



Changing the Way Executives Visualize Corporate Data with Oracle Business Intelligence 11g

Heartland Oracle Users Group March 24, 2011

Dan Vlamis

Vlamis Software Solutions

816-781-2880

<http://www.vlamis.com>



ORACLE® 11^g
FUSION MIDDLEWARE

ORACLE®

How OBIEE 11g Enables Better Business Decision Making

Alan Fuller, Director of Product Management Oracle BI

Abstract

- Discover how new features in Oracle Business Intelligence 11g increases the business value derived from your OBIEE investment. Oracle Business Intelligence 11g changes the industry by giving users the ability to obtain information from BI analysis using powerful new reporting capabilities, including maps.

Common Enterprise Information Model Benefits

BUSINESS BENEFITS

- ✓ Consistent, accurate information
- ✓ Business user self service
- ✓ Choice of front-end tools
- ✓ Role-based, secure access
- ✓ Transparent information access

IT BENEFITS

- ✓ Model once, Deploy anywhere
- ✓ Reduced user support from IT
- ✓ Enables phased BI standardization
- ✓ Supports IT compliance initiatives
- ✓ Easier upgrades & changes

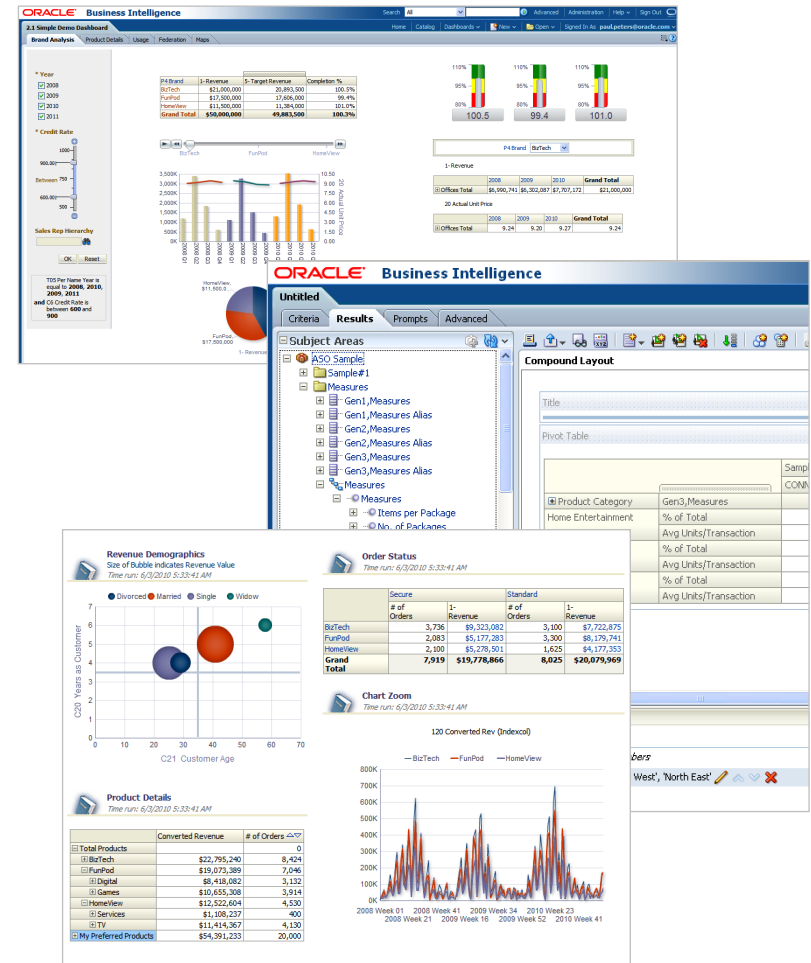
Best in Class Performance, Scalability & Availability

Continuous Improvement

- Performance
 - 100s of performance optimizations
 - 64-bit memory optimizations
 - Native huge page support
 - Support for multi-grain cache objects
 - Improved cache seeding & query rewrite
 - Improved local execution on in-memory cache for better reuse
- Massively scalable with flexible deployment options
 - Terabytes of data, 10s of thousands of concurrent users
 - On-premise single node or clustered
 - SaaS with single tenant or multi-tenant
 - Standalone or embedded
- Highly available with Active-Active Clustering
 - Automated user session & query failover
 - Online hot patching
 - Automated failover to disaster recovery

Best-in-Class Query & Analysis User Interface

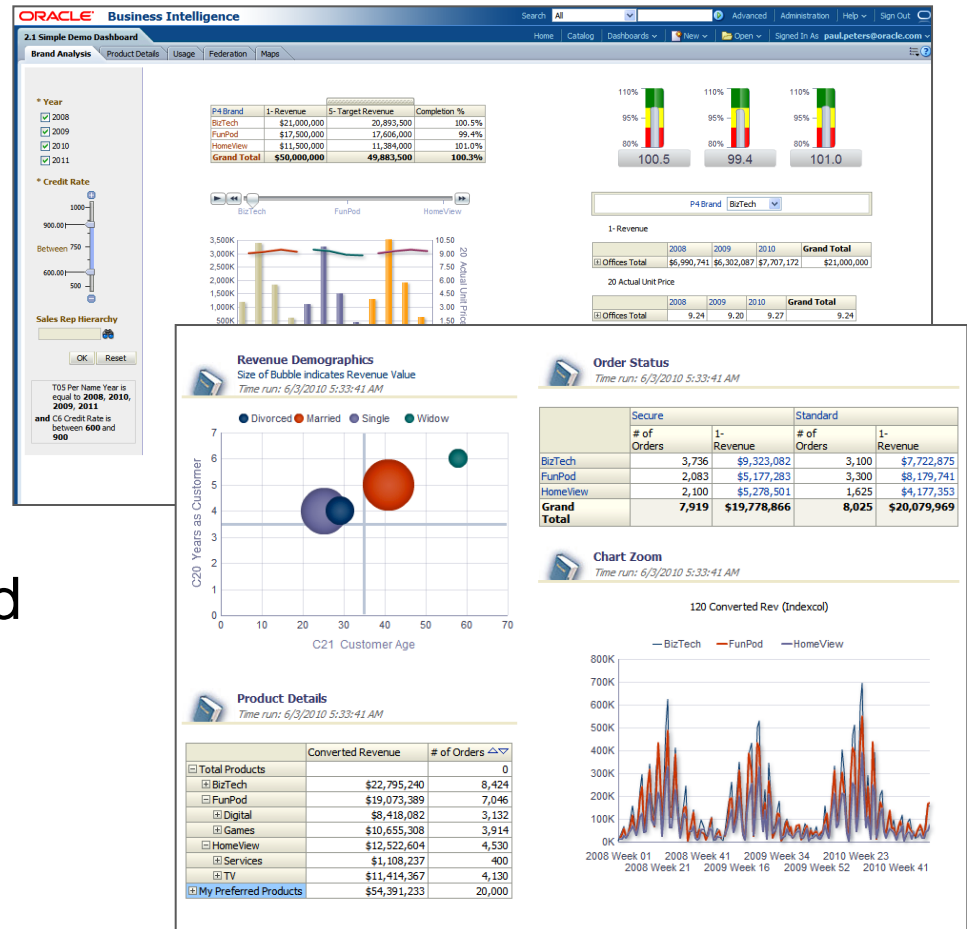
- Powerful dashboards
 - Visually appealing
 - Intuitive
 - 100% thin client
- Across all styles of analysis
 - R-OLAP, M-OLAP, Scorecards, Reporting, Collaboration, Actions
- Across all data sources
 - Simplified model for users
 - Federated data access
 - On-the-fly calculations, even with complex share and time series
 - Custom members & groups
 - Share, collaborate, & publish
 - Consistency & alignment



Oracle BI 11g Interactive Visualizations

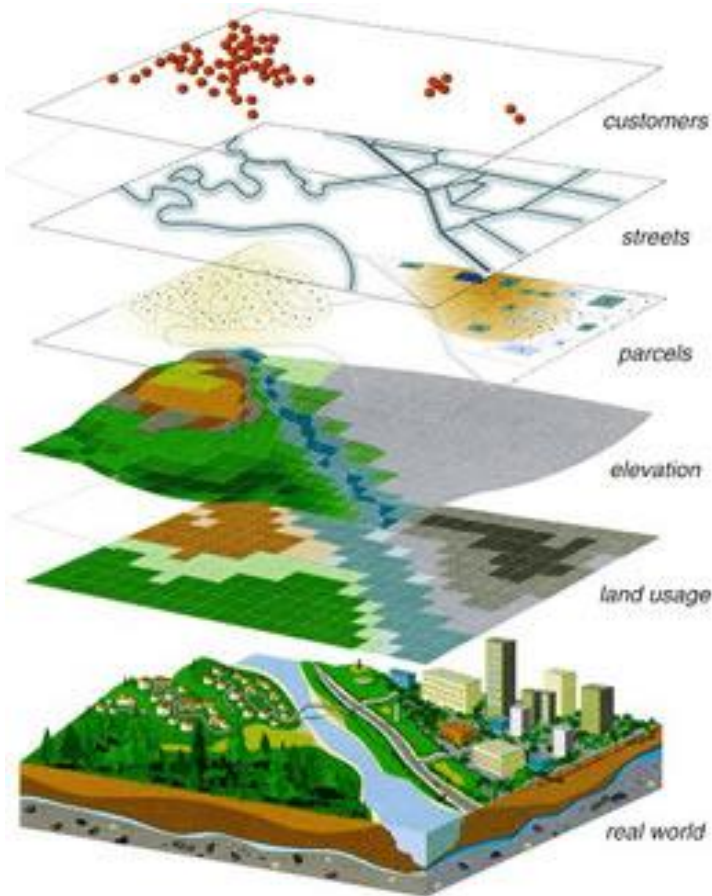
Gain Insight Quicker with Greater Visibility

- Rich interactive visualizations
- Animated transitions
- Range sliders
- Paging sliders
- Master-Detail linking
- Extensive and extended set of chart types
- Consistent, hi-fidelity charting across Oracle product line



Spatial Intelligence

New Depth and Breadth of Analysis



- Most business data...
 - Contains geographic dimension(s)
- Oracle Business Intelligence
 - Delivers deeper analytical insights through Spatial visualization and data
 - Increases the ROI of BI & GIS systems

"In effect, Oracle is "flipping the switch" and turning spatial into a product feature when such a capability is needed. It will be daunting to compete against this company."

"Microsoft, beware... we haven't heard much about geospatial and SQL Server integration lately... you are in danger of becoming a non-player. And IBM continues to play with ESRI only, and resists striking out on its own in what could be a missed opportunity."



The world's largest resource for "all things location"

Business Data...



Interactive Visualizations

Year	Plant Location Country	Plant Location State	Spend Type	Spend	# of Suppliers	# of Buyers	Invoiced Quantity
2007	BE	Unspecified	ITEM	8,451,585	11	4	11,746
			TAX	288,325	8	4	
	BR	SP	ITEM	706,542	2	3	848
	FR	Unspecified	ITEM	36,058,468	10	8	51,139
			TAX	958,229	9	8	
	GB	Unspecified	ITEM	22,308,436	14	15	45,025
			TAX	464,114	9	4	
	IT	Unspecified	ITEM	8,406,679	11	4	14,435
			TAX	309,027	8	4	
	JP	Unspecified	ITEM	9,606	3	1	25
	NL	Unspecified	ITEM	28,937,424	10	4	44,364
			TAX	461,415	8	2	
	US	AZ	ITEM	136,853	2	1	18,904
			ITEM	37,732,046	42	11	1,884,123
			ITEM	1,080	1	1	90
			ITEM	17,771,255	9	4	74,600
			ITEM	88,411	11	3	59,332
			ITEM	44,876	1	1	2,508
			ITEM	132,583	1	1	17,704
			ITEM	68,870,319	6	1	472,984
			ITEM	31	3	2	545
			ITEM	8,546,510	7	1	5,362
			ITEM	50,640,285	21	5	17,139,790
			TAX	29	2	2	
			ITEM	129,588	3	1	970
			ITEM	84	2	1	28
			ITEM	38,843,715	6	1	575,742
			ITEM	115,436,145	14	5	6,463,985
2008	BE	Unspecified	ITEM	13,333,269	11	4	22,325
			TAX	58,493	6	3	
	BR	SP	ITEM	870,357	2	3	1,061
	FR	Unspecified	ITEM	41,952,960	10	9	56,607
			TAX	136,779	4	7	
	GB	Unspecified	ITEM	22,465,922	14	15	43,092
			TAX	63,570	8	3	
	IT	Unspecified	ITEM	16,737,493	11	4	25,791
			TAX	47,759	6	4	
	NL	Unspecified	ITEM	33,260,624	10	1	50,108
			TAX	76,018	7	1	
		AZ	ITEM	33,430	1	1	3,643
			ITEM	60,694,355	40	8	3,106,348
			ITEM	25,200,385	10	2	1,485,750

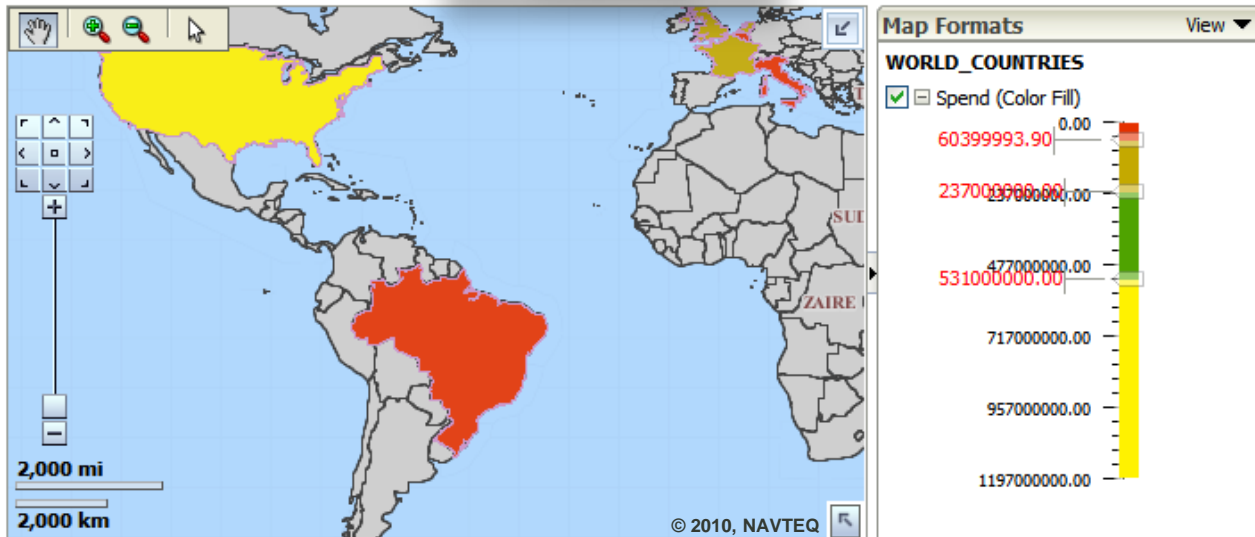
Year
Plant Location Country
Plant Location State
Spending Type
Spend
Suppliers
Buyers
Invoiced Quantity

Converted to Map and Dashboard

Spend
Country

Buyers
Year

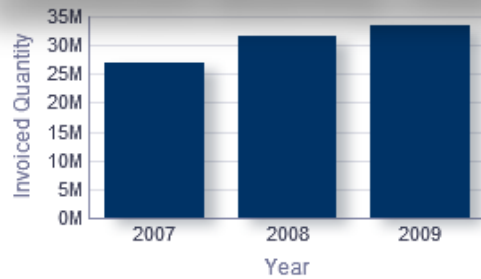
Interactive Visualizations



of Buyers



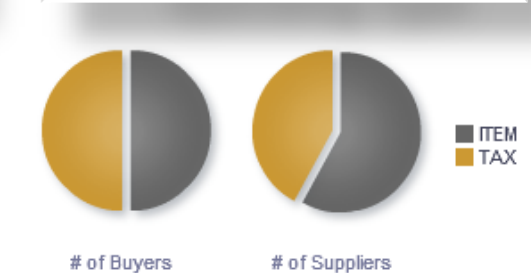
Invoiced Quantity **Year**



Buyers, Suppliers **Year**



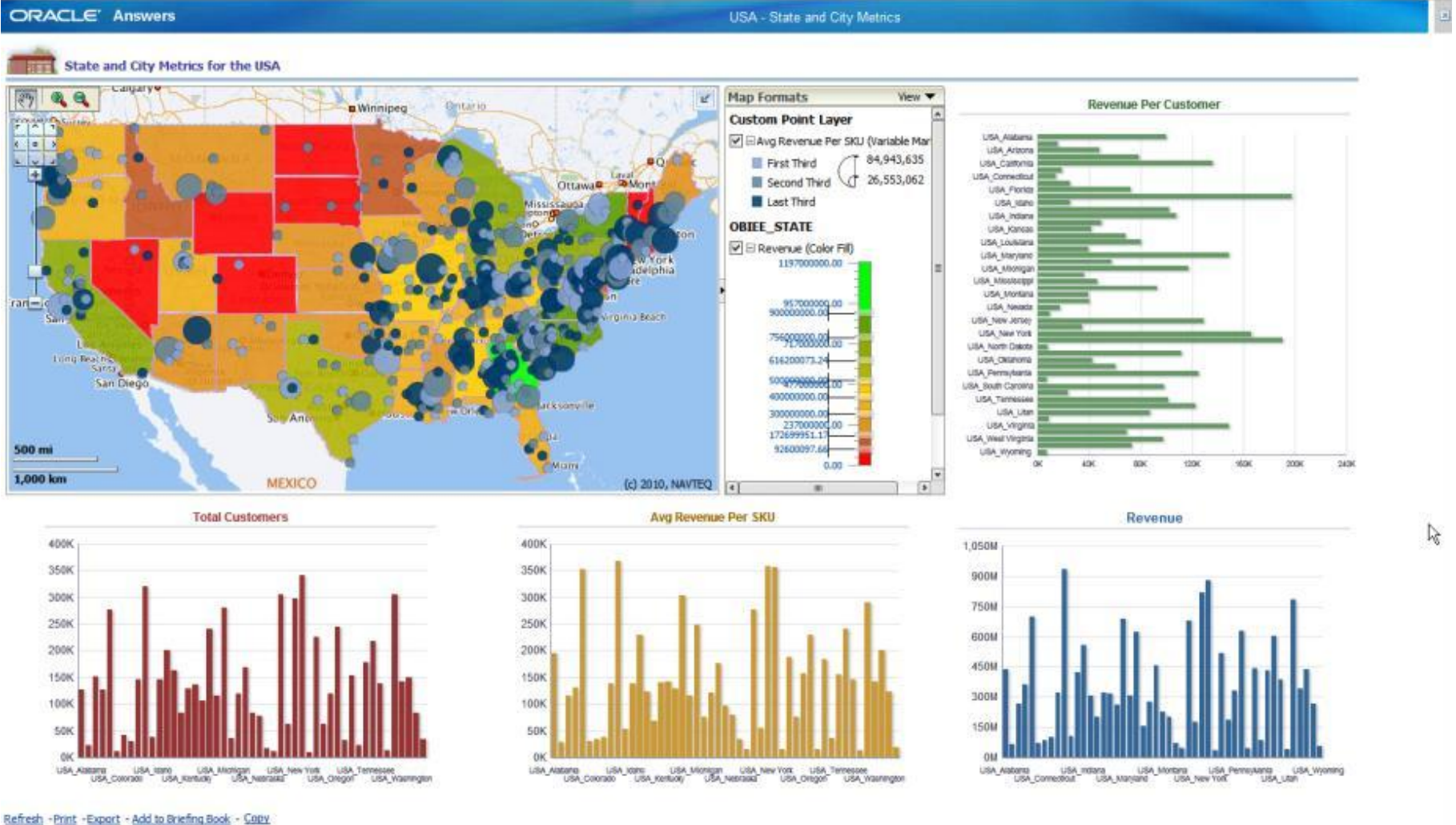
Buyers, Suppliers
Spending Type



ORACLE

Why Spatial Map Visualizations?

The Original High-Density Visualization



Master-Detail linking:

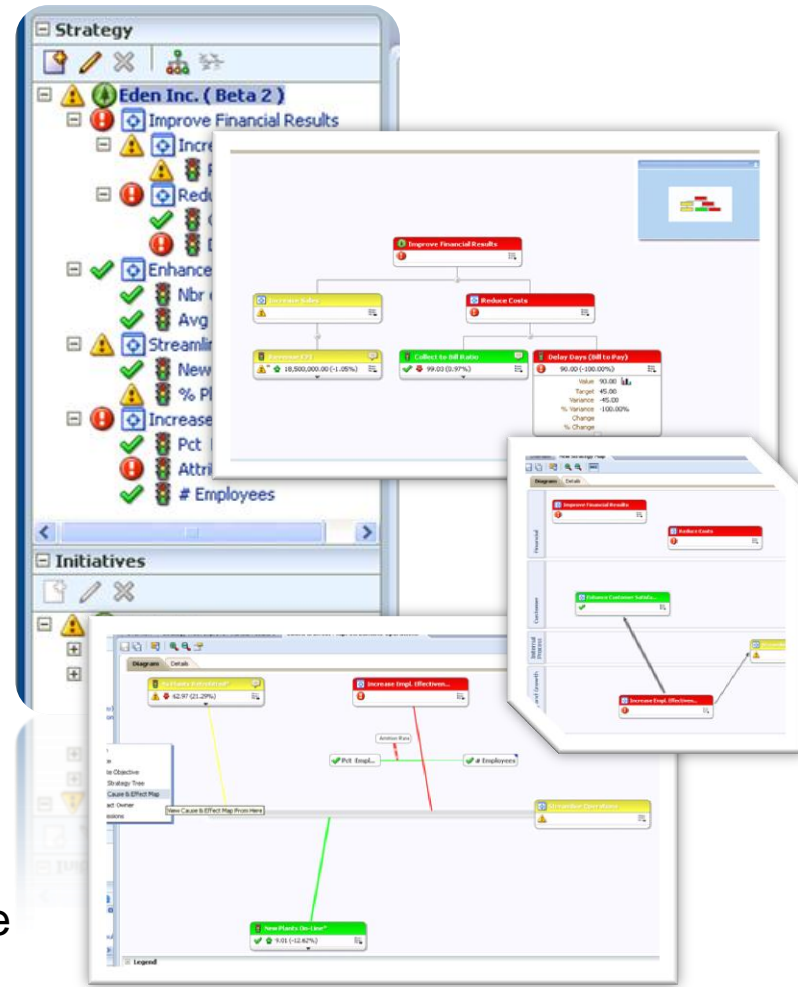
Country on the map, State details in charts.



Oracle Scorecard and Strategy Management

Strategy Management & Goal Setting

- Integrated BI component
 - KPIs as core metadata
 - Thresholds, owners, history
 - Auto-generated interactive analyses
 - Linked objectives & initiatives
- Automatic detection
 - KPI alerts triggered by thresholds
- Strategy visualization
 - Strategy Maps and Trees
 - Cause and Effects
 - Watchlists
 - Annotations & override
- All methodologies
 - Balanced scorecard, six sigma, Baldrige



NEW VISUALIZATIONS IN OBIEE 11g



New Ad-hoc, Dashboards and BI Publisher Features

New Features

- Unified Framework
- Column Type Changes
 - Hierarchical Columns
 - Selection steps
 - Groups
 - Calculated Items
- Unified Prompting
- New Graph Features
- Maps
- BI Publisher Integration and Web Editor



New Home Page

ORACLE Business Intelligence Search [Advanced](#) [Administration](#) [Help](#) [Sign Out](#)

Home [Home](#) [Catalog](#) [Dashboards](#) [New](#) [Open](#) Signed In As **Michelle Arty**

Create...

- Analysis and Interactive Reporting**
[Analysis](#) | [Dashboard](#) | [More](#)
- Published Reporting**
[Report](#) | [Report Job](#) | [More](#)
- Actionable Intelligence**
[Agent](#) | [Action](#)
- Performance Management**
[Scorecard](#) | [KPI](#) | [KPI Watchlist](#)
- Marketing**
[Segment](#) | [Segment Tree](#) | [List Format](#)

Browse/Manage...

- [All Content](#)
- [My Analyses](#)
- [My Reports](#)
- [My Scorecards](#)
- [My Agent Subscriptions](#)
- [My Agents](#)
- [Marketing Jobs](#)
- [Report Jobs](#)
- [Report Job History](#)

Get Started...

- [Introduction to Oracle BI](#)
- [Oracle BI EE Documentation](#)
- [Download BI Desktop Tools](#)
- [Help Contents](#)

Recent

Dashboards

Dashboards Prompts - CheckB... Open Edit More	Dashboards Prompts - Chart Z... Open Edit More	Dashboards Prompts - Chart Sl... Open Edit More
Dashboards Prompts - Chart L... Open Edit More	Dashboards Prompts - Calculat... Open Edit More	Dashboards Prompts - page 1 Open Edit More

Others

Big Selling Products Open Edit More	Index To Avg Open Edit More
---	---

Most Popular

No recommendations are currently available. Most Popular items will be displayed here when results become available.



OBIEE 11g Changes in Ad-hoc

- Improved support for OLAP-style reporting
 - Hierarchical columns
 - Support for ragged and skip-level hierarchies
 - Dynamic re-arrangement of pivot tables in the dashboard
- Dynamic grouping and custom aggregates
- New Prompts
- New dashboard controls
- New gauge types and graphics

The screenshot displays the Oracle Business Intelligence (OBIEE) 11g interface. The main window is titled "Product Time Revenue w/Prompt" and shows a dashboard with a "Compound Layout". The layout includes a "Pivot Table" and a "Static Text" block.

Subject Areas:

- A - Sample Sales
 - Time
 - Products
 - Product Ragged Skipped L
 - More Product Objects
 - P1 Product
 - P2 Product Type
 - P3 LOB
 - P4 Brand
 - Products Hierarchy
 - Total Products
 - BizTech
 - FunPod
 - HomeView
 - Offices
 - Sales Person

Catalog:

- Shared Folders
 - 1. Overview
 - 2. Functional Examples
 - 3. Analysis and Dashboards
 - 4. Actionable Intelligence

Compound Layout:

Title: Product Time Revenue w/Prompt
Time run: 2/24/2011 3:54:59 PM

Pivot Table:

Products Hierarchy	Total Time Revenue
BizTech	21,000,000
Communication	10,885,416
Electronics	10,114,584
Accessories	2,698,715
Audio	7,415,869
SoundX Nano 4Gb	2,476,985
MicroPod 60Gb	4,938,884
FunPod	17,500,000

Static Text:
Keep Only the Selected Members <determined via Prompt Selections>. Default Values are BizTech and FunPod.

[Add to Briefing Book](#)



Hierarchical Columns

- Now supports expanding and compressing hierarchy in same column
- Just like other OLAP tools like Discoverer
- Supports ragged and skip level hierarchies
- Integrated with new grouping and custom aggregate capabilities
- Works with ANY datasource (OLAP, Relational, XML)

	Revenue
	⊕ Total Time
⊖ Total Products	50,000,000
⊖ BizTech	21,000,000
⊕ Communication	10,885,416
⊕ Electronics	10,114,584
⊖ FunPod	17,500,000
⊕ Digital	7,735,105
⊕ Games	9,764,895
⊖ HomeView	11,500,000
⊕ Services	1,005,845
⊕ TV	10,494,155
⊖ Hot Products	18,822,801
⊕ Cell Phones	5,917,903
⊖ Camera	7,735,105
MPEG4 Camcorder	3,995,040
7 Megapixel Digital Camera	3,740,065
⊕ Plasma	5,169,794



Groups

- Hierarchies can be used to build custom aggregates
- Hierarchy is preserved within group so drill down is supported

New Group

Display Label: Media

Values From: Products.Products Hierarchy

Available:

- Products.Products Hierarchy
 - Total Products
 - BizTech
 - FunPod
 - Digital
 - Games
 - HomeView
 - Services
 - TV

Selected:

- LCD
- Plasma
- Digital

Buttons: Move, Move All, Remove, Remove All, Format, Help, OK, Cancel

Compound Layout

Title:

Pivot Table:

	Total Time	2009	2010
Products Hierarchy			
Total Products	50,000,000	15,000,000	18,500,000
BizTech	21,000,000	6,302,087	7,707,172
FunPod	17,500,000	5,160,340	6,616,473
Digital	7,735,105	2,227,309	2,921,019
Games	9,764,895	2,933,031	3,695,454
HomeView	11,500,000	3,537,573	4,176,355
Services	1,005,845	330,837	376,561
TV	10,494,155	3,206,735	3,799,795
Media	18,229,260	5,434,044	6,720,814
Digital	7,735,105	2,227,309	2,921,019
LCD	5,324,361	1,638,358	1,881,936
LCD 36X Standard	3,993,962	1,264,918	1,373,781
LCD HD Television	1,330,399	373,440	508,155
Plasma	5,169,794	1,568,377	1,917,859



New Dashboard Prompts and Visualizations

- Available Prompts has been expanded
- Check List, radio buttons, list box, slider etc
- Step Based Prompt builder
- Master Detail links



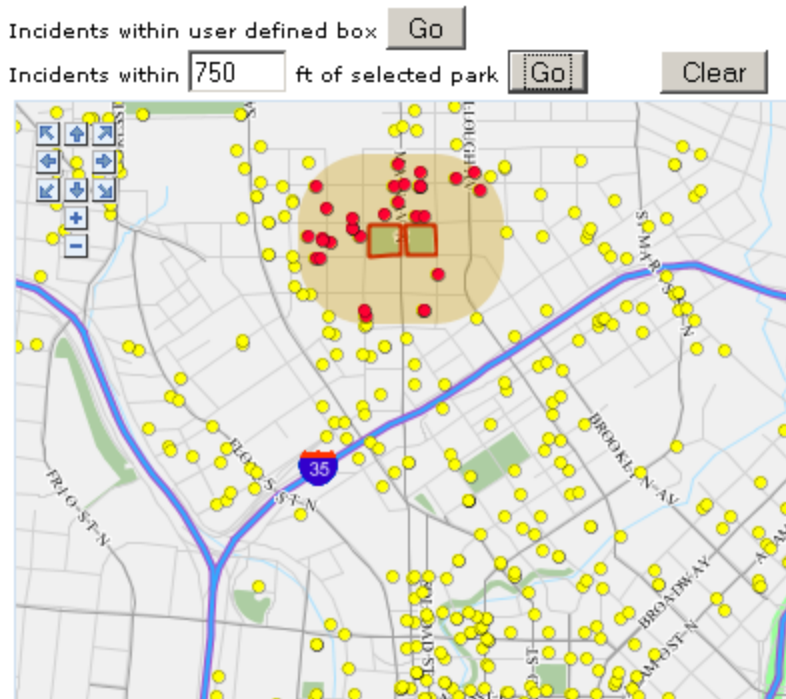


MapViewer Integration

- Map is a new View Type!
- Integrates with spatial encoded and non-spatial encoded datasets
- Comes with NAVTEQ maps (State, County, Global)



Some Analysis Is Possible Only with Spatial Analytics



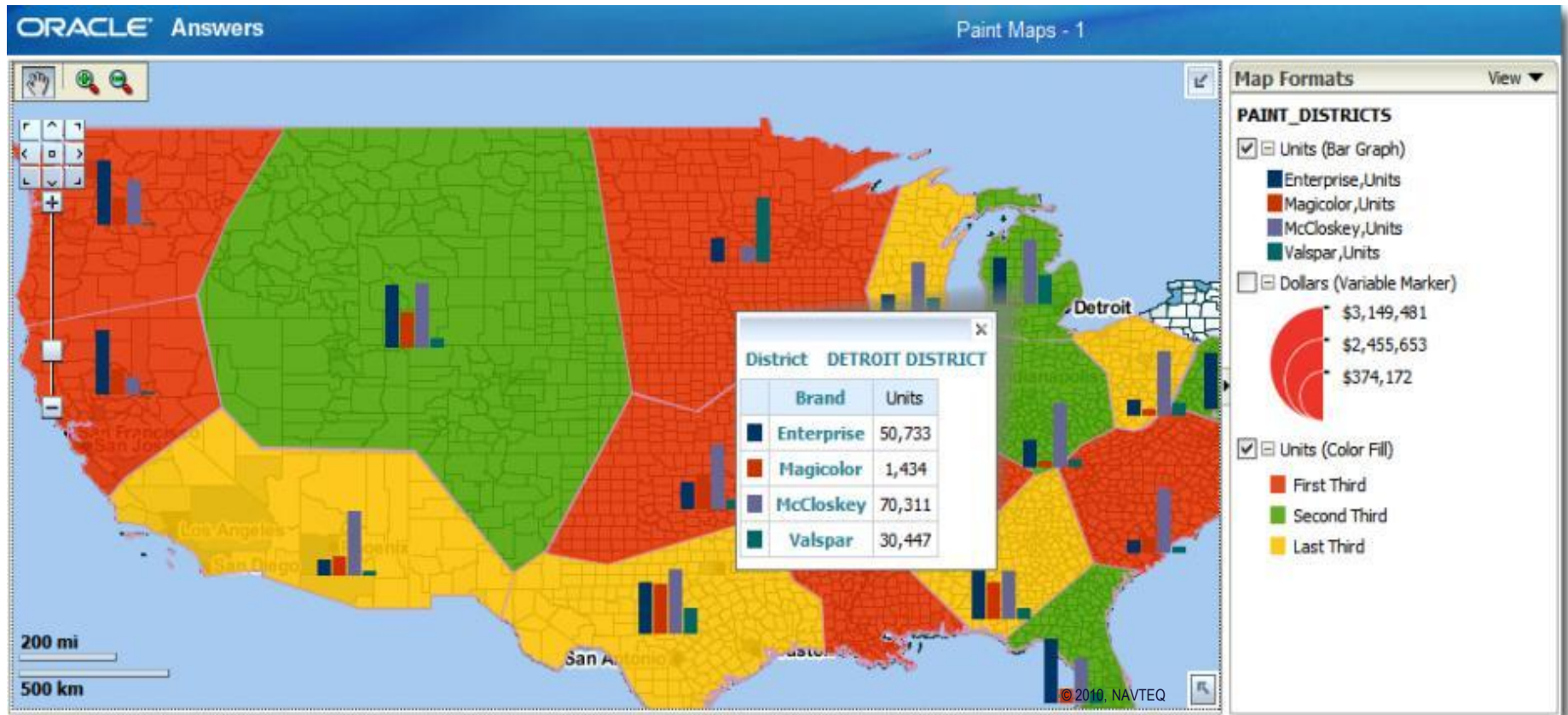
Show incidents within 750 ft
of selected park

Complaint Detail

Offense Desc	PD Desc	Date Key	Complaint Key	Service Area	Region
CRIMINAL MISCHIEF & RELATED OF	MISCHIEF, CRIMINAL 4, OF MOTOR	18-Feb-03	1026	28	Central
DANGEROUS DRUGS	CONTROLLED SUBSTANCE, POSSESSI	10-Nov-02	30099	28	Central
		10-Mar-03	40099	28	Central
HARRASSMENT 2	HARASSMENT,SUBD 1,CIVILIAN	02-Aug-03	1064	32	Central
	HARASSMENT,SUBD 3,4,5	04-Mar-03	1027	28	Central
		04-May-03	31027	28	Central
		04-Sep-03	41027	28	Central
		19-Sep-03	41028	28	Central
ROBBERY	ROBBERY,UNCLASSIFIED,OPEN AREA	09-Jan-04	41032	28	Central

Why Spatial Map Visualizations?

Custom Territories





When Are Map Views Useful

- Visualizing data related to geographic locations.
- Showing or detecting spatial relationships and patterns.
- Showing lots of data in a relatively small area.
- Drilling down from a (map) overview to a detailed report, chart, or graph.
- When location is important? Can the dimension be plotted on a map?






Map View Tips

- Think about what scale to use. Different map scales will reveal different patterns and insights.
- Use Variable marker to display two measures on a map at a point – size and color.
- Avoid overlapping shapes too much.
- Be aware of spatial distortions E.g. Texas is larger than Connecticut.
- Look at color palette. www.colorbrewer2.org

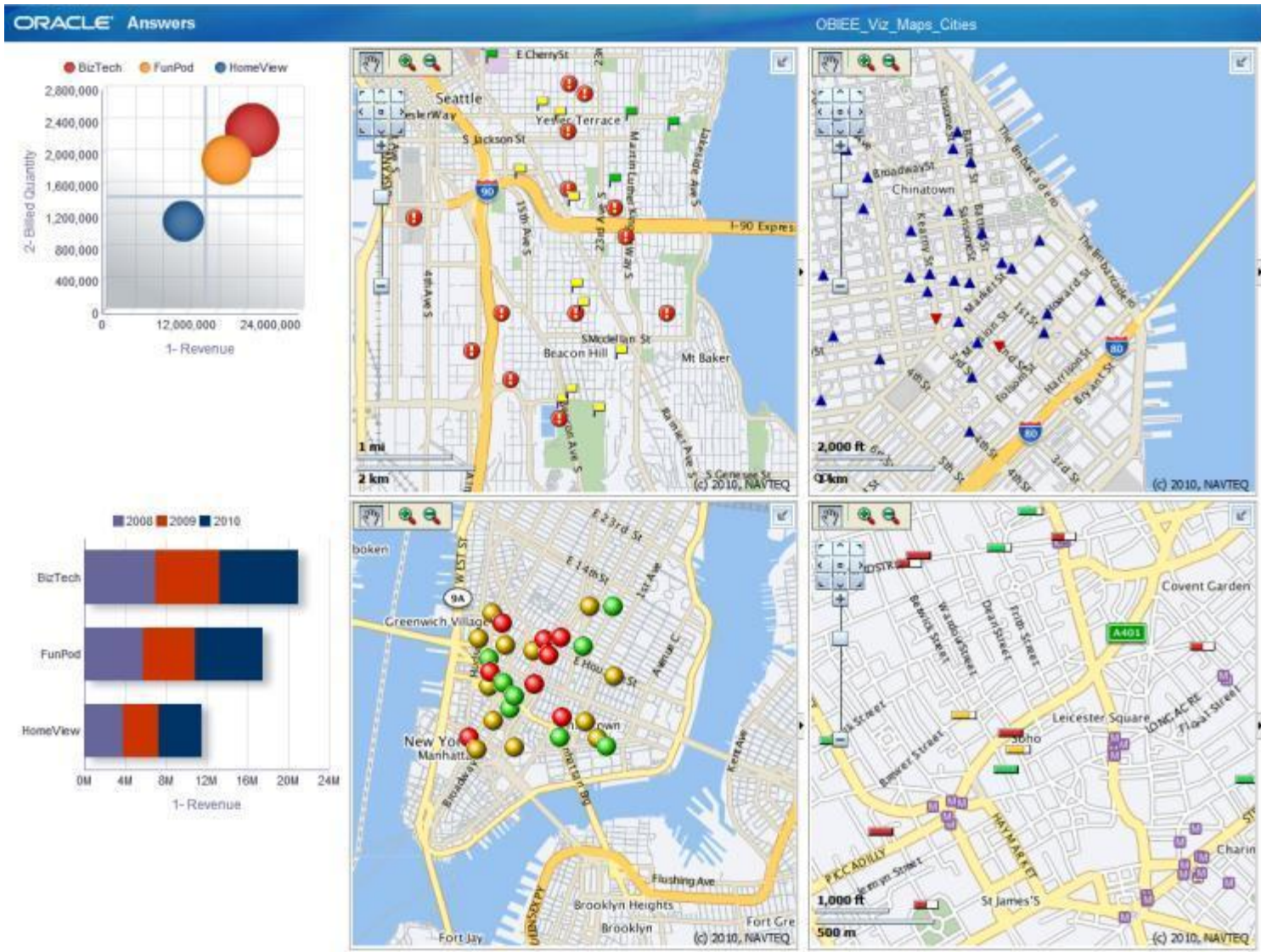


Using Color Effectively

- Consciously choose a color palette.
- ColorBrewer2.org
 - Sequential schemes 
 - Designed for ordered data that progresses from low to high.
 - Divergent schemes 
 - Place equal emphasis on mid-range values and extremes at both ends of the data range.
 - Qualitative schemes 
 - Used for nominal and categorical data where magnitude differences between classes should not be emphasized.



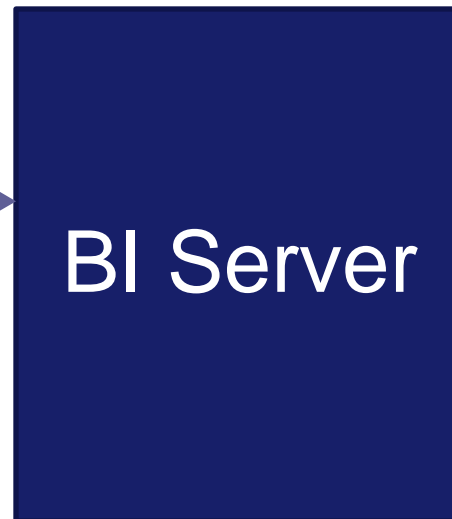
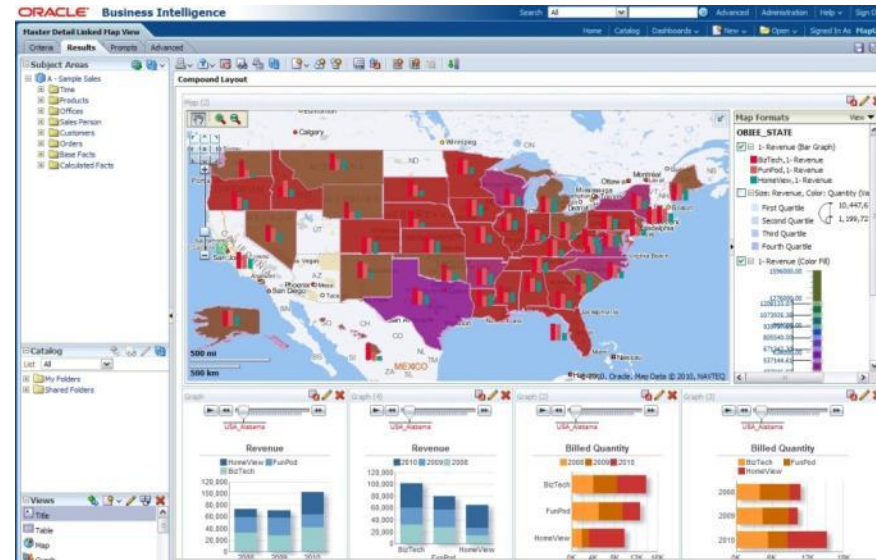
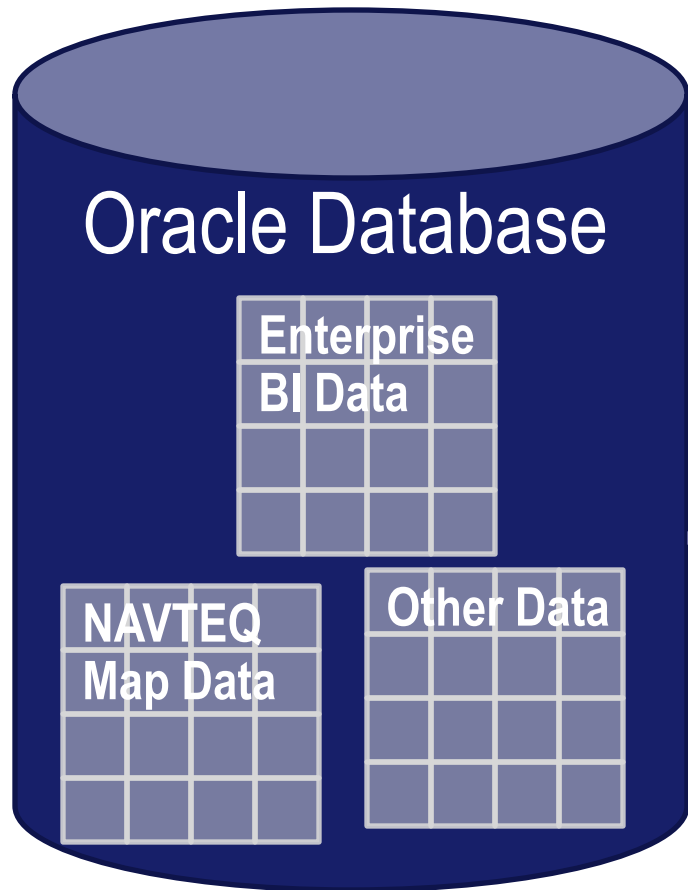
Depict and Detect Spatial Relationships





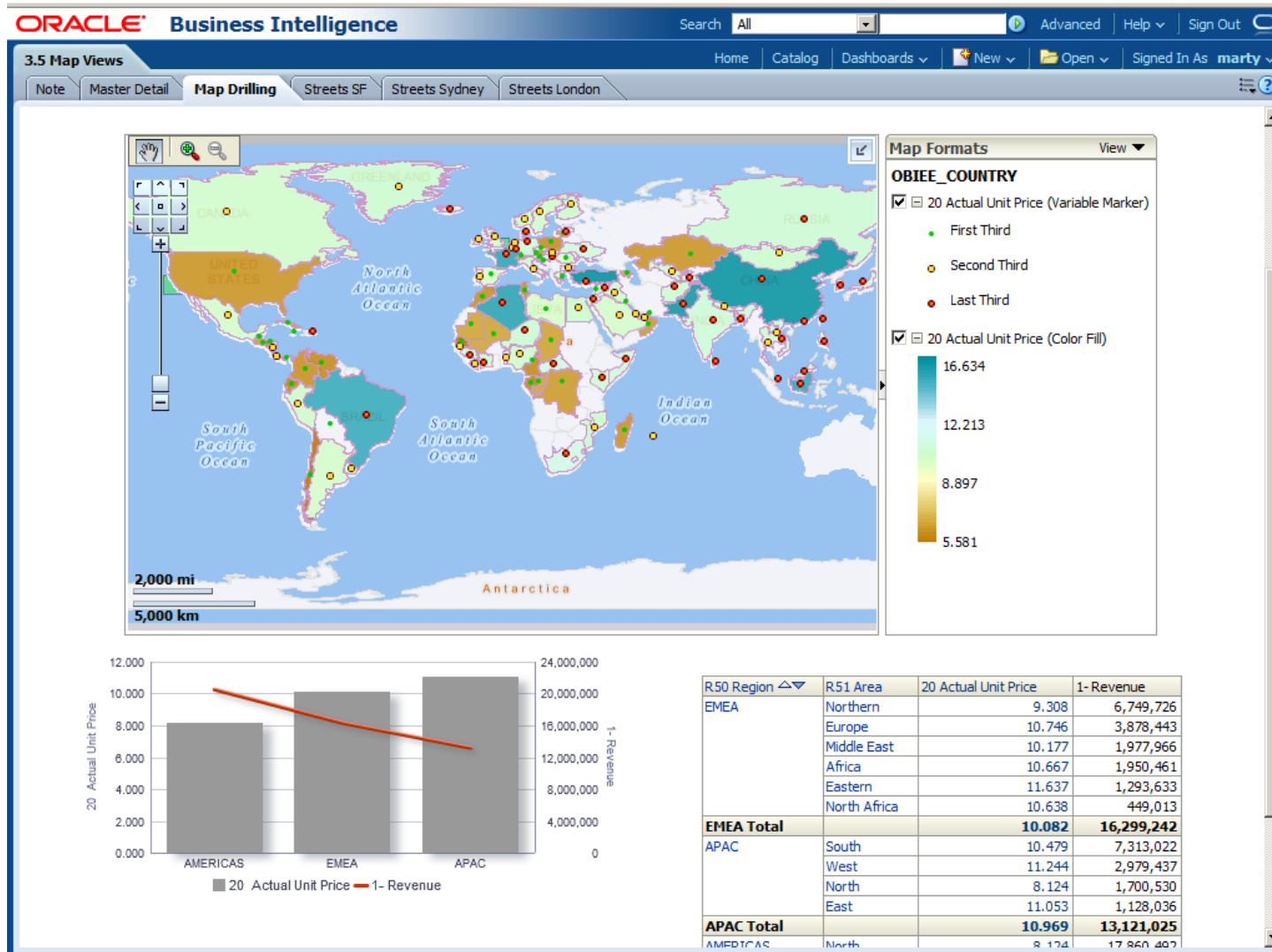
Secure, Resident Data

- With this solution, all NAVTEQ and BI Data is safely housed inside your Oracle Database





Demo of Oracle BI 11g Maps





Creating New Map

ORACLE® Report Center Search [Advanced](#) | [Administration](#)

Untitled [Home](#) | [Catalog](#) | [Dashboards](#) | [New](#) | [Open](#)

Criteria **Results** Prompts Advanced

Compound Layout

Map

2,000 mi
5,000 km
© 2010, NAVTEQ

Map Formats View

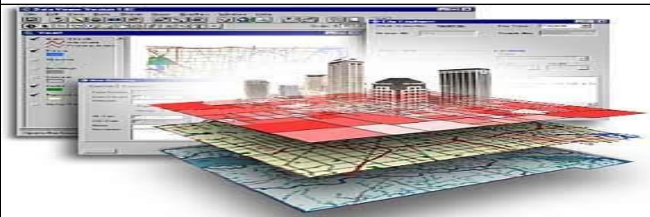
OBIEE_COUNTRY

☒ 1- Revenue (Color Fill)

First Quartile
Second Quartile
Third Quartile
Fourth Quartile

ORACLE®

SPATIAL

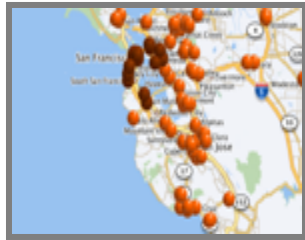


ORACLE®

Jim Steiner

Vice President, Product Management
Server Technologies

Natively Manage All Geospatial Data



“Points”



“Lines”



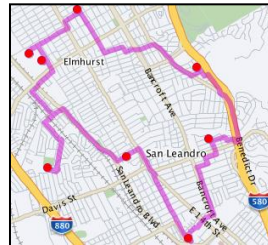
“Polygons”

Web Services
(OGC)

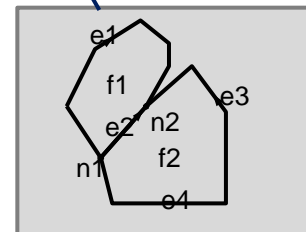
Geocoding
Routing



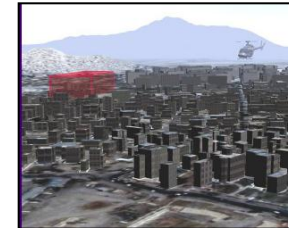
Rasters



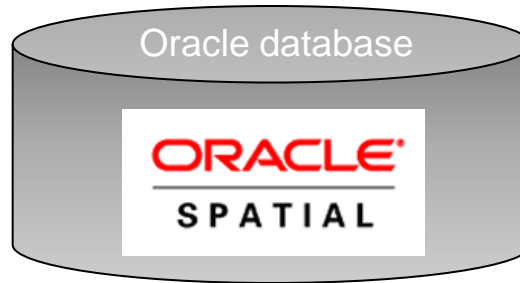
Networks



Topologies



3D



Hardware and Software

ORACLE®

Engineered to Work Together



Solutions

Location

NAVTEQ Map Data and Business Intelligence
“All Things Maps and Location Content”

Steve Lytle, Senior Account
Executive, NAVTEQ

A Global Presence



214 Offices in 49 countries – Local ownership and accountability

NAVTEQ® Maps are Everywhere

NAVTEQ is the leading provider of the digital map, traffic and location data that powers many of the world's most innovative navigation applications

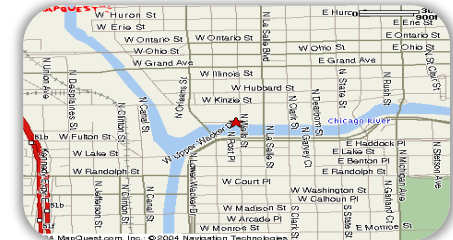
In-Dash



Telematics



Internet



Mobile



Cell Phones



Trip Planning



Fleet



Enterprise



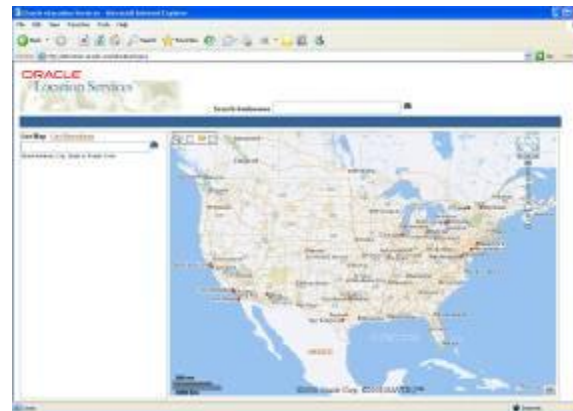
Government



NAVTEQ ODF – A Global Footprint

Oracle Delivery Format (ODF)

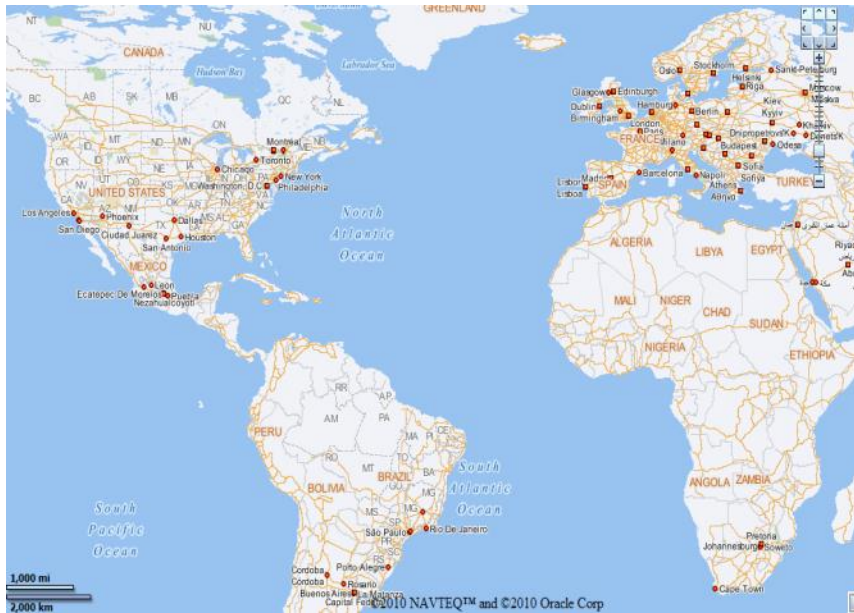
- ▶ Delivered “**out of the box**” using Oracle Transportable Tablespaces
 - ▶ All tables and indexes are pre-built
 - ▶ Simple file copy and metadata import
 - ▶ Over 100GB* installed and usable in less than 10 minutes
 - ▶ Allows IT, system integrators, and developers to quickly and easily deploy the data that drives powerful mapping, geocoding, routing, and location analysis services used in Oracle Enterprise Solutions



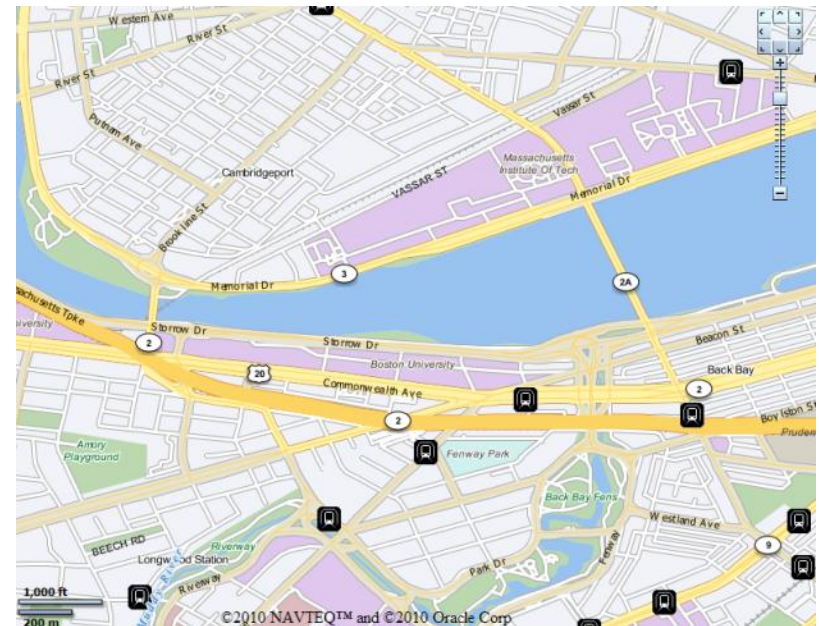
* Typical size for North American or European premium content

NAVTEQ Content Delivery

High Level boundary data bundled with OBI 11g, along with other sample data



Detailed content available from NAVTEQ and its authorized resellers, e.g. Vlamis



Get exclusive BI-nefits by registering using BIWA2011 for BIWA Summit at Collaborate 2011

- **1200+ Education Sessions, Bootcamps & Hands-on labs**
- **Sample Sessions**
 - **New Features of OBIEE 11g - Using in the Real World**, Chris Claterbos, Vlamis Software Solutions Inc.
 - **RPD Modeling Basics**, Abhinav Banerjee, IBM
 - **KPIs and Scorecards using OBIEE 11g**, Mark Rittman, Rittman Mead Consulting
 - **Enhancing Your Data Warehouse Data Completeness Using APEX**, John Heaton, iSeerix
 - **BI and EPM Panel: The Foundation for Success**, Shyam Nath, BIWA SIG
 - **Oracle 11gR2, Your First Day with Security**, Gary Gordhamer, Trianz Inc
- **IOUG's exclusive session — Iron Application Throw-down**, where teams create recipes for a rapid application-design using their vast IT kitchen experience.
- **Plug-in to Orlando** virtual conference license for only \$299 to connect your colleagues at home to the classrooms in Orlando.
- **COLLABORATE 11 Party — Universal's Islands of Adventure®**



Register at **collaborate11.ioug.org** via priority code **BIWA2011** (step four of the registration process) by **March 10** to save \$400 off the onsite rate!