



Update on Oracle Business Analytics Heartland OUG

Dan Vlamis

October 26, 2017

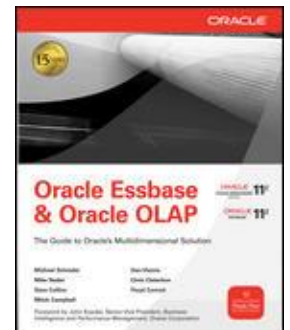
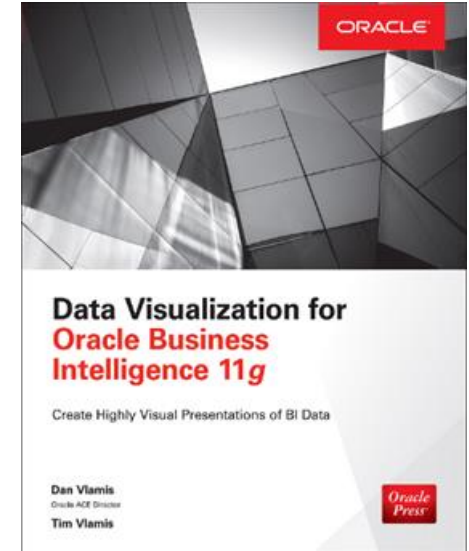
VlamiS Software Solutions

- VlamiS Software founded in 1992 in Kansas City, Missouri
- Developed 200+ Oracle BI and analytics systems
- Specializes in Oracle-based:
 - Enterprise Business Intelligence & Analytics
 - Analytic Warehousing
 - Data Mining and Predictive Analytics
 - Data Visualization
- Multiple Oracle ACEs, consultants average 15+ years
- www.vlamiS.com (blog, papers, newsletters, services)
- Co-authors of book “Data Visualization for OBI 11g”
- Co-author of book “Oracle Essbase & Oracle OLAP”
- Oracle University Partner
- Oracle Gold Partner

 EDUCATION RESELLER

 Gold
Partner

Specialized
Oracle Business Intelligence
Foundation Suite 11g





Vlami Presentations

Presenter	Location	Time	Title
Dan Vlami	Ponca	9:15-10:30	Update on Oracle Business Analytics
Arthur Dayton	Ponca	10:45-12:00	Visualizing Event Data in Your Business: A Case Study
Arthur Dayton	Ponca	2:40-3:55	Integrating OBI with D3 to Expand Built-in Functionality



Vlamis Involvement at OOW

Time	Presenter	Location	Title
Tue 3:45pm	Dan/Jon	Marriott Marquis Nob Hill C/D	Using Ravello in the Cloud as a Customer and a Partner
Tue 5:00pm	n/a	Restaurant Oola	Vlamis Reception
Wed 8:30am	Oracle/Vlamis	Grand Hyatt	Breakfast - Perspectives on Machine Learning and DV in Oracle Analytics and BI
Wed 1:00pm	Tim / Erik with Beckman	Park Central Franciscan I	Predictive Analytics and Oracle Data Visualization Case Study
Thu	Oracle DB PM	Westin St. Francis	Global Leaders Worldwide Meeting



Oracle DB Changes

- Release numbering 12.2.0.4 -> 18.1 Annual, quarterly releases
- Database XE will be updated in 18.1 Free.
- Free DB cloud service coming – limited size.

Big Announcements at OpenWorld

- Oracle Database 18c
 - And, a new release model
- Exadata X7
- New Big Data Features
- Autonomous Database
 - Coming this year: Autonomous Data Warehouse Cloud

Key 18c Features to Enhance Data Warehouses

DATABASE INFRASTRUCTURE

- Autonomous health framework
- Standby support for nologging ops

DATA MANAGEMENT

- Online partition merge
- Partitioning scheme online conversion of a table
- Private temporary tables

DATA PROCESSING

- SQL language
 - Enhanced **approximate query** processing
 - Enhanced **analytic views**, incl. MDX interface

DATA PROCESSING, cont.

- **In-Memory**
 - In-memory external tables
 - In-memory for NVRAM
 - Automatic in-memory management
- Optimizer and SQL processing
 - **Inline external tables**
 - **Polymorphic table functions**
 - Better fine-grained cursor Invalidation
 - Enhanced SQL Plan Management
- And much more ...



Oracle Analytics

- OAC lineup now:
 - OAC Standard \$2.88/OCPU/hour, \$3000/OCPU/month
 - OAC Data Lake \$4.32/OCPU/hour
 - OAC Enterprise \$5.76/OCPU/hour, \$6000/OCPU/month
- Major item for DV 4 is Machine Learning

OpenWorld 2017 Oracle Analytics Roadmap

ORACLE
OPEN
WORLD

October 1–5, 2017
SAN FRANCISCO, CA

Raghu Venkatasubramanian
Senior Vice President
Oracle Analytics

Vasu Murthy
Vice President
Oracle Analytics

ORACLE®

Copyright © 2017, Oracle and/or its affiliates. All rights reserved. |

Safe Harbor Statement

The preceding is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.

Modern Analytics Strategy



Agility



Business Value

Semantic Models



Stronger Governance

Self-Service



Improved User Productivity

Artificial Intelligence

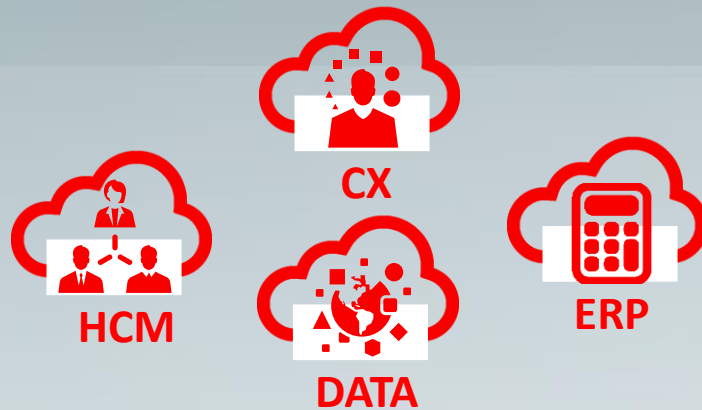


Broader Transformation



What Makes Oracle Big Data Analytics Compelling?

Pervasive



Oracle Analytics delivers business insights to **millions of users every day** across Oracle SaaS and Oracle PaaS. Enrich your data with Oracle Data cloud (including **5 Billion consumer profiles**) to achieve actionable insights

Comprehensive



Empower every type of user in a community via easy, intuitive experiences. Single platform for **all types of users** to **engage**, collaborate and elevate community wisdom

Anywhere



Run your **analytics anywhere** (Cloud, Cloud@customer, On Premises), manage your **data anywhere**. Enjoy the flexibility of changing your mind anytime.

The New Oracle Analytics Cloud

ANALYSTS RECOGNIZE AS #1



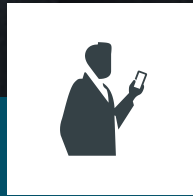
FORRESTER®

Smart Analytics for Everyone



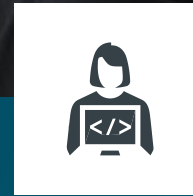
ANALYSTS

- Faster time to insights
- Share, collaborate and maximize community's wisdom



BUSINESS LEADERS

- Easy, timely, proactive business insights
- Empower to go beyond consuming others' findings



DEVELOPERS

- Develop and deploy analytic applications for people to customize and personalize
- Embed analytics in any application context

Liberate Insights from Any Data

Easy access to a variety of data sources

- Few clicks to setup and use
- Vast number of sources supported

Special Oracle SaaS Integration

- Access to business entities, not just tables and columns
- Respects security, business rules, and governance on source systems
- Leverage calculations and business logic in reports

Inline or “Extract-and-Analyze”

- IP built over two decades in function shipping (source-specific code generation) and internal execution now powers business user self-service



Powerful Data Flows and Enrichment

Full-featured pipeline designer

- Deploy prepared transforms within robust data pipelines
- Blend multiple data sets, aggregate results, define the order of complex data flows

No coding skills required

- Provides an intuitive user driven data preparation interface
- Standardize inconsistent values, replace null values and remove duplicates
- Create custom groups and expressions

The screenshot displays the Oracle Data Visualization Desktop interface. The top section, titled 'Sales and Marketing Data Flow', shows a pipeline with steps: SalesPip..., Campaign..., Join, Filter, Add Columns, Aggregate, and Save. The bottom section, titled 'Sample Project', shows a data table with columns: Order Line ID, Order ID, Order Priority, # of Customers, Customer Name, and Customer Segment. A context menu is open over the table, showing options like Duplicate, Convert to Number, Convert to Date, Group..., Split..., Concatenate..., Replace..., Uppercase, Lowercase, Sentence Case, Create Column..., Edit Column..., and Hide.

Order Line ID	Order ID	Order Priority	# of Customers	Customer Name	Customer Segment
1766	88478	Medium	70	Lewis Baldwin	Home Office
2148	89269	Low	23	Christian Albright	Small Business
2154	89272	Medium	24	Joann Moser	Small Business
2375	86460	Medium	07	Rachel Casey	Home Office
244	87180	High	3	Vicki Shannon	Corporate
246	87183	High	3	Vicki Shannon	Corporate
2659	89626	High	030	Christine Wilkerson	Corporate
2935	86783	High	119	Cecil Berger	Home Office
3353	89514	Critical	267	Rosemary Branch	Corporate
3787	91461	High	421	Alison Starr	Home Office
4007	89194	Low	502	Renee Huang	Small Business
4056	86818	High	526	Larry Hall	Small Business
4067	86821	Critical	528	Brad Stark	Home Office
4076	88856	Medium	1531	Jon Ayers	Consumer
4095	87784	Critical	1540	Charlene Reynolds	Corporate
4151	87499	Medium	1554	Joan Floyd	Consumer
4203	86969	High	1574	Sherry Hurley	Consumer

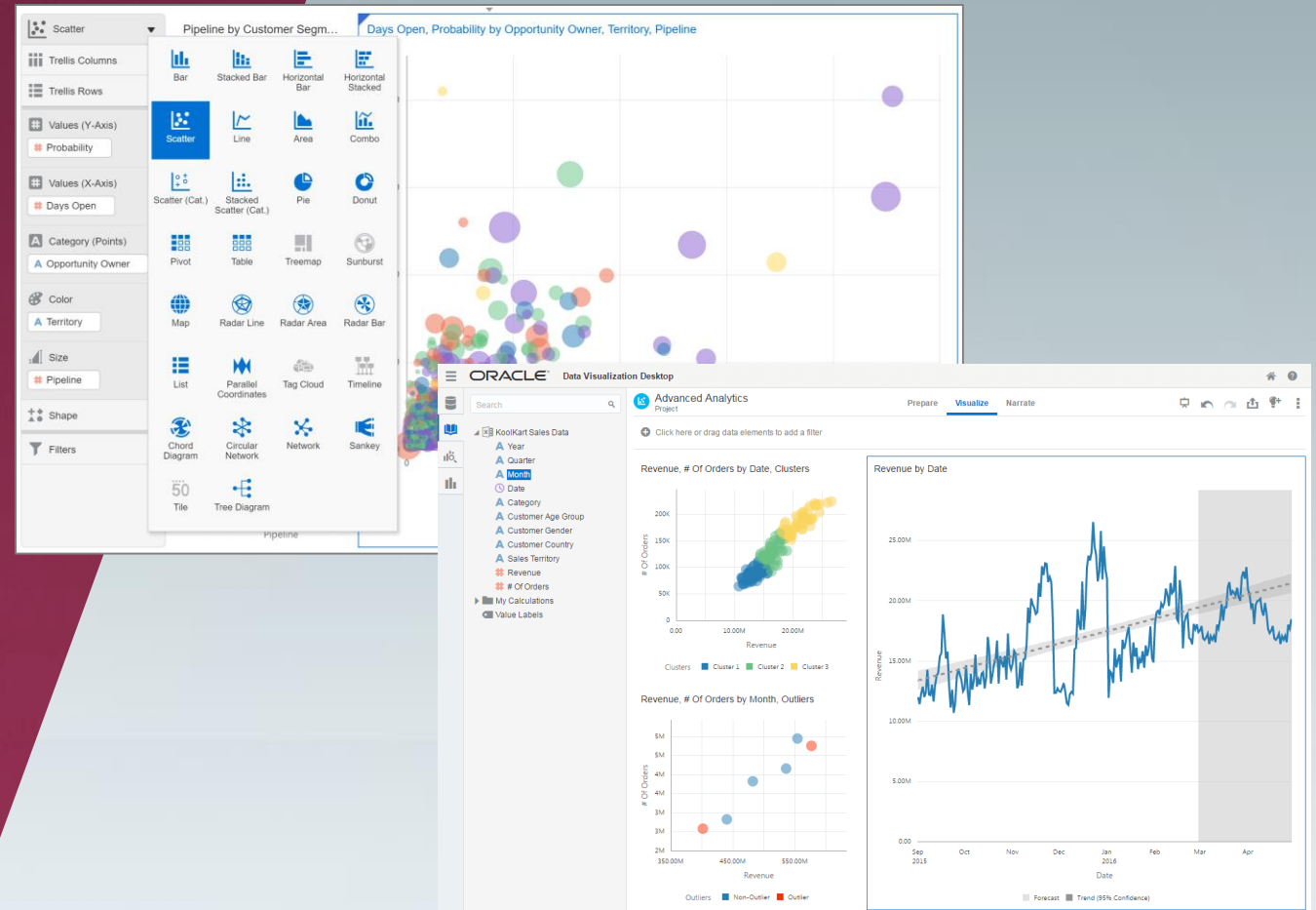
Interactive Visual Composition

Best Data Visualization Capabilities

- Rich palette of chart types, combo charts of lines, areas, bubbles, and more
- Smart Chart advisor automatically selects best fit visualization based on selected attributes
- Trellising for every visualization; customizable color palette
- Brushing – highlight correlations within data across visualizations, all auto-wired to work/update in unison, leveraging in-memory cache/execution layer

Visualize Predictive Factors

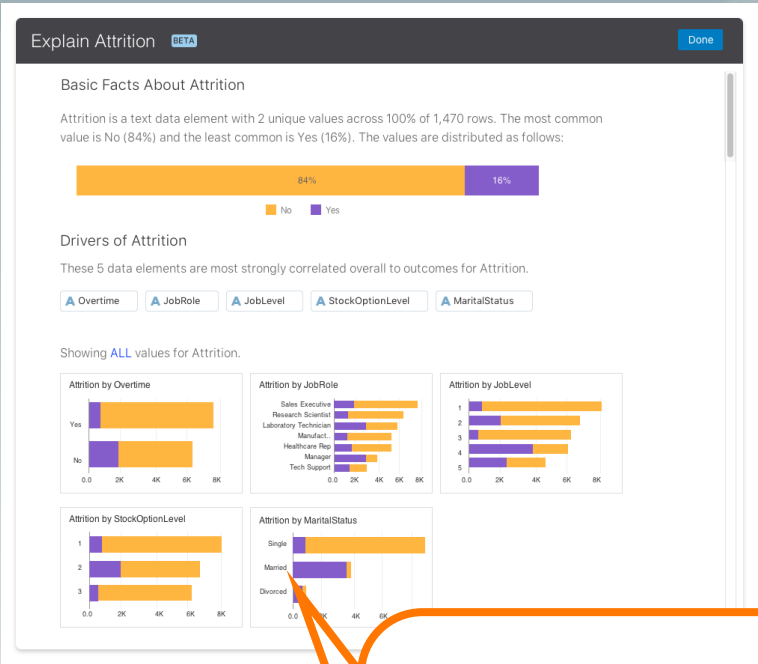
- Drag-and-drop clustering and outlier detection
- Single-click trending and forecasting



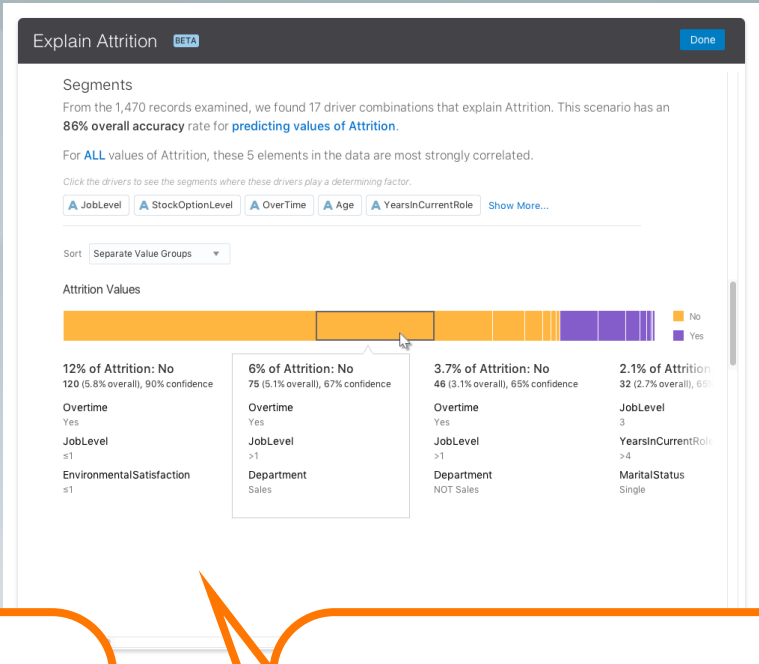


What's Next?

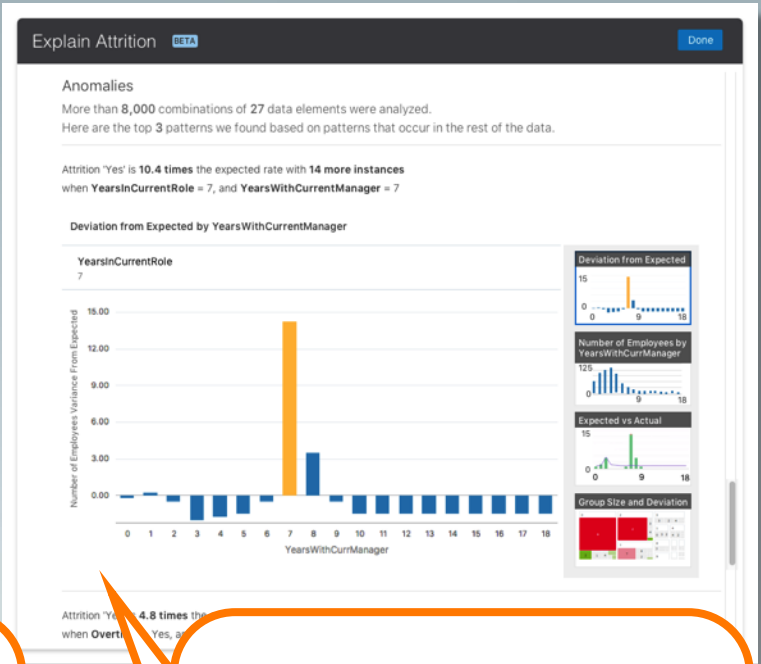
Automated Data Diagnostics – “Explain”



Understand value distribution and statistically correlated driving factors



Learn which segments and clusters of data have highest predictive significance

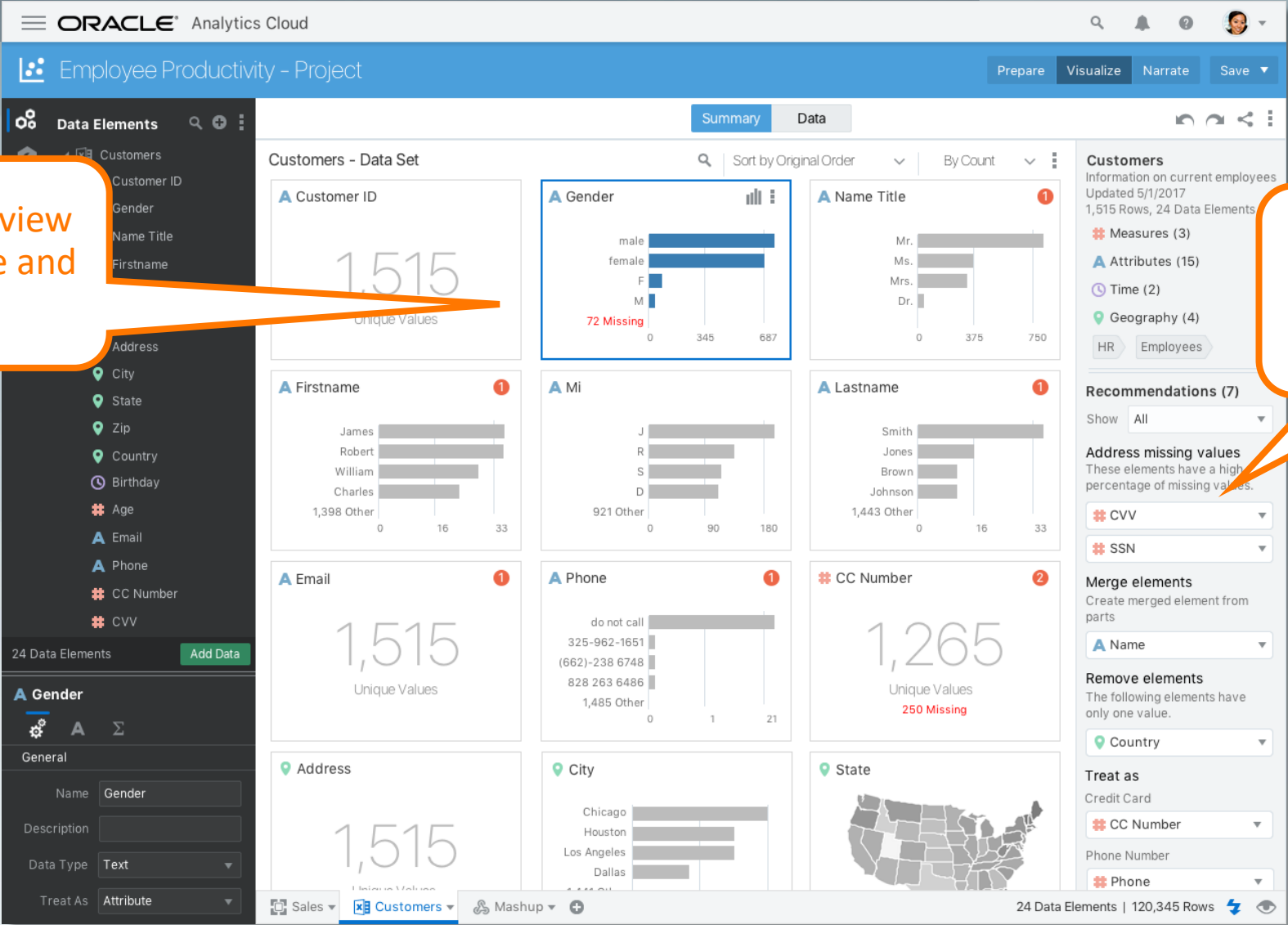


Discover statistical anomalies in the dataset that merit further investigation

Smart Catalog: Data Prep Recommendations

Enhanced summary view highlights data shape and data quality

Deep semantic profiling unlocks smart recommendations

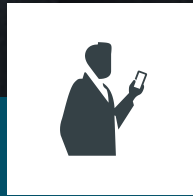


Smart Analytics for Everyone



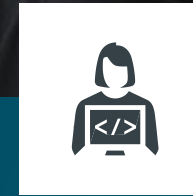
ANALYSTS

- Faster time to insights
- Share, collaborate and maximize community's wisdom



BUSINESS LEADERS

- Easy, timely, proactive business insights
- Empower to go beyond consuming others' findings



DEVELOPERS

- Develop and deploy analytic applications for people to customize and personalize
- Embed analytics in any application context

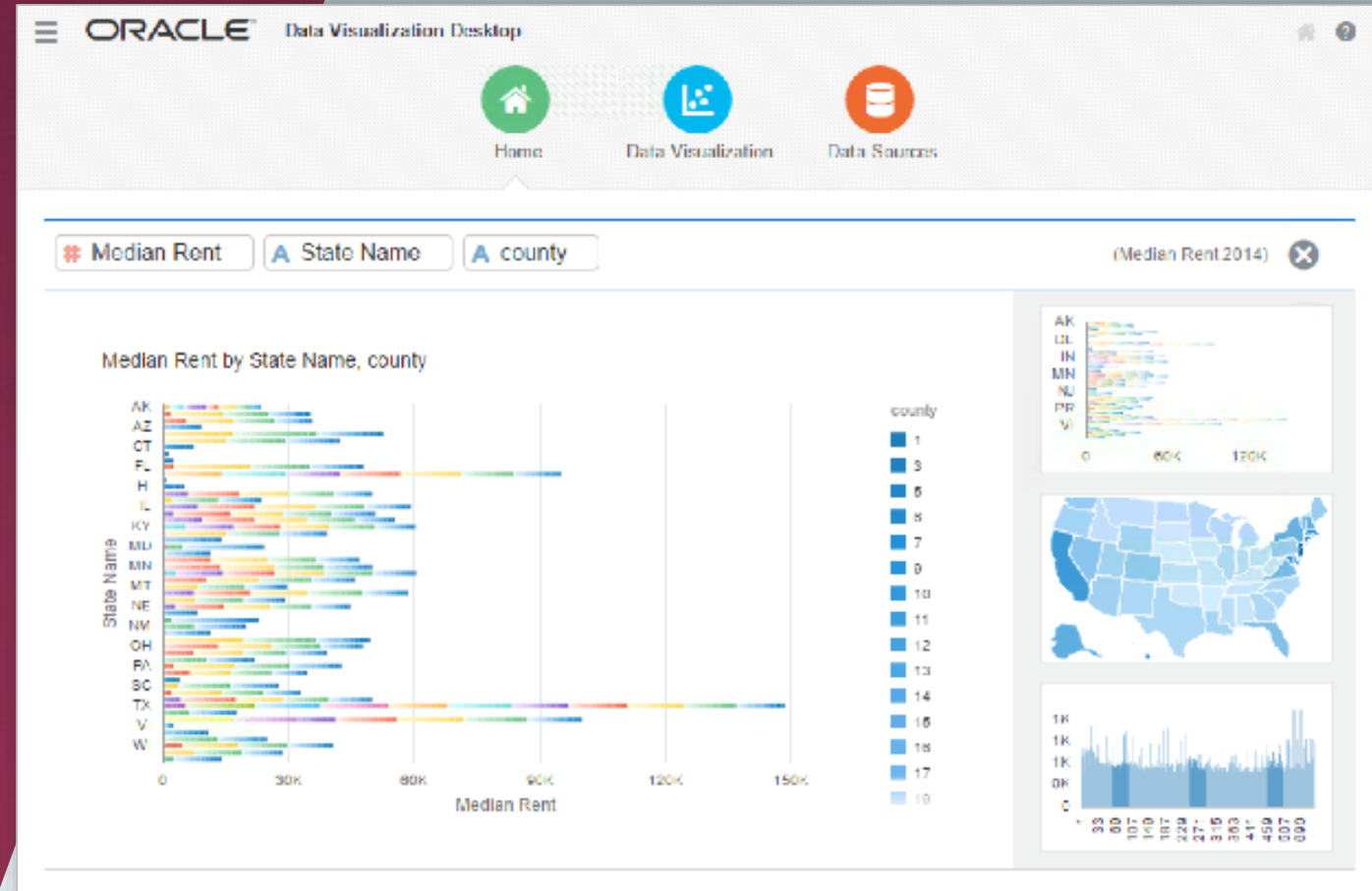
Talk to Your Data with BI Ask

Powerful, intuitive keyword search

- Interprets semantic layer, user private data, expression library and catalog artifacts
- Voice-enabled
- Fuzzy match, stemming, natural language processing
- Generates on-the-fly queries - visualizations are auto-created while user types

Available on all platforms

- Mobile
- Browser
- Desktop



Tell Better Stories with Your Findings

Interactive data storytelling

- Evaluate each story point, “kick the tires” and validate conclusions
- Presentation mode enables focus on the story point, while offering complete interactivity
- Freeform text and images enable in-place discussions

Consume anywhere

- Mobile, desktop and browser
- Native integration with mobile platforms to enable seamless hand-offs, screen-shares, and more



Build Collective Intelligence with Day by Day

Anticipates questions through self-learning

- Infuse data-based insights into daily activities
- Get customized feeds based on what you are interested in, when and where you are interested in it, and who you collaborate with
- Anticipates your needs and delivers appropriate information to help you make better informed decisions throughout the day
- Use your device's voice capabilities to obtain answers



Role-based Visualization Content Packs

Pre-built data visualization content

- Included with Oracle Data Visualization Platform
- Extends OTBI insights with pre-built data visualization sample content
- Targets specific line-of-business personas
- Identifies difficult-to-spot business opportunities, innovations and patterns
- Blends data across business functions, lines of business and applications
- Quick ad-hoc exploration of OTBI and other data with intuitive business user interface
- Near real-time access to data from OTBI and other Oracle application sources



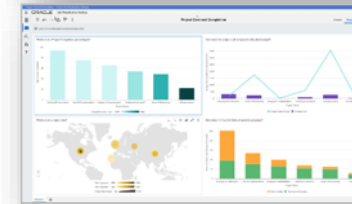
Finance Manager

- Revenue Overview
- Revenue and Headcount Analysis
- Cost Management



Project Manager

- Campaign performance
- Campaign cost



Sales VP

- Top deals in Play
- Sales review
- Pipeline trend
- Revenue trend



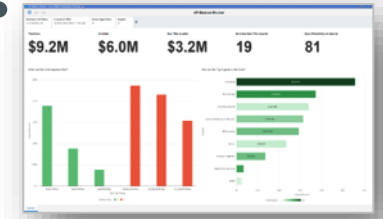
Marketing Analyst

- Campaign performance
- Campaign cost



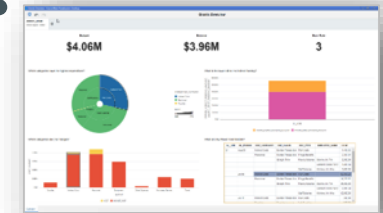
Payables Manager

- AP Balances
- AP Holds
- AP Overdues



Grants Manager

- Budget vs. Actual
- Award Cost Details
- Award Encumbrance Details



Sales Manager

- Team performance
- Quota attainment
- Pipeline review
- Demand generation



Service Manager

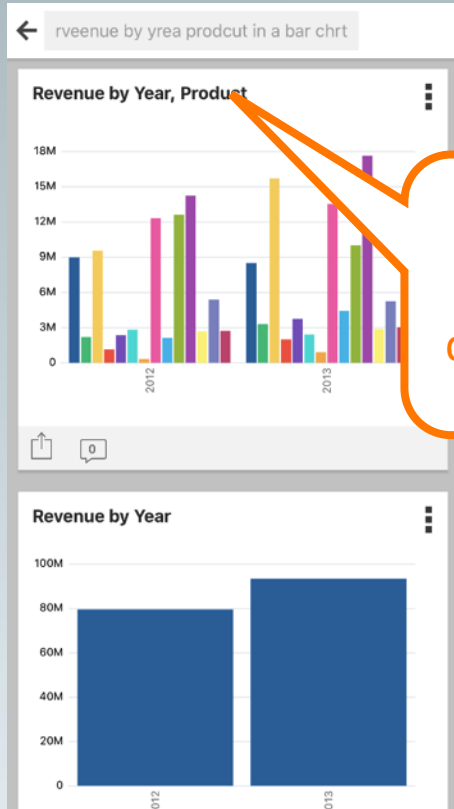
- Open incidents
- Closed incidents
- Team performance



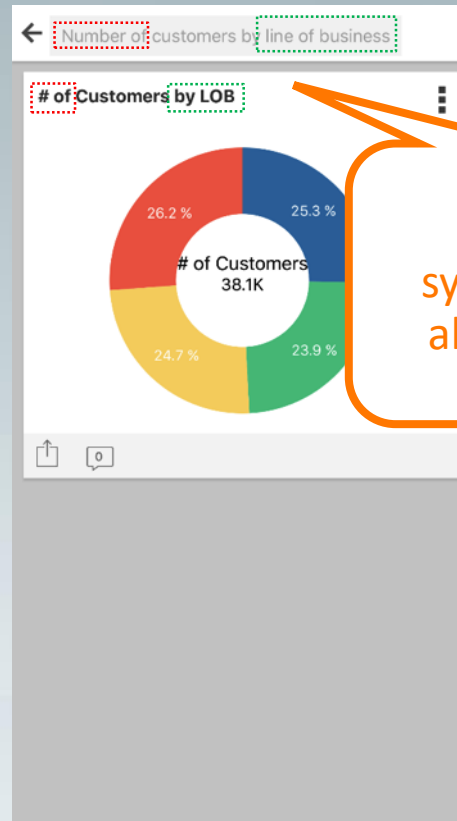
A man in a dark suit, white shirt, and patterned tie is shown from the chest up, holding a smartphone in his hands. He is looking down at the device. The background is a blurred cityscape with a body of water and a bridge, possibly the Golden Gate Bridge, under a bright sky. A large, semi-transparent red triangle is overlaid on the right side of the image, containing the text "What's Next?".

What's Next?

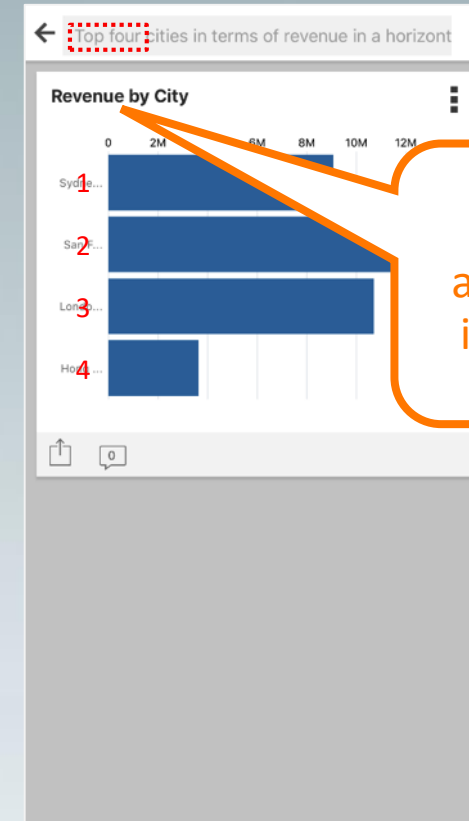
Improved Natural Language Query (“Ask”)



Autocorrect
natural language
queries on the fly

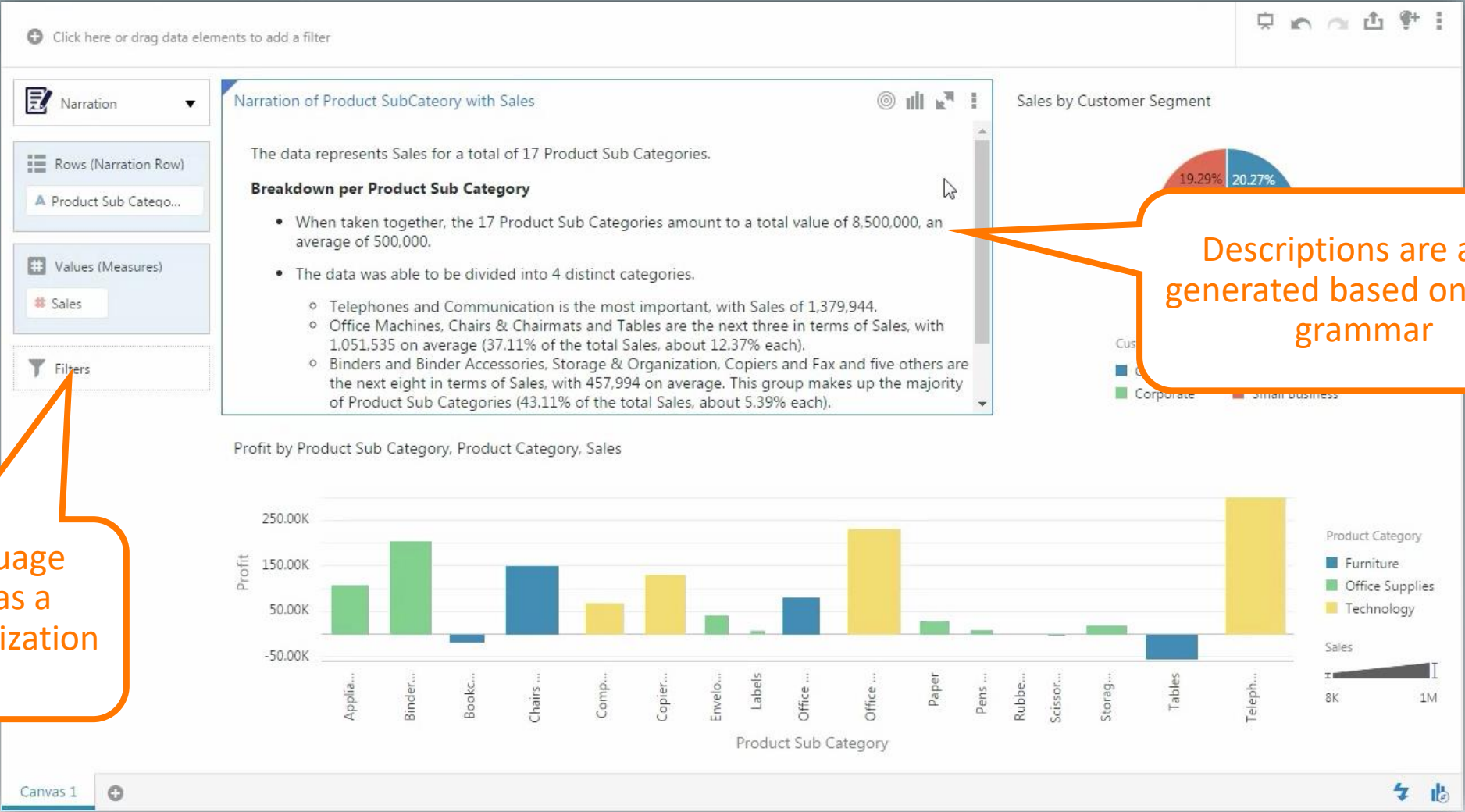


Support
synonyms and
abbreviations



Dynamically
adjust grammar
interpretations

Natural Language Insights



Natural Language Generation as a standard Visualization type

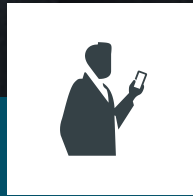
Descriptions are auto generated based on visual grammar

Smart Analytics for Everyone



ANALYSTS

- Faster time to insights
- Share, collaborate and maximize community's wisdom



BUSINESS LEADERS

- Easy, timely, proactive business insights
- Empower to go beyond consuming others' findings



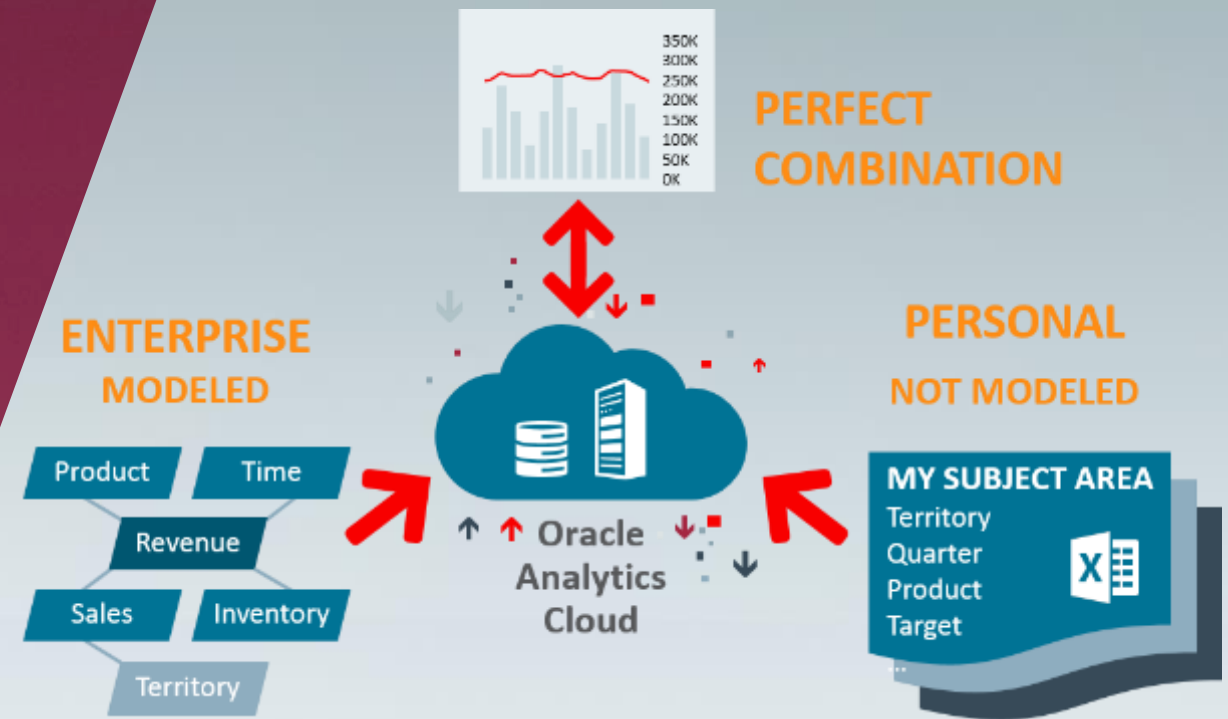
DEVELOPERS

- Develop and deploy analytic applications for people to customize and personalize
- Embed analytics in any application context

Business Agility & Data Reliability

Balance business needs with data governance

- Combine all relevant information from any data source, managed and self-service
- Stay productive with intelligently optimized queries
- Robust data mashup support – variety of join options and key inference



Easily Extensible by App Developers

Visualization SDK

- Develop custom visualizations with Javascript/D3
- 100% functional, LCM parity with native visualizations

Function extensibility

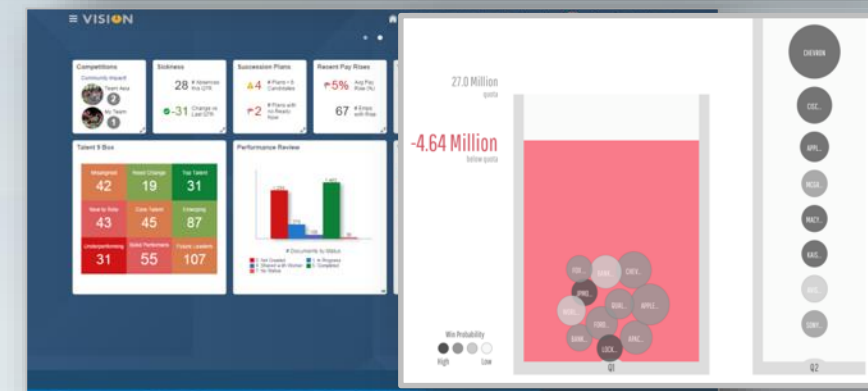
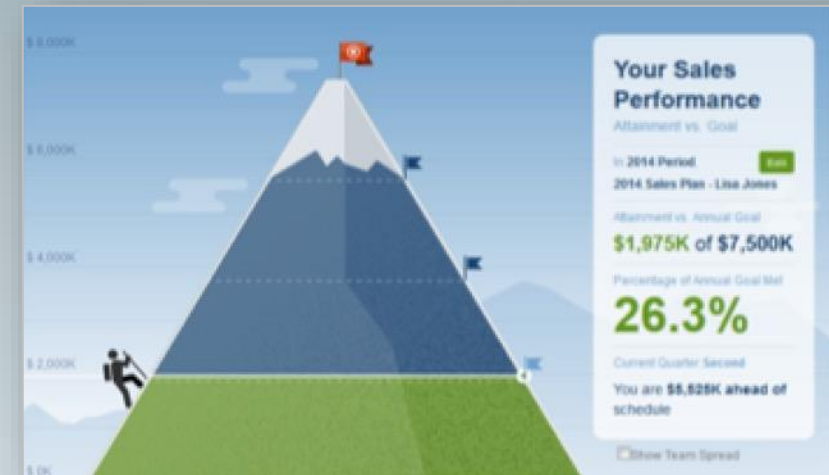
- Extend the expression library with custom functions (e.g., stats, machine learning or textual functions)
- Leverage custom functions anywhere – Visual discovery, Data Prep, and more

Data source extensibility

- Add data connectors to non-native sources

Full Embedding SDK

- Full ability to natively embed visualizations and stories with native interaction



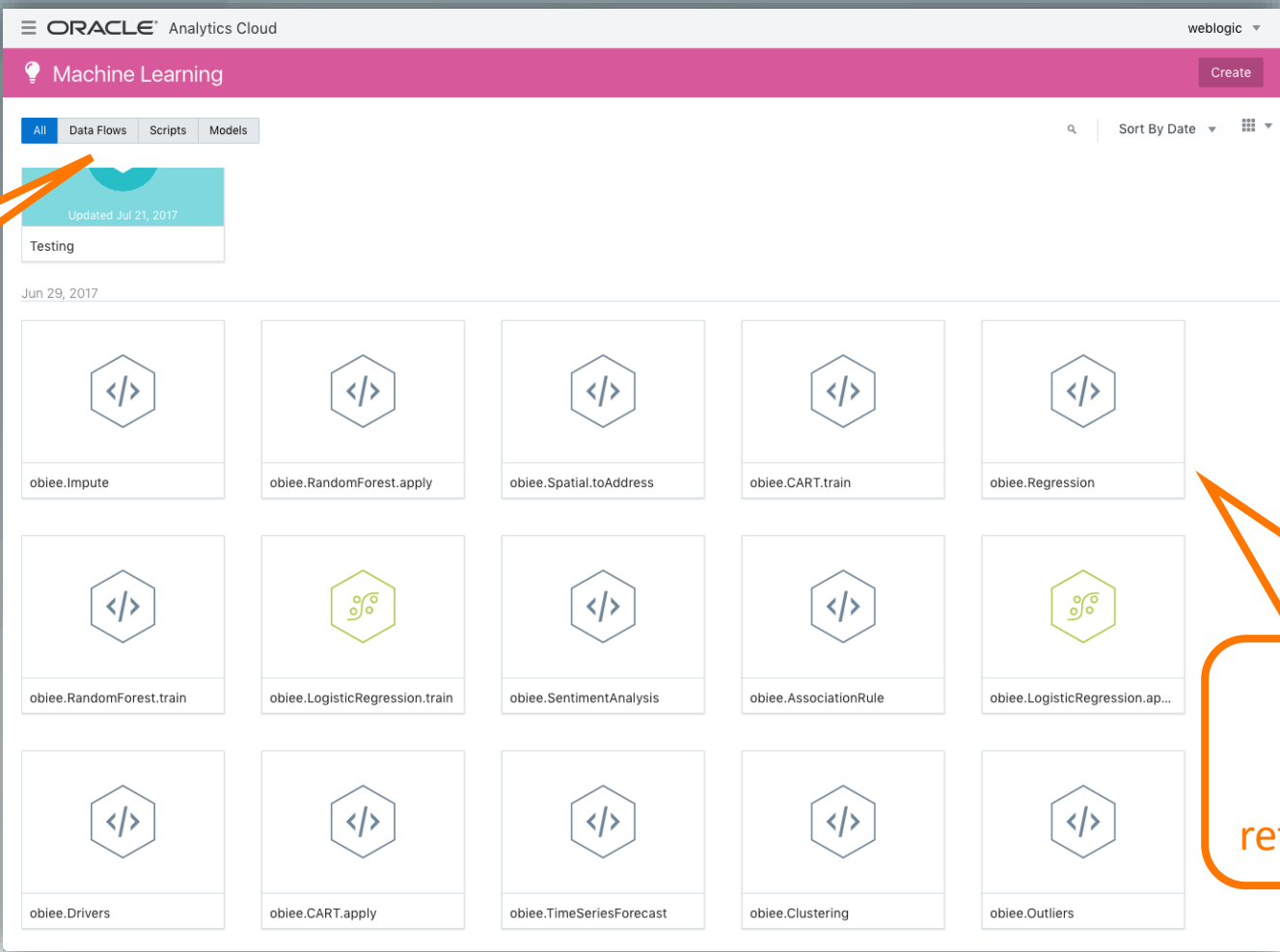


What's Next?

Train sophisticated machine learning models directly within any data flow

Leverage best practice
model configuration
parameters

Operationalize ML (aka RTD)



Manage all ML artifacts in one catalog location

Model lifecycle management, scoring APIs, automated retraining and A/B Testing

Oracle Analytics Cloud Editions



Analytics Cloud Enterprise Edition

Data Lake plus full Semantic Layer, Day By Day, Scale-out, High Availability, and Disaster Recovery



Analytics Cloud Data Lake Edition

Standard plus Replication from SaaS, Data Flows, Full Essbase

Newly Added



Analytics Cloud Standard Edition

Data Discovery, Data Preparation, and Data Visualization capabilities across Web, Desktop, & Mobile, Essbase SE

Planned



Analytics Cloud Foundation Edition

On-prem equivalent service - OBIEE Answers, Dashboards, Admintool. No Data Visualization

All Features

Data ingest and transform on Data Lakes

Data Visualization

OBIEE Equivalent. Essbase planned

Roadmap

Coming Soon

Discover

- One click diagnostic, descriptive analytics for business user

Prepare

- Essbase cubes creation and update for fast interactive visualizations

Visualize

- Action plugins for initiating transactional operations
- Pixel perfect reporting – BIP
- Adaptive, personalize insights feeds across Cloud and Mobile

AI (Intelligent Data Services)

- Develop custom ML models using OOTB algorithms or custom. Use Data flows to train, save and score against models

Enterprise Cloud

- Performance with Bare Metal Cloud

Within 6 Months

Discover

- One click predictive and prescriptive analytics for Business User

Prepare

- Intelligent recommendations for data blending
- Knowledge based data enrichment

Visualize

- What-If and Sandboxing
- Proactive alerts based on usage/social

AI (Intelligent Data Services)

- NLP and NL Gfor readable insights
- RTD features: Model management, online scoring, Model time versions, A/B testing and more.

Enterprise Cloud

- Scalable batch and streaming model serving
- Data flow job monitoring

Within 12 Months

Discover

- Automated catalog across all data for search, recommendations, and security

Prepare

- Streaming data flows
- Recommend domain specific predictive models

Visualize

- Team data data input and analysis in DV
- Domain KPI recommendations

AI (Intelligent Data Services)

- Pro-active Intelligence: Business context, Data driven, Community interest aware experiences. Personalized and actionable.

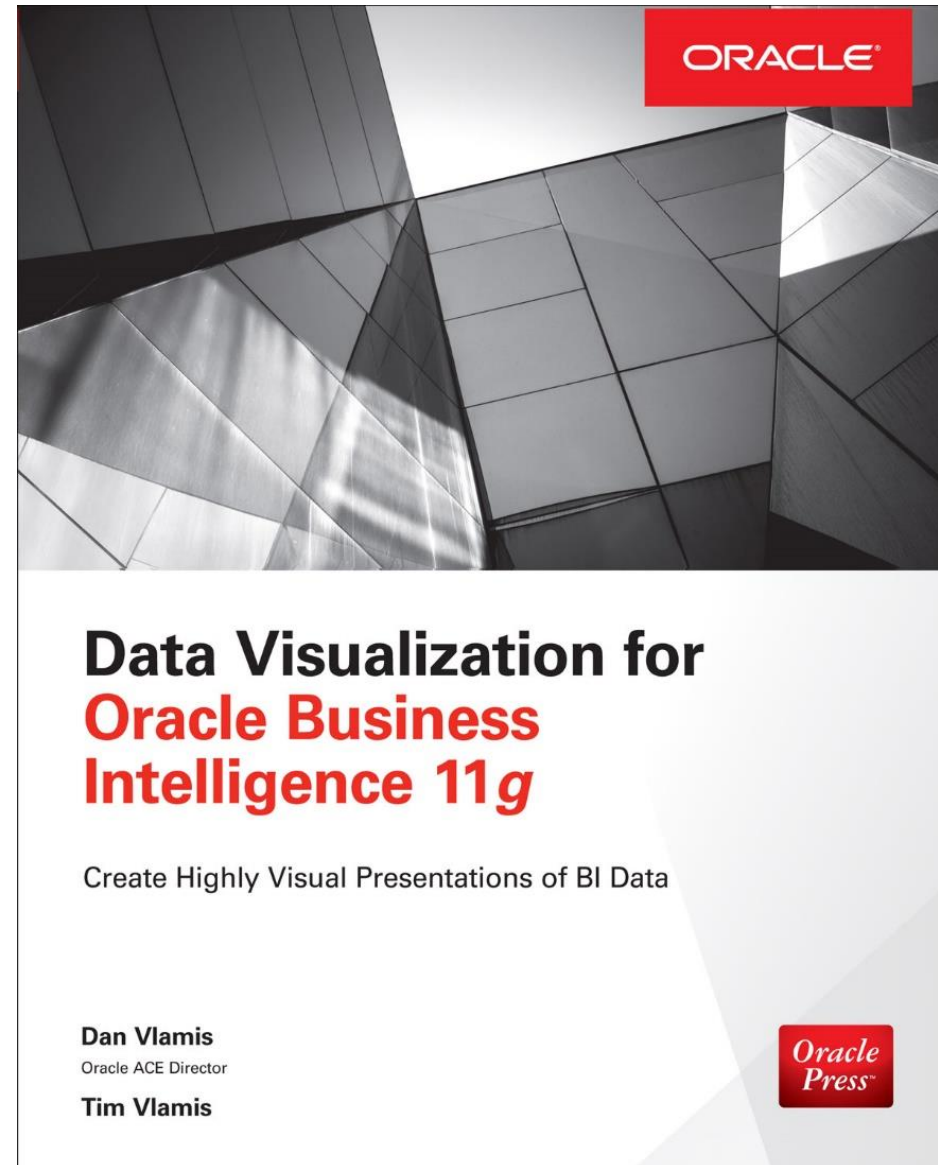
Enterprise Cloud

- Packaged DV Apps for distribution
- New class of applications – CXO Dashboards



Drawing for Free Book

Add business card to basket
or fill out card





Analytics and Data Summit

All Analytics. All Data. No Nonsense.

March 20 – 22, 2018

Formerly called the BIWA Summit with the Spatial and Graph Summit
Same great technical content...new name!



www.AnalyticsandDataSummit.org

Call for speakers is now open with rolling acceptances until December 3, 2017





Questions?

