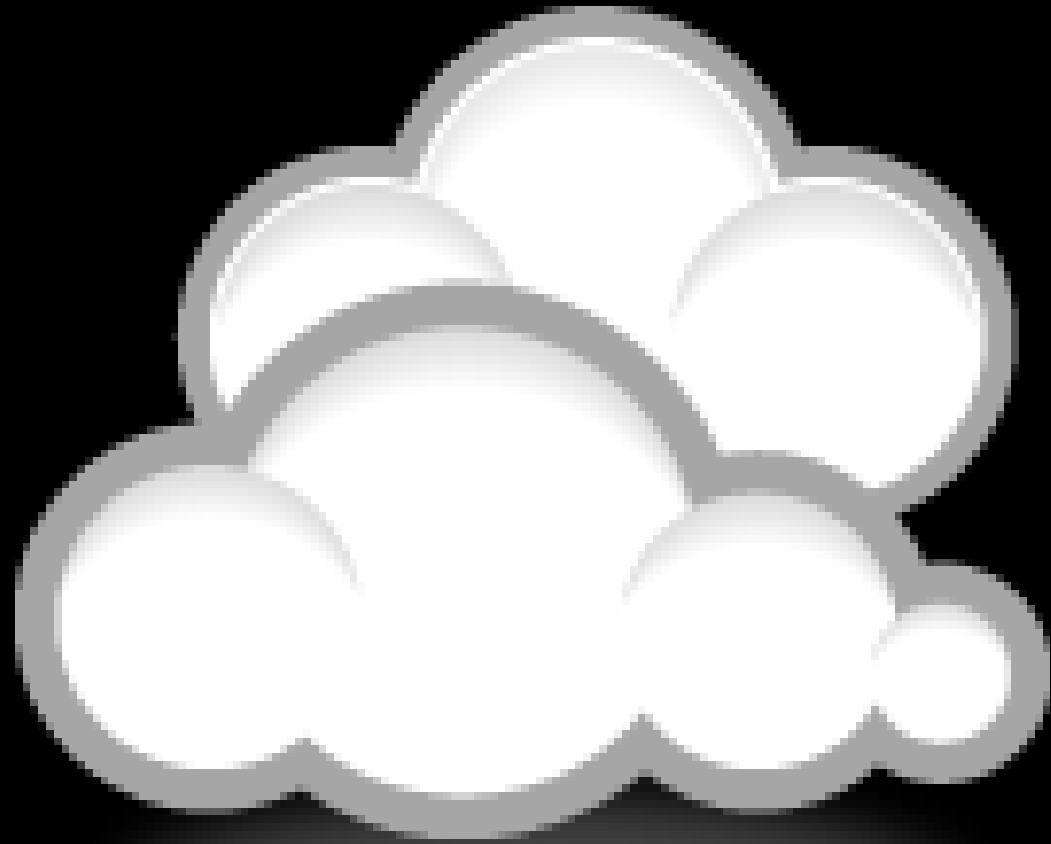


# **Microsoft®**

Information @ your fingertips

Marcel Westra  
BI Specialist  
[mwestra@microsoft.com](mailto:mwestra@microsoft.com)





←

→

http://datamarket.azure.com/browse/Data?Category=realestate

Find & Purchase Data Subs...

Find & Purchase Data Subs...

Region: United States

Support

Sign In

Windows Azure Marketplace

LearnApplicationsDataMy Account

Search the Marketplace

HOME > DATA

price

FREE (7)

PAID (7)

FREE TRIAL (6)

publisher

BOUNDARY SOLUTIONS, INC. (3)

ENVIRONMENTAL DATA RESOURCES, INC. (1)

GEODATASERVICE (1)

GREATER LONDON AUTHORITY (GLA) (2)

RPM CONSULTING, LLC (2)

THE SANBORN MAP COMPANY, INC (1)

ZILLOW, INC (4)

14 Results in: DATA REAL ESTATE

Sort By: Date AddedNamePublisher

12next

london datastore

Local Authority Average Rents

published by: Greater London Authority (GLA)


This dataset provides information on the amount that is charged weekly by the Local Authorities for social housing in the United Kingdom. This rent data are based on the financial year.

london datastore

Average House Prices, Borough

published by: Greater London Authority (GLA)


This dataset provides and average annual and quarterly house prices based on Land Registry data in the United Kingdom, by borough.



GeoData Service

published by: GeoDataService

Find demographics, geography, and lifestyle data based on IP Address, longitude / latitude, and zip code.



MarketBank Retail Financial Services Demand & Potential

published by: RPM CONSULTING, LLC

MarketBank™ 2011 provides estimated usage and balances of financial products and services among America's households. Data are provided at



# Start

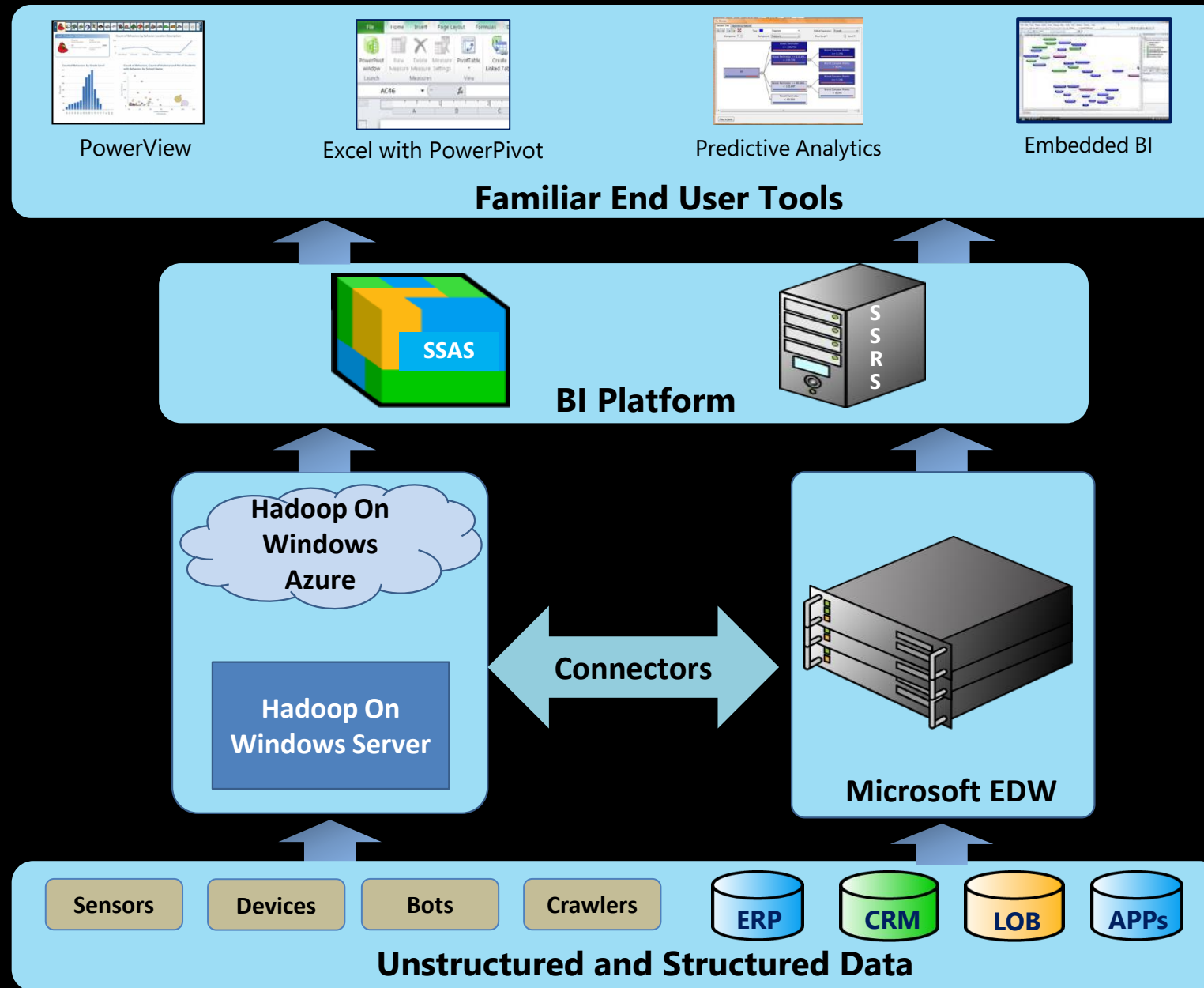
Marcel Westra 

 Microsoft Outlook 2010	 Microsoft PowerPoint 2010	 Store	 13° Workum, Netherlands Rain, 16°/11°	 Photos	 webwereld	 telegraaf	 Music	
 Microsoft OneNote 2010	 Presentatie 2011	 Xbox LIVE Games	 Let op ik kan in principe ... rotterdam Tomorrow: 8:00 AM 31 Thursday	 Video	 nu	 Facebook	 DOW -0. NASDAQ -1 S&P -0. Finance	
 Microsoft Word 2010	 Microsoft Excel 2010	 Maps	 Internet Explorer	 Windows Explorer	 Tfa_Nexus	 Microsoft Lync 2010	 Zune	 Reader
 Desktop		 Messaging	 Control Panel	 SkyDrive	 Sonos	 Database Management [...]	 Microsoft Visual Studio 2010	 Xbox Compar
	 bol.com Laatste kans: profiteer nu nog van kort... Bol.com heeft u een e-mail in HTML o...		 Hyper-V Manager	 Remote Desktop				 Dogfood Cer
	 16° Rotterdam, Netherlands Cloudy, 19°/11°		 Weather					 HeadTrax

# Big Data



# Microsoft Big Data Solution

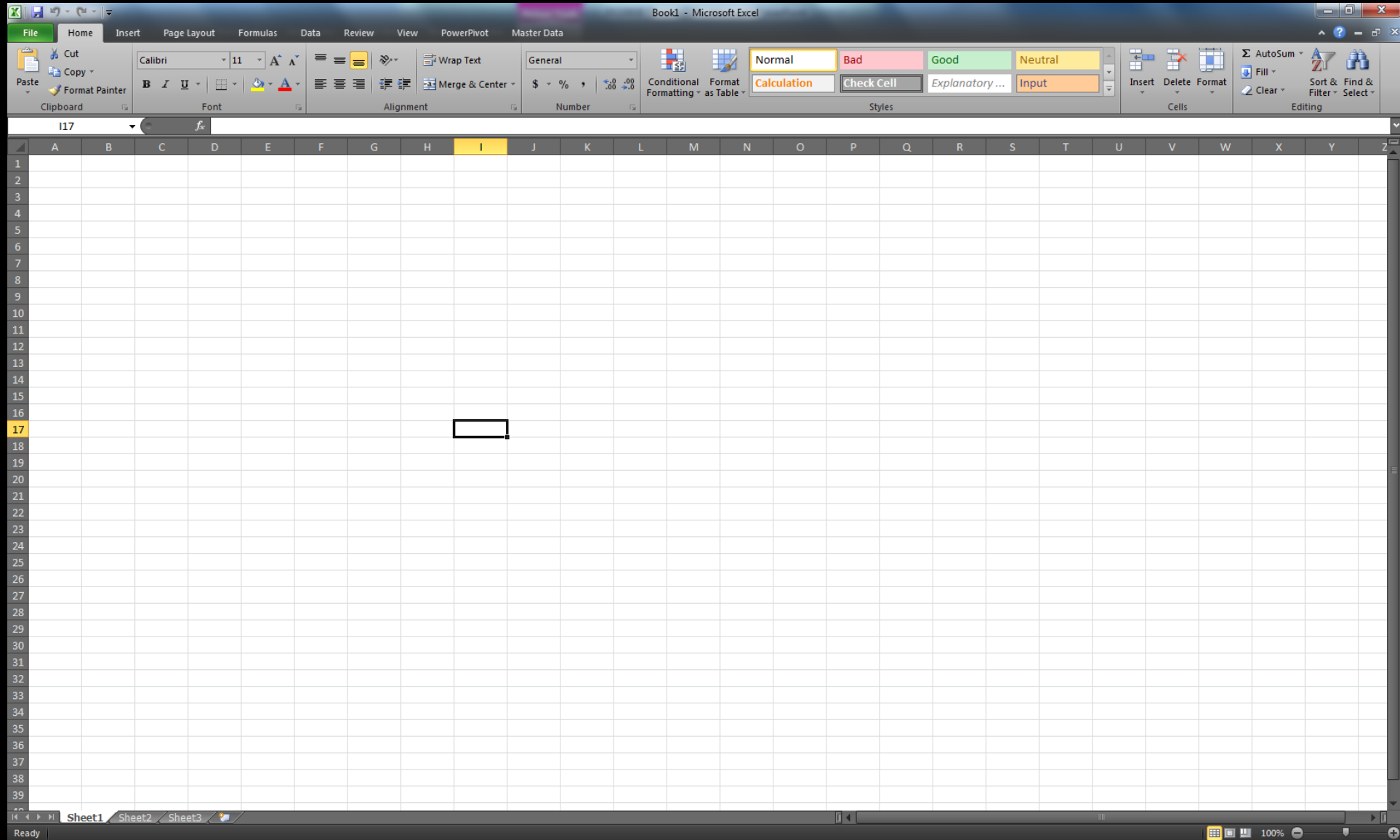




**Consumerization of BI**



# number 1



# Three levels of application

**documents**

**documents  
acting as  
applications**

**applications**

# IT investments



documents

documents  
acting as  
applications

applications

# Decision support

documents

documents  
acting as  
applications

applications

# Hidden Cost

**documents**

**documents  
acting as  
applications**

**applications**



# Owners

**documents**

**documents  
acting as  
applications**

**applications**

**User Power User**

**IT**

# DNA of the organizations

## (Power) User

Creative  
Fast  
Agile



## IT

Control  
Scalable  
Robust



# The Game of IT **Process!!**

documents  
acting as  
applications

**Migrate**

applications



# The Game of the user



documents  
acting as  
applications

applications

## (Power) User

Creative  
Fast  
Agile



## IT

Control  
Scalable  
Robust





# Layers of BI solution

The background of the slide is a photograph of a beach. In the foreground, there is a concrete pier or breakwater structure extending into the water. The pier is made of several large, rectangular concrete blocks. A rusty metal post is visible on top of one of the blocks. The water is a deep blue, and the sky is a lighter blue. The beach is covered with sand and some driftwood. The overall scene is a coastal landscape.

Consume

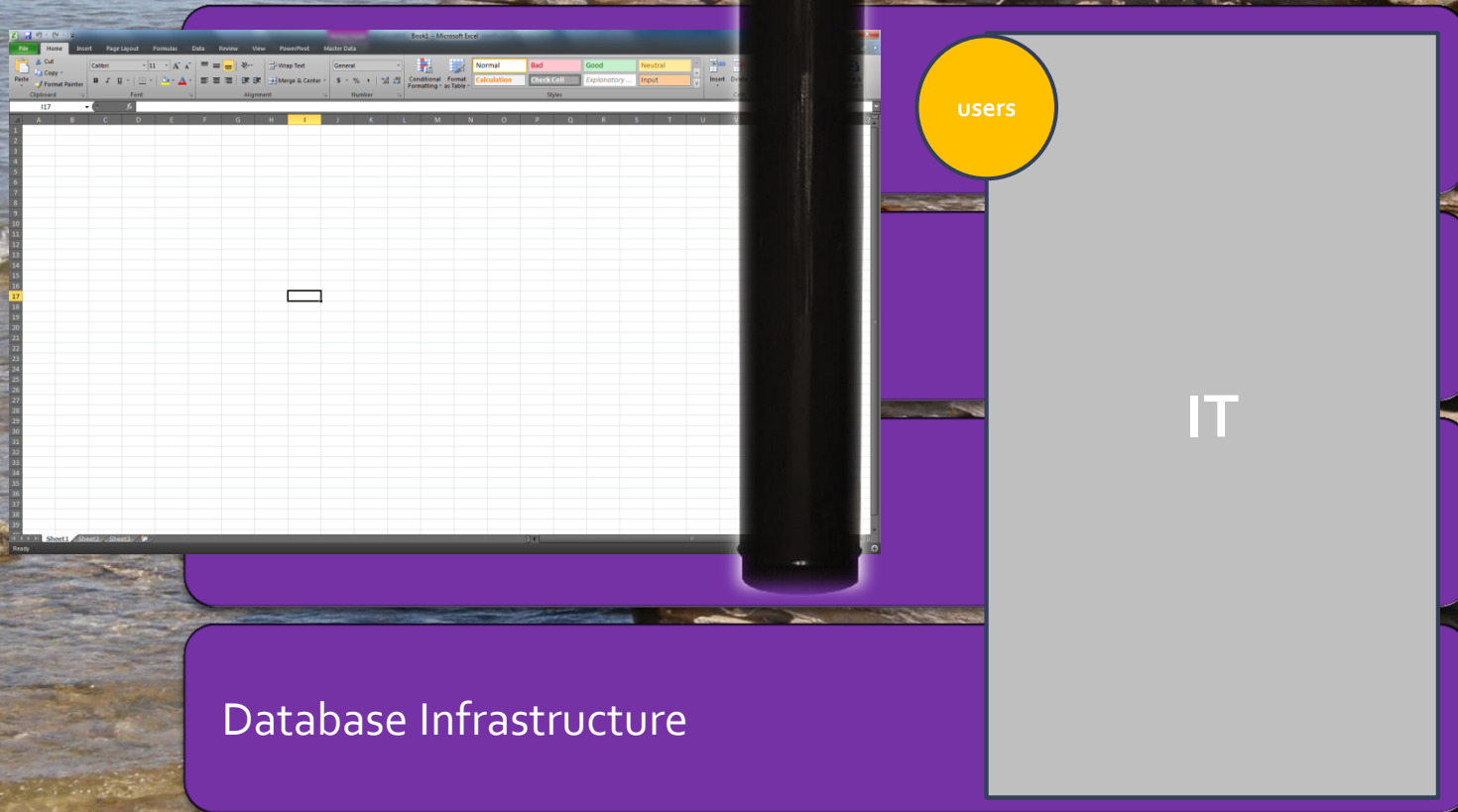
Compose

Data 2 Information (ETL)

Database Infrastructure



# Layers of BI solution





# Time to market

**(Power) User**

self-service



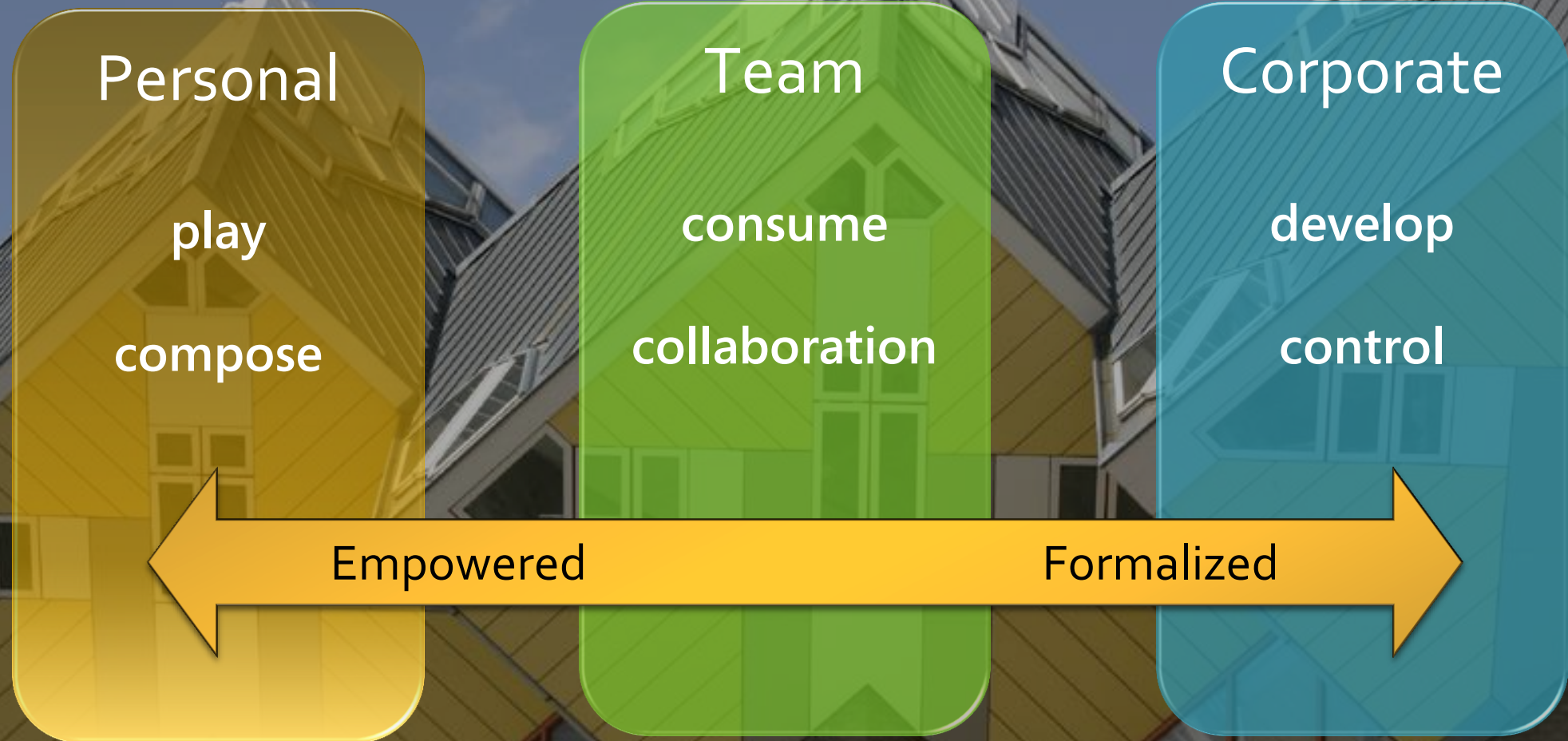
**IT**

faster processes



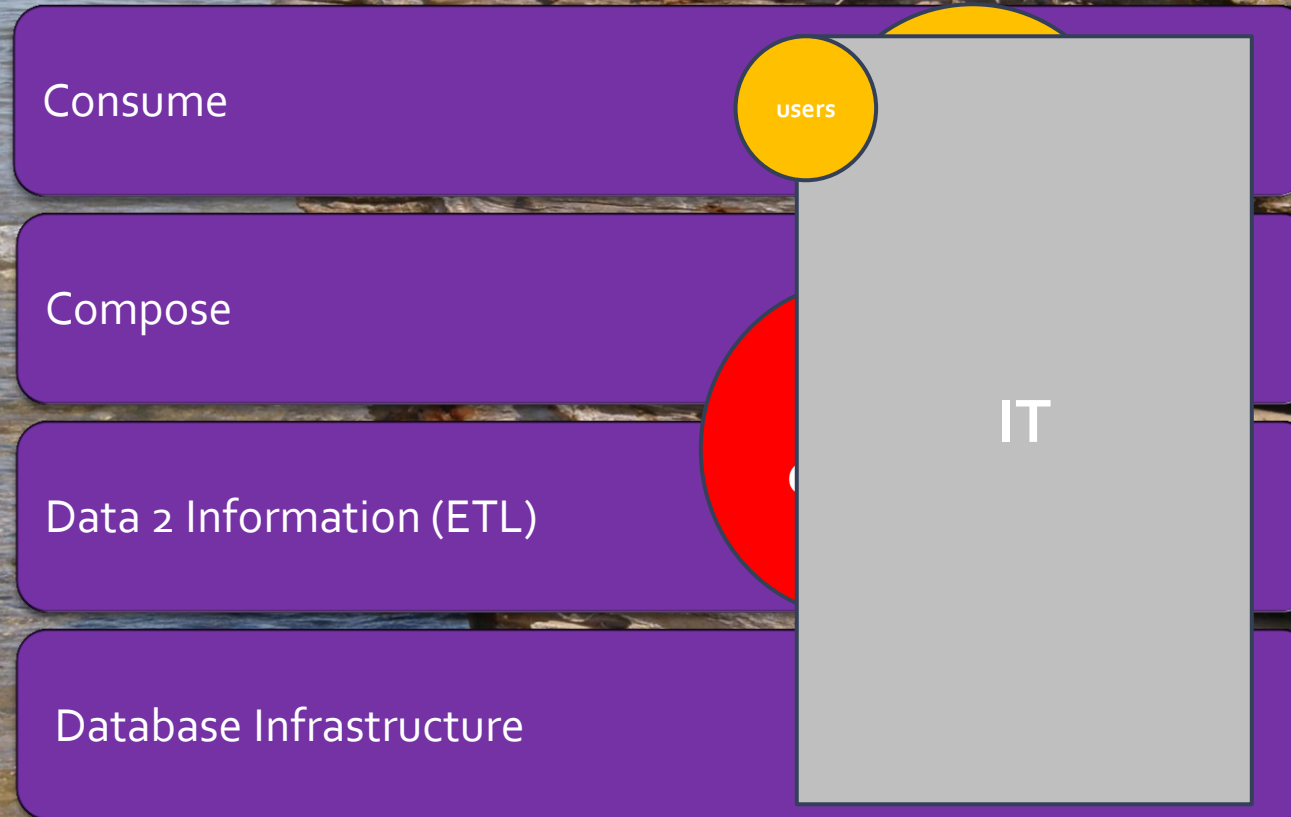


# Microsoft: “Three” Dimensions





# Layers of BI solution





# Master Data Management in Excel !!!

The screenshot shows the Microsoft Excel interface with the 'Master Data' tab selected. The 'Master Data Explorer' pane on the left shows the 'Customer' model with 'VERSION\_1' selected. The main area displays a table of customer data retrieved from an MDS connection.

Name	Code	AddressLine1	AddressLine2	AddressLine3	StateProvince	Country	PostalCode	Telephone	Email
A Bicycle Association	2051	6405 Erie Blvd. Hills Plaza			NY	US	13214	697-555-0142	
A Bike Store	934	2251 Elliot Avenue			WA	US	98104	819-555-0175	
A Cycle Shop	1922	Heritage Mall			OR	US	97321	212-555-0187	
A Great Bicycle Company	1148	6030 Robinson Road			MO	US	65101	612-555-0100	
A Typical Bike Shop	1934	One Dancing, Rr No. 25	Box 8033		TX	US	78664	849-555-0139	
Acceptable Sales & Service	1224	6400, 888 - 3rd Avenue			AB	CA	T2P 2G8	122-555-0189	
Accessories Network	1442	699bis, rue des Peupliers			FR	FR	75008	1 (11) 500 555-0190	
Acclaimed Bicycle Company	354	830 Highway 499 So			GA	US	30253	815-555-0138	
Ace Bicycle Supply	628	36, avenue de la Gare			FR	FR	75019	1 (11) 500 555-0140	
Action Bicycle Specialists	856	Warrington Ldc Unit 25/2			ENG	GB		1 (11) 500 555-0145	
Active Cycling	836	Indian Mound Mall			OH	US	43056	719-555-0181	
Active Life Toys	1916	55 Standish Court			ON	CA	L5B 3V4	168-555-0183	
Active Systems	952	9995 West Central Entrance			MN	US	55802	473-555-0117	
Active Transport Inc.	1936	225200 Miles Ave.			OH	US	44128	465-555-0156	
Activity Center	366	Factory Stores Of America			TN	US	38555	970-555-0138	
Advanced Bike Components	642	12345 Sterling Avenue			TX	US	75061	913-555-0172	
Aerobic Exercise Company	644	39933 Mission Oaks Blvd			CA	US	93010	150-555-0189	
Affordable Sports Equipment	1108	Lake Elisnor Place			CA	US	92530	486-555-0150	
All Cycle Shop	1470	8713 Yosemite Ct.			WA	US	98011	124-555-0114	
All Seasons Sports Supply	1100	Ohms Road			TX	US	77003	708-555-0141	
Alpine Ski House	1458	7505 Laguna Boulevard			CA	US	95624	138-555-0118	
Alternative Vehicles	586	3307 Evergreen Blvd	Ste 1071		WA	US	98671	399-555-0176	
Amalgamated Parts Shop	538	Brunnenstr 422			HH	DE	60082	1 (11) 500 555-0117	
Another Bicycle Company	442	567 Sw Mccloughlin Blvd			OR	US	97222	510-555-0121	
Another Sporting Goods Company	712	5650 West 88th Ave.			CO	US	80030	870-555-0122	
Area Bike Accessories	302	6900 Sisk Road			CA	US	95354	913-555-0196	
Area Sheet Metal Supply	1116	399 Clearing Green			ENG	GB		1 (11) 500 555-0132	
Associated Bikes	930	5420 West 22500 South			UT	US	84101	320-555-0195	
Atypical Bike Company	508	7551, avenue Foch			FR	FR	75010	1 (11) 500 555-0198	
Authentic Sales and Service	1386	99 Dean Street, Soho			ENG	GB		1 (11) 500 555-0150	
Authorized Bike Sales and Rental	1304	490 Ne 4th St			WA	US	98055	818-555-0128	
Basic Bike Company	1186	15 East Main			WA	US	98366	314-555-0113	

# Data Quality Services

The screenshot shows the 'Domain Management' window in SQL Server Data Quality Services. The window title is 'SQL Server Data Quality Services'. The top navigation bar includes 'Home' and 'Export' links, and a user status 'Hello, EUROPE\mwestra ((LOCAL)) | Sign Out'. The main header shows 'Domain Management' with a database icon, and 'Knowledge Base: DQS Data' and 'Activity: Domain Management' on the right.

The left sidebar, titled 'Domain Management', lists domains under the 'Domain' heading:

- Address Check - US (AddressLine, City, ...)
- Address Line
- AddressLine (Address Check)
- City
- City (Address Check)
- Company - US** (selected)
- Company Name
- Country
- Country (2 char leading)
- Country (3 char leading)
- State
- State (Address Check)
- Zip (Address Check)

The main content area is titled 'Company - US' and has four tabs: 'CD Properties', 'Reference Data', 'CD Rules', and 'Value Relations'. The 'CD Properties' tab is active.

Under 'CD Properties', the 'Composite Domain Name' is 'Company - US' (Required). The 'Description' is 'Validates US Company Data via Digital Trowel RDS'. Below this, it says 'Select Domains to include in Composite Domain:'.

There are two lists for domain selection:

- Domains List:** Country (2 char leading), Country (3 char leading)
- Domains in Composite Domain:** Company Name, Address Line, City, State, Country

Arrows indicate the movement of domains between these lists. At the bottom left of the main area is an 'Advanced' expandable section. The status bar at the bottom left says 'Ready'. At the bottom right are 'Cancel' and 'Close' buttons.



# Layers of BI solution

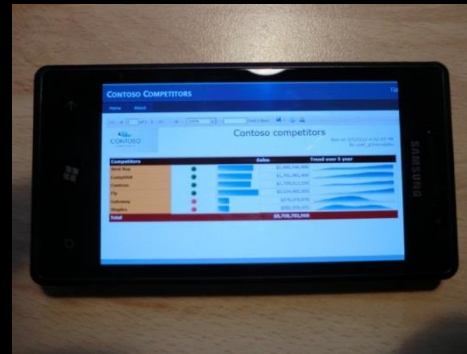
## Consume

- How to consume (device)
- Read
- Play

Data 2 Information (ETL)

Database Infrastructure





Consume

# Reporting Maps

Read

## Airline Route On Time Report for Seattle August 2009

Number of Flights per Route and Avg Minutes Late



Airline Route On Time Statistics for Seattle August 2009



Consume



Play



## Cars Sales Over Time

### Adventure Works



Mountain-100 Silver  
Model  
33  
MPG Highway  
Hybrid  
Type  
26,800.00  
MSRP

### Adventure Works



Carretera: roja  
Model  
31  
MPG Highway  
Coupe/Sedan  
Type  
20,620.00  
MSRP

### Adventure Works



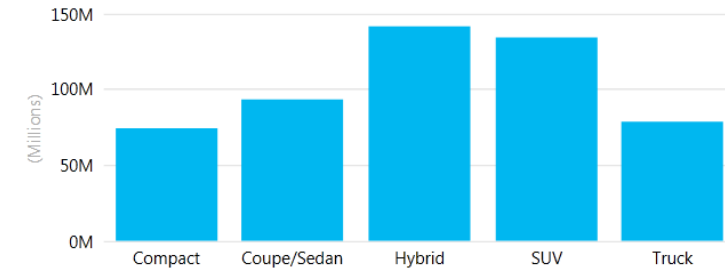
VTT 500 noir  
Model  
22  
MPG Highway  
SUV  
Type  
29,670.00  
MSRP

### Adventure Works

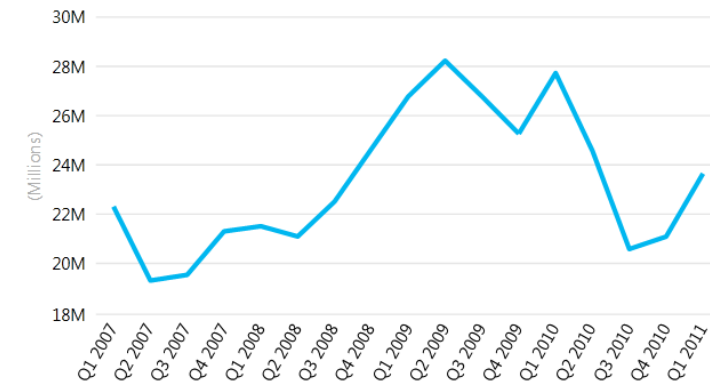


Velo de randonnee...  
Model  
92  
MPG Highway  
Hybrid  
Type  
33,720.00  
MSRP

Cumulative Sales by Type



Prior Year Sales by Quarter



Consume



# Layers of BI solution

Consume

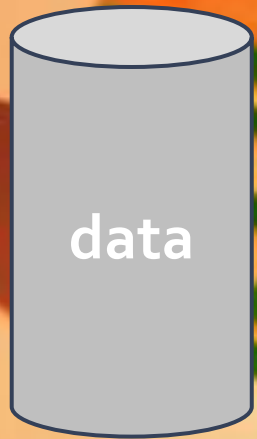
Compose

Data 2 Information (ETL)

Database Infrastructure



# Grab and Go Reporting



**source**

**Q**



Where can I find  
the data

What data  
do I need

How to visualize

Compose

Untitled - Microsoft SQL Server Report Builder

Home Insert View

Run Paste Font Paragraph Border Number Layout

Views Clipboard

1 2 3 4 5 6 7 8

ADVENTURE WORKS

	[Year]
Category	Sales Dollars
[Category]	[Sum(Sales_Dollars)]

Total Sales

280 550 980  
200 450 790

Report Part Gallery

Search Name and Description

Add Criteria

Name	Created by	Mod
APG logo	Nederland	
Map1	Sales in NL	
Logo	Sales Planning	

Created by: EUROPE\mwestra  
Created: 6/18/2010 2:04:35 PM  
Modified by: EUROPE\mwestra  
Modified: 6/18/2010 2:04:35 PM  
Server path: /Report Parts/Logo  
Description:

Row Groups Column Groups

Current report server <http://localhost/ReportServer> [Disconnect](#)

100%

Compose



# Three dimensions of Reporting

**Personal**

play  
compose



Report Builder

**Team**

consume  
collaboration



Reporting For SharePoint

**Corporate**

develop  
control



Reporting Designer

Empowered

Formalized



# Power Pivot

[www.powerpivot.com](http://www.powerpivot.com)

Compose

# What Excel black belts are telling us...

*"It has to stay in Excel. We just won't use another tool."*

*"We don't know what is OLAP and dimensional modeling and we don't care to know. Even relational modeling is a bit too hard."*

*"Don't ask us to design or model anything in advance. We should just be able to load our data in and work. Exactly as do in Excel."*

*"This 'PowerPivot' has to be simple, fast, intuitive and straight forward, else I will simply continue to use Excel as before"*

PowerPivot for Excel - Contoso Retail Reports.xlsx

Clipboard: Paste, Paste Append, Paste Replace, Copy

Get External Data: From Database, From Report, From Azure DataMarket, From Data Feeds, From Text, From Other Sources, Refresh, PivotTable

Formatting: Data Type, Format: Date, \$, %, ,.00, .00

Sort and Filter: Sort A to Z, Sort Z to A, Clear Sort, Clear All Filters, Sort by Column

Measures: AutoSum, Create KPI

View: Data View, Diagram View, Show Hidden, Measure Grid

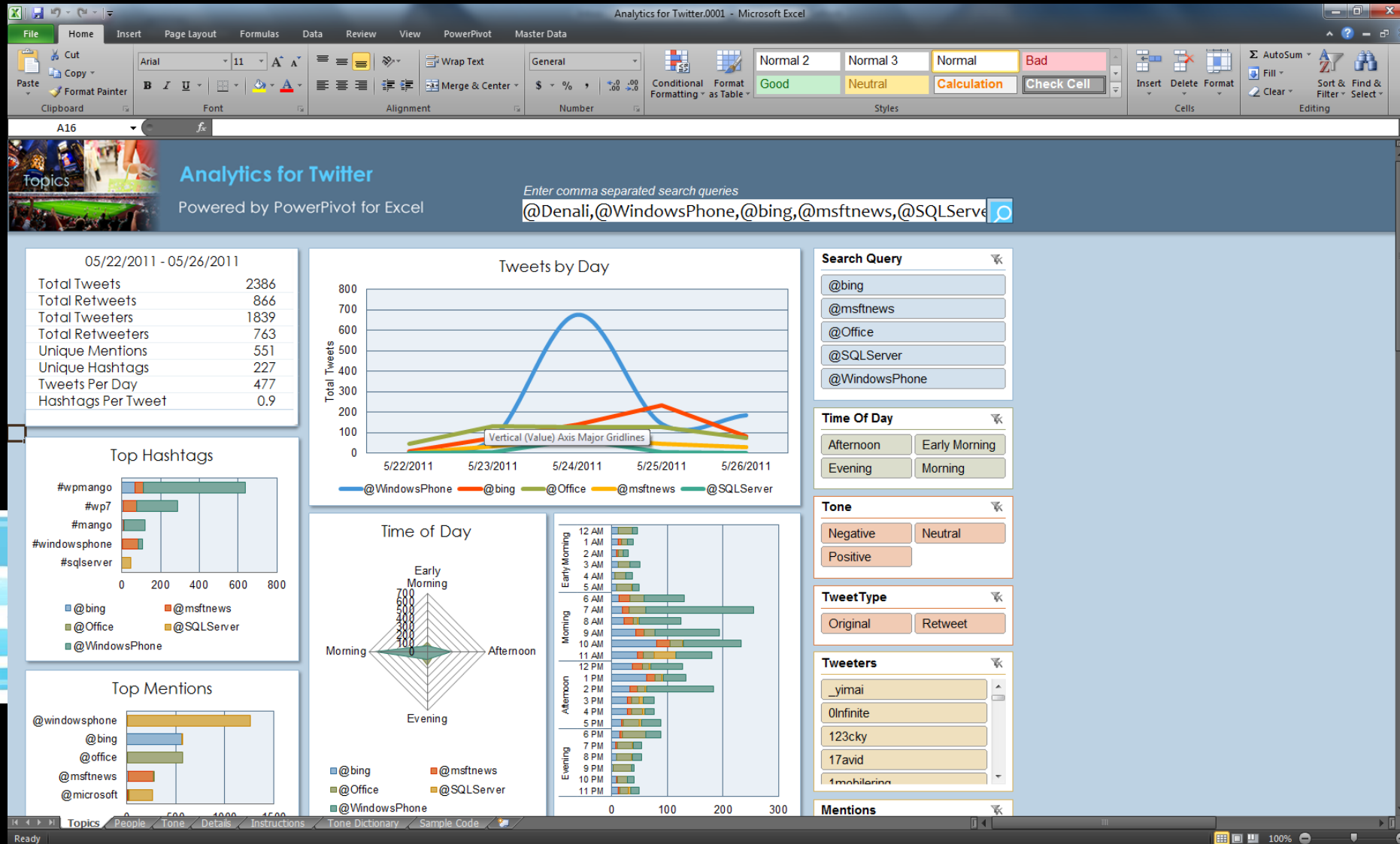
[UpdateDate] Maximum of UpdateDate:=MAX([UpdateDate])

	CurrencyKey	UnitCost	UnitPrice	SalesQuantity	ReturnQuantity	ReturnAmount	DiscountQuantity	DiscountAmount	TotalCost	SalesAmount	ETLL
11	1	\$48.43	\$94.99	9	0	\$0	0	\$0	\$435.87	\$854.91	
11	1	\$134.74	\$293	9	0	\$0	0	\$0	\$1,212.66	\$2,637	
11	1	\$167.73	\$329	9	0	\$0	0	\$0	\$1,509.57	\$2,961	
11	1	\$96.08	\$289.99	9	0	\$0	0	\$0	\$864.72	\$2,609.91	
11	1	\$261.66	\$569	9	0	\$0	0	\$0	\$2,354.94	\$5,121	
11	1	\$141.47	\$427	9	0	\$0	0	\$0	\$1,273.23	\$3,843	
11	1	\$7.59	\$16.5	9	0	\$0	0	\$0	\$68.31	\$148.5	
11	1	\$5.09	\$9.99	9	0	\$0	0	\$0	\$45.81	\$89.91	
11	1	\$73.12	\$159	9	0	\$0	0	\$0	\$658.08	\$1,431	
11	1	\$118.65	\$258	9	0	\$0	0	\$0	\$1,067.85	\$2,322	
11	1	\$75.96	\$149	9	0	\$0	0	\$0	\$683.64	\$1,341	
11	1	\$6.39	\$13.89	9	0	\$0	0	\$0	\$57.51	\$125.01	
11	1	\$71.37	\$139.99	9	0	\$0	0	\$0	\$642.33	\$1,259.91	
11	1	\$21.92	\$43	9	0	\$0	0	\$0	\$197.28	\$387	
11	1	\$152.44	\$299	9	0	\$0	0	\$0	\$1,371.96	\$2,691	
11	1	\$827.97	\$2,499	9	0	\$0	0	\$0	\$7,451.73	\$22,491	
11	1	\$66.23	\$129.9	9	0	\$0	0	\$0	\$596.07	\$1,169.1	
11	1	\$6.07	\$11.9	9	0	\$0	0	\$0	\$54.63	\$107.1	
11	1	\$404.68	\$880	9	0	\$0	0	\$0	\$3,642.12	\$7,920	
11	1	\$430.38	\$1,299	9	0	\$0	0	\$0	\$3,873.42	\$11,691	
11	1	\$141.64	\$308	9	0	\$0	0	\$0	\$1,274.76	\$2,772	
11	1	\$72.56	\$219	9	0	\$0	0	\$0	\$653.04	\$1,971	
11	1	\$38.74	\$75.99	9	0	\$0	0	\$0	\$348.66	\$683.91	
11	1	\$815.22	\$1,599	9	0	\$0	0	\$0	\$7,336.98	\$14,391	
11	1	\$105.76	\$229.99	9	0	\$0	0	\$0	\$951.84	\$2,069.91	
11	1	\$166.2	\$326	9	0	\$0	0	\$0	\$1,495.8	\$2,934	
11	1	\$40.76	\$79.95	9	0	\$0	0	\$0	\$366.84	\$719.55	
									Sum of TotalCo...	Sum of SalesAmount ...	

DimDate StateID ProductClass DimGeography DimProduct DimProductCategory DimProductSubcategory DimPromotion FactSales DimSalesTerritory DimStore SeasonalPromotions SalesChannel

Record: 1 of 3,962,476

# Loading Data

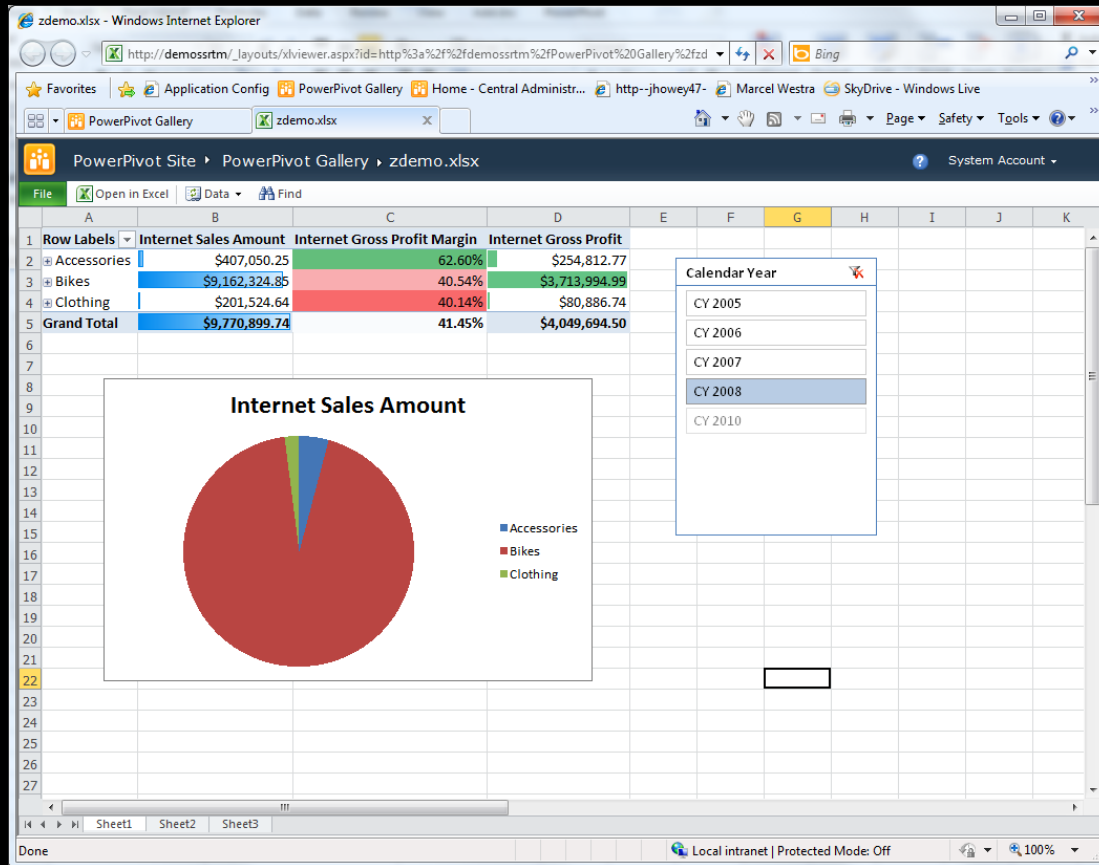


data

Compose



# Personalized thin client



Thin  
Client  
(excel services)

## Team BI



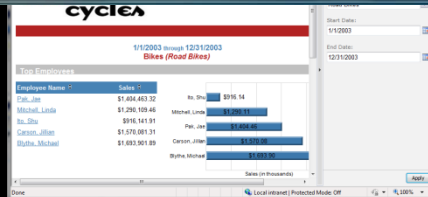
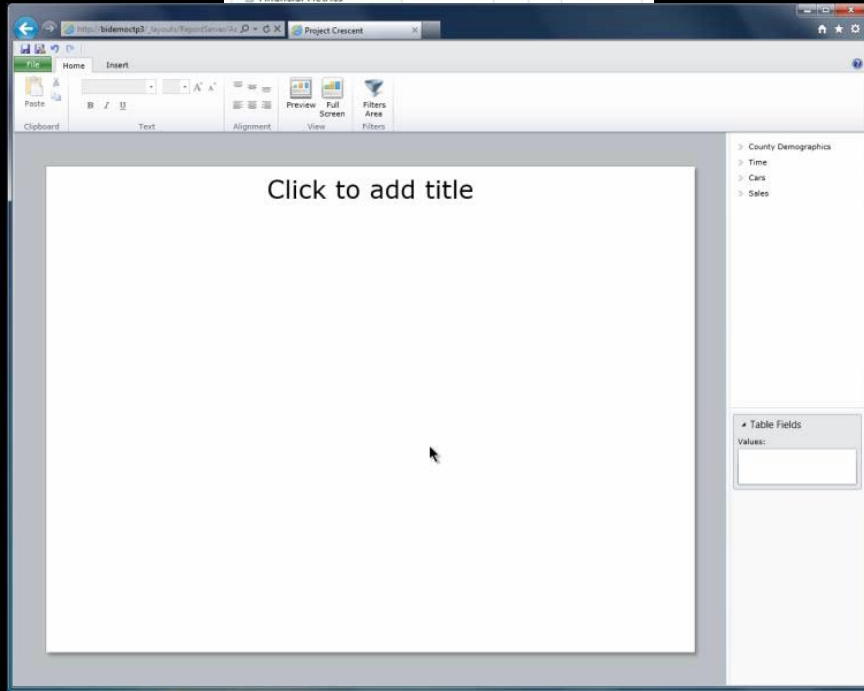
Compose

# Power View

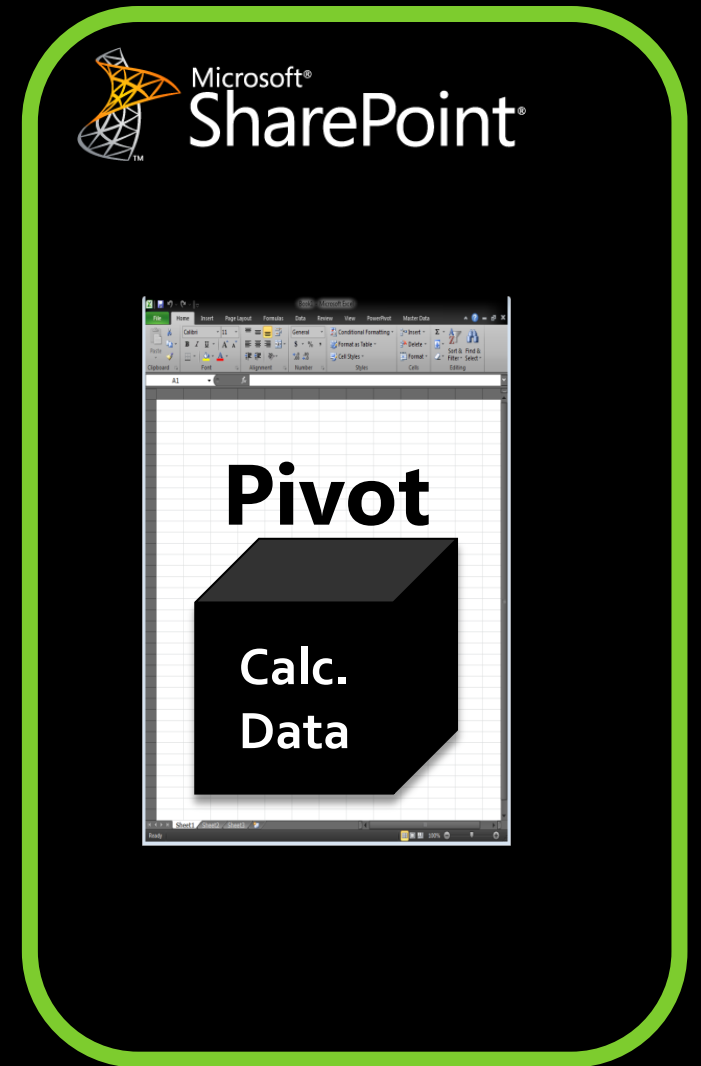
**Dashboard**

Sales Summary Scorecard

Summary - Sales Summary		Filter Mode	Person Responsible
			Jacob
Sales Overview			
Sales Amount	\$109,809,274		Jacob
Average Sales Amount	\$3,491		Jacob
Average Unit Price	\$465.18		Donna
Orders			
Order Quantity	274,776		Phil
Order Count	31,455		Phil
Financial Metrics			

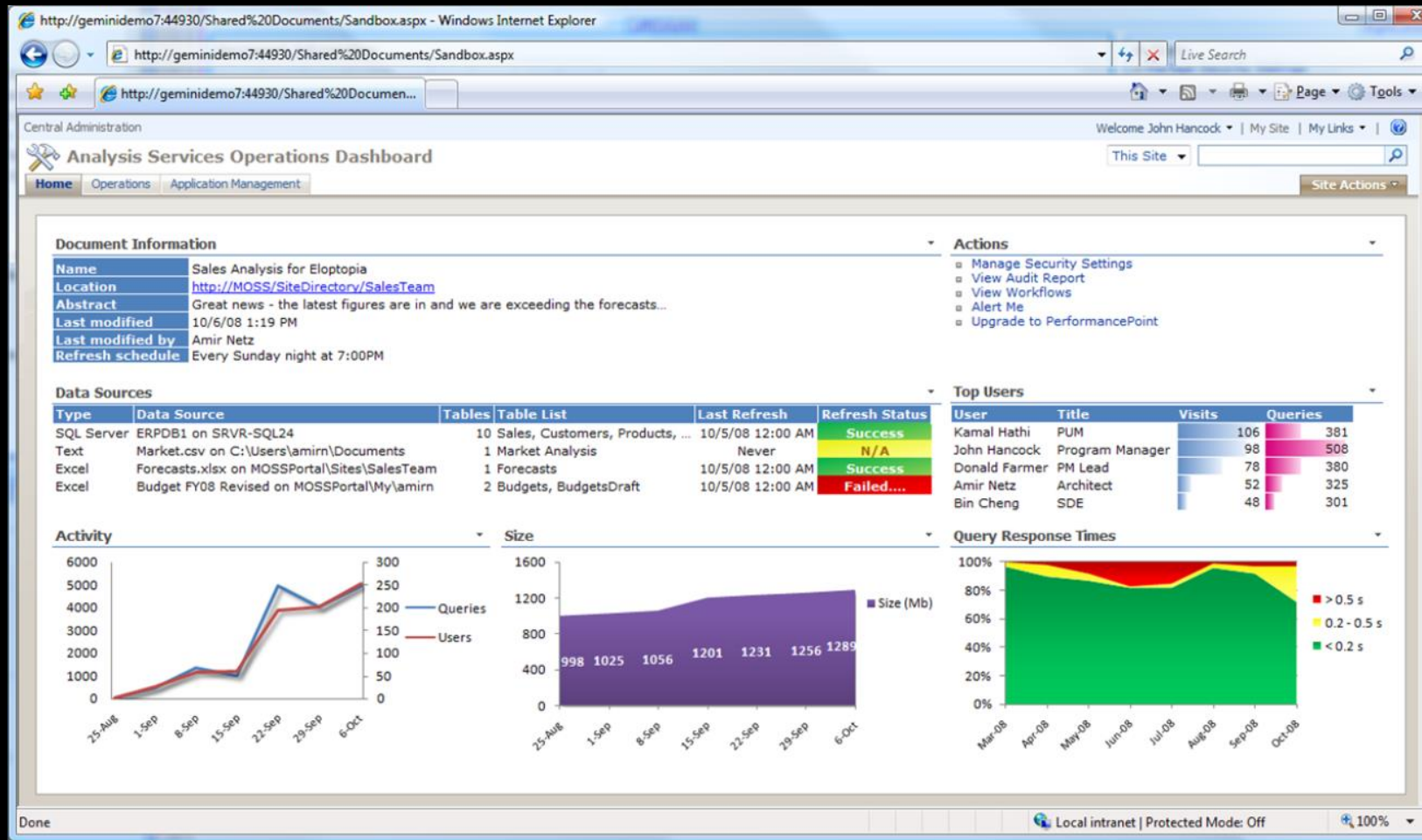


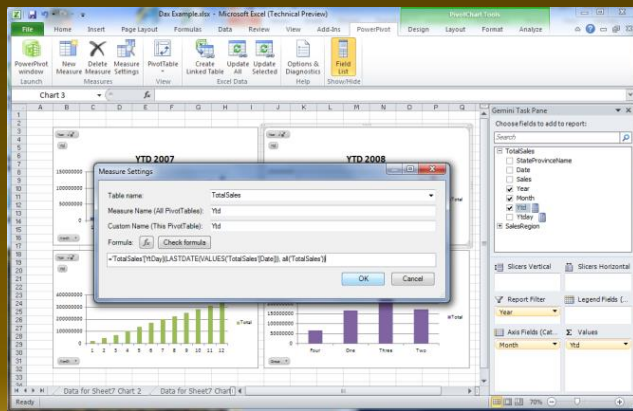
data  
source



Compose

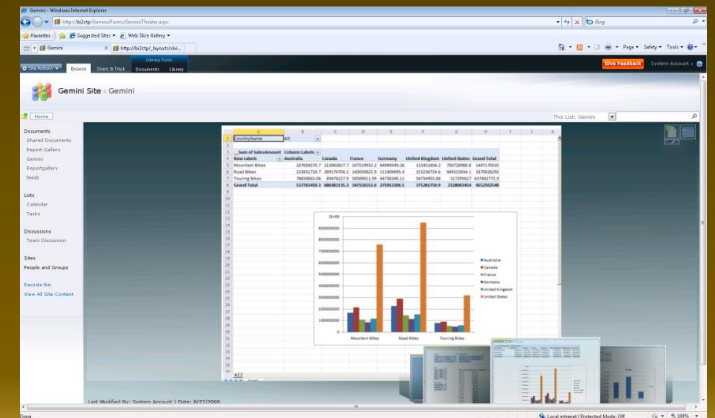
# Monitoring Usage





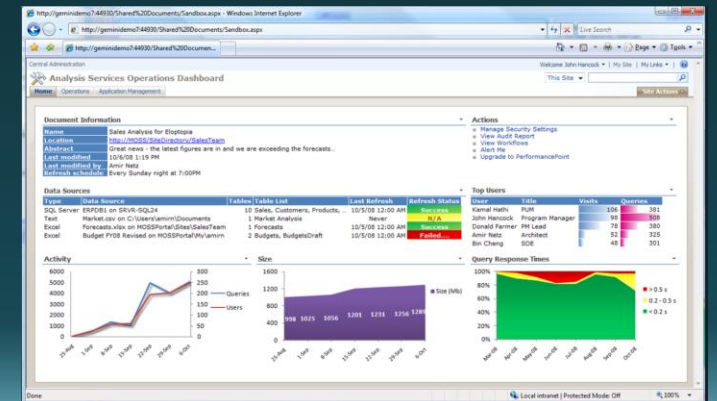
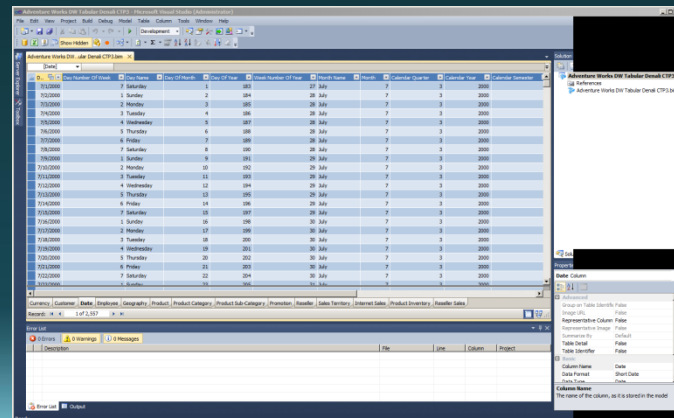
Compose

Share  
Consume



Build

Monitor





# xVelocity (Vertipaq)



# Analysis Service 2012

Adventure Works DW Tabular Denali CTP3 - Microsoft Visual Studio (Administrator)

File Edit View Project Build Debug Model Table Column Tools Window Help

Development

Adventure Works DW...ular Denali CTP3.bim

[Date]

D..	Day Number Of Week	Day Name	Day Of Month	Day Of Year	Week Number Of Year	Month Name	Month	Calendar Quarter	Calendar Year	Calendar Semester
7/1/2000	7	Saturday	1	183	27	July	7	3	2000	
7/2/2000	1	Sunday	2	184	28	July	7	3	2000	
7/3/2000	2	Monday	3	185	28	July	7	3	2000	
7/4/2000	3	Tuesday	4	186	28	July	7	3	2000	
7/5/2000	4	Wednesday	5	187	28	July	7	3	2000	
7/6/2000	5	Thursday	6	188	28	July	7	3	2000	
7/7/2000	6	Friday	7	189	28	July	7	3	2000	
7/8/2000	7	Saturday	8	190	28	July	7	3	2000	
7/9/2000	1	Sunday	9	191	29	July	7	3	2000	
7/10/2000	2	Monday	10	192	29	July	7	3	2000	
7/11/2000	3	Tuesday	11	193	29	July	7	3	2000	
7/12/2000	4	Wednesday	12	194	29	July	7	3	2000	
7/13/2000	5	Thursday	13	195	29	July	7	3	2000	
7/14/2000	6	Friday	14	196	29	July	7	3	2000	
7/15/2000	7	Saturday	15	197	29	July	7	3	2000	
7/16/2000	1	Sunday	16	198	30	July	7	3	2000	
7/17/2000	2	Monday	17	199	30	July	7	3	2000	
7/18/2000	3	Tuesday	18	200	30	July	7	3	2000	
7/19/2000	4	Wednesday	19	201	30	July	7	3	2000	
7/20/2000	5	Thursday	20	202	30	July	7	3	2000	
7/21/2000	6	Friday	21	203	30	July	7	3	2000	
7/22/2000	7	Saturday	22	204	30	July	7	3	2000	
7/23/2000	1	Sunday	23	205	31	July	7	3	2000	

Currency Customer **Date** Employee Geography Product Product Category Product Sub-Category Promotion Reseller Sales Territory Internet Sales Product Inventory Reseller Sales

Record: 1 of 2,557

Error List

0 Errors 0 Warnings 0 Messages

Description	File	Line	Column	Project
-------------	------	------	--------	---------

Server Explorer

Toolbox

Solution

Adventure Works DW Tabular Denali CTP3

References

Adventure Works DW Tabular Denali CTP3.bim

Properties

Date Column

Advanced

Group on Table Identifier: False

Image URL: False

Representative Column: False

Representative Image: False

Summarize By: Default

Table Detail: False

Table Identifier: False

Basic

Column Name: Date

Data Format: Short Date

Data Type: Date

Column Name

The name of the column, as it is stored in the model

Error List

Output

Ready

Compose



# Layers of BI solution

Consume

Compose

Data 2 Information (ETL)

Database Infrastructure



# Microsoft Information Platform

END USER EXPERIENCE



BUSINESS PRODUCTIVITY INFRASTRUCTURE



DATA INFRASTRUCTURE & BI PLATFORM





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