

ORACLE'S CLOUD & AUTONOMOUS DATABASE

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WHAT DEFINES NEW I.T.



IDEAS

Customers are bubbling with ideas but struggle to build them

BUILD

With cloud, you can build an app in hours with functionality equal to best-of-breed

PROTOTYPE

Going from prototype to scale used to take years. Now it can take hours

CO-CREATION

Implementing ideas with customers, in their environment, is now preferred.

e Confidential –



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A NEW GTM APPROACH- A NEW OFFER

We should combine Business Innovation & Technology Strategy with rapid cloud prototyping into end to end offer

ORACLE'S OFFER:

Help customer from an idea to a REAL cloud prototype in under 10 weeks !



KINGOLD – CARE CUSTOMER'S BUSINESS

Kingold is a diversification company including Hotel, Golf Resorts, Property Management, Education, News paper, Bank, Direct Selling Business and Auctions etc.

CUSTOMER NEEDS

- Simplify IT
- Business agility
- Customer profiling with big data
- Cloud security

ORACLE

CURRENT IT INFRASTRUCTRE

- Microsoft Azure
- On premise x86

ORACLE SOLUTION 8 cloud plays

KINGOLD

Cloud@Customer Big Data Apps Unlimited Ravello, OMC DB Backup, CASB...

KINGOLD CLOUD PLATFORM



Application Consolidation & & Data Service Platform





Oracle Cloud Machine Oracle ExaData Cloud Machine Oracle Big Data Cloud Machine

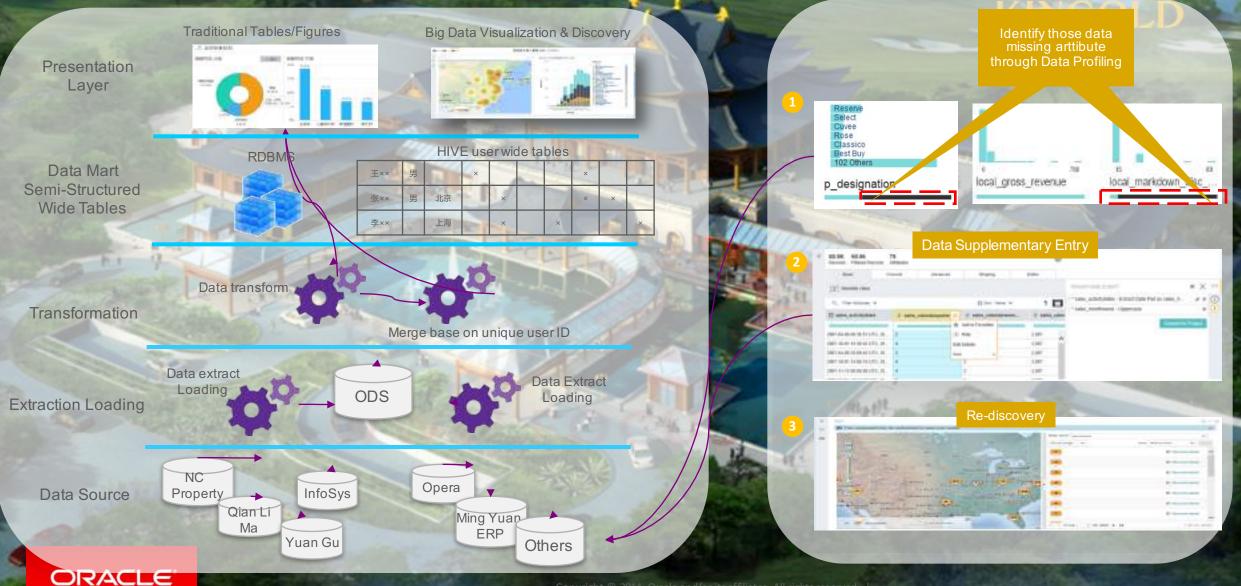
Big Data Analytics

& Data Lab

ORACLE[®]

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ARCHITECTURE OF KINGOLD'S DAAS PLATFORM





ORACLE'S CLOUD STRATEGY

ORACLE[®] CLOUD



The Only Cloud You'll Ever Need



Oracle Develops Offerings for Three Deployment Models



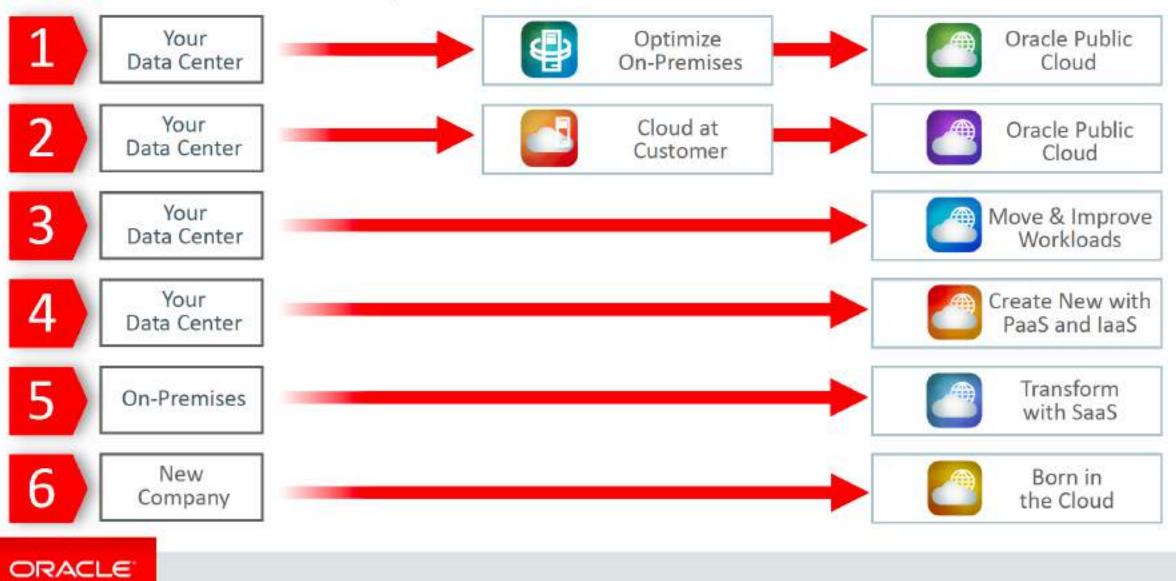


Public Cloud

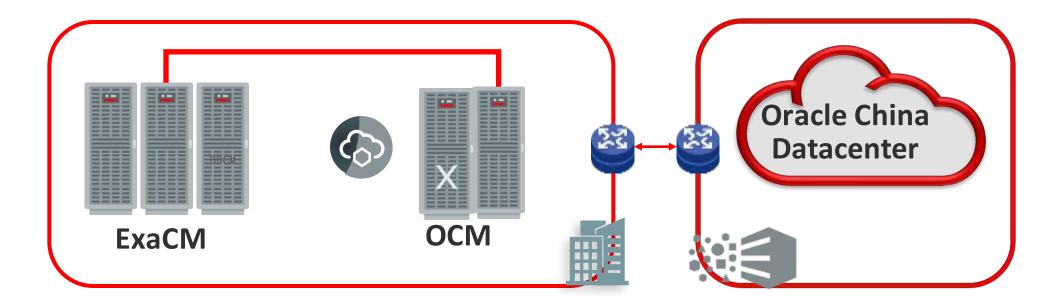
For All Your Workloads



Six Oracle Journeys to Cloud



Typical Architecture



Unified Data Management



Oracle Autonomous Database and Highly Automated Cyber Defense

Robots Prevent Data Theft



Cyber Attacks: More Data Stolen Every Year Companies are Losing the Cyber War

- Equifax: Records of 143,000,000 Americans, plus ...
 - -Credit Card Numbers, Social Security Numbers, home addresses...
 - -Equifax CEO, executives and IT management team resigns



Oracle Strategy

More Automation Higher Security and Lower Cost

Machine Learning (ML) The Applications are Revolutionary

- Autonomy: "Self-Driving" cars
- Computer Vision: Facial Recognition
- New Oracle ML Applications: Database and Cyber Security



Machine Learning

Computers Learn from Patterns in the Data and Make Predictions

- Machine learning relies on large amounts of accurate training data
 - -More volume of accurate data increases learning
 - –Increased learning/training means more accurate predictions
- Anomaly Detection: Separate normal from abnormal patterns in the data
 - -Detect a cancer cell from normal cells
 - -Detect the CFO logging on from a computer in the Ukraine



Huge Amounts of Computer Systems Data in Event Logs Enable New Database and Security Applications for Machine Learning

- Lots of Event Logs
 - Infrastructure logs: Network, Server, Storage, VM, OS
 - Platform logs: Database, Java, Analytics, etc.
 - Applications logs: ERP, CX, HCM, Custom, etc.
- Event Log Training Data Enables New Machine Learning Applications
 - Security: Detect and connect anomalous events: Login from Ukraine and unique SQL
 - Database: Classify normal query patterns and automatically tune database



Announcing Oracle 18c

World's First 100% Self-Driving Autonomous Database

Oracle Autonomous Database 18c Total Automation Based on Machine Learning

- No Human Labor: Eliminate human labor to manage the database
- Database automatically provisions, upgrades, patches, tunes itself while running
 - Automated real-time security patching with no downtime window required
- No Human Error: SLA Guarantees 99.995% reliability and availability
 - Minimize costly planned plus unplanned downtime to less than 30 minutes a year
- No Human Performance Tuning: Consumes less compute and storage than at Amazon
 - Lower labor costs is an even bigger savings.



Oracle Autonomous Database 18c Lots of New OLTP and Data Warehouses Features

<u>OLTP</u>

- 4x faster in-memory OLTP access
- 5x faster RAC for high contention OLTP
- 2x faster streaming ingest for IoT workloads
- Zero impact grid infrastructure patching
- PDB cloud provisioning automation
- NVRAM ready row store, column store, SQL

Analytics

- 2x faster in-memory column store
- 100x faster In-memory analytics for external data
- 100x faster approximate query processing
- Query and Load directly from Oracle Object Store
- Active Data Guard for data warehouse loads
- New machine learning algorithms



Oracle Autonomous Database 18c No Human Labor – No Human Error

- Fully Automated Database Provisioning and Management
 - Even for mission critical scale-out clusters with datacenter disaster protection
 - User defines policies then system automatically manages itself
 - Automatic provisioning, backup, upgrades, patching, tuning, etc., while running
 - No human administration means no administrator errors



Oracle Autonomous Database 18c Continuous Adaptive Performance Tuning

- Fully Automated Performance Tuning
 - Automatic optimization: indexing, caching, statistics, parallelism, etc.
 - Continuous tuning to adapt to data volume increases and data distribution changes
 - Consumes less computer resources than human tuned system



Oracle Autonomous Database 18c Dynamic Elastic Hardware Allocation

- Fully Automated Hardware Resource Elasticity
 - Instantly expand/shrink compute and storage without downtime
 - Minimizes cost by delaying resource allocation until time needed
 - No overpaying for partially used fixed configurations



Oracle Autonomous Database 18c

Non-Stop Availability: Fault Tolerant plus On-line Recovery and Upgrades

- System Failure or Scaling
- Regional Outage or DB Corruption
- Patches (Updates)
- Major Release Upgrades
- Table/Index/Schema Changes
- User Error

- Exadata, RAC, ASM
- Active Data Guard
- RAC Rolling Upgrade
- Transient Logical Standby
- Online and Edition Based Redefinition
- Flashback transaction, table, or database



Oracle Autonomous Database 18c Guaranteed 99.995% Reliability and Availability

• SLA Guarantees 99.995% Reliability and Availability

- Less than 30 minutes of downtime per year
- Includes both planned and unplanned downtime
- No exceptions in fine print: Up to 100x more reliable than Amazon



