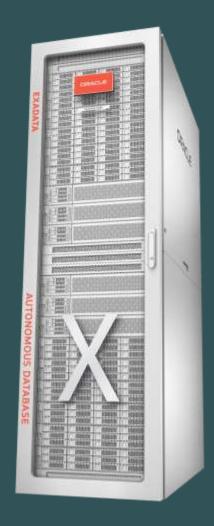
## ORACLE

# Oracle OCI Cloud@Customer

Sales Academy - Business Overview

## **Marcel Lamarca**

Exadata Cloud Specialist
Oracle, Alliances and Channels LAD
March, 2024



# Water.

## SQL> select \* from person where name = 'Marcel Lamarca'





#### MARCEL LAMARCA

Exadata Cloud Specialist Upgrade, Utilities, Patching, Performance & Migrations



marcel.lamarca@oracle.com

### **About My Career**

- 22 Years dedicated to study and support Oracle Databases.
- 13 Years working with Exadata (On-prem, C@C and Cloud Services).
- 5 Year working for Oracle do Brasil
- 2 Year on Alliances LAD knowledge Team

#### Certifications

#### **Oracle Cloud Specialist (OCS)**

- Exadata Database Machine X9M Certified Specialist
- OCI Foundation 2020 / 2023
- Oracle Autonomous Database Administrator Professional 2019 / 2023
- Oracle Cloud Database Migration and Integration 2021
- OCI Cloud Certified Architect Associate 2022
- OCI Cloud Certified Architect Professional 2022
- OCI Multi-Cloud Architect Professional 2023
- Oracle Database Services Certified Professional 2023

#### **Oracle Certified Professional (OCP)**

- Oracle Database certified professional 10g, 11g, 12c and 19c.
- Mysql 8.0 Database Administrator Certified Professional

#### **Oracle Certified Specialist (OCE)**

- Grid/RAC Database Administrator 11g
- Oracle Golden Gate 12c Certified Implementation Specialist

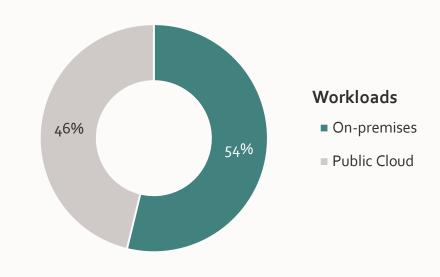


# Agenda

- OCI Dedicated Regions Overview
- 2 Exadata Cloud At Customer Overview
- 3 Oracle Customer Success
- **4** Resources

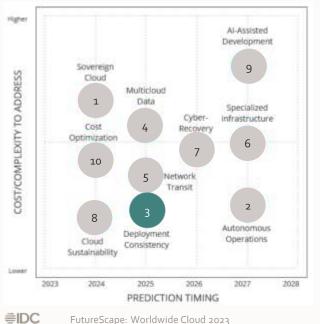
## Thousands of critical deployments, on-premises and cloud

54% of enterprise workloads remain on-prem!



Feb 2022 - IDC Survey Spotlight - Document number: # US48833322

## IDC FutureScape Worldwide Cloud Predictions



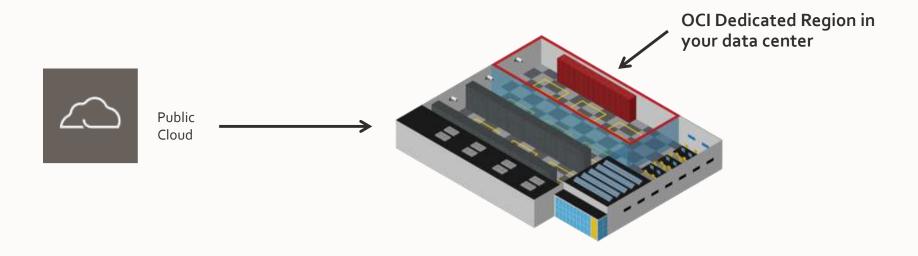




# OCI Dedicated Regions



# A cloud experience, managed for you, in your data centers



## Offering full agility, scalability, and economics of a public cloud



100+ public cloud services



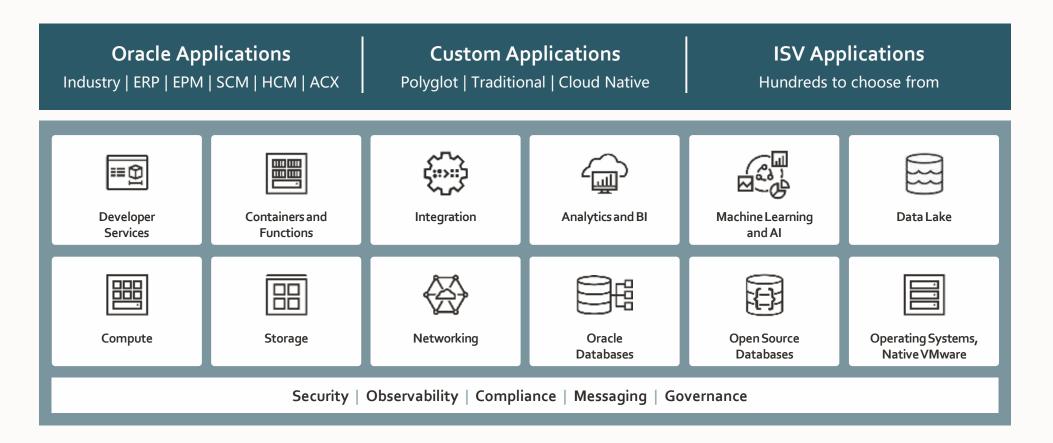
Start small, activate fast, grow on demand



Buy the cloud, rather than build it



## 100+ public cloud services on-premises



Bring Oracle's 100+ public cloud services and applications to your own data center with the same rates and SLAs.

100+
public cloud services

to support your workloads

**50+**Oracle Fusion and Industry applications

**10,000**OCI developers

3,000 field cloud engineers



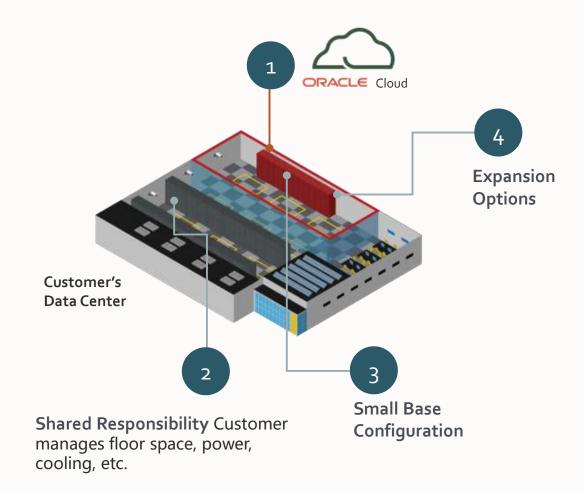
# **OCI Dedicated Region**

100+ Public Cloud Services

2 Shared Responsibility

3
Small Base Configuration

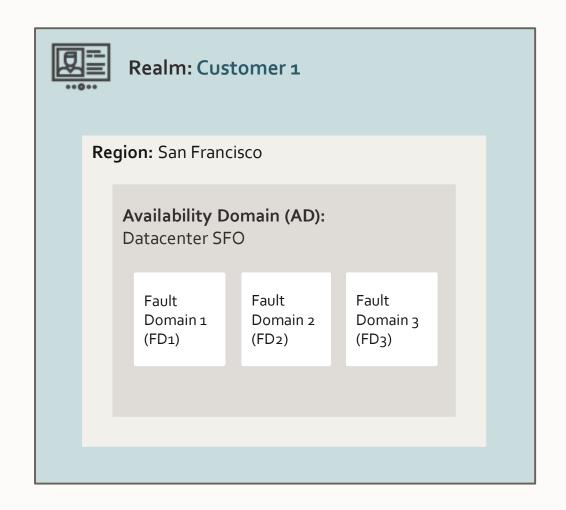
4 Multiple Expansion Options

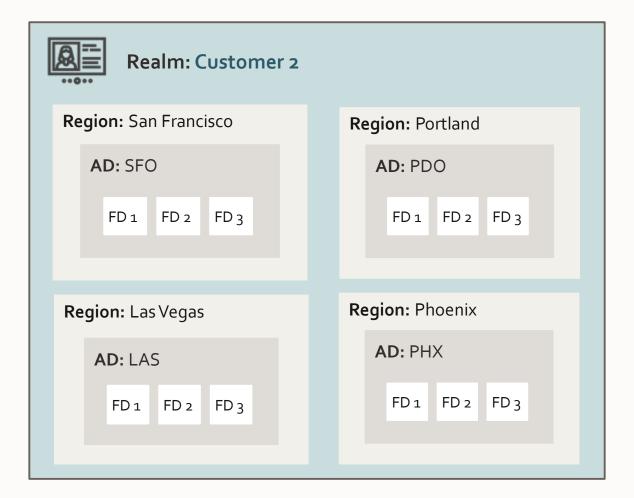




# **OCI Dedicated Region terminology**

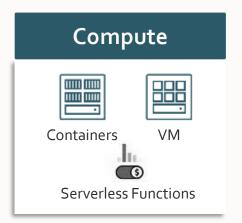
Realm, region, availability domains, and fault domains

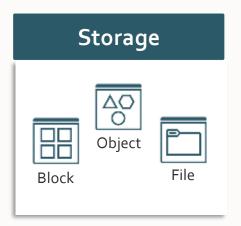






## **Key Features**

















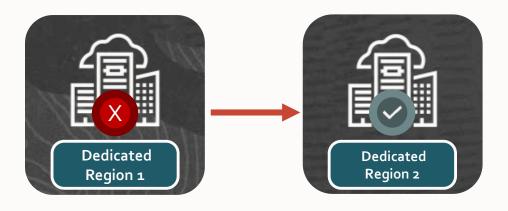
## OCI Dedicated Regions provide high availability and disaster recovery

## Why Disaster Recovery (DR)?

- Protects applications and data from region failure
- DR provides resiliency across regions, whereas HA technologies provide resiliency within a region
- DR requires Dedicated Regions to be in different geographical areas to protect against natural disasters impacting the entire region

### **Deployment Method**

- For a Dedicated Region, DR is achieved by replicating the entire application stack, including storage (Block, File, Object), and database between a primary Dedicated Region and a DR site
- To implement a robust DR strategy, customers must deploy at least two Dedicated Regions



#### Customers can use the following features to implement DR:

- VCN (Virtual Cloud Network) remote peering between primary and DR sites to enable communication
- Custom scripts, CI/CD pipelines to synchronize workloads (binaries, configurations, etc.)
- Auto-scaling to scale compute resources at DR site on demand
- Data Guard or Golden Gate for database replication.
- **Block-volume replication** to replicate block storage volume or volume groups.
- Object storage cross-region replication to replicate object storage.
- File storage replication to replicate file storage.



## Security

## Defense-in-Depth approach with layered security controls

Observability

Data Security, at rest and in motion

**Application Security** 

Infrastructure Security (ex. network, compute, storage security, & tenant isolation)

**Data Center Physical Security** 

Security automation, audit logs, monitoring, and reporting, SIEM monitoring 24x7x365

AES 256-bit & AES 128 TDE encryption; TLS 1.2, FIPS 140-2 Level 3 certified hardware for key storage

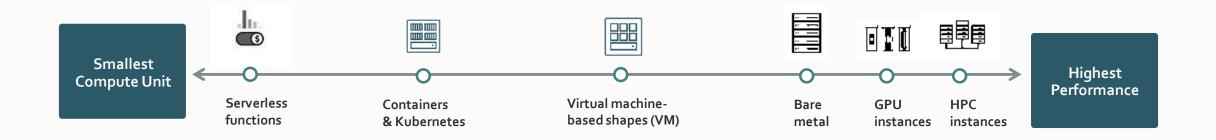
Web Application Firewall (WAF), IAM policies, vault service, Cloud Guard, etc. to protect cloud resources

Isolate management network from customer network, tenants and compartments

Restricted access with multiple levels of authorization, clean hardware and firmware



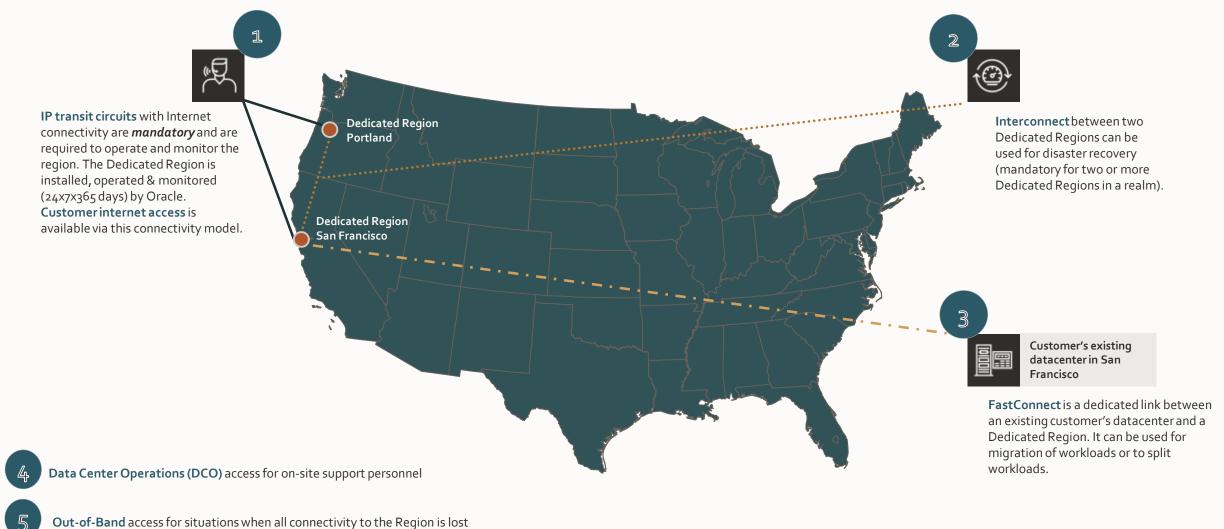
# Full range of compute and storage options







## **Dedicated Region network connectivity**





## OCI control center

Console for simplified capacity management

#### **OCI Console Extension**

The new OCI Console extension is available to all Dedicated Region customers

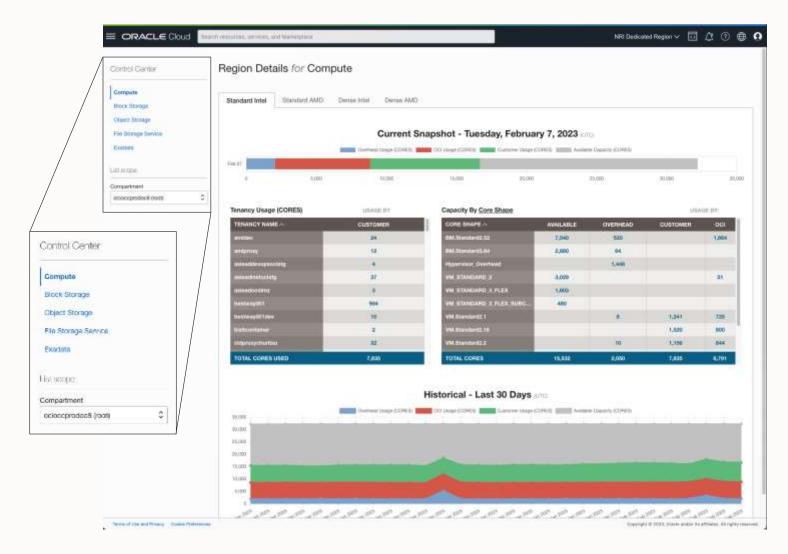
### **View Resource Consumption**

Customers can view regional consumption of resources relative to their physical Dedicated Region environment(s)

- Compute
- Storage
- Exadata

### **Access To Consumption Data**

Consumption data is downloadable and available via APIs for automation





## Oracle manages Dedicated Region customer support



Same support as public cloud at no added cost



15-minute response time for critical issues



24 x 7 help with technical service requests



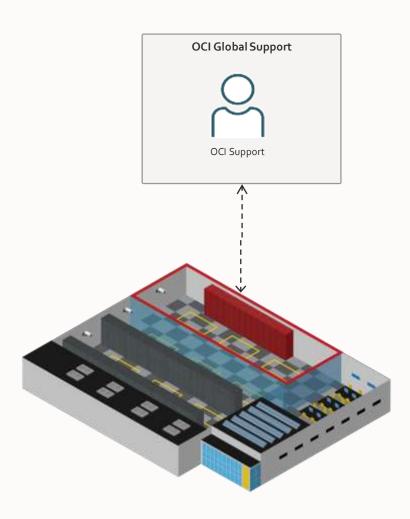
24 x 7 access to a Customer Support Portal



24 x 7 live phone support



Assistance during change management





## **Oracle SaaS applications on Dedicated Region**

#### Customer-requested Oracle SaaS applications run on Dedicated Regions **Fusion Applications Non-Fusion Applications Industry Applications Enterprise Performance Mgmt** Fin Services (AFCS/PBMCS) **Fusion HCM Fusion ERP Warehouse Management Fusion SCM Transportation Management Fusion CRM** IoT Intelligent Apps Fusion Hybrids (ODA, ODCS, etc) Field Service **Fusion Analytics** Additional non-Fusion Applications qualified based on customer Industry Applications qualified Complete Fusion suite qualification demand based on customer demand targeted in FY24

Services available now

Services currently being qualified



## **Dedicated Region key use cases**

**Data Residency** 

Low Latency Applications

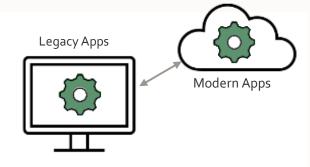
Modernization of Infrastructure & Apps



Choose the physical location of your Dedicated Region to enable all data to be stored on-premises to meet your regulatory and compliance requirements.



Maintain single-digit millisecond latency between applications and databases with no requirement to connect to public cloud.



Capitalize on existing investments by seamlessly migrating legacy workloads to an on-premises cloud. Modernize apps with Dedicated Region's 100+ cloud services.



## Agility, scalability, and economics of public cloud in your data center



#### **Full OCI services**

- Includes IaaS, PaaS, and SaaS
- Run all workloads from day 1



## Start small, activate fast

- Scales on-demand
- Future-proof for expansion as workloads grow



# Buy cloud services (don't build them!)

- Single vendor accountability
- Managed by OCI 24x7x365

100% OpEx. Pay only for services consumed.



# Exadata Cloud at Customer



## We meet you where you are in your database consolidation journey

On-Premises Traditional
Exadata Database Machine

Cloud@Customer
Exadata Cloud@Customer

Public Cloud, Dedicated Region, and
Oracle Database@Azure
Exadata Cloud Infrastructure



Customer Data Center
Purchased
Customer Managed



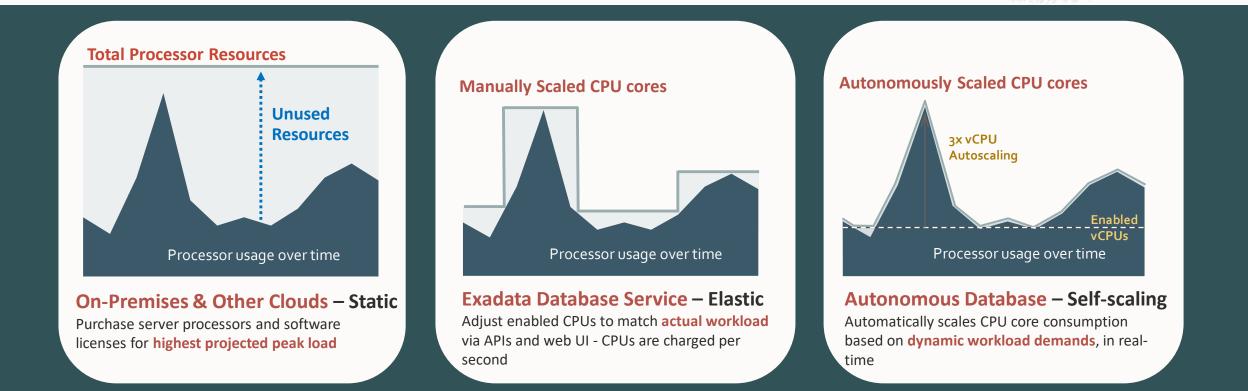
Customer Data Center
Subscription
Oracle Managed

Oracle Cloud
Subscription
Oracle Managed



# Online, Elastic Scaling with Exadata and Autonomous Database Services Pay only

for what you use, in OCI or your data center





## **Exadata's Superior Software Architecture Highlights**

Smart system software enables highest performance for OLTP | Analytics | Consolidation workloads

#### **Fastest OLTP**

- Fastest OLTP I/O with scale-out storage, RDMA to storage, and NVMe flash
- Fastest scale-out with unique RDMA algorithms for inter-node cluster coordination
- Fastest recovery from unplanned downtime and component failure



## **Fastest Analytics**

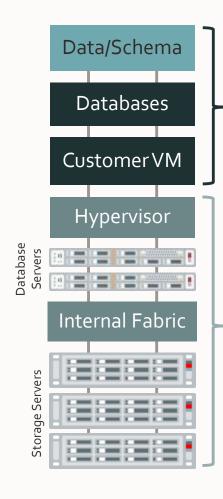
- Unique Smart Scan automatically offloads data intensive SQL operations to storage
- Unique Smart Flash Cache and Storage Index automatically accelerate database I/O
- Unique Columnarization
   automatically converts data to fast In Memory Columnar format in flash

## **Best Consolidation**

- Unique Prioritization of latency sensitive or important workloads
- Unique Workload Isolation of multiple tenants or workloads



## Simple Cloud Management Model in at Customer Cloud



## Customer owns everything inside database

Data, schema, encryption keys

### Customer subscribes to database services

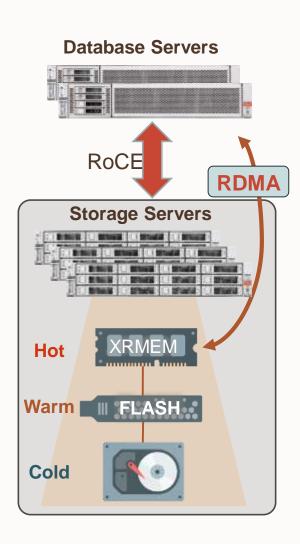
- Customer manages VMs and Databases using Cloud Automation (UI / APIs)
- Automation to create, delete, patch, backup, scale up/down, etc.
- Runs all supported Oracle Database versions 12.1.0.2, 12.2.0.1, 19c and 21c
- Customer controls access to customer VM
- Customer can install and manage additional software in customer VM
- Oracle staff are not authorized to access customer VM

## Oracle owns and manages infrastructure

- Hypervisor, database and storage servers, storage network
- Patching, security scans, security updates
- Monitoring and maintenance
- Customer not authorized to access Oracle infrastructure



## Exadata architecture – scale out with intelligent storage



## Scale-out system architecture and software

- Independent, online scaling of database and storage servers
- Scales from 2 to 210 Exadata X10M database servers
- Scales from 3 to 264 Exadata X10M storage servers
- Redundancy with fast failover provides high availability

## Database uses RDMA instead of I/O to read XRMEM in Smart Storage

- Bypasses network and I/O software, interrupts, context switches
- Data is transparently managed in multiple storage tiers to minimize latency
- High-performance active-active 100 Gbit/s internal network maximize throughput
- Speeds up both database reads and commits

#### Database cluster virtualization

- Deploy environments with different needs on the same system
  - Dev-Test, Staging Production, DR
  - OLTP, Analytics, Mixed Workloads
- Share and manage pools of resources to increase efficiency and lower costs
- Isolate resources to meet differing security and predictability requirements

## Exadata Cloud@Customer X10M Shapes



Quarter Rack - X10M

**Total Capacity** 

DB Servers Storage Servers

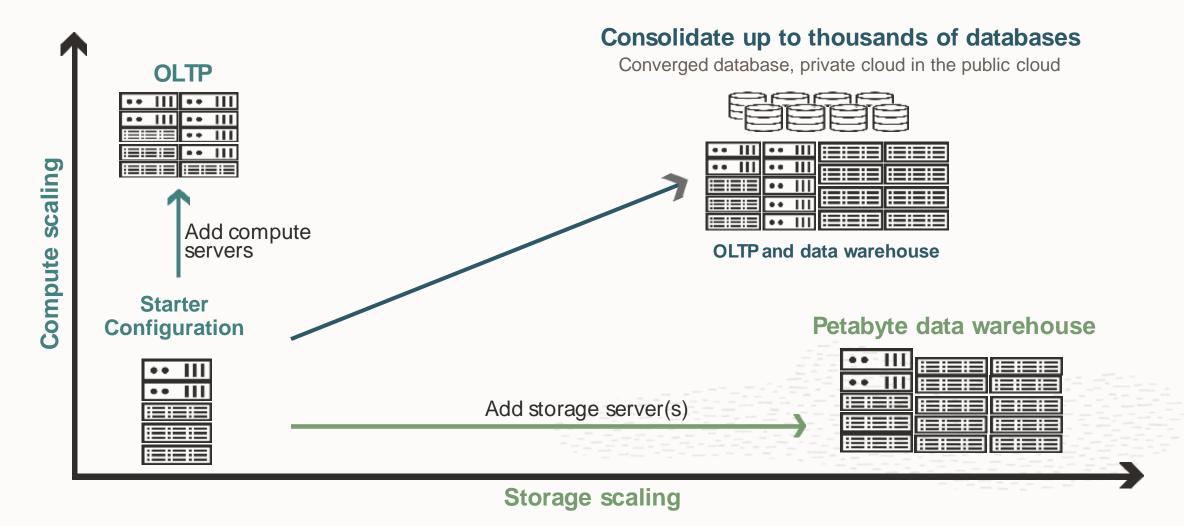
380 Cores – 2,780 GB Memory 192 TB Usable DB Storage



There are no Half and Full rack shapes. Expand Quarter Racks using Expansion Servers.



## Easily right-size your service by adding compute and storage as needed



## Oracle Exadata Database and Platform Innovations



Multitenant



In-Memory DB



Real Application Clusters



**Active Data Guard** 



Partitioning



Advanced Compression



Advanced Security, Label Security, DB Vault



**Real Application Testing** 



Advanced Analytics, Spatial and Graph



Management Packs for Oracle Database



All Exadata Innovations



RoCE Fabric



PMEM Commit and Data Accelerators



Smart Flash Cache



**Storage Indexes** 



Columnar Flash Cache



Hybrid Columnar Compression



I/O Resource Management



Network Resource Management



In-Memory Fault Tolerance

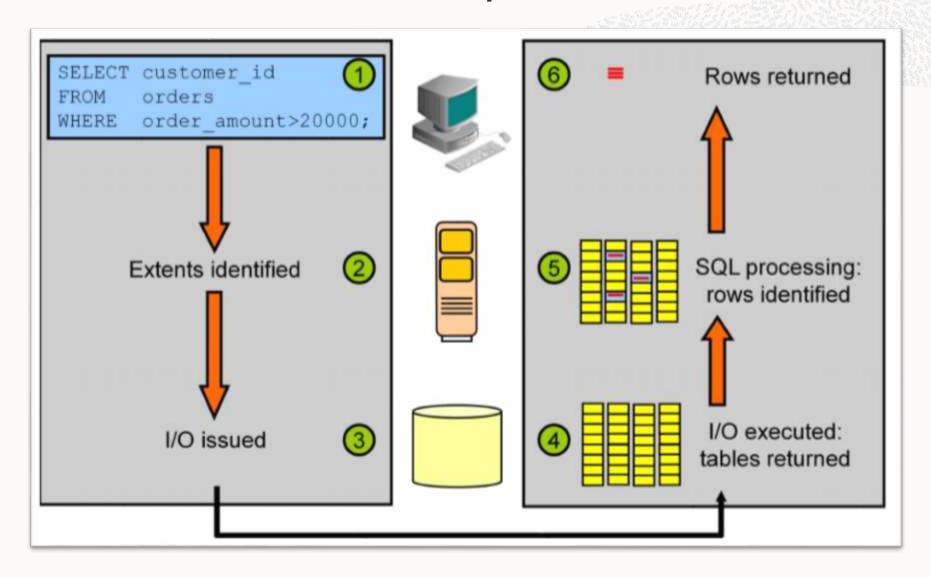


Exafusion Direct-to-Wire Protocol



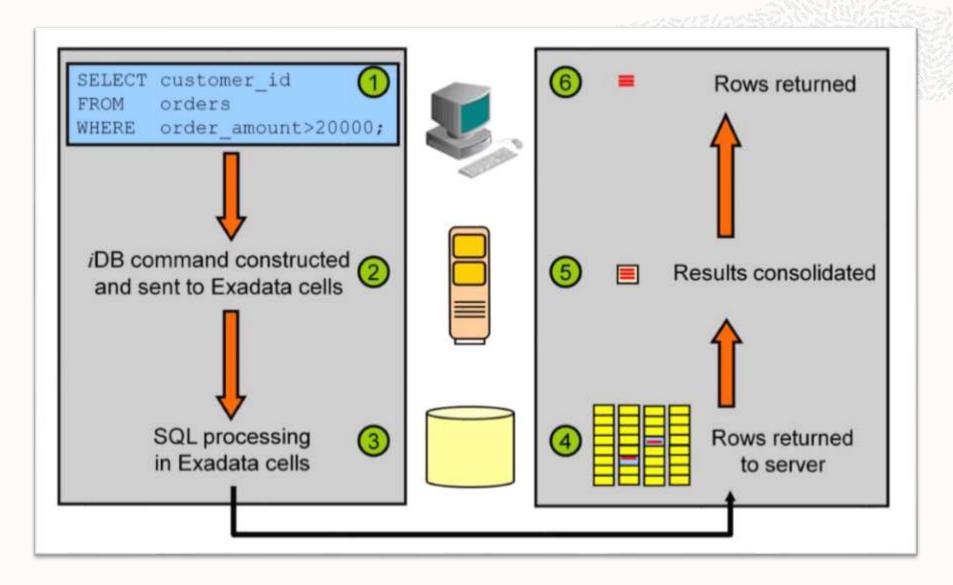


## Oracle Database No Exadata System





## **Exadata Cloud a Smart Scan Off Load Querying**

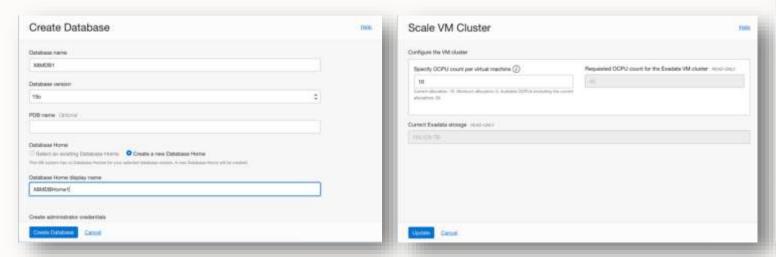




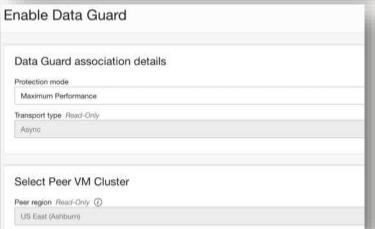
## **Exadata Cloud Automation on OCI Console**

## Oracle Cloud Web base UI, REST APIs, SDK, CLI, Terraform

- Scale OCPUs
- Create Database Homes and Databases
- Schedule Infrastructure Maintenance
- Update Operating System, Grid Infrastructure, and Databases
- Backup and recovery
- Enable Data Guard









# Oracle Autonomous Database ADB



# Oracle Autonomous Database supports a wide range of transactional and analytics workloads



# Oracle Autonomous Data Warehouse

Analytical and machine learning workloads

62% lower total cost of operations



### Oracle Autonomous Transaction Processing

Business applications and mixed workloads

<u>5oX better storage latency</u> than Amazon Aurora



# Oracle Autonomous JSON Database

Document database

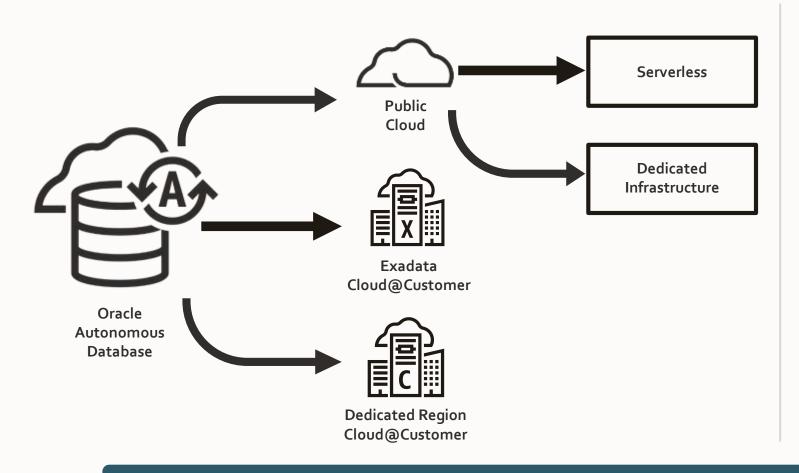
30% cheaper than MongoDB Atlas

Support multiple data models without sacrificing security and governance controls



## Multiple deployment choices

The most complete support for hybrid cloud strategies



# Oracle Public Regions

Hyperscale cloud regions in more than 40 worldwide locations



# Dedicated Regions

All OCI services, running in customer data centers



# Exadata Cloud@Customer

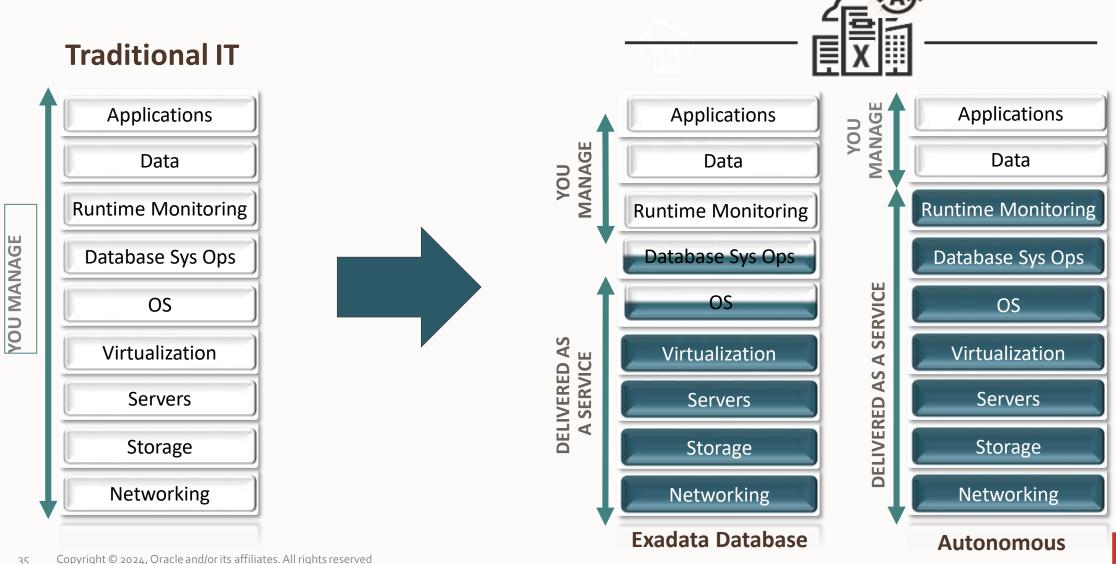
Cloud Autonomous
Databases, running in your
data center



Worldwide or exactly where you need it, with scale and control



## Transfer more responsibility to the service while lowering costs



## Retirement Of The OCPU Billing Metric In ADB Database Serverless (Doc ID 2998742.1)

#### **ACTIONS**

#### What action do I need to take now?

We encourage customers to provision all new Autonomous Data Warehouse and Autonomous Transaction Processing databases or clones with the ECPU billing metric. We also encourage customers to update all existing databases to the ECPU billing metric, which is a simple and seamless button click or API call, as described in the documentation here. While you may choose not to update your existing databases' billing metric at this time, Oracle may convert your databases from the OCPU billing metric to the ECPU billing metric in the future.

**Note:** Autonomous Data Warehouse databases provisioned as part of Oracle Data Intelligence Platform (formerly Fusion Analytics Warehouse) service instance will be updated to the ECPU billing metric by Oracle. No user action is required on those databases.

#### How will updating my databases to the ECPU billing metric affect my service?

Updating your Autonomous Database Serverless to the ECPU billing metric will have no impact to your service and incur no downtime.

#### Which SKUs are affected by this retirement notice?

Oracle Autonomous Database will be retiring the OCPU-based SKUs and replacing them with the ECPU-based SKUs listed below:

Retired OCPU Billing Metric - SKU Name	Part Number	Metric
Oracle Autonomous Data Warehouse	B89040	OCPU Per Hour
Oracle Autonomous Data Warehouse - BYOL	B89039	OCPU Per Hour



### Retirement Of The OCPU Billing Metric In ADB Database On Dedicated Infra (Doc ID 2998755.1)

### **ACTIONS**

#### What action do I need to take now?

We encourage users to provision new Autonomous VM Clusters (AVM) with the ECPU billing metric. Oracle will offer an online conversion capability to update existing OCPU AVMs and their respective Autonomous Container Databases and Autonomous Databases to the ECPU billing metric via the OCI console and API in Q3 CY2024. In the meantime, users can also use database cloning to migrate existing OCPU ADBs to ECPU if they have AVMs configured with the ECPU billing metric. While you may choose not to update your existing databases' billing metric at this time, Oracle may convert your databases from the OCPU billing metric to the ECPU billing metric in the future.

### Which SKUs are affected by this retirement notice?

Oracle Autonomous Database on Dedicated Infrastructure will be retiring the OCPU-based SKUs and replacing them with the ECPU-based SKUs listed below:

Retired OCPU Billing Metric - SKU Name	Part Number	Metric
Oracle Autonomous Data Warehouse - Dedicated	B92182	OCPU Per Hour
Oracle Autonomous Data Warehouse – Dedicated - BYOL	B92184	OCPU Per Hour
Oracle Autonomous Transaction Processing - Dedicated	B92181	OCPU Per Hour
Oracle Autonomous Transaction Processing – Dedicated - BYOL	B92183	OCPU Per Hour





### Reduce TCO moving to Autonomous ADB Standard Edition

### Software cost totals

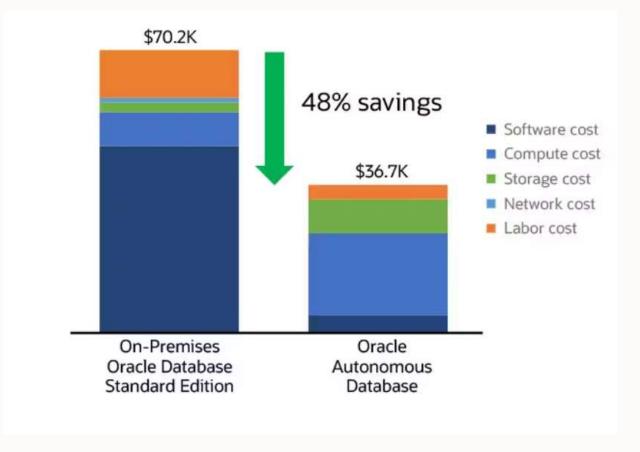
Oracle Autonomous
Database
On-premises Oracle Database
Standard Edition
\$ 46,398
\$ 4,350

### Labor cost totals

Oracle Autonomous
Database

\$ 3,552

\$ 11,853





## Oracle Cloud License model



### **Cost-Effective Software Licensing Models**

Subscribe to infrastructure and choose License Included or Bring Your Own License (BYOL)

### **License Included Pricing**

## Ideal for organizations with new workloads and dynamic utilization

- Includes Oracle Database Enterprise Edition with all options and management packs at one low price
- Consumption-based pricing for software and vCPUs, includes software support and paid for with Universal Credits



### **Bring Your Own License Pricing**

## Ideal for organizations moving existing workloads with consistent usage to the cloud

- Utilize existing on-premises licenses and pay software support for them
- Very-low, compute-only consumption pricing, paid for with Universal Credits
- Includes Transparent Data Encryption, Data Safe, Oracle Machine Learning, and select management packs at no additional cost



### Oracle PaaS and IaaS Universal Credits Description





### Pay as You Go (PAYG)

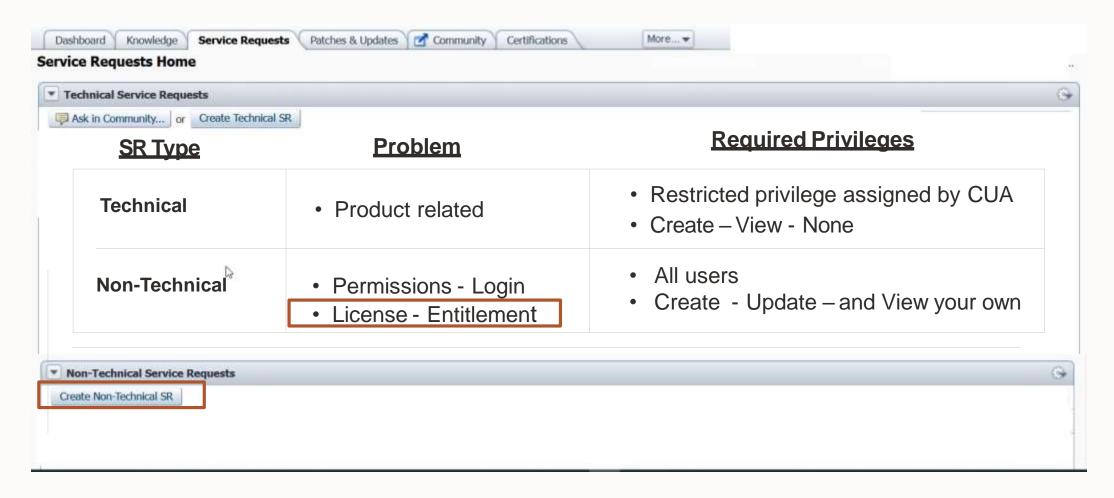
- No upfront commitment
- Pay only for what you use
- Pay in arrears based on usage
- Built for land and expand

### **Universal Credits**

- Agreed-to monthly spend
- Additional discounts based on size and term of deal
- Elastic payments based on usage



### Service Request Types: Technical vs Non-Technical



Or send an e-mail to: <u>infoprice@oracle.com</u>



### **Oracle Software Investiment Advisor**







### **Licensing Solutions**

Can you help us understand the licensing implications of future technology decisions?"



#### Investment Economics

"How is our Oracle investment supporting the long-term goals of the business?"



#### License Knowledge Transfer

"Can you help us better understand our license and subscription terms and conditions?"



### **Cloud Sizing**

"What do we need to consider when moving parts of our existing environment to the cloud?"



#### **Deployment Optimization**

"How do I find out if my Oracle TCO is optimized across both on-premise and the cloud?"



### **Entitlement Intelligence**

"How do I find out the current state of our contractual agreements with Oracle?"

For more informatio contact <u>sia-global\_ww@oracle.com</u> or visit <u>www.oracle.com/goto/sia</u>



### **Oracle Support Rewards Start Guide**



Accrue rewards for every dollar spent on OCI



• Reduce your technology support bill

Combine with other support programs

• For every dollar spent on OCI, you can accrue \$0.25 in Oracle Support Rewards



## Oracle Cloud Customer Connect

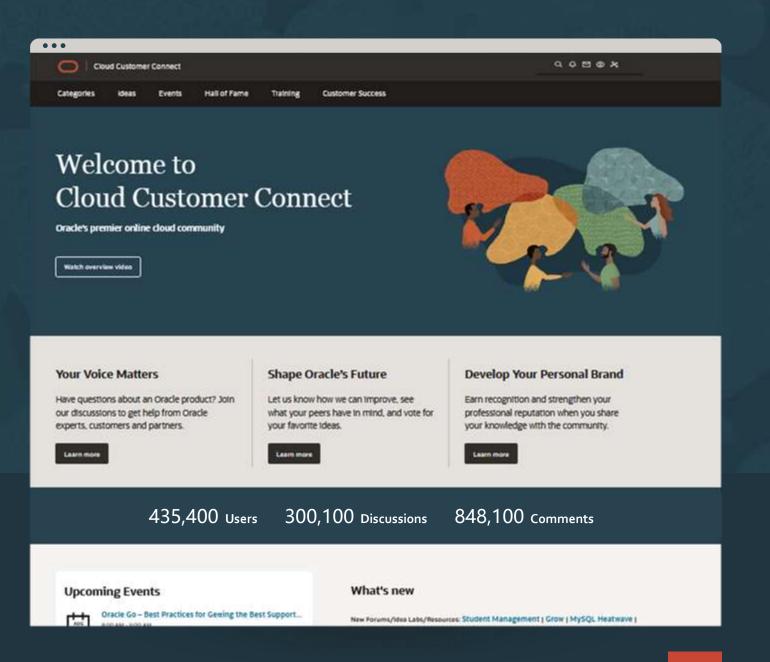


## Cloud Customer Connect

Oracle's dedicated community for Oracle Cloud customers and partners to connect with their peers, have their voices heard by Oracle, and to grow together.

- + Fostering Connections
- + Shaping Oracle's Future
- + Cultivating Success

community.oracle.com/customerconnect/



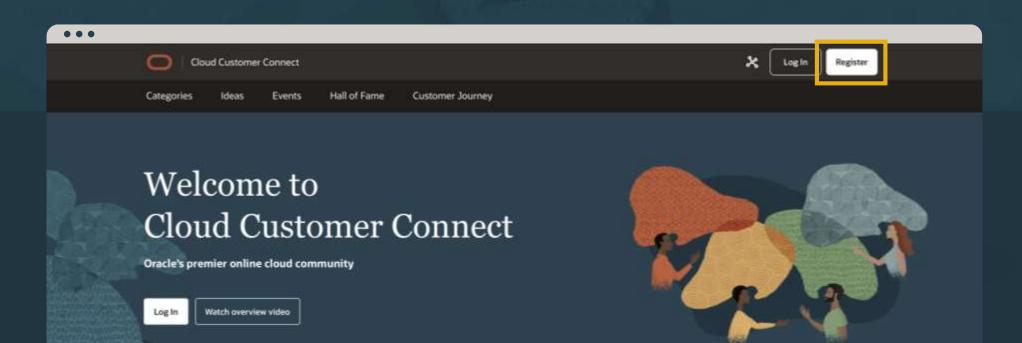
## Becoming a Cloud Customer Connect community member is easy!

Who can join? Membership is free and unlimited. Customers, Oracle Partners, and Oracle Employees.

**How to join? Simply** go to <u>Cloud Customer Connect</u>, click on the Register button at the top of the page to get started.

Who should join within your organization? Business leaders, system administrators, system/business analysts, report writers, and anyone who uses Oracle products.

Learn more on how to become a member

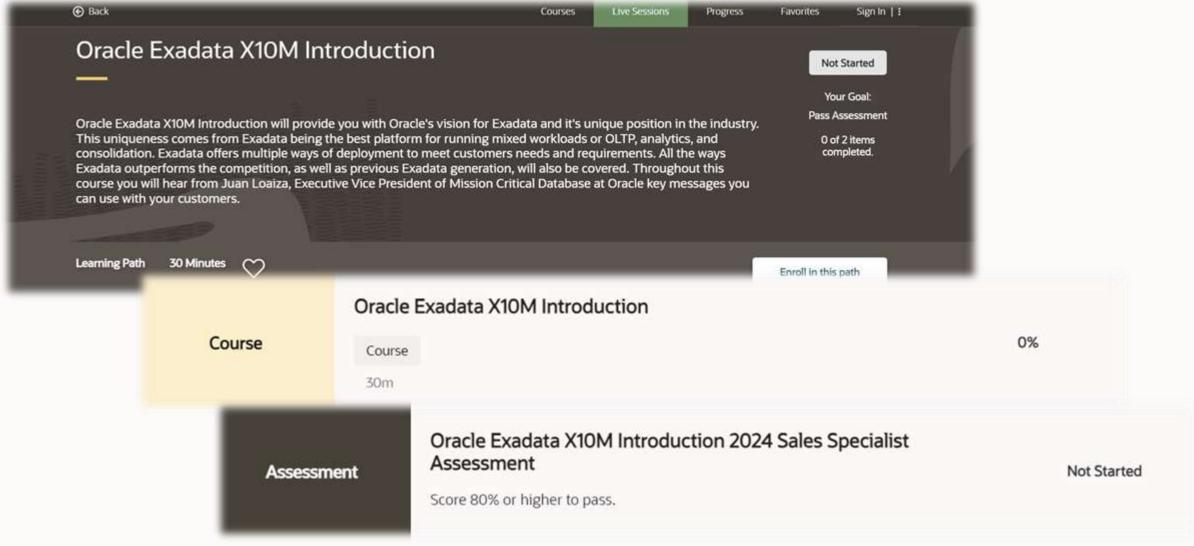


## Exadata Cloud at Customer on OPN



### **Exadata X10M Introduction on Learning Center**

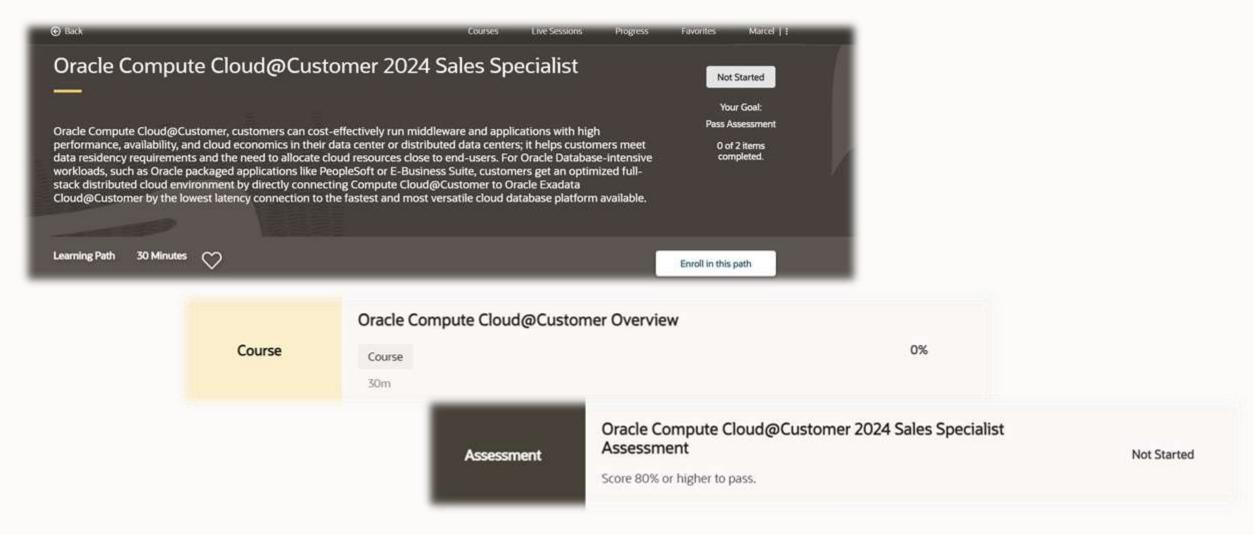






### Oracle Cloud@Customer 2024 Sales Specialist







## Oracle Customer Success





## Consolidated Oracle Databases on OCI using a Multicloud Architecture

"Our proposal is to take the customer's experience to a new level with more efficiency and agility, and always with the highest levels of security. We are the first carrier to promote a change with this dimension, also anticipating initiatives related to governance and sustainability, within a larger project related to an ESG agenda across all of TIM's operation."

Pietro Labriola CEO, TIM Brasil

Products used:

Oracle Exadata Database Service
OCI Compute and Storage
OCI – Azure Interconnect

Oracle Database Service
Oracle Cloud VMware Solution



#### **Business challenge:**

TIM Brasil needed to modernize their infrastructure in order to improve customer experiences while taking efficiency, agility, and security to the next level. They wanted to simplify management, reduce energy use, and cut carbon emissions.

#### Results:

The Brazilian telecommunications provider is moving critical workloads to a multicloud environment with databases running on Oracle Exadata Database Service and Oracle Database service, VMware in OCI, and other workloads and VDI environments on Azure.

- Run customer billing, Siebel, and Oracle SaaS apps in Oracle Cloud
- Migrate 1,200 databases, 15 petabytes of storage, 7,000 servers
- Run up to 4,000 VMware servers on OCI
- Use a 40 Gbps link to Azure with < 2 mS latency for distributed apps</li>
- Federated identity services with Azure to reduce management

Read story





## Amaggi boosts uptime by migrating key workloads to Oracle Cloud Infrastructure

"Moving from our data center onto Oracle Cloud Infrastructure has reduced costs, eliminated hardware refresh bottlenecks, and has given our producer and logistics ecosystem a tremendous boost in availability."

Wagner Biasi, CSC and IT Manager, Amaggi

Product used:
Oracle Exadata Database Service
Exadata Cloud@Customer
Oracle Cloud Infrastructure
OCI FastConnect



#### **Business challenge:**

Amaggi is a Brazilian agribusiness company active in large-scale soybean, corn, and cotton production with emphasis on sustainable development. In 2022, with data center equipment and maintenance at end of life, the company decided to migrate to a more robust structure that would guarantee data security and high availability of its IT infrastructure.

#### Results:

Migrated their entire production environment to OCI with Exadata Database Service and use Exadata Cloud@Customer for disaster recovery resulting in:

- 99.999% database uptime
- 20% overall cost saving by not refreshing their data center
- 8x faster monthly closes
- 3x faster database provisioning supports complex app demands
- Runs in-house applications as well as Amaggi's SAP ERP system
- Helps comply with fiscal complexity and controls
- Implemented their migration in less then 6 months assisted by Oracle Consulting and Oracle partner, <u>Lanlink</u>

Read Amaggi's story





## Fibabanka improves time to market and customer satisfaction with Oracle Cloud

"Continuously patching our multiple databases and related environments had become a nightmare for me and my technical staff. We were working long hours and over weekends. With Oracle Exadata Cloud@Customer, all that is now handled by OCI. Work-life balance has been re-established and my team and I are much happier."

Çağatay Avşar

System Infrastructure Director, Fibabanka

Products used:
Oracle Exadata Cloud@Customer
Oracle Cloud Infrastructure



#### **Business challenge:**

Fibabanka is one of the fastest-growing banks in Turkey, offering a portfolio of custom applications. The company strives on innovation and had built a complex on-premises infrastructure that spanned multiple databases and host environments.

#### Results:

Fibabanka consolidation databases on Oracle Exadata Cloud@Customer achieving the agility, performance and availability while meeting data residency requirements.

- 40% reduction in IT infrastructure and database license costs
- 50% time savings for their IT staff enabling them to focus on more strategic business initiatives
- Addressed the country's Banking Regulation and Supervision Agency (BRSA) restrictions on data storage and transfer
- Adopting a managed service alleviated ongoing concerns related to IT staff skill gaps
- Consolidated environment enables sharing of pooled resources which improved the use of licensing costs, reduced energy costs, and avoided further sprawl.

Read the story



## Resources



Exadata Cloud at Customer

https://docs.oracle.com/en/engineered-systems/exadata-cloud-at-customer/

Exadata Services on Azure

https://docs.oracle.com/en/solutions/deploy-exadata-on-oracle-db-azure/index.html

Software Investiment Advisor

https://www.oracle.com/corporate/software-investment-advisory

Oracle Licenses e-mail

infoprice@oracle.com

Oracle Rewords Program

https://www.oracle.com/br/cloud/rewards

Oracle Cost Estimator documentation

https://docs.oracle.com/en-us/iaas/Content/GSG/Tasks/signingup\_topic-Estimating\_Costs.htm

OCI License Manager Annoucing Blog

https://blogs.oracle.com/cloud-infrastructure/post/announcing-license-manager-for-oracle-cloud-infrastructure

Oracle Cloud Customer Connect

https://community.oracle.com/customerconnect/

Oracle Partner Network

https://www.oracle.com/partnernetwork/program

Oracle free certification program

https://education.oracle.com/oracle-oci-certification

Introducing Exadata X10M

https://learn.oracle.com/ols/learning-path/oracle-compute-cloudcustomer-2024-sales-specialist/89350/128629

Oracle Cloud at Customer sales Specialist 2023

https://learn.oracle.com/ols/learning-path/oracle-exadata-x10m-introduction/89350/128363

Oracle Cloud at Customer Site

https://www.oracle.com/br/cloud/cloud-at-customer

Exadata X10M Cloud at Customer Datasheet

https://www.oracle.com/a/ocom/docs/engineered-systems/exadata/exadb-cc-x1om-ds.pdf

Oracle Support Rewards program

https://www.oracle.com/br/cloud/rewards/



## Thank you

Marcel Lamarca

marcel.lamarca@oracle.com



# ORACLE