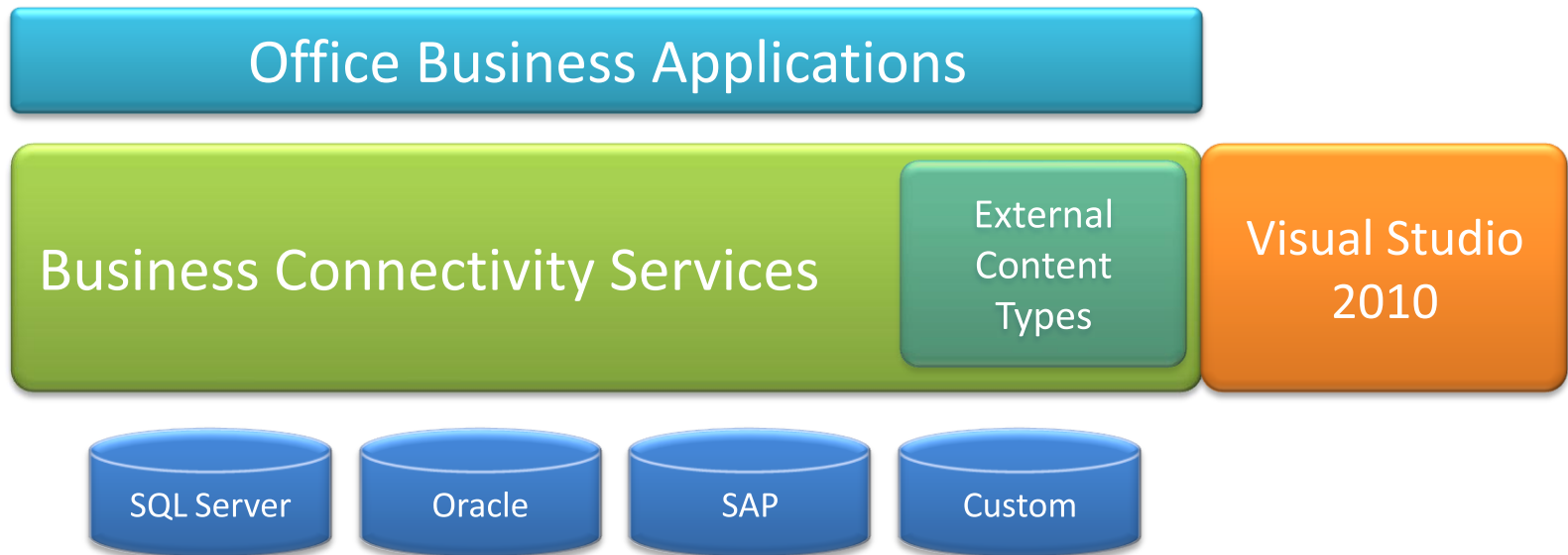
Detailed KPIs

Integration with SharePoint, including: administration, scalability and deployment

# PerformancePoint Services



# Business Connectivity Services

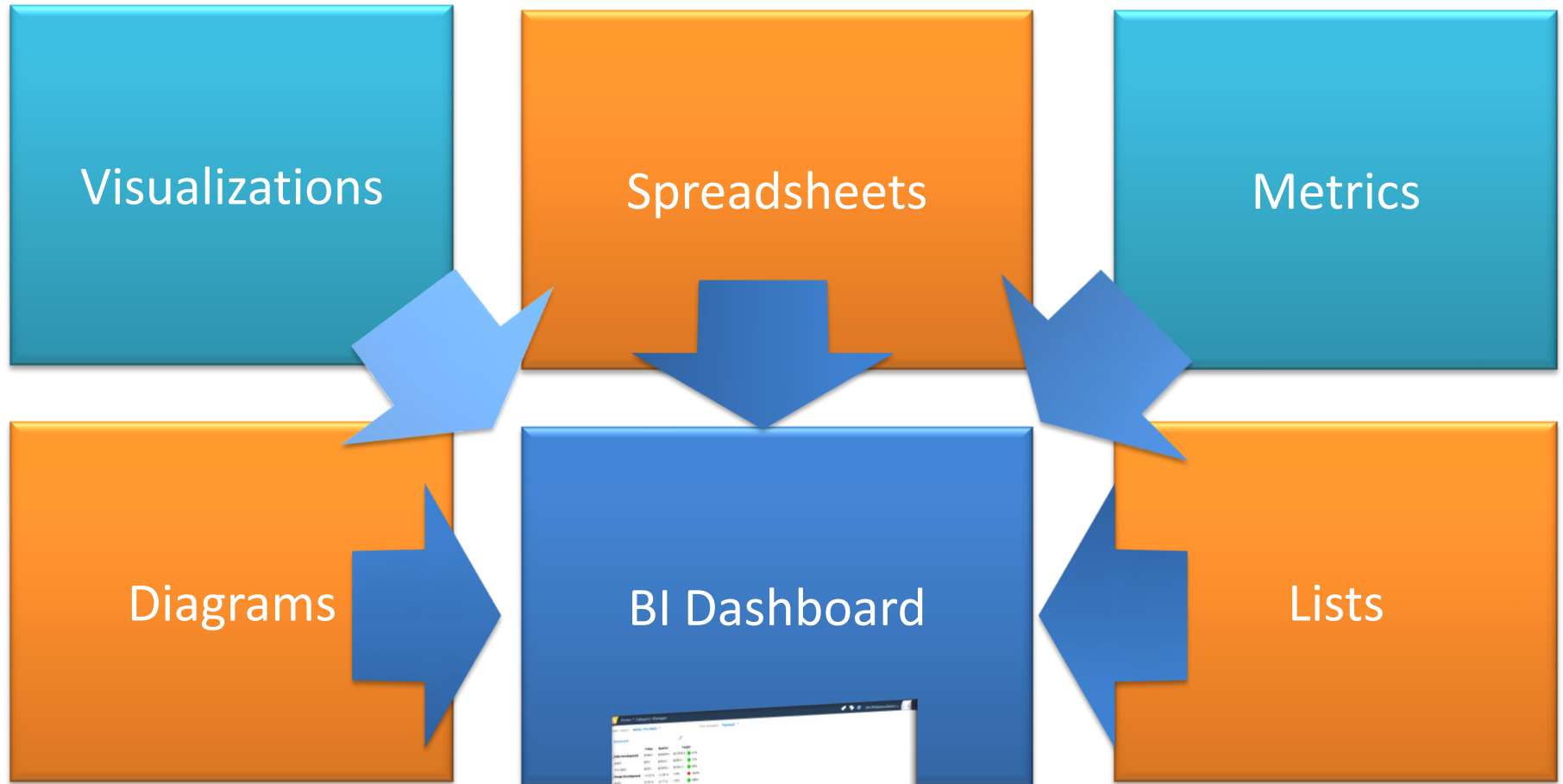


# SharePoint 2010 and PerformancePoint Services

- Now rolled into SharePoint 2010 to provide “BI to Masses”
- PPS Features
  - Key Performance Indicators (KPIs)
  - Scorecards
  - Dashboards



# What are BI dashboards?



# Background

## Healthcare Scorecard

- Clinical Balanced Scorecard
- Prepared on a quarterly basis for the senior leadership team
- 8-10 weeks to manually create a scorecard
- Collect data from various source and analyze with Excel

# Key Performance Indicators

## Values from four perspectives:

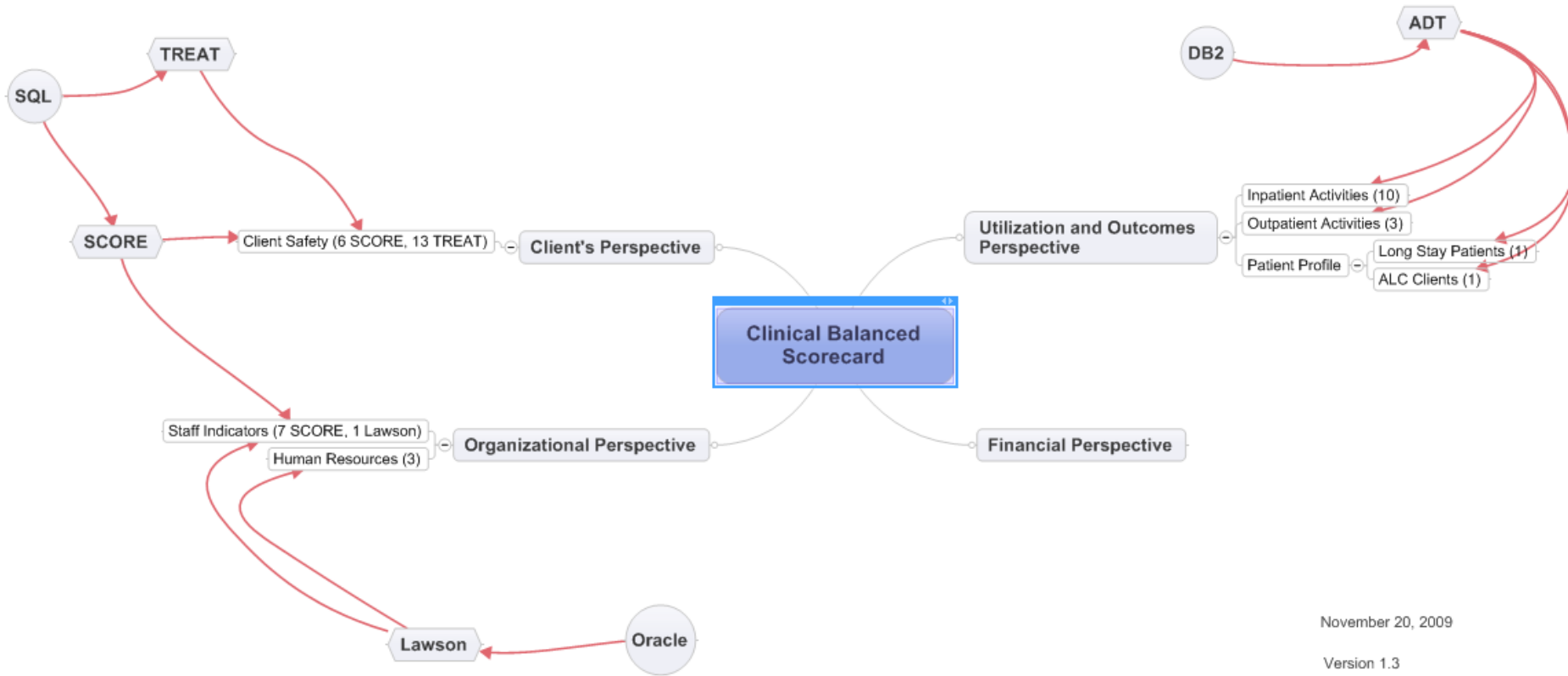
1. Utilization and Outcomes
2. Financial Perspective
3. Client's Perspective
4. Organizational Perspective

Each perspective contains a number of subsets, containing between seven and 131 different indicators.

Each perspective can also access anywhere between three and five different data sources. In many cases, the data is obtained through calculations derived from a secondary reporting system, such as SPSS.

# Data Sources

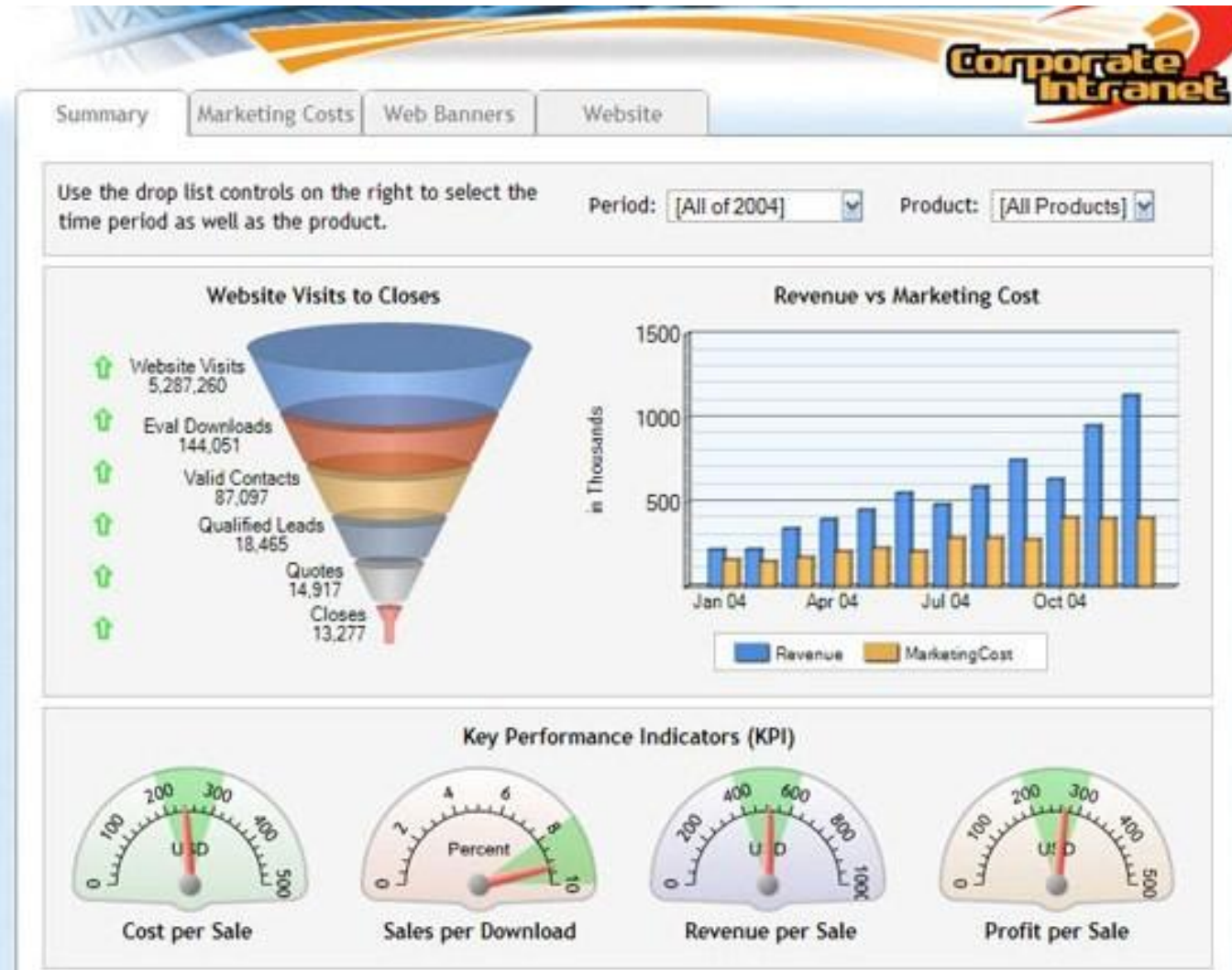
## Healthcare - Business Intelligence Prototype



November 20, 2009

Version 1.3

# Dashboard Web Parts



# Benefits of a BI Solution

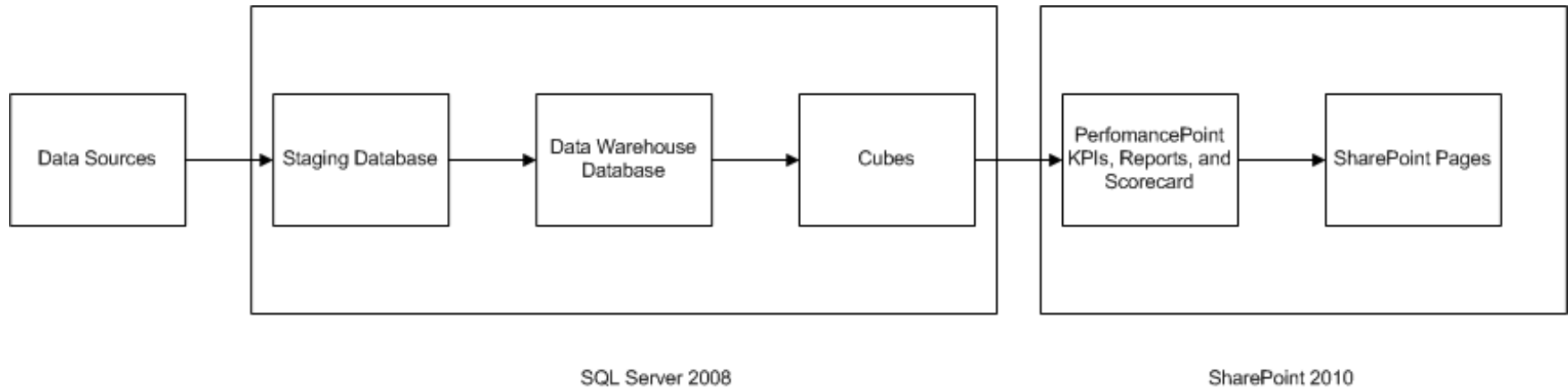
Collect all data automatically

Larger exposure on line

Real Time values

Elimination of duplication

# Technical Architecture



# Staging Database

The screenshot displays the Microsoft SQL Server Management Studio interface. The left pane shows the Object Explorer for a server named 'sp2010 (SQL Server 10.0.2746)'. The 'Databases' folder is expanded, showing several databases including 'RDPSTAGE'. The right pane, 'Object Explorer Details', shows the 'Tables' folder expanded for the 'RDPSTAGE' database. A table grid lists the following tables:

| Name                        | Schema | Create Date        |
|-----------------------------|--------|--------------------|
| System Tables               |        |                    |
| Agency_RN                   | dbo    | 2/10/2010 4:33 PM  |
| Agency_Unit                 | dbo    | 2/10/2010 4:33 PM  |
| BudgetTarget0910            | dbo    | 2/25/2010 12:40 PM |
| Census                      | dbo    | 2/10/2010 4:33 PM  |
| GLTRANS                     | dbo    | 2/18/2010 1:18 PM  |
| INCIDENT                    | dbo    | 2/10/2010 10:05 AM |
| JobType                     | dbo    | 2/23/2010 11:45 AM |
| MajorProgram                | dbo    | 2/10/2010 4:33 PM  |
| NursingStation              | dbo    | 2/10/2010 4:33 PM  |
| NursingStation_MajorProgram | dbo    | 2/16/2010 4:33 PM  |
| PHPAccount                  | dbo    | 2/16/2010 11:46 AM |
| PHPCensus                   | dbo    | 2/16/2010 10:54 AM |
| PHPHDNRST                   | dbo    | 2/10/2010 4:33 PM  |
| PRDISTRIB                   | dbo    | 2/23/2010 3:12 PM  |
| ProgramMap                  | dbo    | 2/25/2010 12:41 PM |
| ProgramMapADT               | dbo    | 3/23/2010 2:45 PM  |
| PRPAYCODE                   | dbo    | 3/2/2010 11:07 AM  |
| Restraint                   | dbo    | 2/10/2010 4:33 PM  |
| Staff_Hours                 | dbo    | 2/23/2010 3:22 PM  |



# SSIS Packages

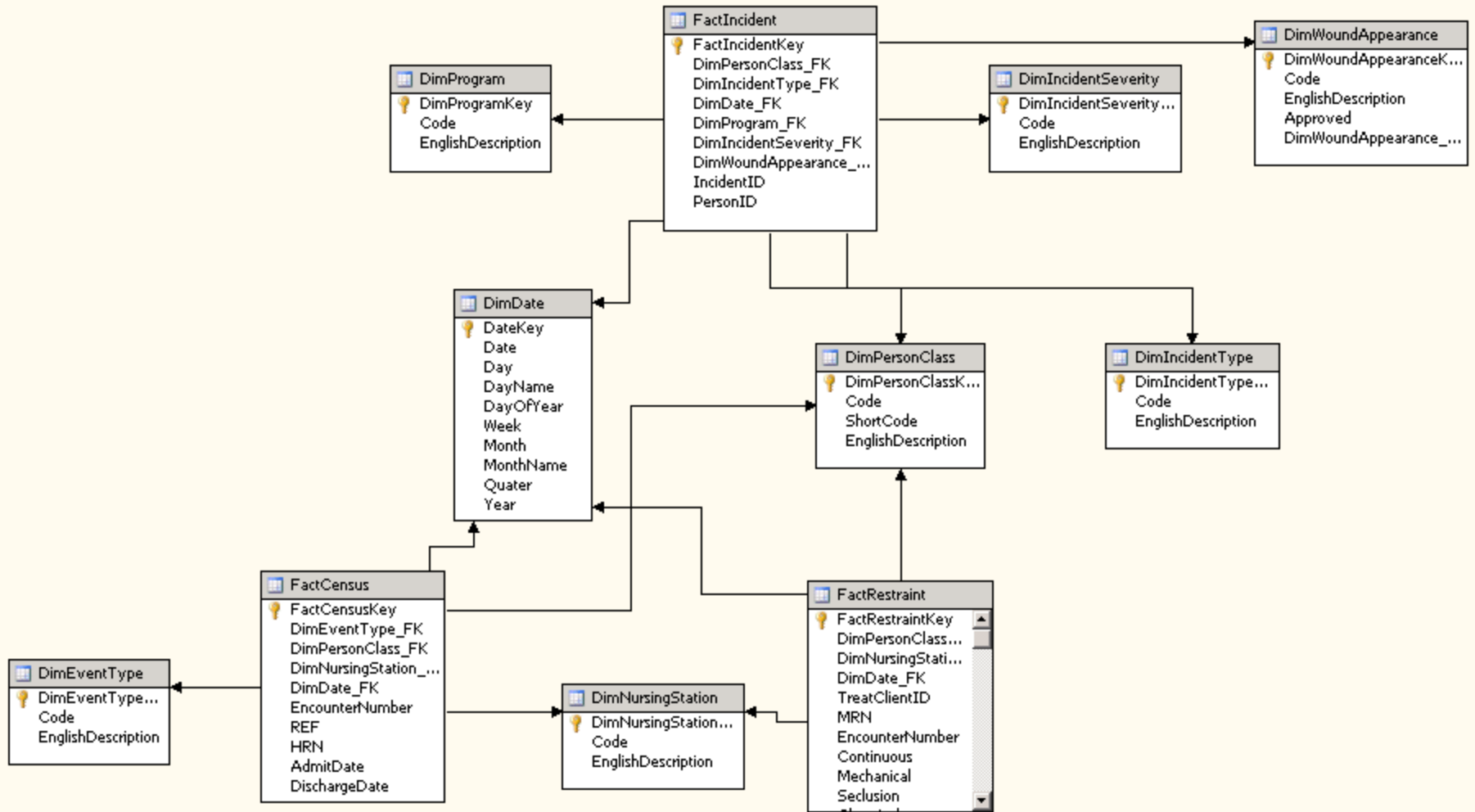
The screenshot displays the Microsoft Visual Studio (Administrator) interface for designing an SSIS package named **SCORE\_Incident.dtsx**. The main design area shows a sequence of three tasks connected by downward arrows:

- Preparation SQL Task 1
- Data Flow Task 1
- Execute SQL Task

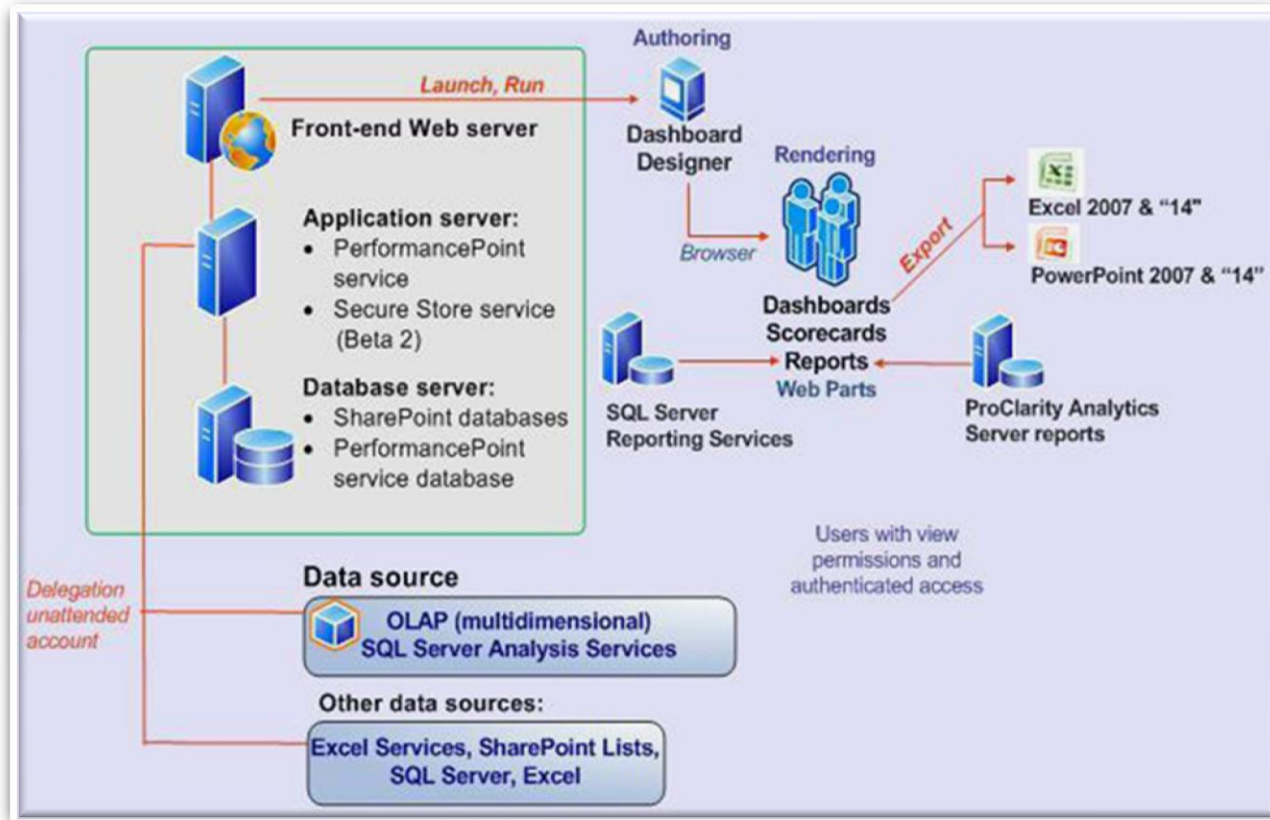
The left sidebar contains the **Control Flow Items** toolbox, listing various tasks such as Pointer, For Loop Container, Foreach Loop Container, Sequence Container, ActiveX Script Task, Analysis Services Exec..., Analysis Services Proc..., Bulk Insert Task, Data Flow Task, Data Mining Query Task, Data Profiling Task, Execute DTS 2000 Pac..., Execute Package Task, Execute Process Task, Execute SQL Task, File System Task, FTP Task, Message Queue Task, Script Task, Send Mail Task, and Transfer Database Task.

The bottom right pane shows the **Connection Managers** section, listing **DestinationConnectionOLEDB** and **SourceConnectionOLEDB**.

# Relational Data Warehouse



# PerformancePoint Services



# Business Connectivity Services

## Office Applications



BCS Client

## Design Tools

SharePoint Designer

Visual Studio

## SharePoint

Dev Platform

Business Intelligence

Enterprise Content Management

Collaboration Social

Enterprise Search

External Lists

External Content Type Repository

Business Data Connectivity

LOB   Web Service   WCF   DB    Web 2.0

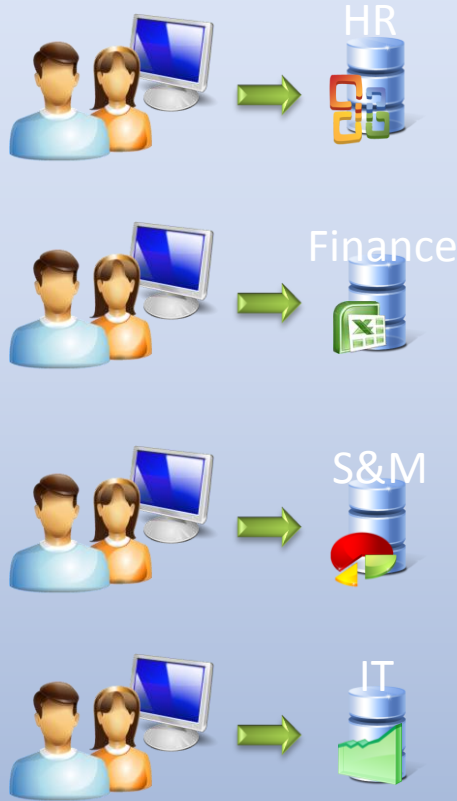
# It is all about that Microsoft Vision of Delivering BI to the masses!

Improving organizations by providing business insights to *all* employees leading to better, faster, more relevant decisions

- Delivered through a familiar environment
- Integrated into business collaboration infrastructure
- Built on a trusted and extensible platform



# Familiar Business Problem Scenario for a fictitious company you can relate with...



Silos of unorganized BI assets

- Lost productivity of end users
  - Reports / scorecards are everywhere for different groups
  - Users go to at least 8 different places for their BI
  - Request access to reports from 8 different IT teams
  - Inconsistent UI and userid and password required for each application
  - Data is not coming from consistent EDW
- Business rumor that IT takes too long to create BI solution
  - Each IT implementation team has to figure out security, ramp up on BI expertise to host and secure
  - Shadow applications built by business and vendors are agile
  - IT needs to maintain those shadow applications when they break
- It is not easy to convince executives to invest in a single consolidated BI solution for entire company

# Obtaining Sponsorship



## BI Consumers

- One central & secure destination for all BI analytics
- Improved user productivity through reduced time to find desired information
- Improved user experience through consistent UI



## BI Report Creators

- Integrated Microsoft BI capabilities
- Reduced implementation times with secure hosted solution
- Enables business users to manage and control access



## IT/Operations Teams

- Centralized and robust security architecture
- Reduced maintenance costs
- Reduction in shadow application development

**Questions?**



# Contact Info

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