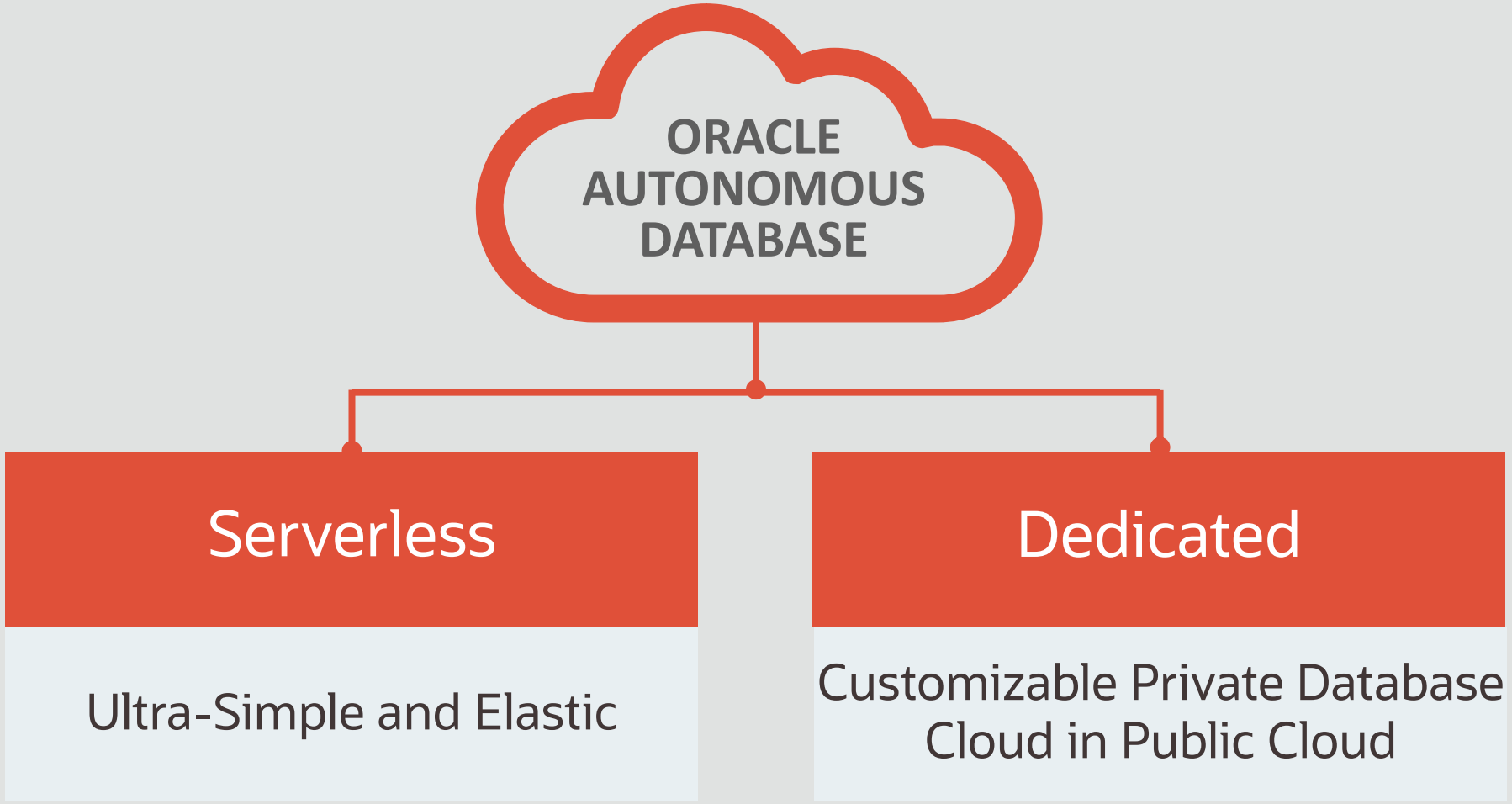
Autonomous Database

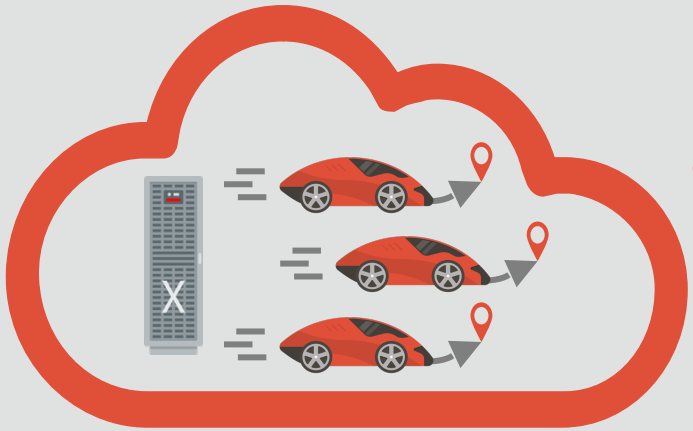
One Autonomous Database – Two Deployment Choices



Autonomous Database Serverless – Primary Benefits

- Simple
  - Oracle automates and manages everything
    - Deployment, lifecycle, software updates, etc.
  - Customer just chooses database compute, storage, and region
- Elastic
  - Low minimum size - 1 OCPU
  - Low minimum time commitment - 1 hour
  - Automatically scales online for true pay-per-use

Autonomous Database Dedicated – Primary Benefits



- Provides your own Database Cloud running on dedicated Exadata Infrastructure
  - Runs all your databases - any size, scale, or criticality
- Highest Isolation
  - Runs inside **Secure Isolation Zone** for highest protection from other tenants
  - Configure multiple Exadatas or Container Databases for intra-company isolation
- Customizable Operational Policies
  - Control of provisioning, updates, availability, density

One Autonomous Database – Optimized by Workload

Autonomous Data Warehouse - ADW

Best for all Analytic Workloads:

- Data Warehouse, Data Mart
- Data Lake, Machine Learning

Autonomous Transaction Processing - ATP

Best for TP and Mixed Workloads:

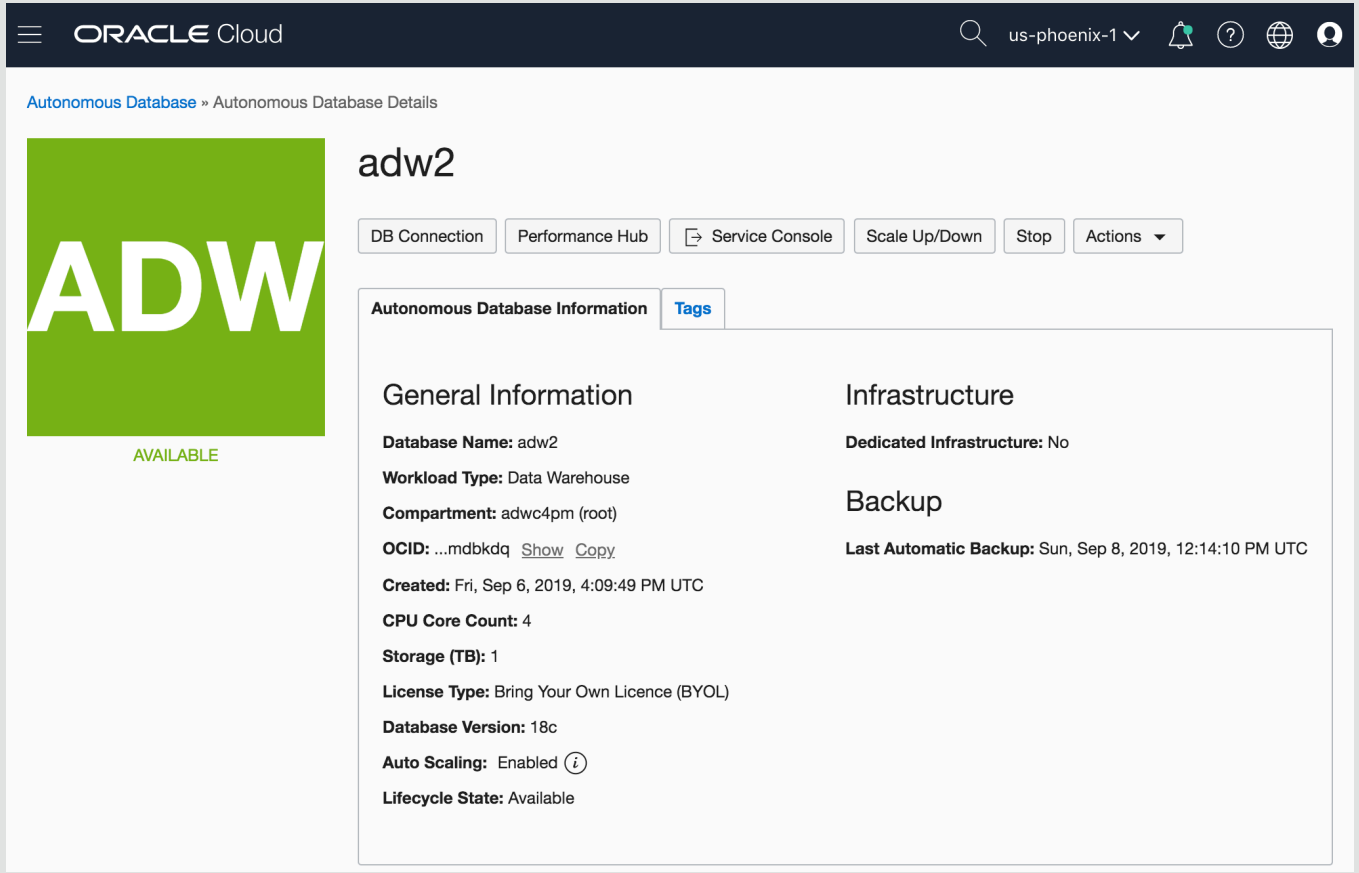
- Transactions, Batch, Reporting
- IoT, Machine Learning

Automated Management

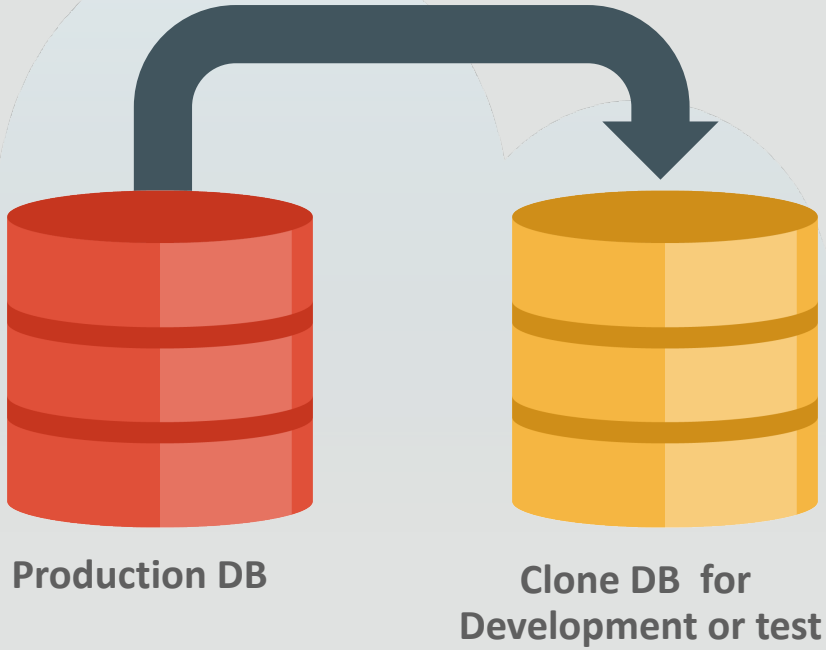
Oracle automates end-to-end management of data warehouse

- Provisioning new instances
- Backup and restore
- Patching and upgrades
- Cloning

Full lifecycle managed using Service Console or API's



Cloning in Autonomous Database



Easy and fast cloning

Today: full clone or metadata-only clone

Coming soon:

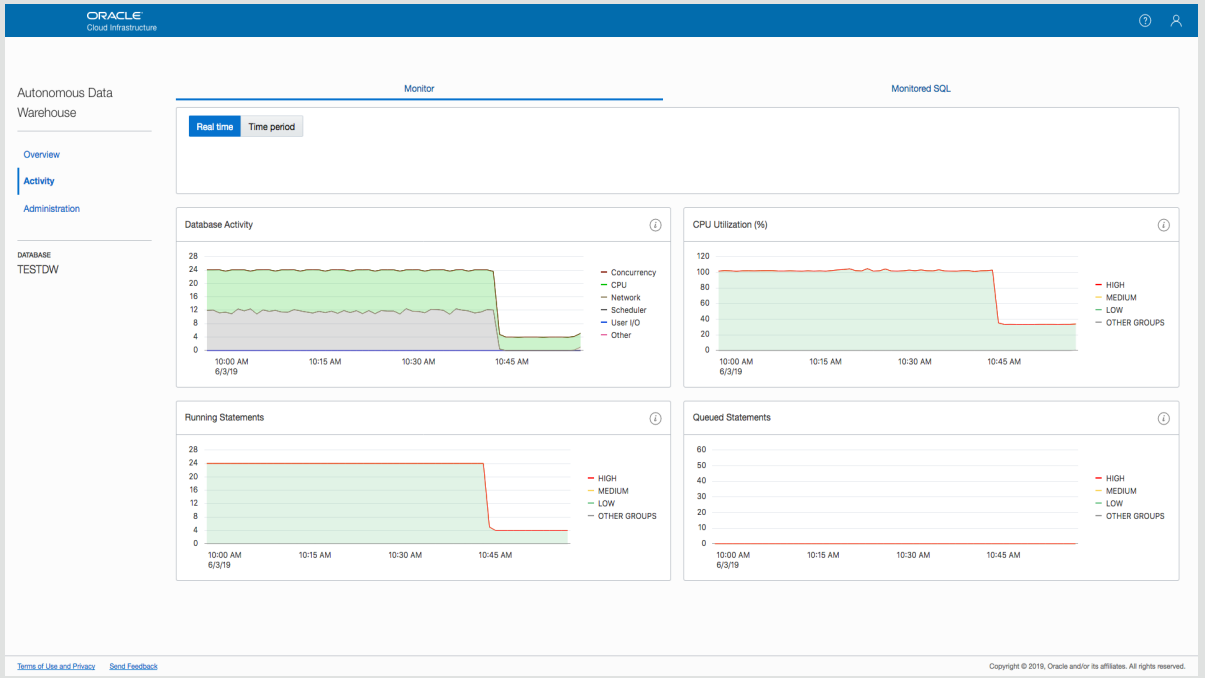
- Clone across regions
- Clone from backup
- Refreshable clone

Need better screenshot

Automated Tuning

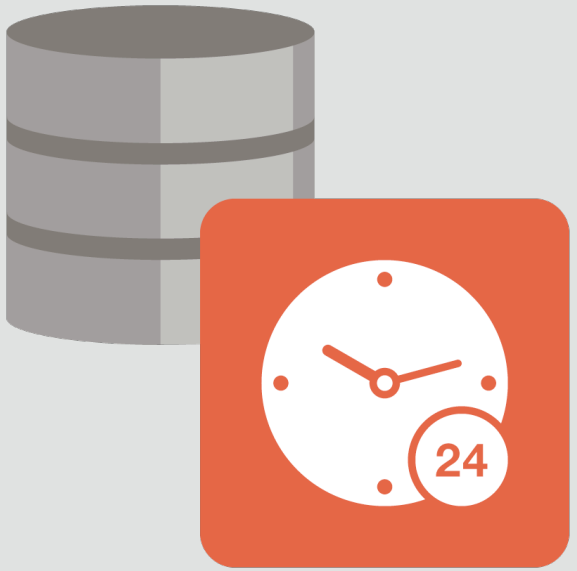
"Load and go"

- Define tables, load data, run queries
  - No tuning required
  - No special database expertise required
  - No need to worry about tablespaces, partitioning, compression, in-memory, indexes, parallel execution
- Fast performance out of the box with zero tuning
- Auto-scaling to adapt to changing workloads
- Built-in resource-management plans



Automated Reliability

- Fault-tolerant, highly-available Exadata infrastructure
  - Triple-mirrored disks for disk failures
  - Real Application Clusters for compute node failures
  - Self-healing hardware
- Automatic backups
  - Point in time recovery to anytime in last 60 days
- Online patches
  - Regular patches applied with zero database downtime



Automated Security

Always up-to-date on security patches
- Eliminates the largest security risk in current customer-managed systems

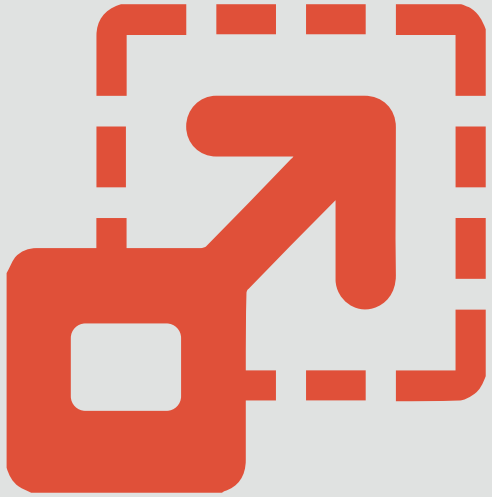
Full encryption for entire database, backups and all network connections

Database auditing always on
- Login failures
- Modifications to user accounts or database structures

Secure by default
- Customers are unable to disable security configurations

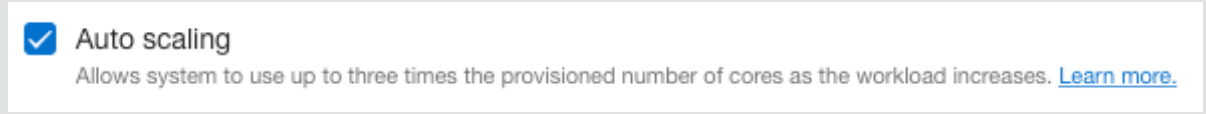
Fully Elastic: Pay for What you Use

- Size to the exact number of OPCU's and TB's required
  - Not constrained by fixed building blocks
- Auto-scaling instantaneously adjusts CPU and IO resources for current workload requirements
- Shut off idle compute save money
  - Restart instantly



Auto Scaling in Autonomous Database

- Instantaneous scaling based upon workload requirements
  - Up to 3x additional CPU and IO resources
- Simple 1-click to enable:



- Saves money: pay for the resources that you use

Autonomous Database: Cloud Platform

Cloud-based Tools

Service console for Cloud Admins

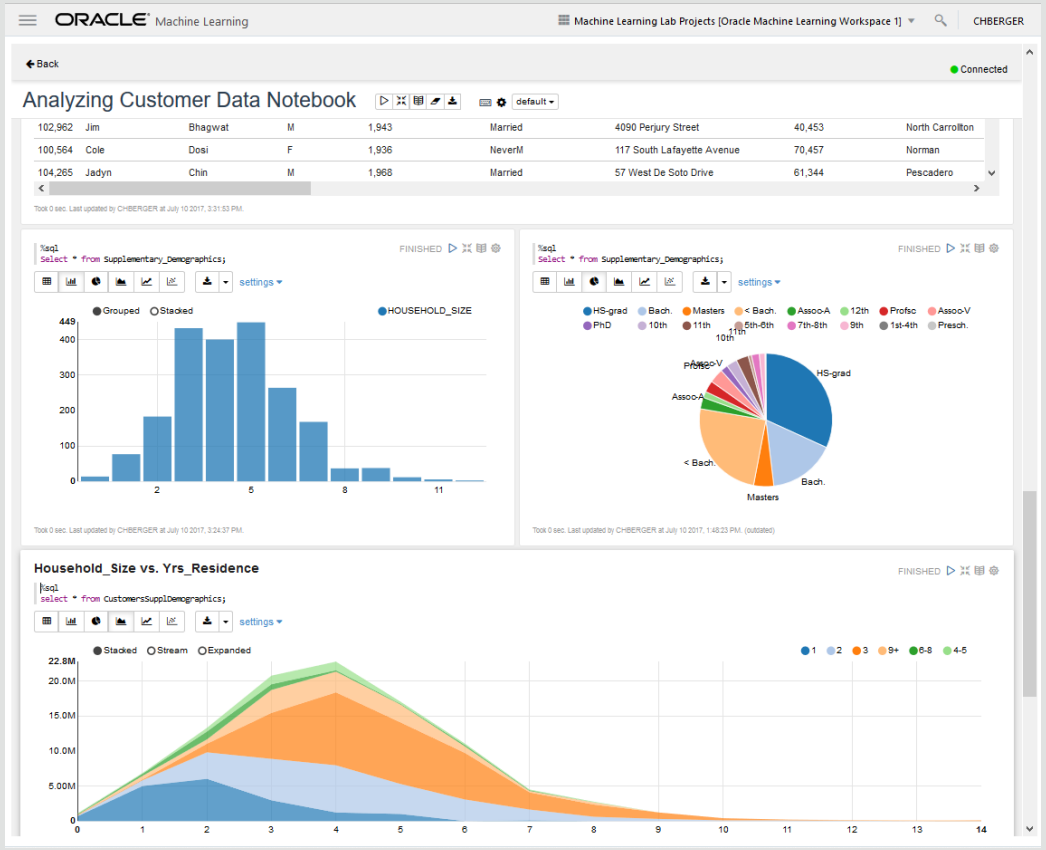
SQL Developer Web for Database Developers

OracleML for Data Scientists

APEX (Application Express) for Applications Developers

OracleML: Built-in notebook

- Collaborative UI for data scientists
  - Easy access to shared notebooks, templates, permissions, scheduler, etc.
- Based on Apache Zeppelin
- Roadmap: Common UI for data scientists across multiple services



APEX - Oracle Application Express

Autonomous Database-centric web application development framework

Develop desktop and mobile web apps

Visualize and maintain database data

Leverage SQL Skills and database capabilities

Oracle Data Visualization Desktop

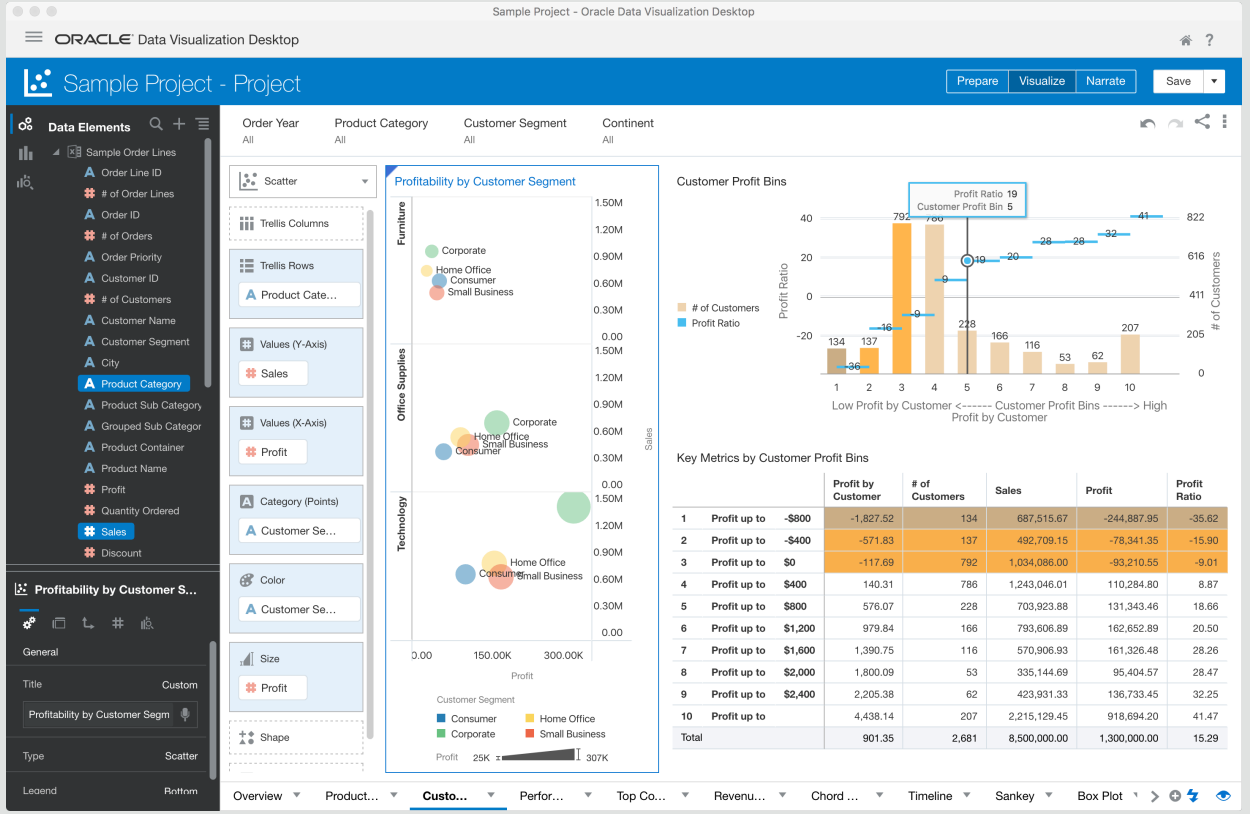
Self-service data exploration for business users

- Rich, interactive visualizations

Included with ADW*

- Also available as cloud version within Oracle Analytics Cloud

* May be be use with ADW at no added cost



Third Party Business Intelligence/Integration Platforms