



OCI Overview & Differentials



Alexandre Fagundes
Cloud Architect, Oracle Corporation



Safe Harbor Statement

The following 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.

Oracle Cloud Infrastructure

An overview





45+ years of helping customers manage the world's most important data

Discovering new pharmaceuticals

Processing insurance claims after disasters

Simulating crash performance for new cars

Keeping hotel customers safe during stays

Exchanging currencies for foreign trade

Ensuring the electric grid is reliable

Improving diagnosis and resolution of illness

Protecting critical communications networks

Reworking restaurant operations to adapt to change

Increasing the speed and lowering the costs of construction

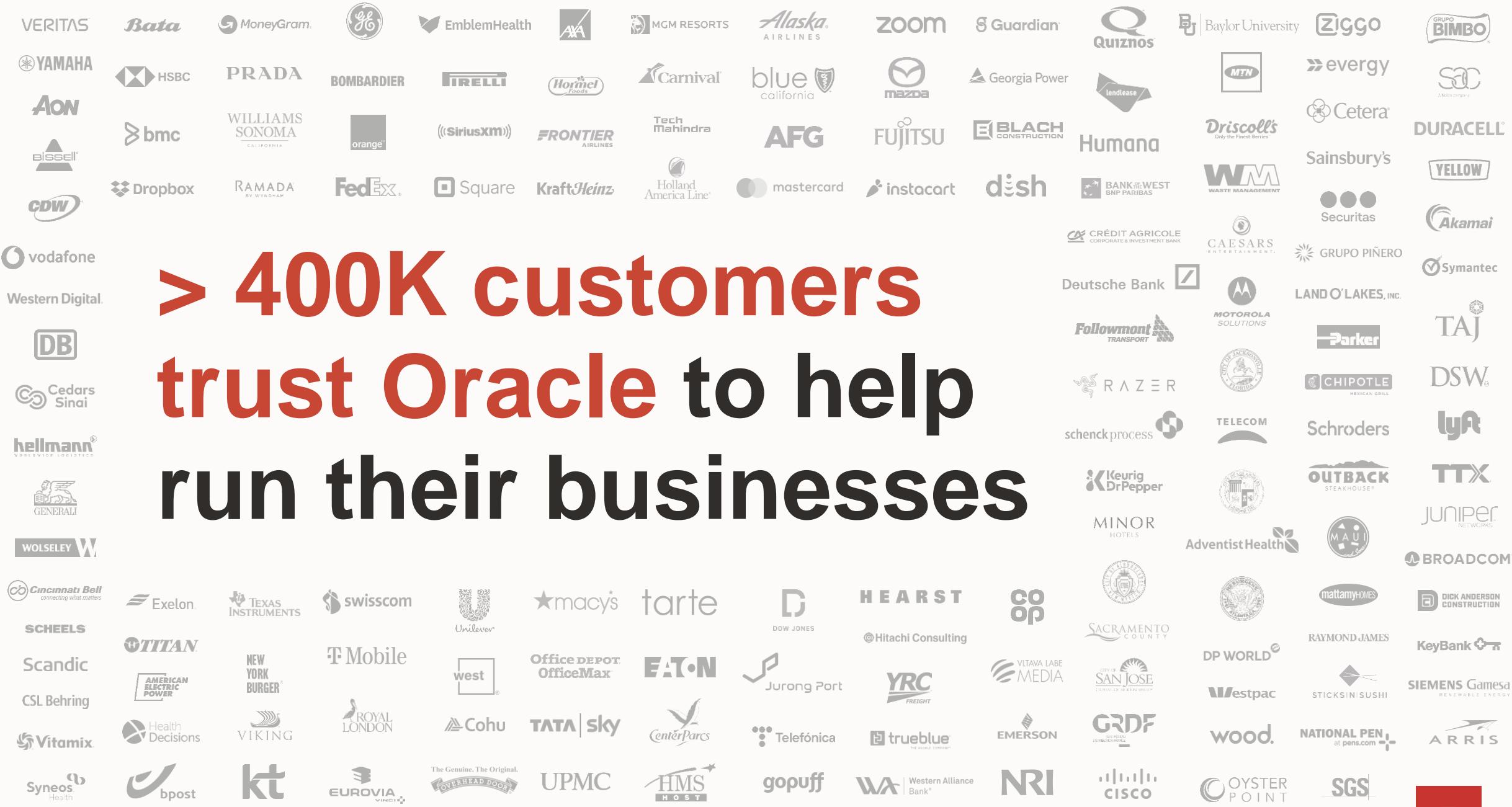
Adapting to supply chain volatility to keep up with demand

Detecting money laundering and reducing business risk

Supporting citizens through crisis

Making purchases available at curbside





> 400K customers
trust Oracle to help
run their businesses



We've rebuilt our business for the cloud

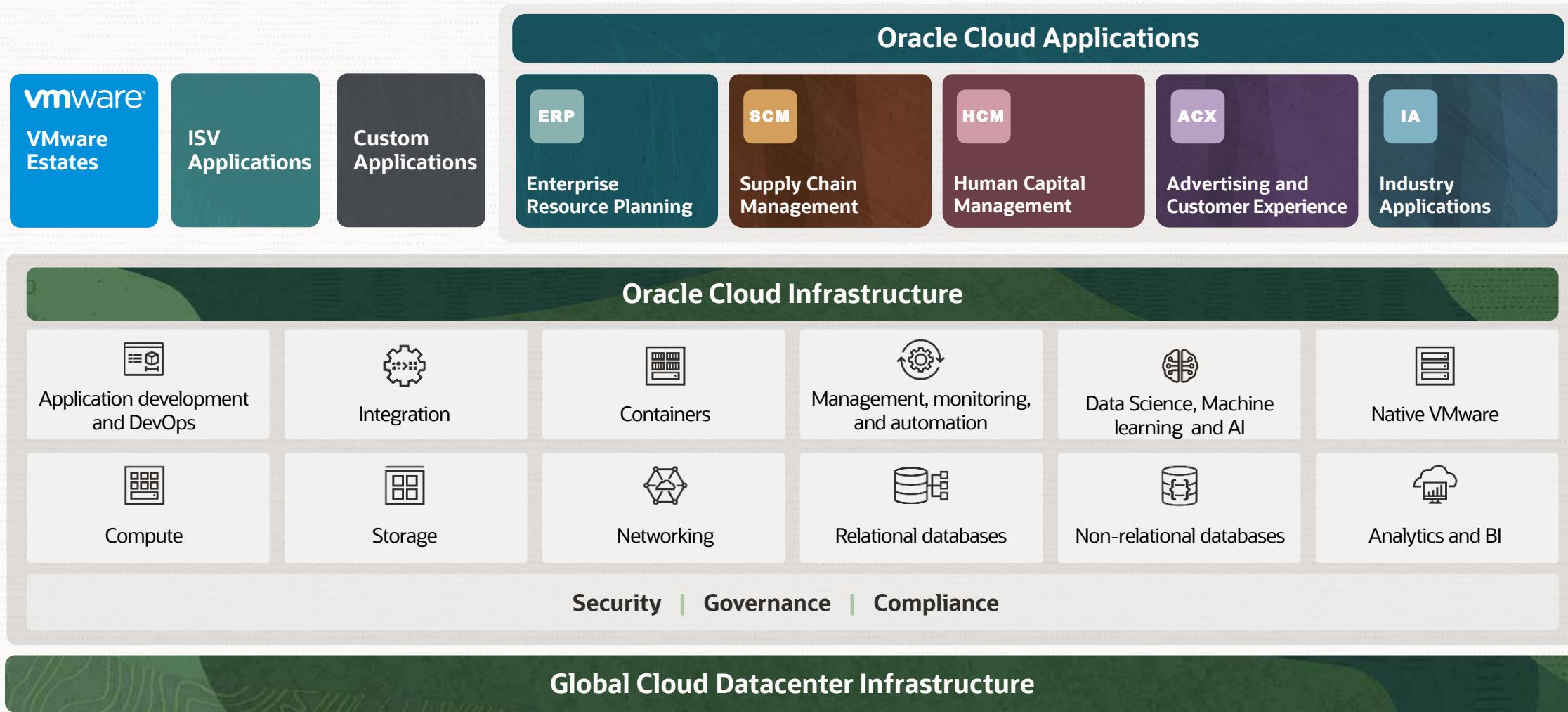
Built modern SaaS versions of
all our major business applications

Brand-new cloud infrastructure platform
with 90+ unique services

The most flexible approach to the cloud:
public cloud, customer's data center, at
the edge

Only cloud provider offering
financially backed, end-to-end SLAs

Oracle Cloud Infrastructure + Oracle Applications



Application Development and DevOps



- Visual Builder Studio
 - Primary UC: Visual SaaS extensions
 - Web Application or Mobile Application
 - Complete CI/CD integrated with tools to manager the development life cycle: Wiki, Agile Methodology, Internal GIT repository
- APEX
 - OCI Always Free service
 - It's our Autonomous DB Apex service for Development
 - Create and automate data extraction and visual interfaces with data management
- DevOps Projects
 - Our new OCI service for DevOps pipelines automation with OCI services
 - [Service Description](#)

Integration



- Oracle Integration Cloud – OIC
 - Primary UC: SaaS extension using Oracle Adapters (ERP / HCM / CX)
 - General Integration PaaS
- OIC has more than 70+ adapters for productivity
 - Can also work on-premises UC with connectivity agent
 - Can extend SOA Suite on-premises integration to OCI (adapter)
 - Several enterprise applications adapters
- Other capabilities:
 - Process Automation
 - Business Visibility
 - UI Customization
- [Service Description](#)

Containers



- Oracle Kubernetes Engine (OKE)
 - OCI PaaS container orchestration service
 - You don't pay for the administrator node
 - UC:
 - Run WebLogic Server on Kubernetes
 - Design and build cloud native architectures
- Functions
 - Create, run, and scale applications without managing any infrastructure
 - UC:
 - Extend SaaS applications with serverless functions
 - Build serverless APIs
- Internal Container Registry
 - Service to store container images, compatible with Docker V2 APIs
 - Pay only for the storage used

Observability and Automation



- Application Performance Monitoring
 - Deep visibility into application performance
 - UC:
 - End-to-End Monitoring (Browser instrumentation, session diagnostics, server side tracing)
 - Distributed tracing service (OpenTracing and OpenTelemetry)
- Database Management
 - Oracle delivers the best of Oracle Enterprise Manager as a cloud service
 - UC:
 - Manage a fleet of databases running on Oracle Cloud Infrastructure and on-premises
 - Run SQL jobs on a group of databases
- Logging Analytics
 - Machine learning-based cloud service that monitors, aggregates, indexes, and analyzes all log data from on-premises and multicloud environments
 - UC:
 - Data log analytics and exploration
 - Parsers for heterogeneous technologies
- Monitoring and Notification
 - Monitors the status and health of your entire IT infrastructure.
 - Notifications is a highly available, low-latency publish/subscribe (pub/sub) service that sends alerts and messages.

Data Science, Machine Learning and AI



- AI Services
 - Digital Assistant
 - OCI Language
 - OCI Speech
 - OCI Vision
 - Anomaly Detection
- Machine Learning Services
 - Data Science
 - Autonomous ML notebooks (SQL, R, Python, REST, AutoML)
- GPU Virtual Machines in OCI

Native VMWare



- VMWare Service
 - “IT’s Just VMWare”
 - Use Cases:
 - Migrate VMware workloads to the cloud
 - Hybrid cloud with native VMware tools
 - Business continuity and disaster recovery

Compute, Storage and Networking



- OCI Compute
 - Virtual Machines
 - Bare Metal
 - GPU Accelerated Compute
 - HPC Cluster
 - ARM Based Compute
 - Marketplace Images
- OCI Storages
 - Block Volumes
 - File Storage
 - Object Storage
 - Archive Storage
 - Data Transfer Service
 - Storage Gateway
- OCI Networking
 - Virtual Cloud Network
 - Networking Gateways
 - Load Balancer
 - Site-to-Site VPN (IPSec)
 - Fast Connect
 - Customer-Premises Equipment
 - DNS Management

Databases – Relational and Non-Relational



- Database Services

Oracle database products offer customers cost-optimized and high-performance versions of Oracle Database, the world's leading converged, multi-model database management system, as well as in-memory, NoSQL and MySQL databases

- Relational
 - Database Cloud Service
 - Autonomous Transaction Processing
 - Exadata Cloud Service
 - MySQL HeatWave Service
- Non-Relational
 - Autonomous Data Warehouse
 - NoSQL
 - Autonomous JSON Database

Businesses achieve better results running databases on OCI



80%

Reduction in DBA
admin tasks

No more

Cost of idle vCPU autoscaling to align usage with actual demand

Zero

Downtime
maintenance and
non-disruptive scaling



Linear

Performance increase with
server scale-out

Always

- ✓ Tuned
- ✓ Patched
- ✓ Secured
- ✓ Encrypted



Faster than other clouds

- ✓ 25x better latency
- ✓ 384x more SQL throughput
- ✓ 22x more SQL read IOPS

20-30%

Less vCPU needed for same workloads lowers cost

Run

More applications in-memory with expanded capacity using lower-cost, shared flash

Bring-your-own-license (BYOL) subscriptions include:



- ✓ Transparent Data Encryption (TDE)
- ✓ Data Masking and Subsetting pack
- ✓ Real Application Testing option
- ✓ Diagnostics & Tuning Pack

Analytics and BI



- [Business Analytics](#)

In today's dashboard world, everyone promises to help teams be data-driven. But looking at past facts is not enough. Use the latest data analytics technologies, such as AI, machine learning, and natural language processing. Oracle Analytics has been recognized by industry experts for its innovations and robust architecture.

- [Oracle Analytics Cloud](#)
- [Oracle Big Data](#)
- [Oracle Stream Service](#)

Security, Governance and Compliance



- Security Services
 - Identity and Access Management
 - Cloud Guard
 - Vulnerability Service
 - Database Security
- Governance
 - Data Catalog
 - Cloud Advisor
 - Manageability
- Compliance Matrix Certification

The most complete support for multi & hybrid cloud strategies



Oracle Public Regions

Hyperscale cloud regions in 36 worldwide locations



Dedicated Region Cloud@Customer

All OCI services, running in customer data centers



Oracle Cloud VMware Solution

Native VMware on OCI in public cloud or dedicated regions



Exadata and PCA Cloud@Customer

Cloud Autonomous Databases, running in your data center

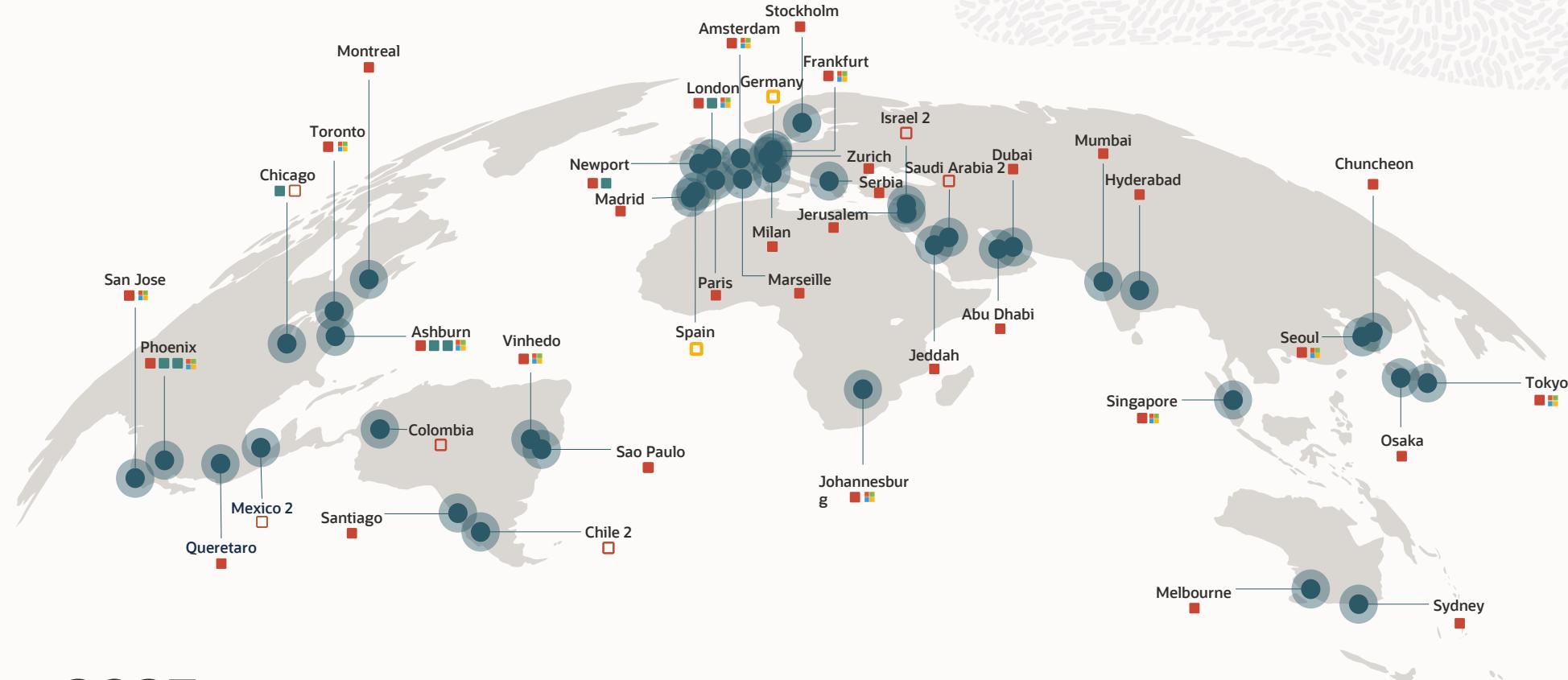


Roving Edge Infrastructure

OCI compute and storage for remote, disconnected scenarios

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

OCI offers cloud regions and multicloud around the world



Jan 2023

41 regions live

8 planned; 12 Azure Interconnect Regions

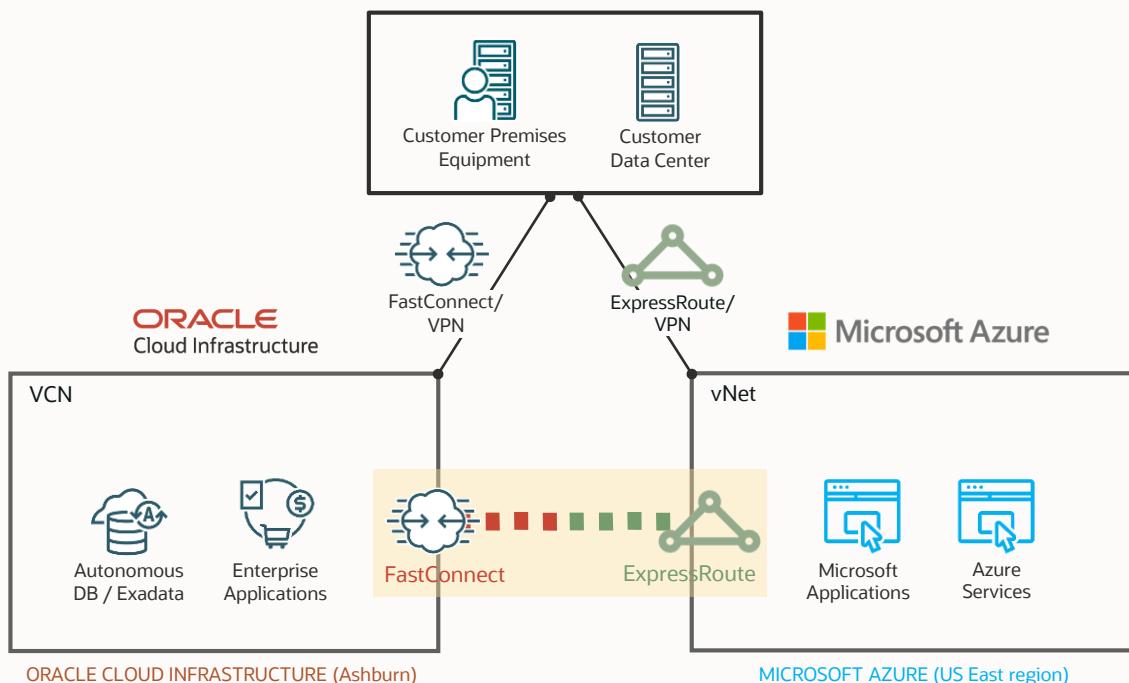
-  Commercial
 -  Commercial Planned
 -  Government
 -  Microsoft Interconnect Azure

Oracle Cloud + Microsoft Azure Interconnect

Connected multicloud solution



ORACLE +  Microsoft



- ✓ Microsoft Azure and Oracle Cloud are **interconnected today**, so you can migrate and run mission-critical enterprise workloads across clouds
- ✓ **FastConnect and ExpressRoute** direct connection with 2 millisecond latency and no intermediate service provider required
- ✓ **Unified identity and access** management via single sign-on with automated user provisioning to easily manage resources across clouds
- ✓ **Collaborative support** of workloads across clouds, for example, custom and Oracle Applications on Azure with Oracle Database cloud services – connect best-in-class services across clouds
- ✓ No inbound or outbound egress charges over Interconnect
- ✓ **Available Now:** Ashburn, San Jose, Vinhedo, Toronto, London, Frankfurt, Amsterdam, Tokyo
- ✓ **Coming Soon:** Government, Asia, Europe regions

More Details: <https://azure.microsoft.com/en-us/pricing/details/expressroute/>



Analyst Perspectives on Oracle Cloud & Microsoft Azure Interconnect

“Better interconnectivity between cloud providers' infrastructure would significantly enhance multicloud. Currently, the only public cloud providers natively offering this type of connectivity are Microsoft Azure and Oracle Cloud.”

Paul Gore
Former Sr. Director Analyst, Gartner



“Oracle is already present on other cloud platforms, has a strategic relationship with Microsoft Azure to support the running of applications in Azure with Oracle Database instances running in OCI, and may be **able to offer the best method of realizing a customer's multicloud strategy.**”

Carl Olofson
Vice President, Data Management Software,
IDC



“The Interconnect provides an innovative value proposition for customers of Oracle and Microsoft technologies. The solution enables customers to get the “best of both worlds” by running workloads on both Oracle Cloud Infrastructure and Microsoft Azure.”

Roy Illsley
Chief Analyst, Omdia



[Is Oracle infrastructure ready for Multicloud strategy ?](#)

Oracle Database Service for Azure benefits



Seamless and secure interoperability

- Familiar Azure-native user experience
- Automated identity, networking, and monitoring integration
- Private interconnect and networking
- Use Microsoft Azure services with OCI databases together
- Collaborative support



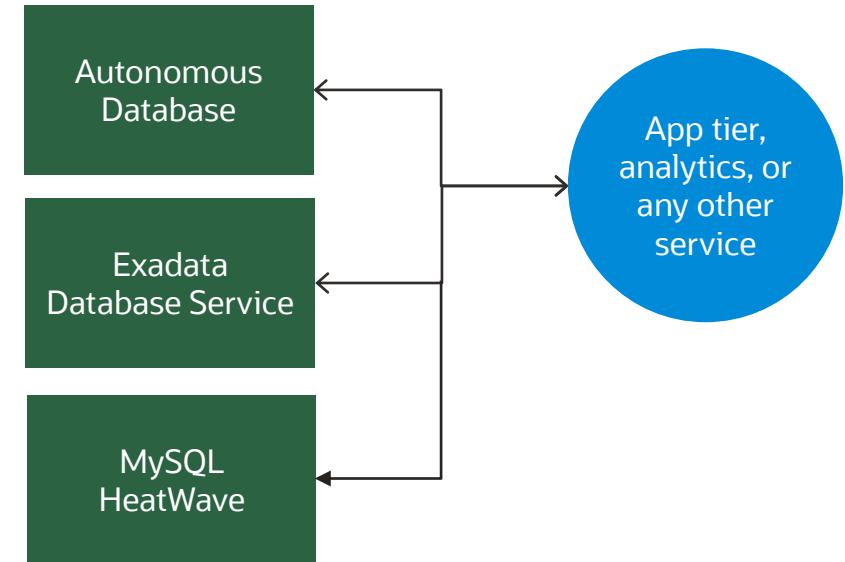
Enterprise-grade cloud services

- < 2 ms latency private interconnect – suitable for nearly any app
- Zero downtime high availability with native Oracle RAC
- Scales up to 31 PB data warehouses and 10 million+ SQL IOPS
- Completely hands-off, multi-modal Autonomous Database
- Combine OLTP, OLAP, and ML into one MySQL Database service with MySQL HeatWave

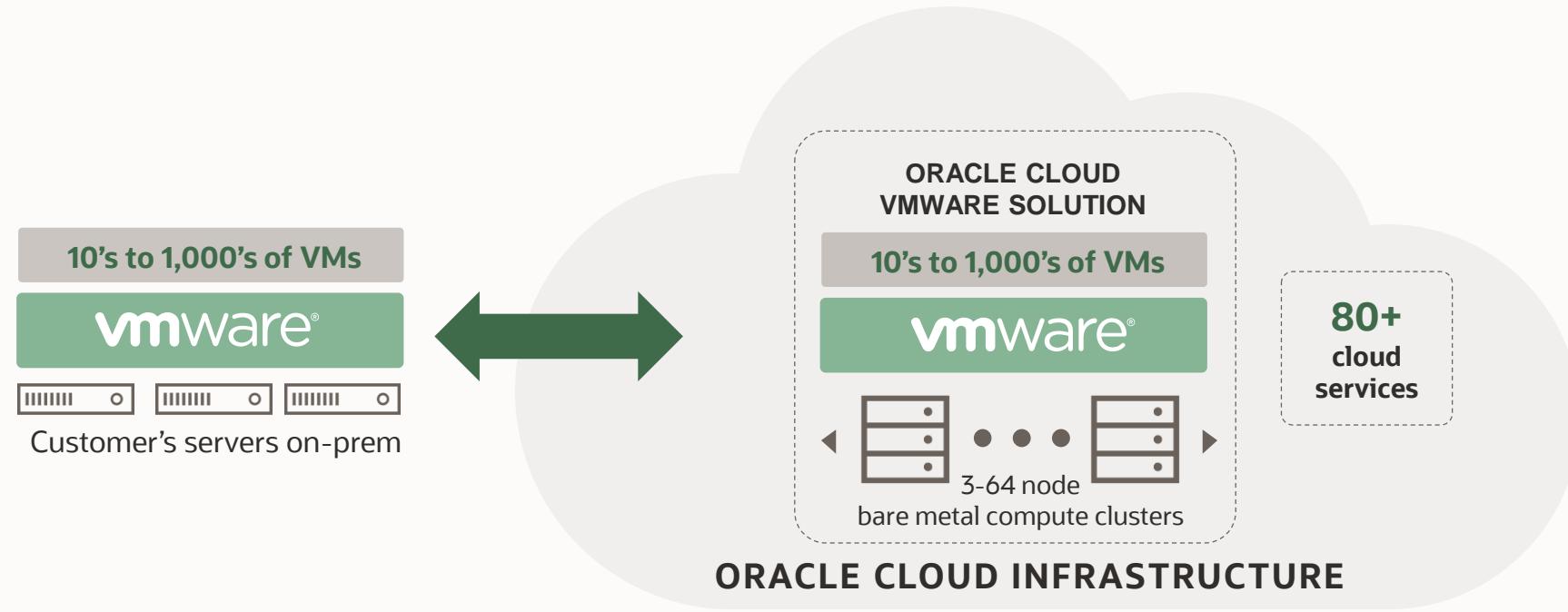


ORACLE
Cloud Infrastructure

 Microsoft Azure



Oracle Cloud VMware Solution



- Key use cases:
- Data Center Migration
 - Hybrid Cloud Expansion
 - Disaster Recovery Site

Protect VMW Investment

Most like on-premises VMW
Control versions, policies
Full access, all features

Modernize Infrastructure

Elastic capacity
OCI + NSX + hybrid flexibility
Security-first architecture

Modernize Applications

Increase performance & scale
Integrate 80+ OCI services
Integrate Oracle SaaS

Global Availability

23 commercial regions
5 US Gov regions
OCI Dedicated Region

(June 2021)

Key Customer Benefits

1

Dedicated with Full Control

Self-service provisioning with full administrative control, including root access. Root access provides full control over your environment.

2

Keep the Same VMware Tools

Leverage your existing skillsets with tools you are already using on-premises; vSphere, vSAN, NSX, and Third-party ISV solutions.

3

Seamless Migration

Migrate applications “as-is” and avoid modifications by relying on a single VMware specification that works both on-premises and in the cloud.

4

Access to Oracle Cloud Services

Deploy VMware-based applications in the same cloud environment as Oracle's broad portfolio of cloud services including Autonomous Database, DBaaS, and Exadata CS

5

Global Availability

Deploy into any of the 23 Commercial (non-gov) OCI.

Global, regional, and industry compliance

Expansive list of independent assessments across industries and regions

REGIONAL



GDPR [EU]



PIPEDA [Canada]



ENS [Spain]



BSI C5 [Germany]



K-ISMS [Korea]



NISC [Japan]



CITC
[Saudi Arabia]



Cyber Essentials
Plus [UK]



National Cyber
Security Centre

GOVERNMENT



DoD DISA SRG IL5



FedRAMP



CJIS



EU Model Clauses



LGPD



VPAT-Section 508



Canada Protected B



G-Cloud 12



NIST

INDUSTRY



HIPAA



PCI DSS – Level 1



HITRUST CSF



TISAX



FINMA



BACEN



EBA



GxP



FIEC

GLOBAL



SOC 1 : SOC 2 : SOC 3



9001 : 27001 : 27017 :
27018 : 27701 : 20000-1



Level 2

Flexible Pricing & Consumption Models, Rewards for Consumption

Investment Protection

Universal Credits

- 1 simple contract
- 1 global standard pricing model (IaaS/PaaS)
- Simplified buying experience
- BYOL discounts

Support Rewards

- Earn \$0.25 rewards for every \$1 of new OCI consumption (\$0.33 per \$1 for ULA customers)
- Rewards can be used to lower Technology support bill, even down to zero

Consumption Choices

Pay As You Go

- No upfront commitment
- Pay only for usage
- Pay in arrears based on usage
- List pricing

Annual Flex

- 1-year min term
- Use annual commitment throughout the year
- Published volume discounts

Oracle Cloud Applications

Complete suite of
integrated applications



Oracle Cloud Infrastructure

Secure, high-performance
platform for all your workloads

Everything you need to build modern cloud native applications

Broad set of OCI services

Interfaces and automation

Console, CLI, API/SDKs, cloud shell, resource manager (Terraform)

API management

API design / API gateway

Databases

Oracle Autonomous Database, MySQL services

Containers

Container registry, Container Engine for Kubernetes

Machine learning

Full lifecycle ML service (data prep, training, inference)

Serverless

Functions for serverless code execution

Streaming

Kafka-compatible service

Ops

Continuous deployment, observability, management, monitoring

Deep tools ecosystem



Terraform



ANSIBLE

GitHub



FORTINET

PagerDuty



cybereason



servicenow.



[More details](#)

Moving your apps to OCI is the easiest way to make them modern



Move

Move application without re-architecture

Gain higher performance

Improve availability

Shift from CapEx to OpEx

Optimize

Incrementally refactor

Reduce manual work with platform services

Improve agility with containerization

Automate your application lifecycle

Extend

Extend your applications

Improve user experience with new interfaces

Expand app use with new APIs

Increase value with integrations to other apps

Start getting cloud benefits without any application changes



Easily lift & shift

Oracle Cloud Lift Services

Cloud experts help you move at no additional cost

Next-Gen Architecture

Infrastructure to support any workload, even the toughest enterprise apps



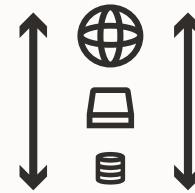
Improved performance

Oracle Exadata Cloud Service, Database RAC

Best cloud platform for running Oracle Database

Bare Metal Compute

Dedicated bare metal servers provide maximum performance, isolation, & control



Lower cost

Flex Infrastructure

Precisely provision compute resources with no waste

Lowest Cost Bandwidth

Move significant volumes of data at up to 80% lower cost vs other clouds



Comprehensive hybrid choices

Dedicated Region, Exadata Cloud@Customer

Easily run services & apps on-prem, with cloud benefits

Oracle Cloud VMware Solution

Native VMware in public cloud, government cloud, or dedicated regions



Two free trial options

New

Always free

Services you can use
for an unlimited time



Free trial

Free credits for 30 days

Learn, explore, and build for free

oracle.com/cloud/free/

The Oracle Cloud ecosystem



Oracle	OS, Virtualization	Apps, Management, Migration	Networks, Security	Data	Analytics, AI/ML, HPC
<p>E-Business Suite</p> <p>JD Edwards</p> <p>PeopleSoft</p> <p>Hyperion</p> <p>Siebel</p> <p>WebLogic</p> <p>FLEXCUBE</p> <p>Modern Risk and Finance</p> <p>Financial Crime and Compliance Management</p> <p>Financial Services Data Foundation</p> <p>Insurance Data Foundation</p>	<p>ORACLE Linux</p> <p>Microsoft</p> <p>stromasys <small>legacy server emulation</small></p> <p>SUSE</p> <p>ubuntu</p> <p>vmware</p>	<p>servicenow</p> <p>CloudHealth <small>by VMware</small></p> <p>blueprism</p> <p>RACKWARE</p> <p>Solution-Sof</p> <p>ZERO DOWN <small>SOFTWARE</small></p>	<p>A10</p> <p>AVI Now part of VMware Networks</p> <p>aviATRIX</p> <p>CIS Center for Internet Security</p> <p>FORTINET</p> <p>paloalto</p> <p>SHIELDIO</p>	<p>Microsoft SQL Server</p> <p>ORACLE Database</p> <p>SCYLLA</p> <p>sesame SOFTWARE</p>	<p>Altair</p> <p>compellon</p> <p>H₂O.ai</p> <p>kinetica</p> <p>PYRAMID ANALYTICS</p>

Oracle Cloud Versus Competition



Oracle Autonomous Database

Self-Driving - Self-Securing - Self-Repairing



The Real-World Business Value of Oracle Autonomous Data Warehouse

Business value highlights:

- **Five months** to payback
- **417%** five-year ROI
- **94%** reduction in unplanned downtime
- **68%** more efficient DBAs
- **63%** reduced total cost of operations
- **45%** reduction in IT infrastructure costs

Carl Olofson
IDC Research VP
Data Management

Harsh Singh
IDC Sr. Research Analyst,
Business Value Strategy

PROVISION

Creates **Exadata Cloud Infrastructure**, Real Application Clusters (**RAC**) scale-out database, **Active Data Guard** standby

SCALE

Automatically **Scales Up** or **Out** online when needed

SECURE

Applies security **updates online**, prevents admin snooping with **Database Vault**, **encrypts** all data

OPTIMIZE

Automatically optimizes **data formats**, **indexes**, **parallelism** and **plans** for each workload

PROTECT

Automates **backup**, **restore**, **transparent failover** within cluster or to remote standby

MANAGE

Patches all software **online**, **tunes** settings, performs **all DBA** operations, diagnoses **errors**



Oracle Cloud Differentiators

OCI: #1 Complete & Integrated Stack with IaaS + PaaS + SaaS



**Complete Stack
IaaS + PaaS
PaaS + SaaS**

Leaders in Cloud & Cloud-Related Analyst Reports across IaaS, PaaS, SaaS

ORACLE



Microsoft

Google Cloud

48

15

46

17

Sources: Gartner Magic Quadrant, Forrester Wave, IDC MarketScape (as of 11 June 2020)

Note: The number of analyst reports is not exhaustive and subject to change, as analysts publish their reports regularly.



Oracle Cloud Differentiators

OCI: #2 Predictable & Massive Performance



Predictable & Massive Performance

- Flat/non-blocking network
- Low latency RDMA technology
- Off-box I/O virtualization
- Superfast NVMe local storage
- Flash-based block storage

OCI Gen 2 Design: Massive and predictable performance at the lowest cost

- OCI Compute **2X better price/performance** than AWS for general purpose & memory-optimized instances
- OCI Compute **4.8X better IOPS price/performance** than AWS for high I/O intensive instances
- OCI block storage **20X higher IOPS/GB** compared to AWS EBS General Purpose SSD

Oracle Cloud Differentiators

OCI: #3 Superior Economics

OCI is built for enterprises looking for higher performance, consistently lower costs, and easier cloud migration for their existing on-premises applications.

1
74%
savings for
outbound
bandwidth

2
2X better price
performance for
general/memory
optimized compute

3
44%
lower compute
costs for HPC

4
20X IOPS
performance of
AWS block storage
for $\frac{1}{2}$ the cost

OCI is consistently less expensive than AWS for a wide range of cloud services.

Oracle Cloud Differentiators

OCI: #4 End-to-End Enterprise SLAs

	OCI	AWS	Azure	GCP
Availability	Covered	Covered	Covered	Covered
Performance	Covered	No coverage	No coverage	No coverage
Manageability	Covered	No coverage	No coverage	No coverage

Source: <https://cloud.oracle.com/iaas/sla>



OCI Differentiators

#1

**Oracle Apps Run
Better on OCI**

#2

**OCI Offers *Faster*
& *Consistent*
*Performance***

#3

**OCI Offers
Consistent &
Lower WW
*Pricing***

#4

**OCI Offers
the Broadest
*SLAs***

#5

**OCI Offers the
Highest
Performance Data
Management
*Platform***

#6

**OCI is built on a
2nd Generation
Cloud
*Architecture***

#7

**Within OCI, *End-*
to-End Security
*is Foundational***

#8

**OCI is also a
Modernization
*Platform***

#9

Oracle Support Rewards (OSR)

<https://www.oracle.com/cloud/rewards/>

#10

Oracle Cloud Lift Services

<https://www.oracle.com/cloud/cloud-lift/>

Zoom meets performance and cost goals while scaling volume 30X

“We selected Oracle for its advantages in performance, scalability, reliability, and superior cloud security.”

Eric S. Yuan
CEO, Zoom



Copyright © 2023, Oracle and/or its affiliates.

Business Challenge:

Zoom needed to find a Cloud partner as performant and cost-effective as their purpose-built environment, that could scale to a 30X increase in volume as demand soared under the COVID-19 pandemic.

Results:

Oracle’s engineering team helped Zoom move from deployment to live production in just 9 hours. Zoom now supports millions of concurrent live streams every day—in the cloud, without having to rely on managing their own hardware or data centers.

- ✓ Quickly scaled to meet user demand as it grew from 10 million to 300 million daily participants, December to April
- ✓ Considered other clouds, but only Oracle met their requirements
- ✓ Has grown from 7 to 20 petabytes of video and audio transferred per day through Oracle Cloud Infrastructure servers—a 3x increase from April
- ✓ Eliminated the 40-minute limit for K-12 schools on its free tier
- ✓ Next, Zoom and Oracle are partnering to add videoconferencing to webinars, sales calls, and customer service within Oracle CX Cloud

Products Used:

Oracle Cloud Infrastructure

Oracle Virtual Machines

Oracle Block Volumes



TIM Brasil selects Oracle and Microsoft to migrate its whole datacenter to the cloud



“Oracle has been a fantastic partner in our technology evolution.”

Pietro Labriola
CEO, Tim Brasil



Business Challenge:

TIM Brasil is one of the largest telecommunications providers in Brazil with more than 61 million customers. As the COVID-19 pandemic reshaped businesses, TIM Brasil needed to accelerate its digital transformation in order to meet evolving customer needs.

Results:

As part of its modernization project, TIM Brasil selected Oracle and Microsoft as its technology partners. With the adoption of Oracle Cloud Infrastructure and Microsoft Azure, TIM Brasil will move 100% its on-premises workloads to the cloud.

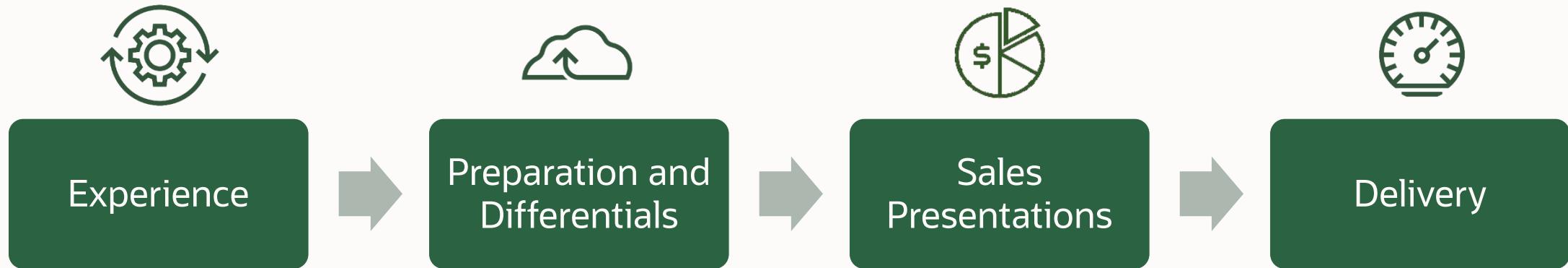
- ✓ Oracle Cloud Applications, Oracle Database, VMware servers, integration, and Oracle-based custom application workloads on OCI
- ✓ SAP, Microsoft, Virtual Desktop Infrastructure, and non-critical application workloads will run on Microsoft Azure
- ✓ Oracle-Microsoft Azure Interconnect will provide 40 Gbps initial speed, federated identity, and 99.95% SLA
- ✓ TIM Brasil will migrate 7,000 servers, 35,000 cores, 1,200 databases, and 15 petabytes of storage
- ✓ Reduced carbon emissions directly associated with physical data centers

Products Used:

Oracle Cloud Infrastructure

Global Public Link Tools

Reference Links

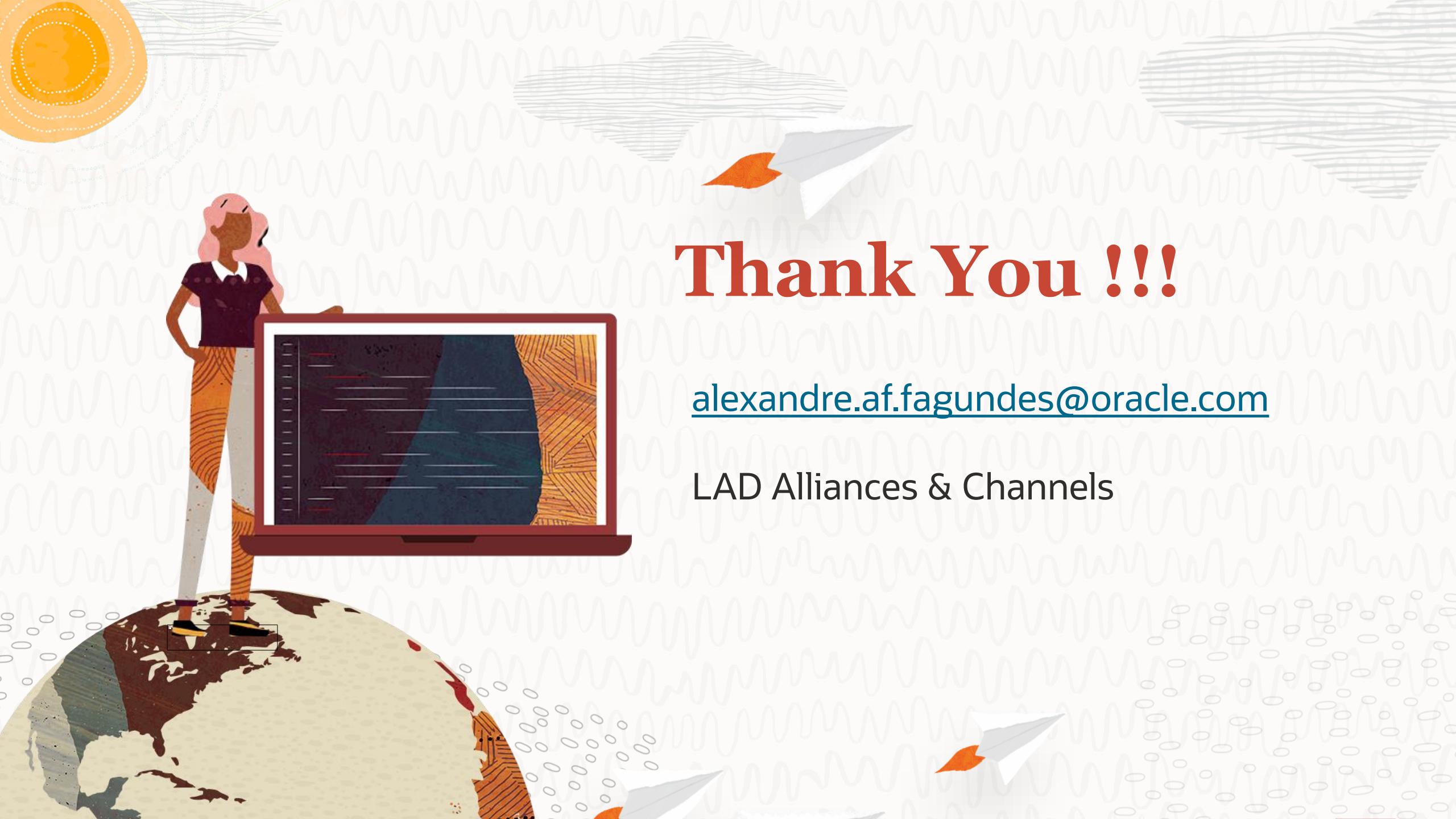


[Global Product Channel](#)
[Developers Events](#)
[Live Labs](#)

[Cloud Adoption Framework](#)
[OCI vs AWS](#)
[OCI vc Azure](#)
[OCI vc GCP](#)
[Economics](#)

[Sales Accelerator](#)
[Tech Sales Plays](#)
[Cost Estimator](#)

[Solution Architecture Center](#)
[Cloud Marketplace](#)



Thank You !!!

alexandre.af.fagundes@oracle.com

LAD Alliances & Channels