

# OBIEE12c New Features for End-Users, Developers and Sys Admins

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Mark Rittman, CTO, Rittman Mead  
OTN EMEA Tour, May 2016



**OTN EMEA**  
tour 2016

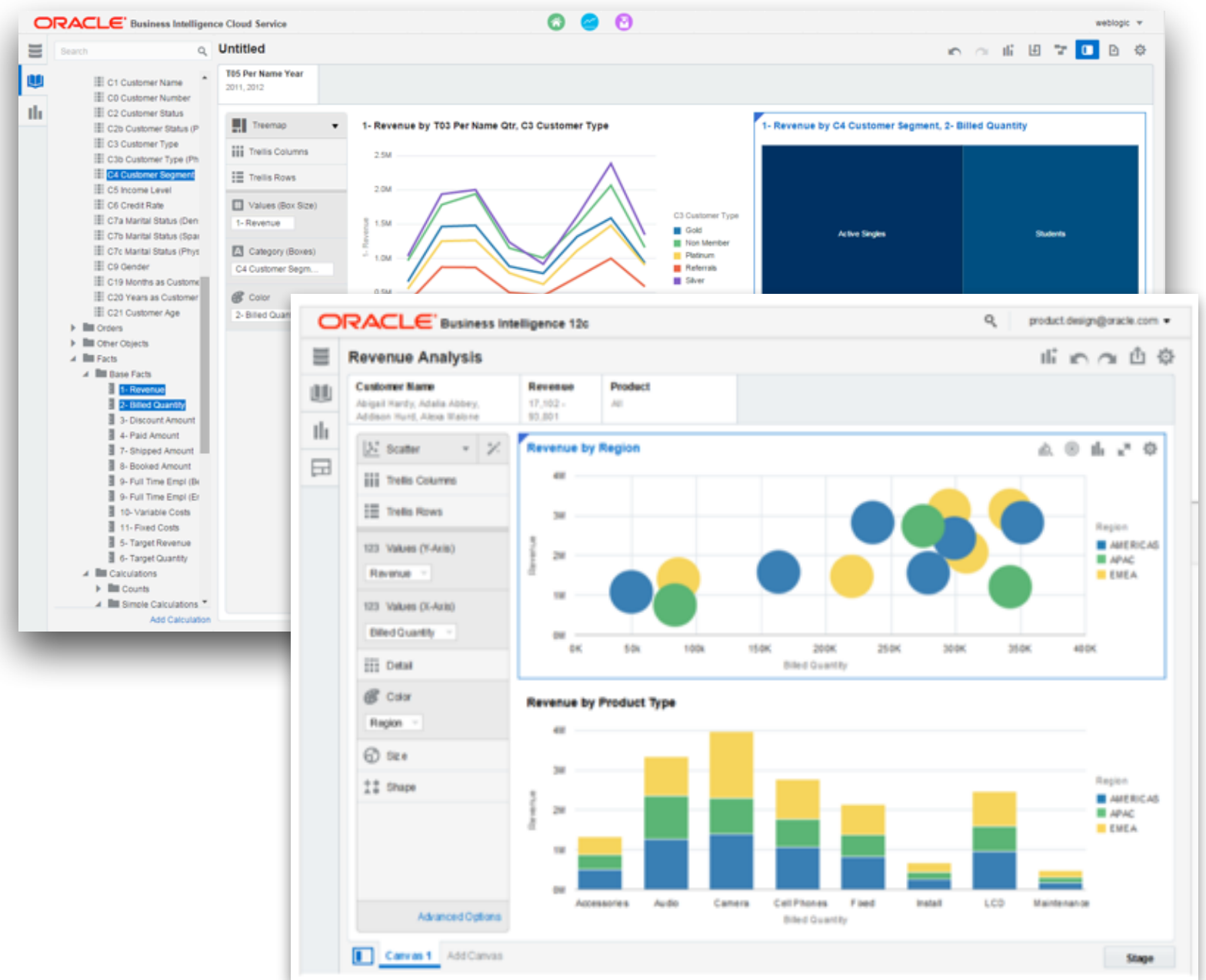
# About the Speaker

- Mark Rittman, Co-Founder of Rittman Mead
  - ▶ Oracle ACE Director, specialising in Oracle BI&DW
  - ▶ 14 Years Experience with Oracle Technology
  - ▶ Regular columnist for Oracle Magazine
- Author of two Oracle Press Oracle BI books
  - ▶ Oracle Business Intelligence Developers Guide
  - ▶ Oracle Exalytics Revealed
  - ▶ Writer for Rittman Mead Blog : <http://www.rittmanmead.com/blog>
- Email : [mark.rittman@rittmanmead.com](mailto:mark.rittman@rittmanmead.com)
- Twitter : @markrittman



# OBIEE 12c 12.2.1 : Available for Download on OTN

- The first release of OBIEE 12c, Oracle's enterprise BI platform
- Available on all major OS platforms (64-bit only)
- New features include:
  - ▶ Visual Analyzer & Data Mashups (DV Option)
  - ▶ UI refresh and overhaul
  - ▶ New big data and advanced analytics capabilities
  - ▶ Radically-Simplified test-to-production & cloning inspired by Cloud
  - ▶ Future platform for innovation around hybrid & private cloud deployments



# Oracle BI Enterprise Edition : Enterprise BI since 2006

**The Siebel Business Analytics Platform**

Tailored and Personalized Insight Provided through a Full Range of Information Access, Analysis, and Delivery Options. One Fully Integrated Framework.

- Intelligence Dashboards
- Ad Hoc
- Proactive Detection and Alerts
- In-Context Operational Insight
- Mobile Analytics
- Data Mining
- Marketing Segmentation
- Web Services
  - Java
  - .NET
- Third-Party Integration
  - Microsoft Office and Others

**Enterprise Data Access and Calculation**

- Single, logical view of all enterprise data (one version of the truth)
- Scalable performance
- Rich analytical capabilities
- Centralized control, security, and visibility

**NQuire Server**  
**Siebel Business Analytics**

All relevant enterprise data sources: Siebel OLTP, Siebel BAW, Relational

**Pipeline**

01 . 01 - Prospecting  
02 . 02 - Qualification  
03 . 03 - Qualification  
04 . 04 - Opportunity  
05 . 05 - Building Vision  
06 . 06 - Short List  
07 . 07 - Selected  
08 . 08 - Negotiation  
09 . 09 - Closed/Won

15, 11.4, 5.1, 87.2, 137.1, 69, 44.5, 40

Less than 30%    Between 30% and 70%    More than 70%

Forecast and Actual versus Quota

Forecast Summary Revenue (000)  
Quota Target Revenue (000)  
Cumulative Order Revenue (000)

Pipeline by Week versus Last Quarter

Order Revenue versus Last Quarter

Oracle BI Interactive Dashboards - Microsoft Internet Explorer

Address: http://winopair:9704/analytics/saw.dll?Dashboard\_sod=dYELcW3UY

**ORACLE Interactive Dashboards** My Dashboard 00 Overview 01 Ranks & Toppers 02 History & Benchmarking 03 Tiers & Distribution

01 Ranks & Toppers

11 Multi Dim TopNs 12 M

**OBIEE 10g**  
**Oracle BI Apps 7.9.x**

Multi-Dims Top Ns

1 - Top N for Dimension 1

Rk	Product	Top Rev	Idx
Rk 1	Product 04	596,151	
Rk 2	Product 02	532,731	
Rk 3	Product 03	519,423	
Rk 4	Product 15	491,732	
Rk 5	Product 08	439,425	
Rk 6	Product 10	411,896	
Rk 7	Product 06	392,034	

2 - Top N for Dimension 2

Rk	Market	Top Rev	Idx
Rk 1	Market 5	1,477,192	
Rk 2	Market 4	950,798	
Rk 3	Market 6	869,403	
Rk 4	Market 7	715,492	
Rk 5	Market 3	644,504	
Rk 6	Market 8	543,715	
Rk 7	Market 9	338,124	

Local intranet

2.1 Simple Demo Dashboard

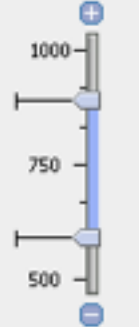
**Brand Analysis** | Product Details | Usage | Maps

\* Year

- 2008
- 2009
- 2010
- 2011

\* Credit Rate

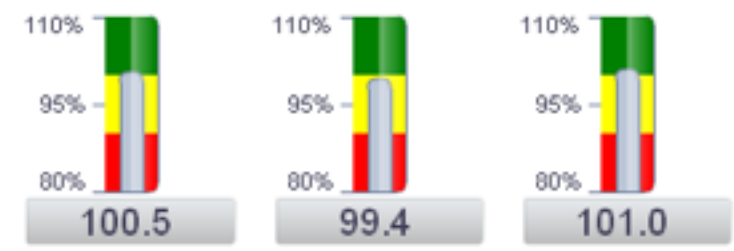
Between



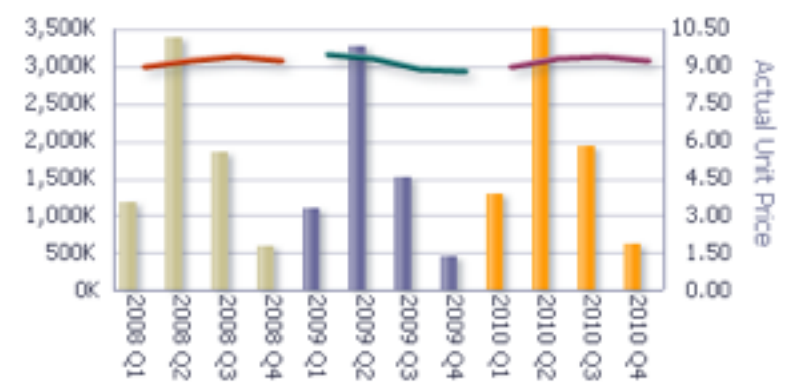
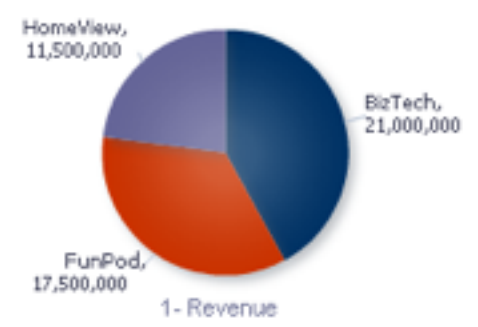
Sales Rep Hierarchy



T05 Per Name Year is equal to 2008, 2010, 2009, 2011 and C6 Credit Rate is between 600 and 900



P4 Brand	1- Revenue	5- Target Revenue	Completion %
BizTech	21,000,000	20,893,500	100.5%
FunPod	17,500,000	17,606,000	99.4%
HomeView	11,500,000	11,384,000	101.0%
<b>Grand Total</b>	<b>50,000,000</b>	<b>49,883,500</b>	<b>100.3%</b>



P4 Brand

1- Revenue

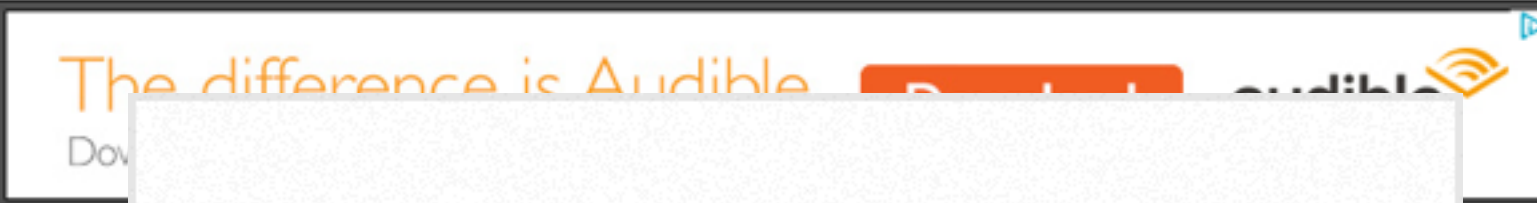
	2008	2009	2010	Grand Total
Offices Total	6,990,741	6,302,087	7,707,172	21,000,000

20 Actual Unit Price

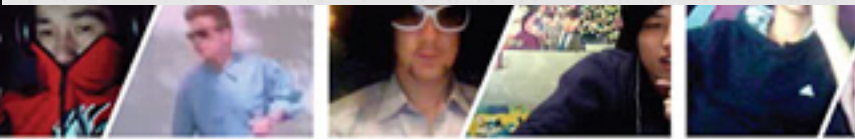
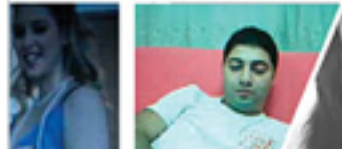
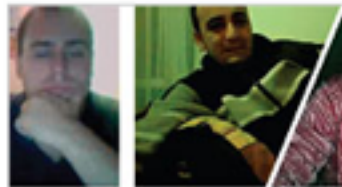
	2008	2009	2010	Grand Total
Offices Total	9.24	9.20	9.27	9.24

2010





The Hum  
Is ChatRoulette the fut  
By Sam Anderson Published F



**MOST POPULAR STORIES**

Most Viewed Most Emailed

LAST 24 HOURS

- 1. America Has Never Been So Ripe for Tyranny



An isometric illustration of a digital workspace. It features several server racks on the left, a central desktop computer with a monitor displaying a gear icon and a keyboard, a laptop on the right showing a line graph, and various data-related icons like folders, databases, and a cloud. The background is a dark blue gradient with white lines connecting the elements.

**but it wasn't all bad**

# TOGAF™ 9 Foundation Study Guide

Preparation for the TOGAF 9 Part 1 Examination

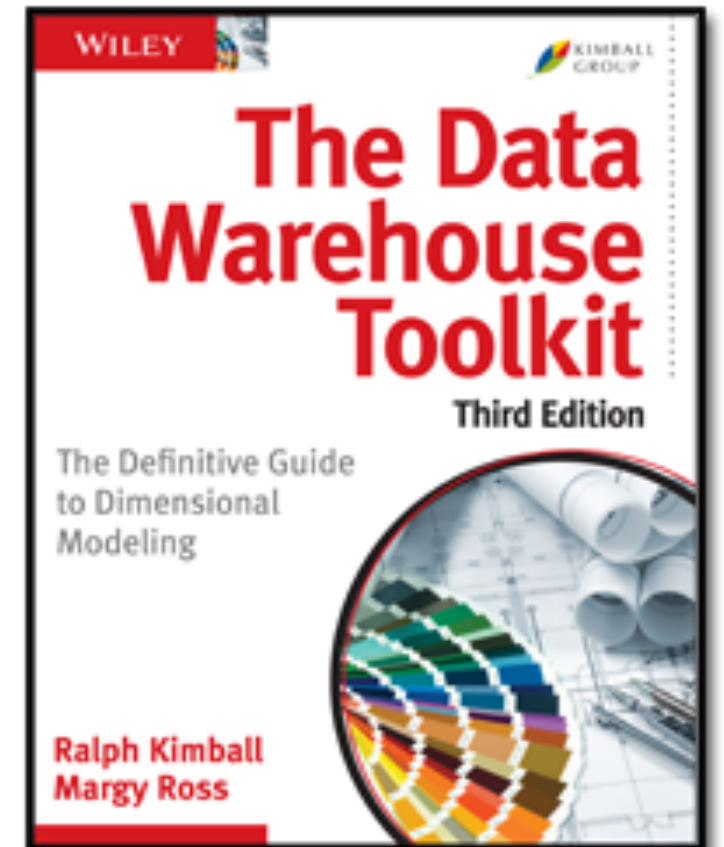


Rachel Harrison

THE *Open* GROUP  
www.opengroup.org



# git



The background features a complex isometric illustration of a digital ecosystem. On the left, several server racks are connected to a network of lines. In the center, a desktop computer with a gear icon on its screen sits on a desk with a keyboard. To the right, a laptop displays a line graph. Below these, there are icons for a smartphone, a folder, an envelope, and a gear. The entire scene is rendered in a monochromatic blue-grey color scheme with white highlights and shadows, creating a sense of depth and connectivity.

**but now it's 2016**

# AGILE

## Manifesto for Agile Software Dev.

- INDIVIDUALS AND INTERACTIONS OVER PROCESSES AND TOOLS
- WORKING SOFTWARE OVER COMPREHENSIVE DOCUMENTATION
- CUSTOMER COLLABORATION OVER CONTRACT NEGOTIATION
- RESPONDING TO CHANGE OVER FOLLOWING A PLAN

## Mode 2

<b>Goal</b>	Agility
<b>Value</b>	Revenue, brand, customer experience
<b>Approach</b>	Agile, kanban, low-ceremony IID
<b>Governance</b>	Empirical, continuous, process-based
<b>Sourcing</b>	Small, new vendors, short-term deals
<b>Talent</b>	Good at new and uncertain projects
<b>Culture</b>	Business-centric, close to customer
<b>Cycle Times</b>	Short (days, weeks)

Think Sprinter



Gartner



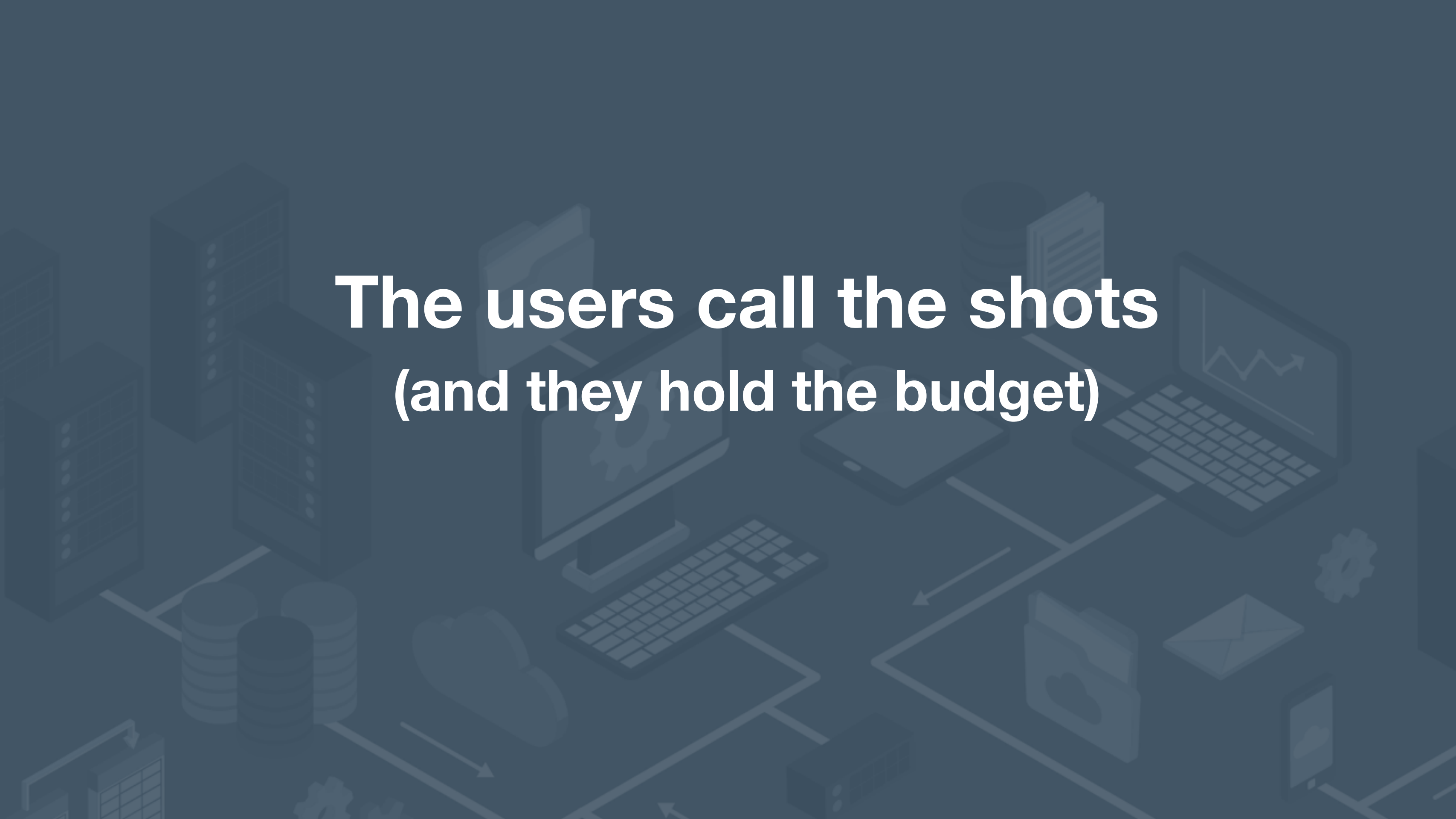
# The context for OBIEE12c:

# SHADOW IT

eWEEK

## DEFINED

**Shadow IT:** skilled users, not technically part of the IT staff, working behind the scenes and without any approvals or formal role to “expedite” issues for fellow workers.

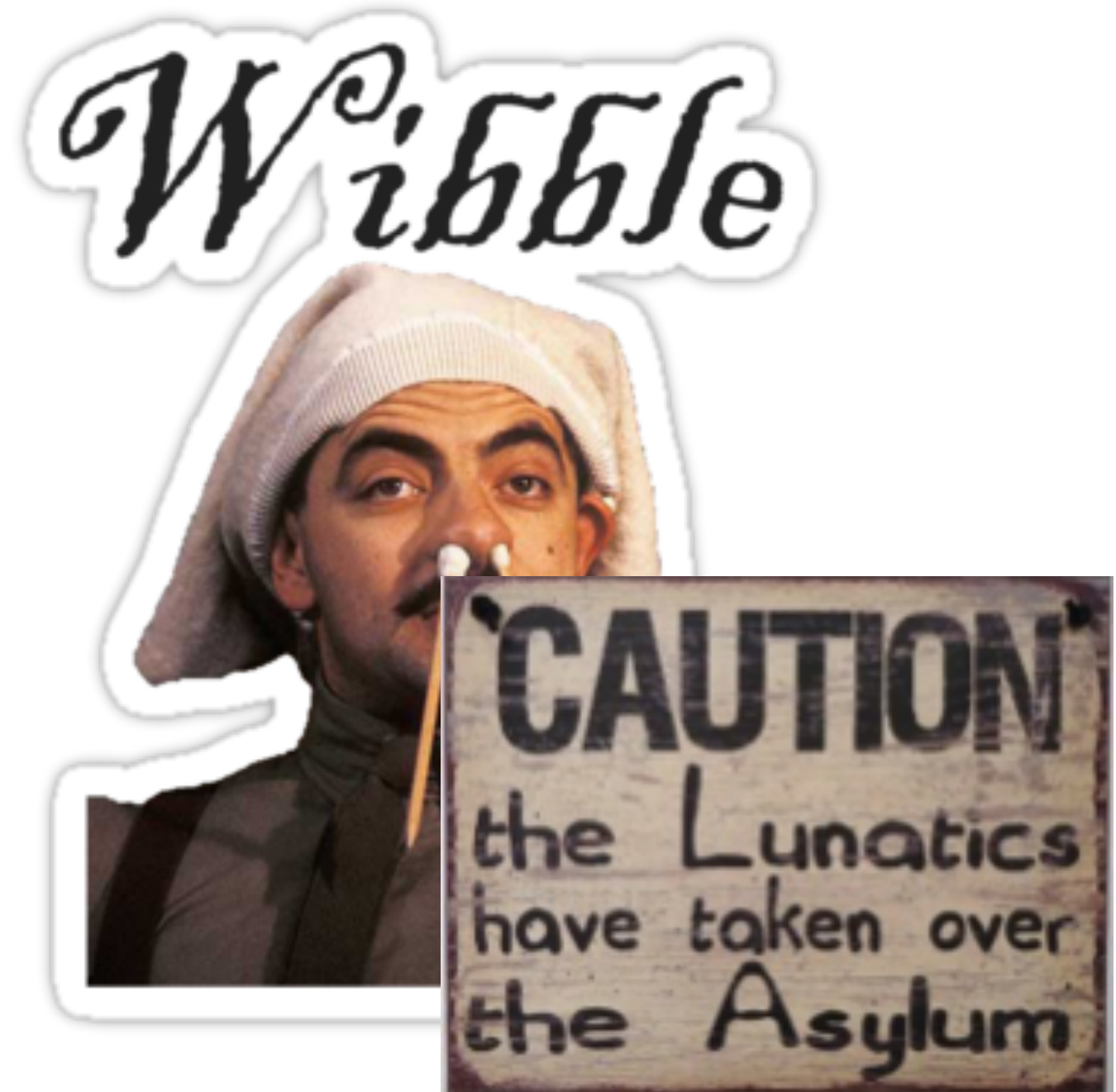
The background features a dark blue, isometric illustration of a digital workspace. It includes several server racks on the left, a central desktop computer with a monitor displaying a gear icon and a keyboard, a laptop on the right showing a line graph, and various icons like a cloud, a folder, and an envelope. Lines and arrows connect these elements, suggesting a network or data flow.

**The users call the shots  
(and they hold the budget)**



# The New Reality for BI Professionals and IT Staff

- Users want to take part in defining new data sources + semantic models, can't wait for IT
- If you want users to stop using Excel, let them add their own data to your reports
- IT should be an enabler for the business, not a barrier or gatekeeper for resources
- Analysis and discovery are the new “dashboards and reporting”
- If you can't provision a new BI environment today, they'll use a SaaS BI app instead
  - *Some might say ...*





**but in reality, it's a BI revolution**



**POWER**

**TO THE**

**END-USERS**





**OBIEE12c**

The background features a complex isometric illustration of a business intelligence ecosystem. It includes several server racks on the left, a central desktop monitor with a gear icon, a laptop on the right displaying a line chart, and various data storage elements like databases and folders. A network of lines and arrows connects these components, suggesting data flow and integration. The entire scene is rendered in a monochromatic blue-grey color scheme.

**Designed for the “Bi-Modal” BI World**



Enterprise Data

### Oracle Business Intelligence

**Information Delivery**

Mobile Consumption Dashboards    Interactive Dashboards    Published Reporting    Ad-hoc Reporting    Office Integration

### Oracle Data Visualization

**Visual Analyzer**

Visual Exploration    Keyword Queries    Mobile Authoring

### Common Enterprise Information Model

Connections	Dimensions	Categorization
	$\Sigma$	
Mappings	Calculations	Security
Physical	Logical	Presentation

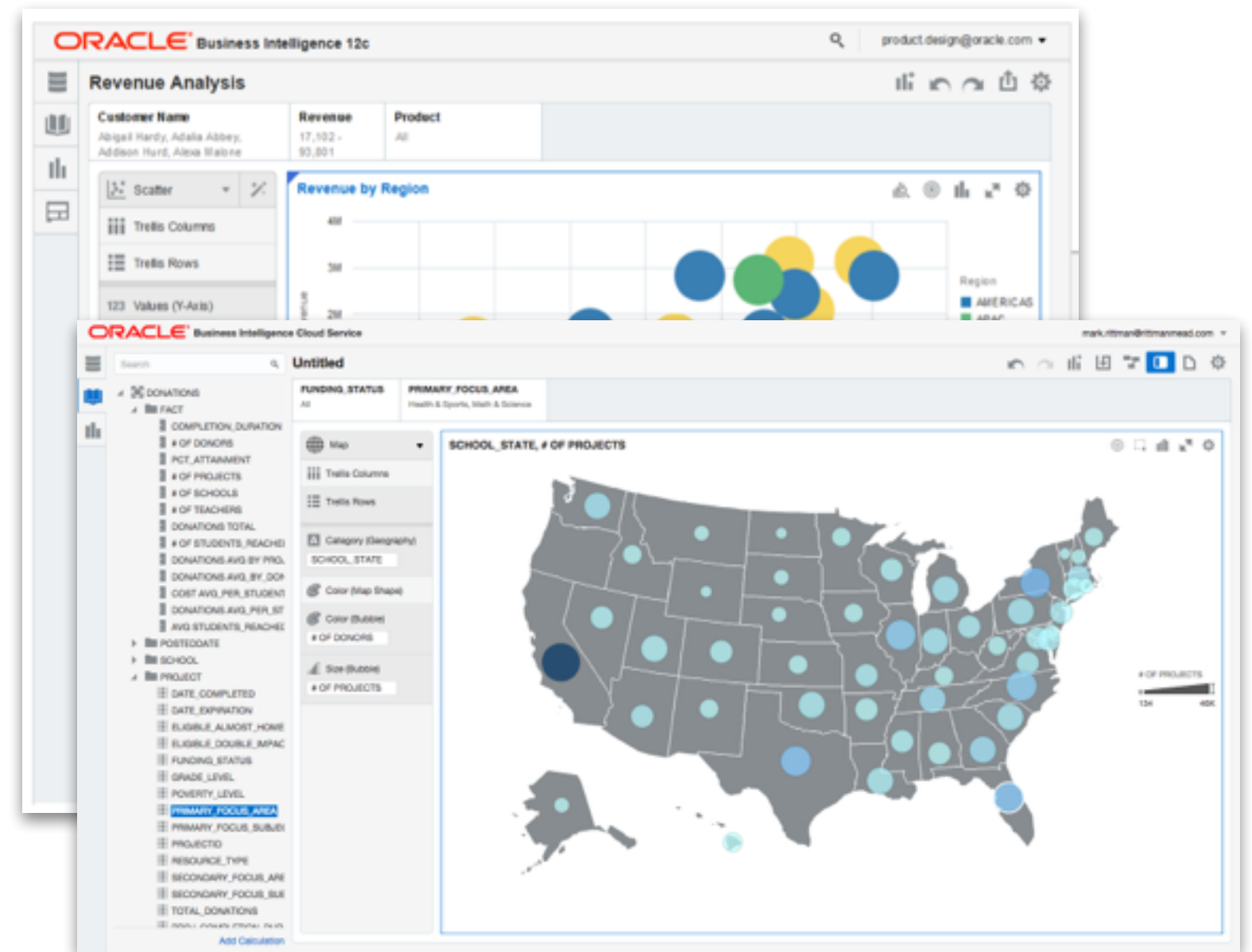
**Data Mashup**

Subject Areas

Personal / Departmental Data

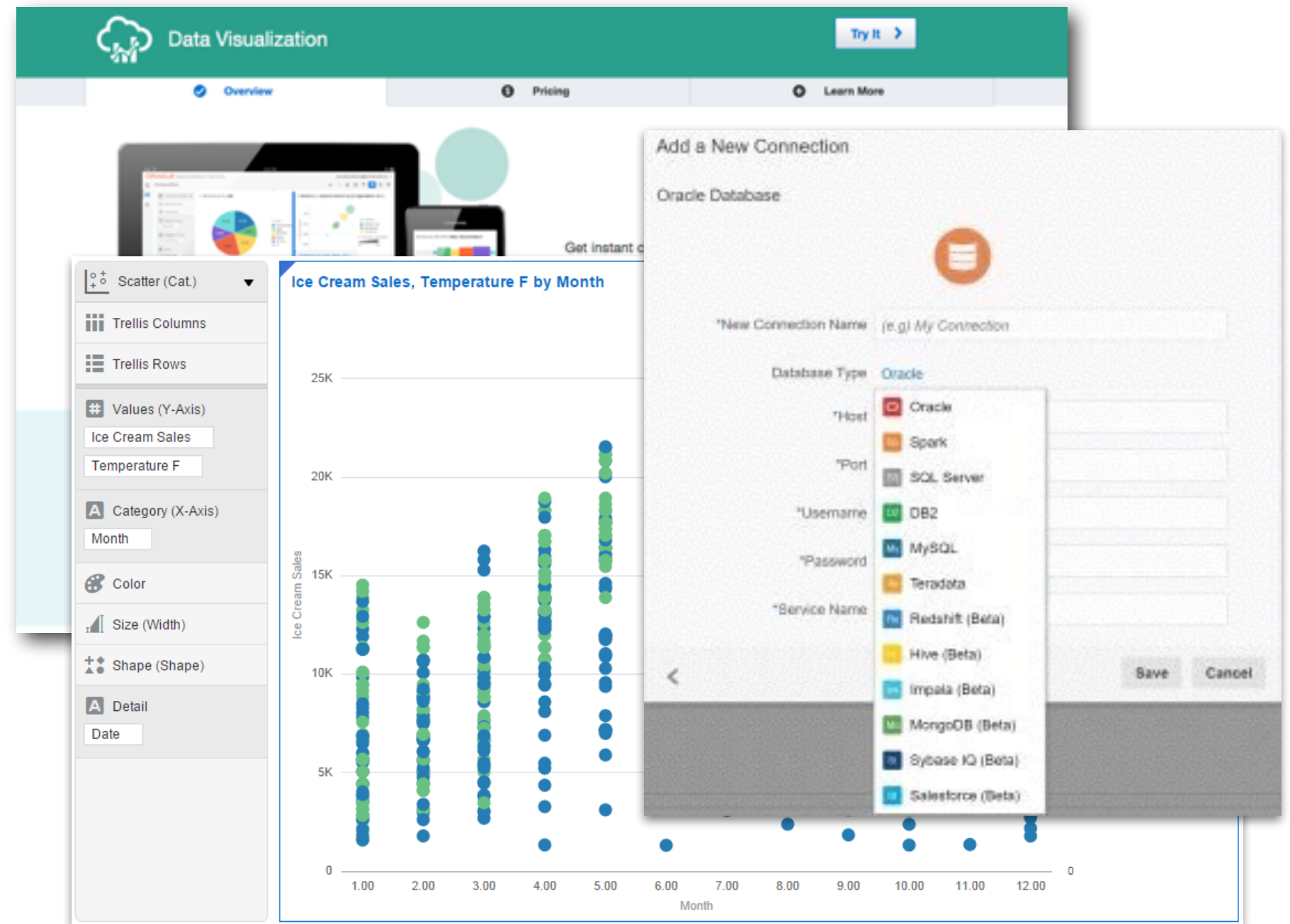
# Oracle Visual Analyzer

- Tableau-style data analysis tool aimed at data analysts and self-service users
- Point-and-click exploration and visualisation of datasets
- Uses BI Repository as data source, ensuring “single-version-of-the-truth”
- Users can also add their own data, “for data mashups”
- Requires additional Oracle Data Visualization license, \$1250/named user



# Oracle Data Visualization Desktop & Cloud Service

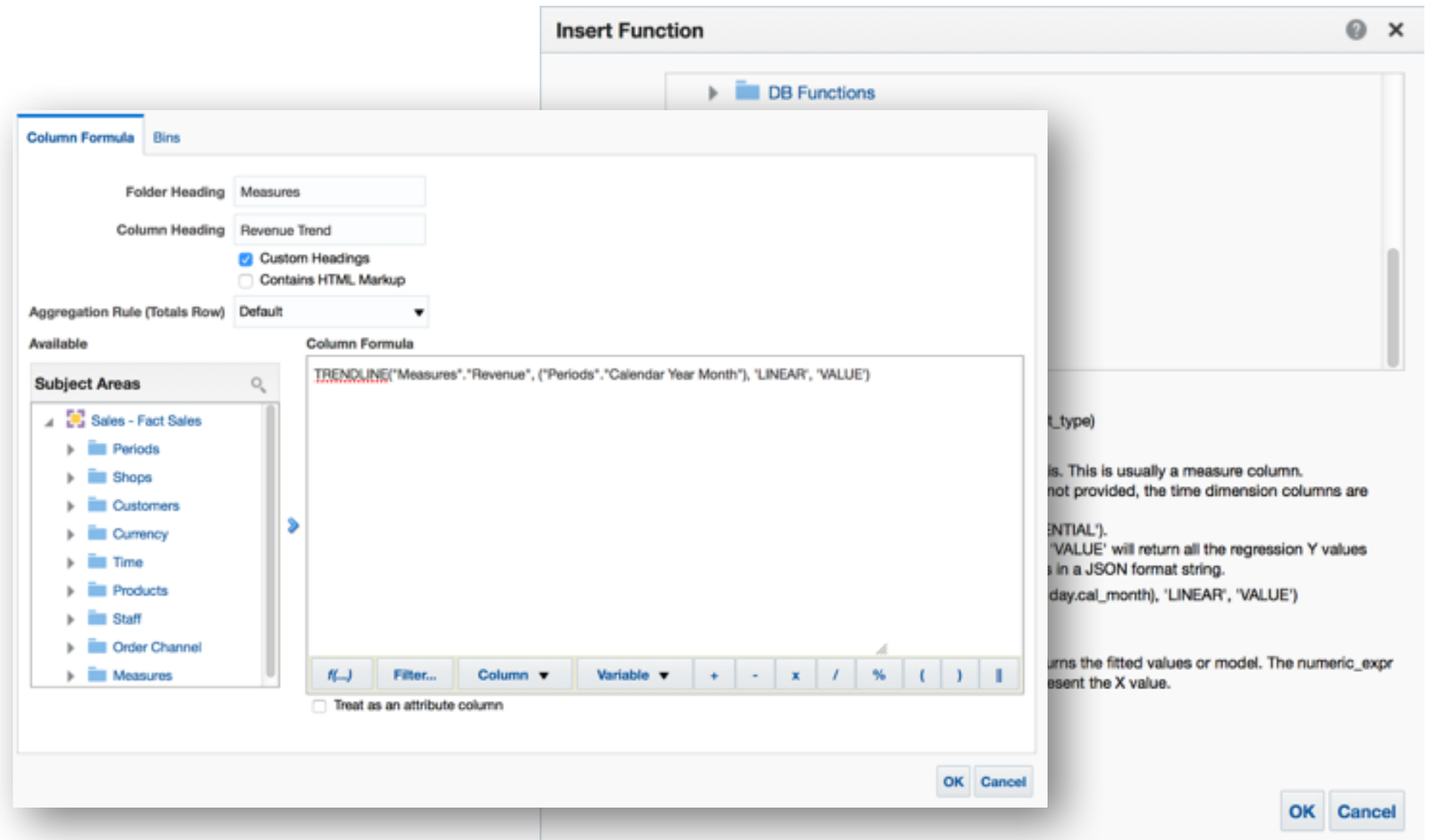
- Takes the Visual Analyzer part of 12c, makes it available as standalone tool
- Install on Windows desktop, or run in Oracle Cloud as SaaS app
- Desktop version comes with JDBC connectivity to RDBMS, Impala, Spark SQL, MongoDB etc
- DVCS license includes matching # of DV Desktop licenses (named user)
- DV option license for OBIEE12c allows matching # use of DV Desktop





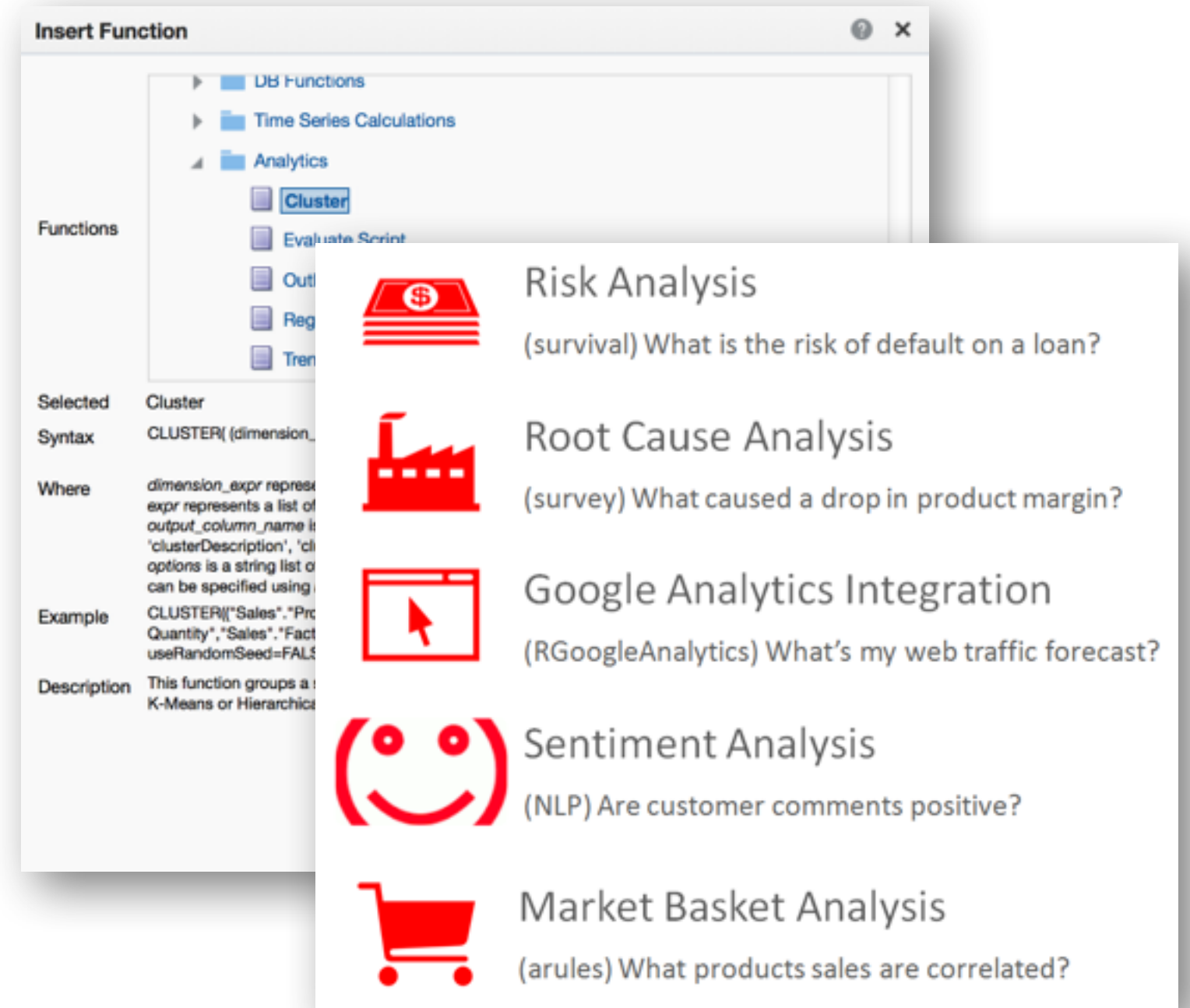
# Extension of BI Server SQL to Advanced Analytics

- Advanced Analytics - BI Server Built-in Functions
  - ▶ No external engine required
  - ▶ UI integration
  - ▶ Extension to logical SQL
  - ▶ Available across all supported DB sources + platforms



# Custom Advanced Analytics Functions + Scripts






- Advanced Analytics - Custom Extensions
- Define Custom Functions
  - ▶ Define inputs required from BI users
  - ▶ Provide execution script (for e.g. R)
  - ▶ Specify engine (R, Oracle Database, etc)
- Evaluate\_Script() allows any custom R function to be run from within OBIEE



The image shows a screenshot of the 'Insert Function' dialog in OBIEE. The dialog is divided into two main sections. The top section is a tree view showing the hierarchy of functions: 'DB Functions', 'Time Series Calculations', and 'Analytics'. Under 'Analytics', the 'Cluster' function is selected. The bottom section provides details for the selected 'Cluster' function, including its syntax, where it is used, an example, and a description. The details are as follows:

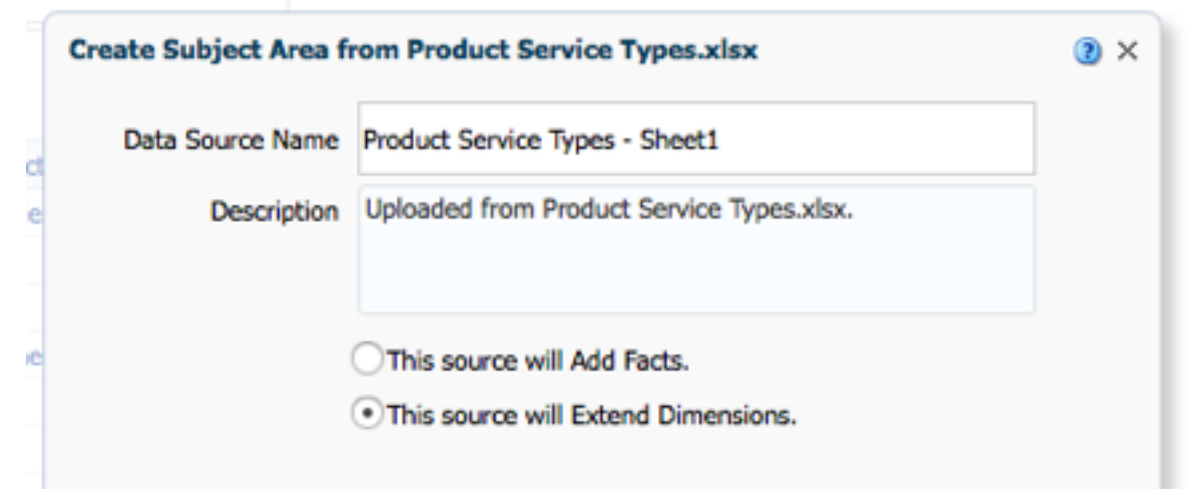
Field	Value
Selected	Cluster
Syntax	CLUSTER( <i>dimension_</i>
Where	<i>dimension_expr</i> represents a list of <i>expr</i> represents a list of <i>output_column_name</i> is 'clusterDescription', 'cl options is a string list of can be specified using
Example	CLUSTER(("Sales"."Pro Quantity", "Sales"."Fact useRandomSeed=FALSE
Description	This function groups a K-Means or Hierarchica

Overlaid on the right side of the dialog is a list of six custom advanced analytics functions, each with a red icon and a brief description:

-  Risk Analysis  
(survival) What is the risk of default on a loan?
-  Root Cause Analysis  
(survey) What caused a drop in product margin?
-  Google Analytics Integration  
(RGoogleAnalytics) What's my web traffic forecast?
-  Sentiment Analysis  
(NLP) Are customer comments positive?
-  Market Basket Analysis  
(arules) What products sales are correlated?

# Self-Service Data Mashups for Business Agility

- Extend dimensions within an existing Subject Area
- Add facts to an existing Subject Area
- Standalone analysis outside of Subject Areas
- Future plans to allow mashup metadata to be promoted into main RPD model
  - ▶ In meantime, can be achieved through process and accelerators



Create Subject Area from Product Service Types.xlsx

Data Source Name: Product Service Types - Sheet1

Description: Uploaded from Product Service Types.xlsx.

This source will Add Facts.

This source will Extend Dimensions.




**Overlay metrics on enterprise data**

Update my progress report against the new budget my boss has sent me..



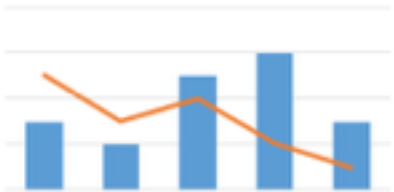
**Enrich analysis with new attributes**

How did Polar Vortex affect my shipping times?



**Define custom rollups**

What happens to revenue segmentation if I re-classify products?

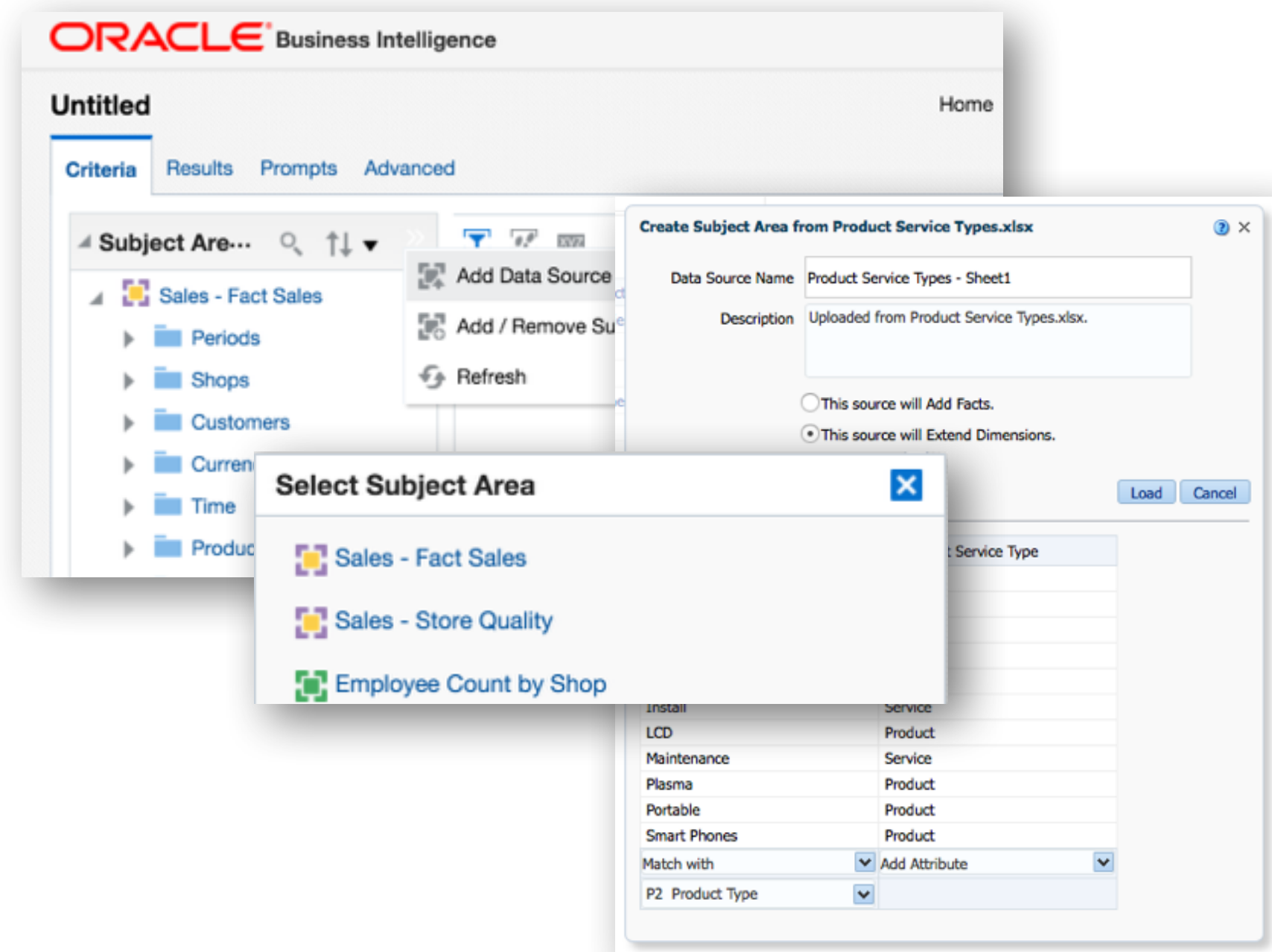


**Analyze without upfront modeling**

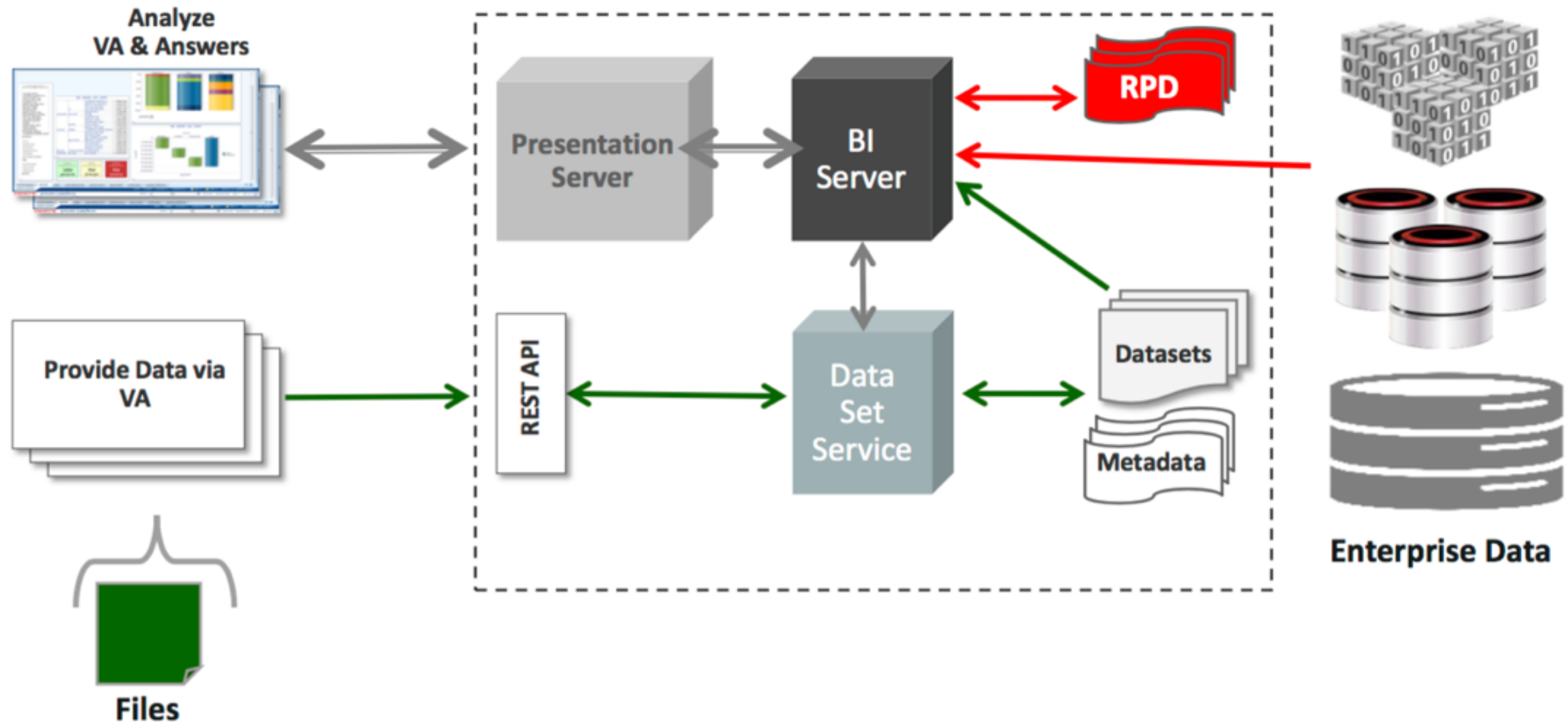
Find top issues from the customer feedback in our surveys.

# External Subject Areas & User-Uploaded Datasets

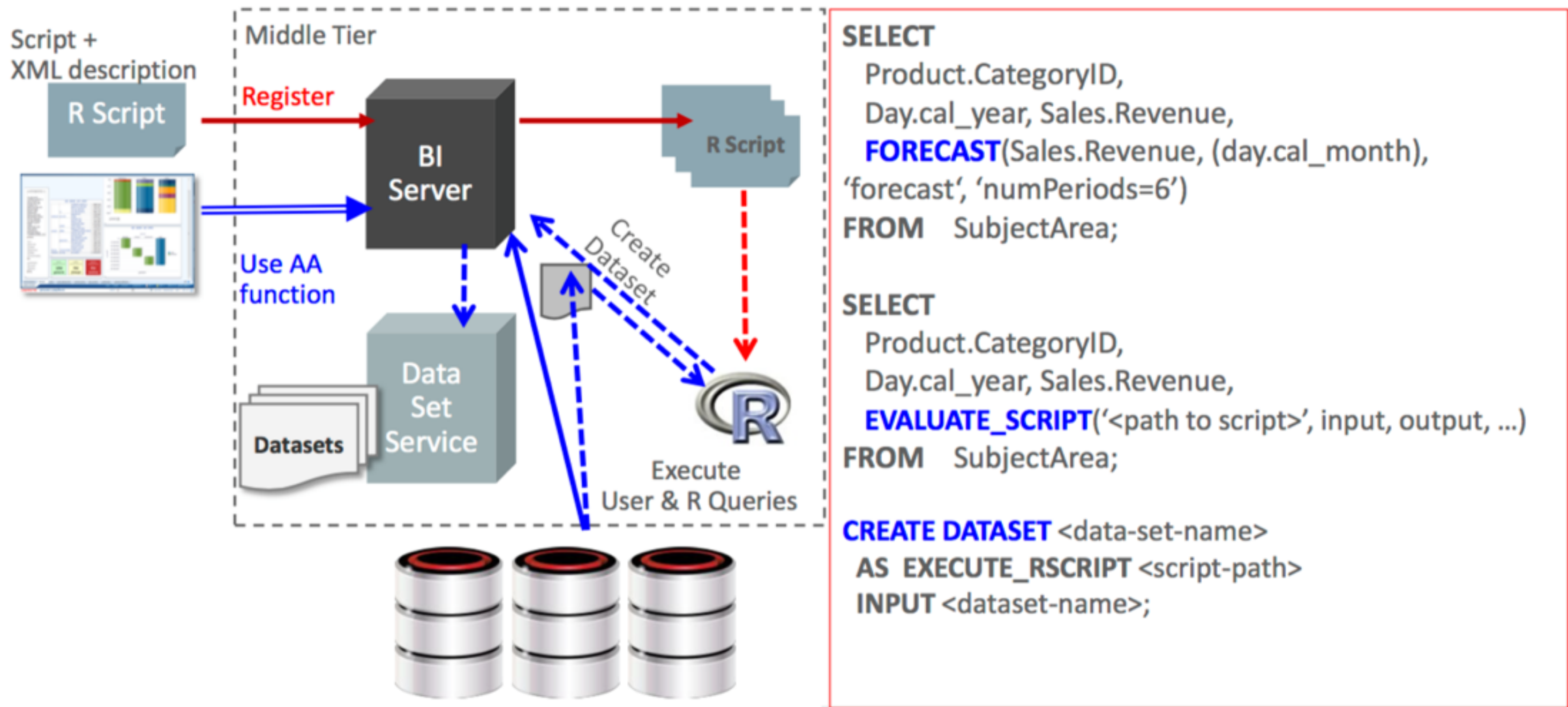
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# OBIEE12c Data Mashups Underlying Architecture



# External Data Set Service Foundation for R Integration



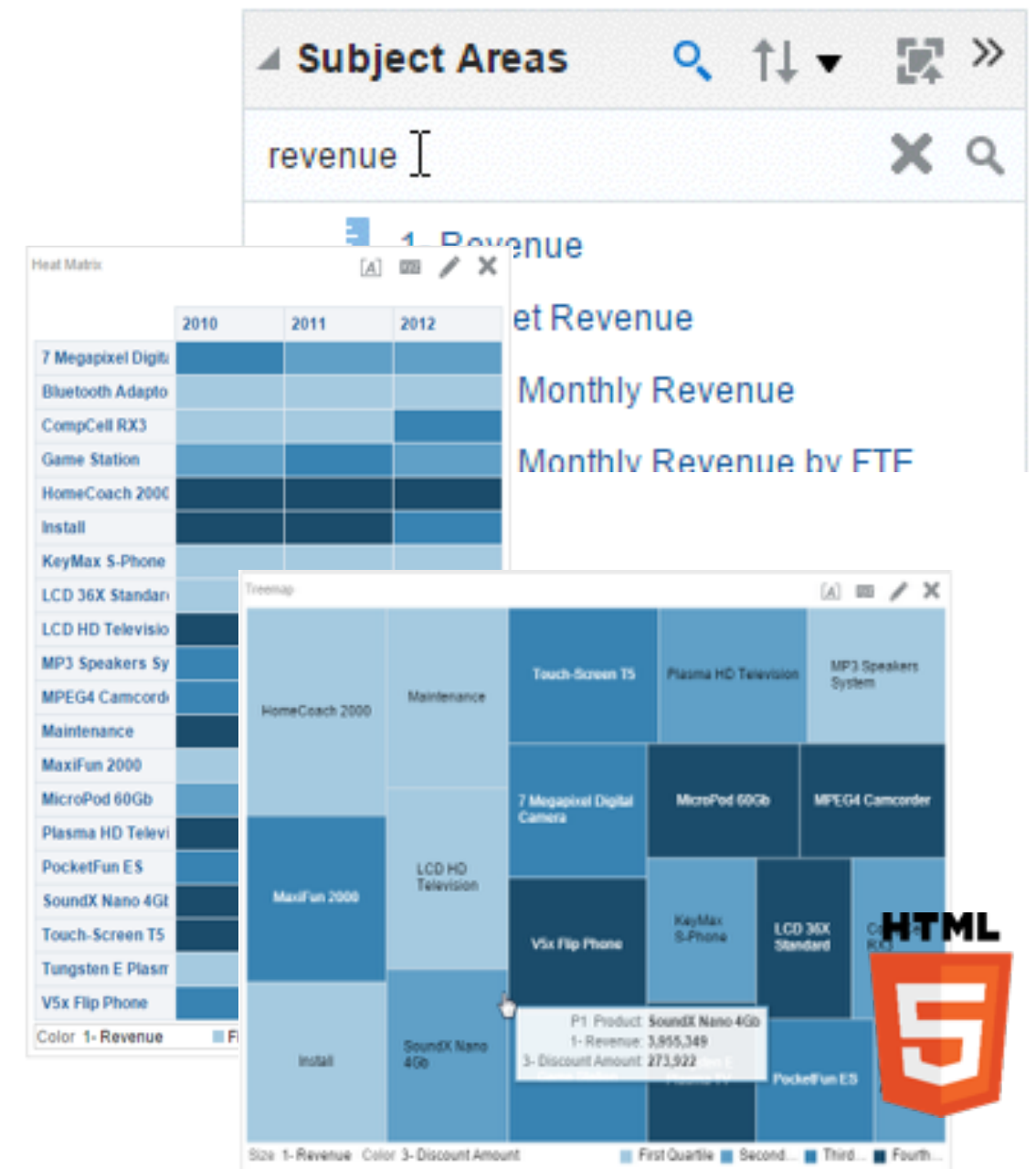
# Complete UI Refresh using “Alta” Theme

- Clean page design, focus on data, better use of space, easier to navigate
- Improved Look and Feel for Answers and Dashboards
- Browser and mobile support
- Consistent across Oracle products - cloud and on-Premises
- Strikes a balance between new design patterns and providing a familiar environment for 11g users



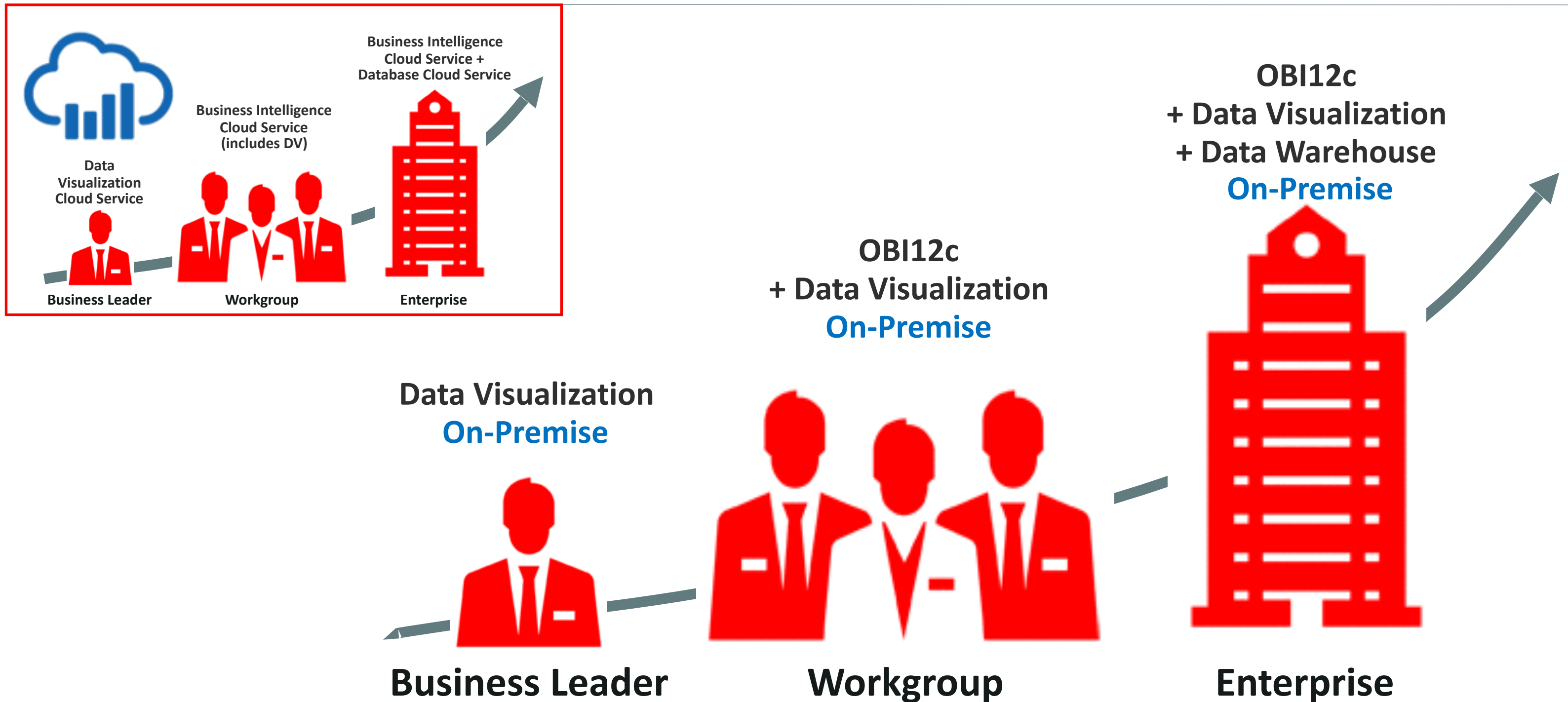
# Many more usability improvements..

- Enhanced Subject Area pane
  - ▶ Search, reorder, refresh and reload metadata elements
- Improved view rendering
  - ▶ New Heat Matrix view type
  - ▶ HTML-5 graphics
- Direct interaction with results
  - ▶ Directly edit view properties
  - ▶ New Graph and Pivot Table Sorting Capabilities
  - ▶ Easily create Groups, Calculated Items and Measures



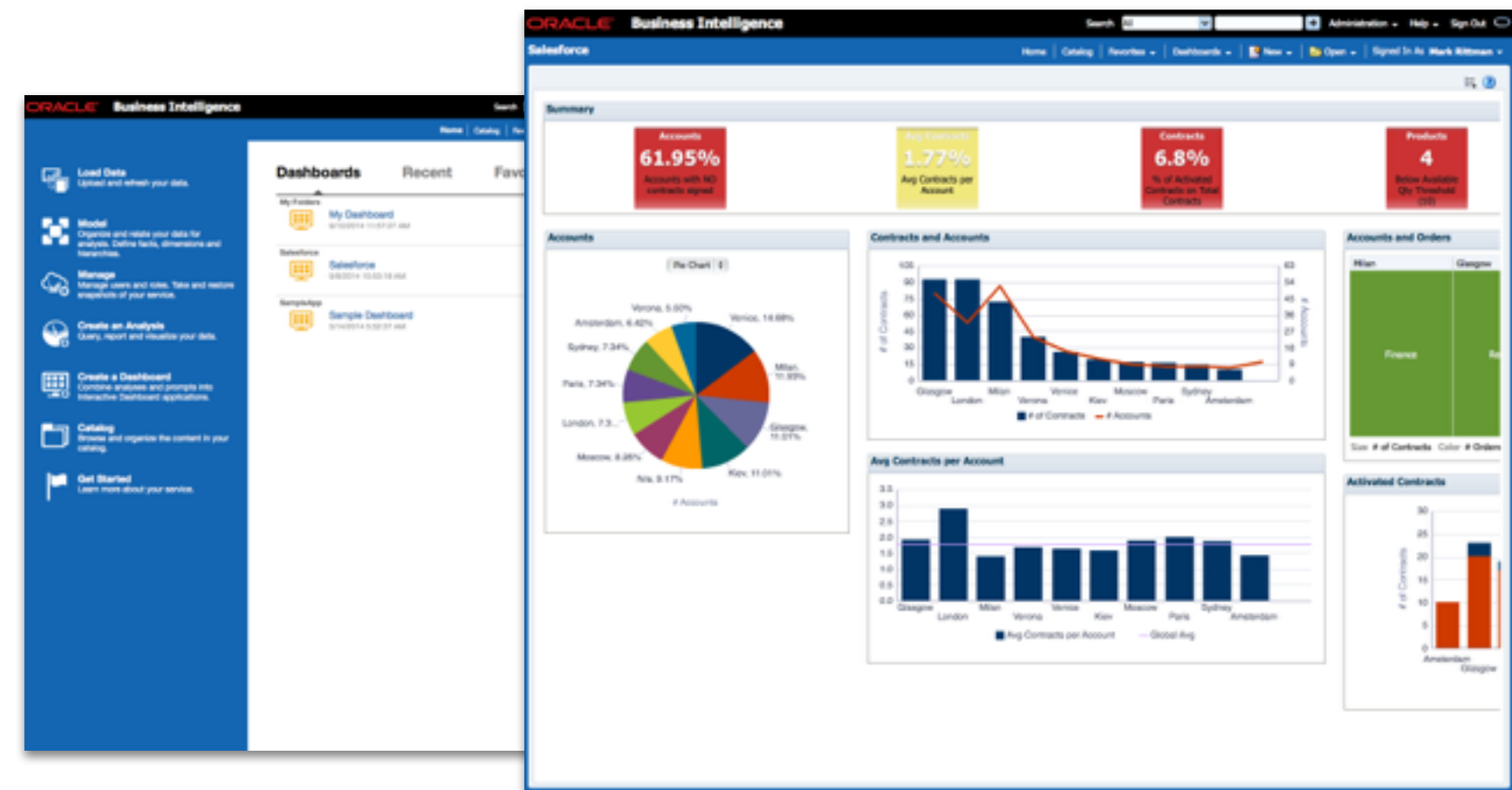


# The Oracle **Hybrid** Analytics Journey



# Oracle BI Cloud Service - Agile Analytics in the Cloud

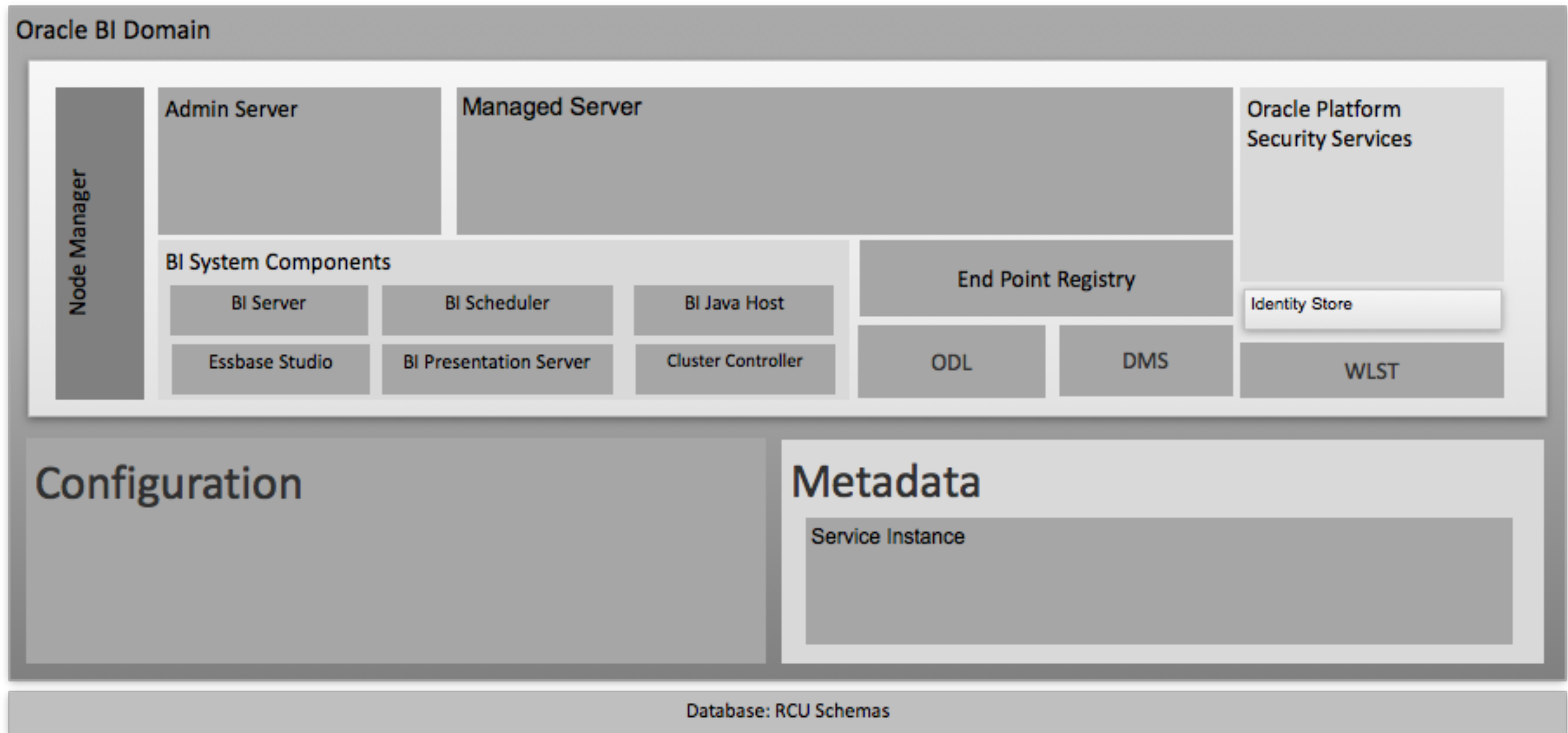
- Oracle Business Intelligence, re-imagined for the cloud
- Runs as part of Oracle Public Cloud, part of wider Oracle Platform-as-a-Service
- Pay monthly, min 10 users, rolling upgrades and new features
- Entirely thin-client, simplified administration
- Aimed at departmental use-cases
  - ▶ Sharing data from a spreadsheet
  - ▶ Team reporting
  - ▶ Development sandboxes
- ▶ User-driven thin-client modeling, eventual BAR file interchange with on-premise



# OBIEE12c Architecture Key Changes

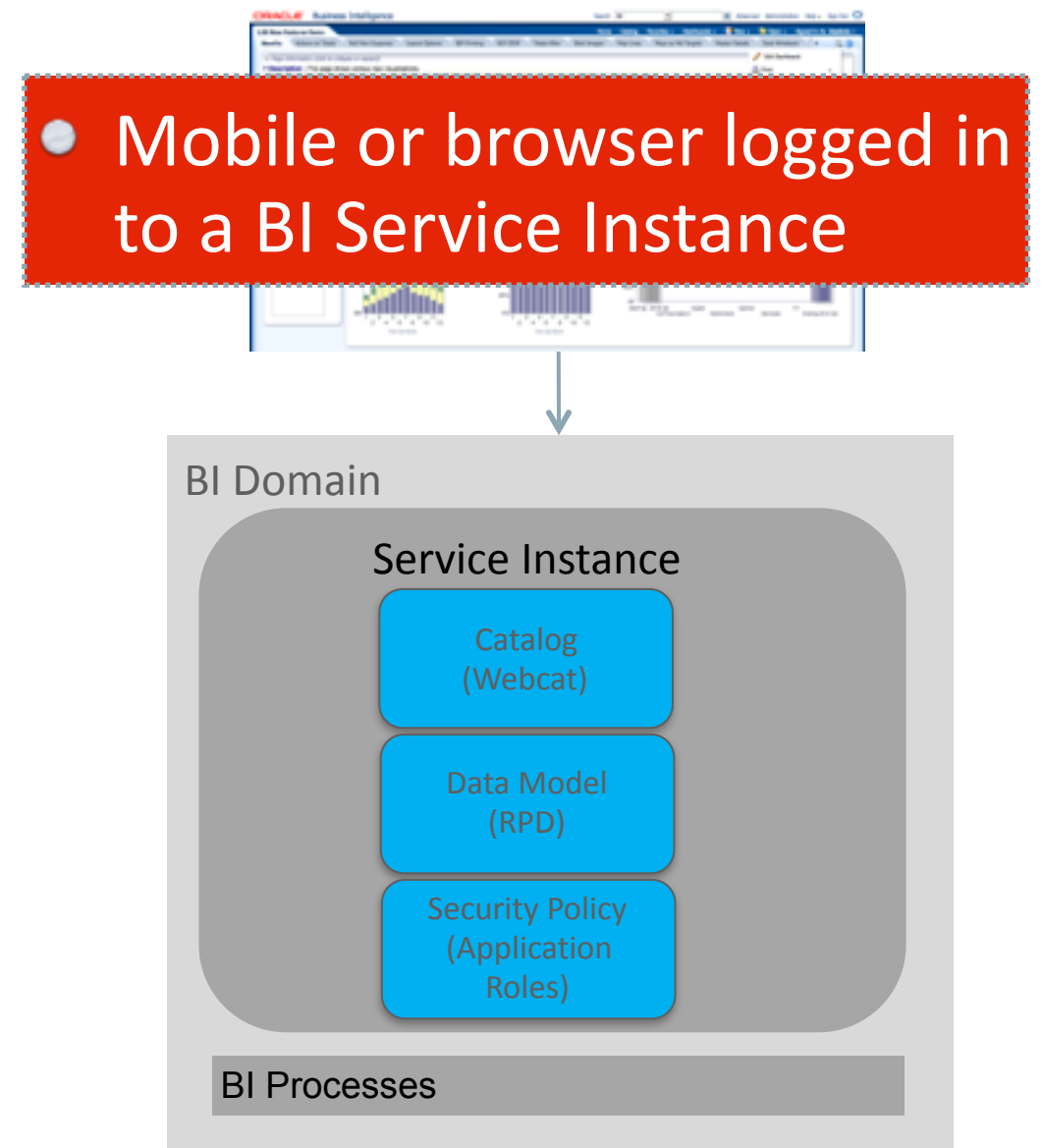
- Separation of Environment and Configuration
  - ▶ Single source of truth for both – no environment info in RCU DB schemas
  - ▶ End Point API
    - Reduce dependency on hardwired server names in configuration
  - ▶ One place to edit environment and/or configuration
  - ▶ Most files can be edited directly by customer using any tool including Chef / Puppet
- Singleton Data Directory (SDD)
  - ▶ Simple conversion to high availability (HA) deployment
  - ▶ Easier Backup and Restore and Disaster Recovery
- Removal of OPMN process control
  - ▶ Nodemanager used throughout to control components

# OBIEE12c Logical Component Architecture



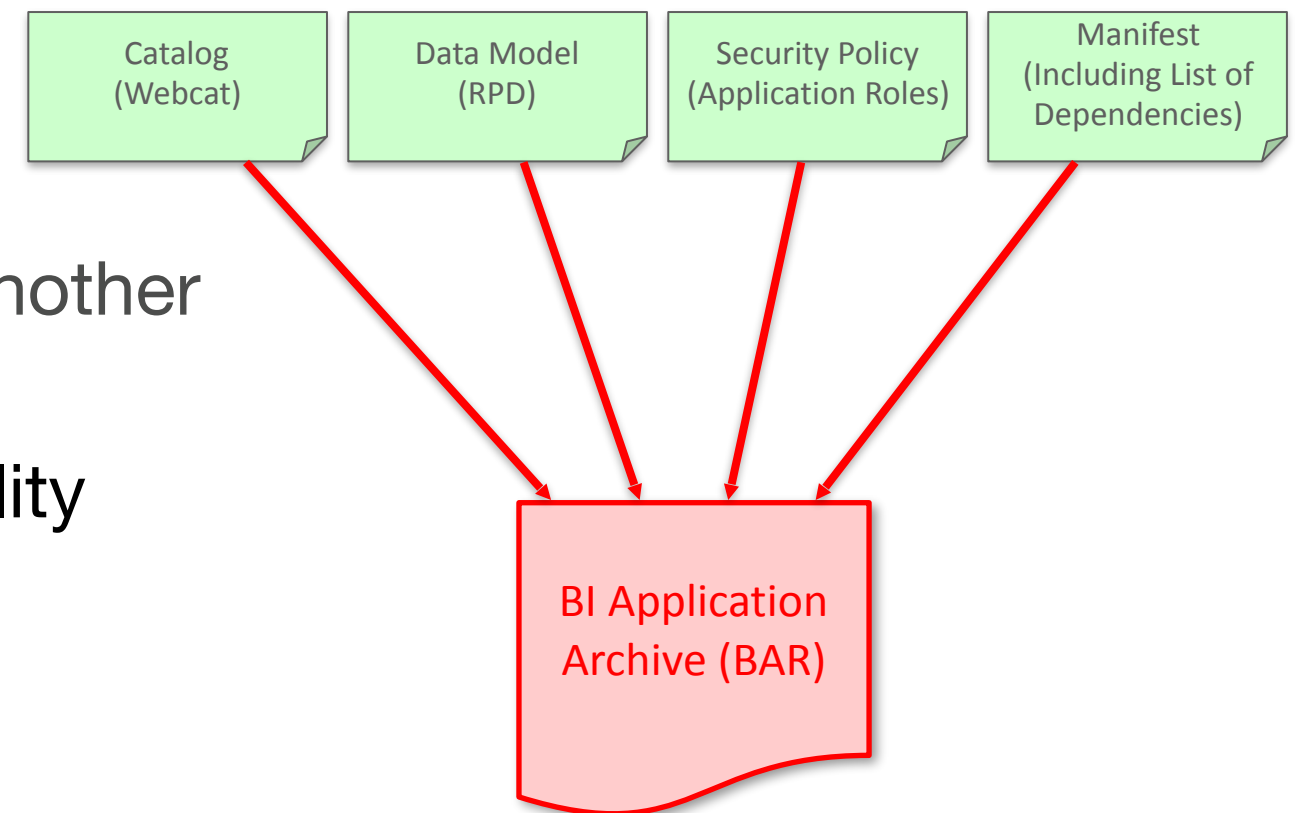
# Key Developer New Feature - BI Service Instances

- Inspired by Oracle Cloud SaaS BI applications
- A logical BI environment that provides service for users
  - ▶ Allows login
  - ▶ Provides BI functionality
  - ▶ Contains BI content designed for target users
- ▶ OBIEE 12.2.1 uses a single service instance, into which the RPD, catalog and security artefacts are deployed
  - ▶ Impact - no UI currently for uploading RPDs, coming soon with next patch release



# BI Application Archive (BAR) Files

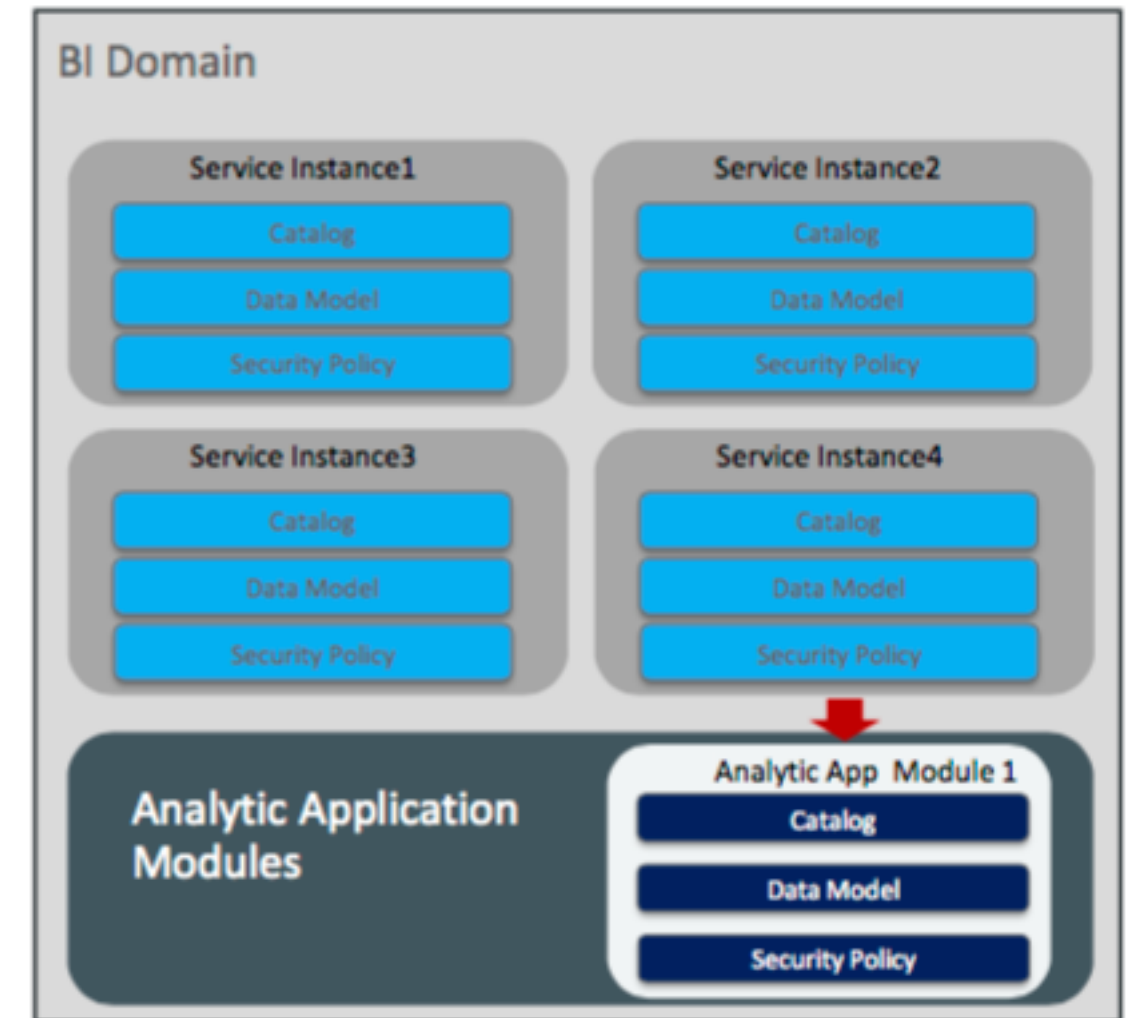
- A file format used to package the content of a Service Instance or BI Application Module.
  - ▶ Includes webcat content, bi server datamodel metadata and security policy information
  - ▶ Includes a manifest file to manage dependencies on BI Modules if applicable\*
- Used as a vehicle to enable Service Instances to be moved from one place to another:
  - ▶ Backup and Restore
  - ▶ Test to Production (T2P)
  - ▶ Cloning Service Instances
  - ▶ Moving a Service Instance from one deployment to another
  - ▶ Upgrade
- Roadmap is for BICS / OBIEE12c BAR file interoperability



\*See subsequent slides on BI Modules

# Coming in the Future - Multiple Service Instances

- Multiple service instances in the same BI domain
  - ▶ Multi-tenancy capabilities
  - ▶ Independent service instances each able to serve a different set of business users
- Analytic Application Modules
  - ▶ Ability to create and deploy base content for each service instance
  - ▶ Ability to upgrade base application content whilst leaving user content unchanged
  - ▶ Each service instance can be based on an analytic application module
  - ▶ One analytic application module can be used by multiple service instances

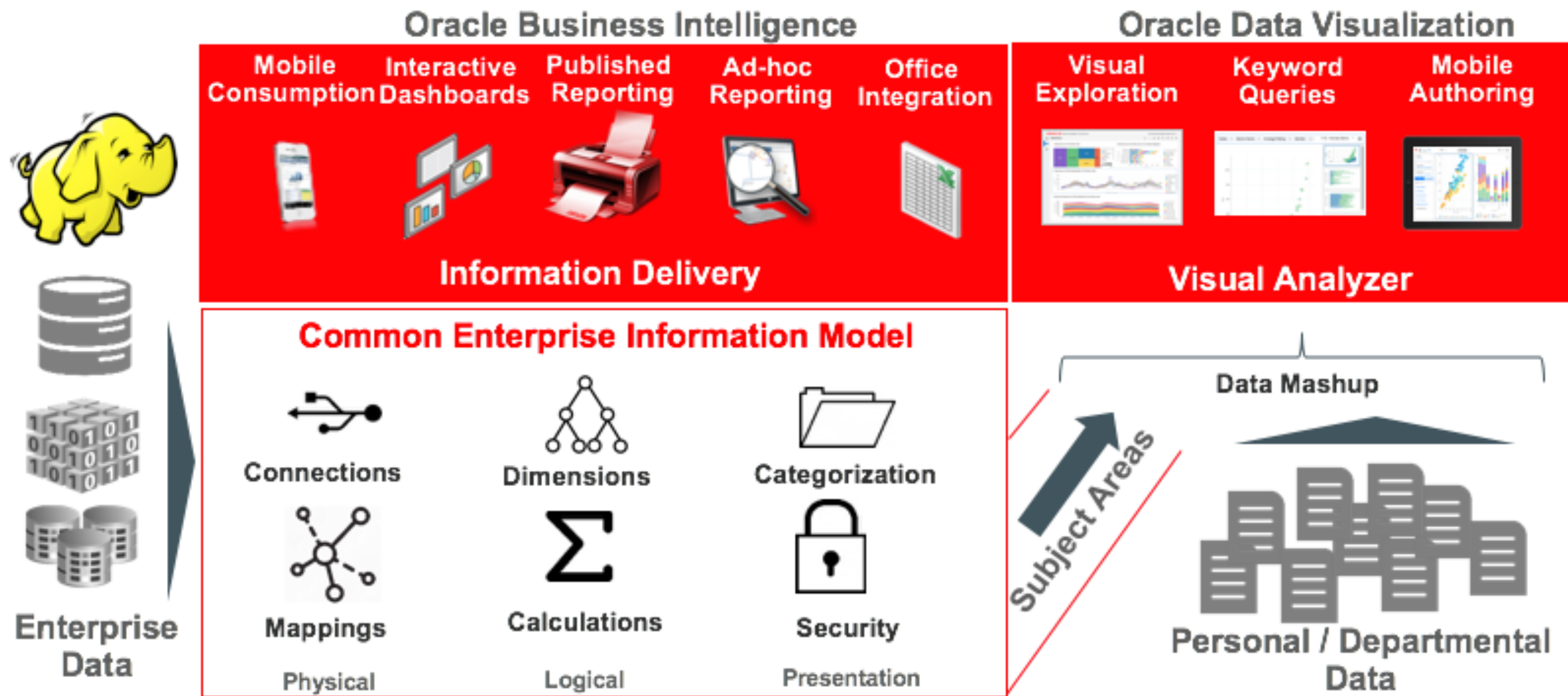


# Objectives for OBI12c - A Modern, Bi-Modal BI Platform

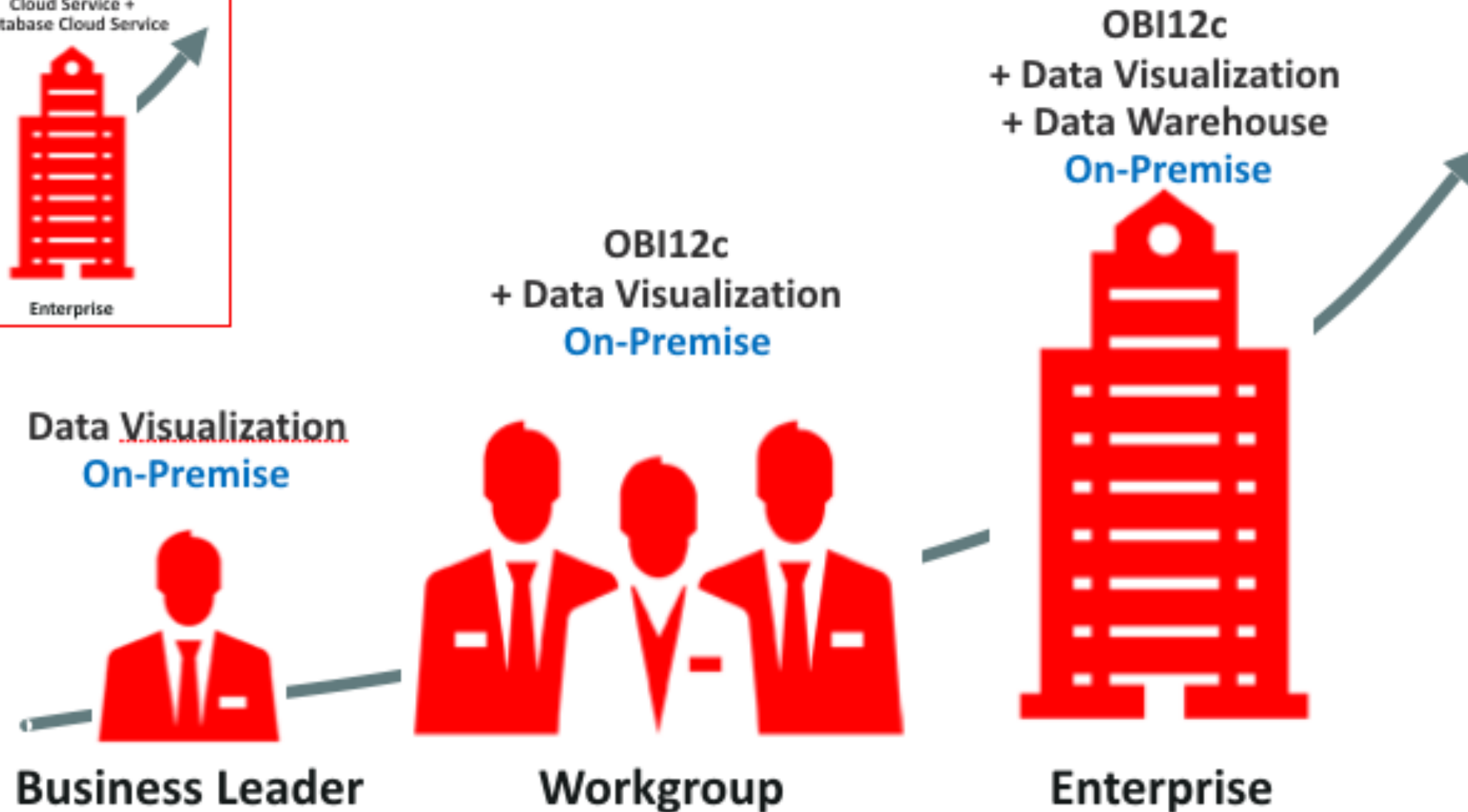
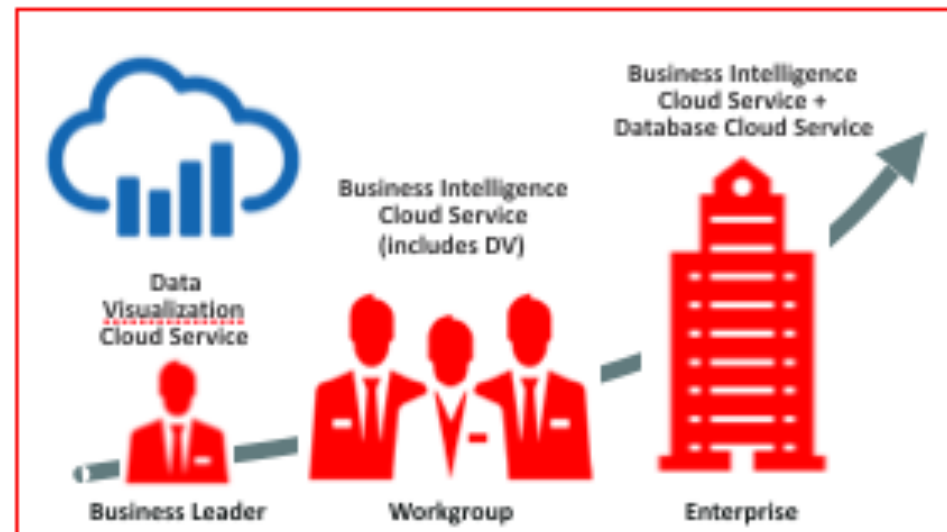




# Objectives for OBI12c - A Modern, Bi-Modal BI Platform



# Objectives for OBI12c - A Modern, Bi-Modal BI Platform





# The Future is Bi-Modal and User-Driven



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<http://www.rittmanmead.com>

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Mark Rittman, CTO, Rittman Mead  
OTN EMEA Tour, May 2016