

ORACLE

GA Dec 2023

Oracle Database@Azure

Migrate, Modernize, and Innovate with the best of both worlds



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Cloud Architect, Oracle Latin America



Customers want choices

Leaders rely on Oracle Exadata

But migration has been challenging

98%

of companies use
two or more clouds

10 of top 10 **Banking**

10 of top 10 **Communications**

10 of top 10 **Food & Drug**

9 of top 10 **Automotive**

9 of top 10 **Healthcare**

8 of top 10 **Retail**

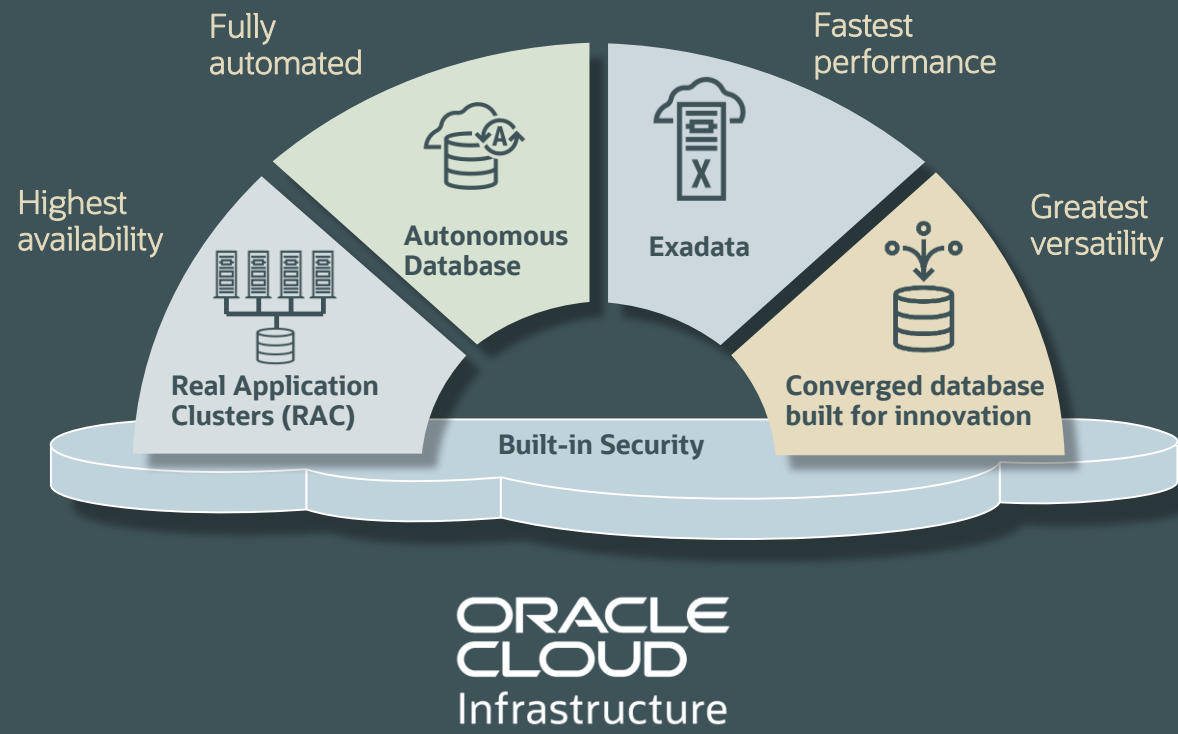


31%

of enterprise workloads
are in the cloud today

Customers want the best of both worlds

Trusted data management



Trusted application services



Virtual Machines



Azure Kubernetes Service



App Services



Azure DevOps



Microsoft Entra ID



Microsoft Fabric



Microsoft
Azure

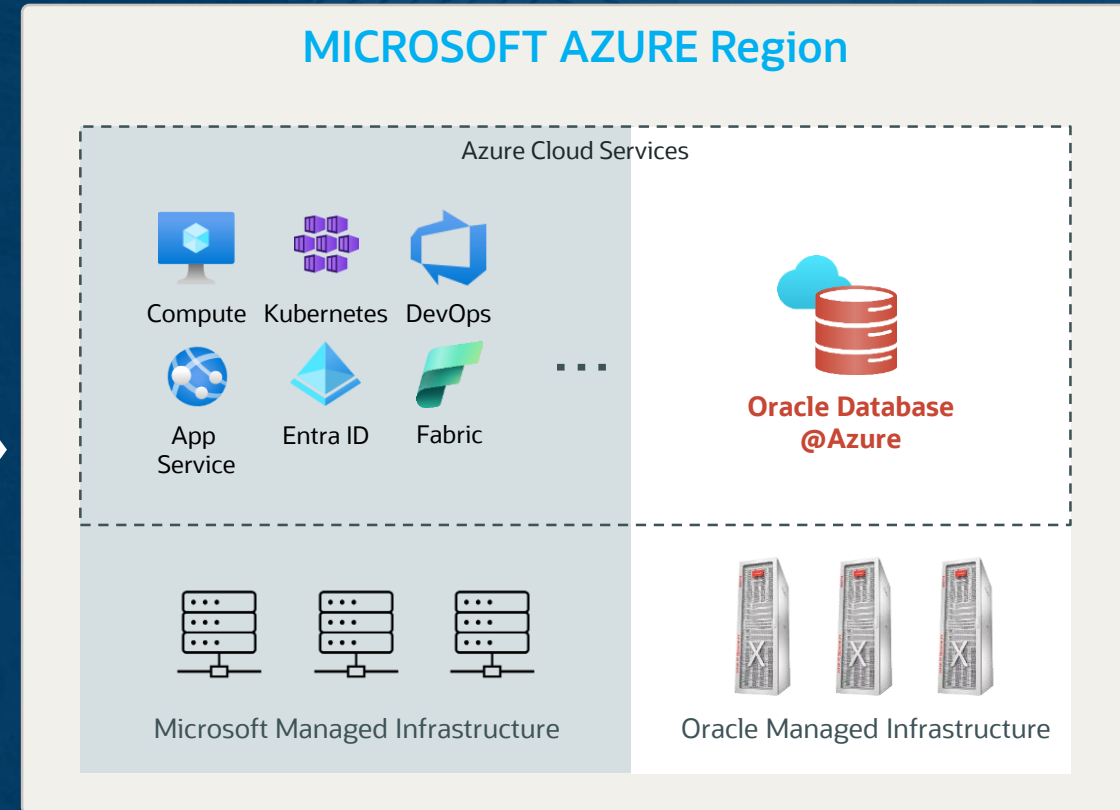


Oracle Database@Azure

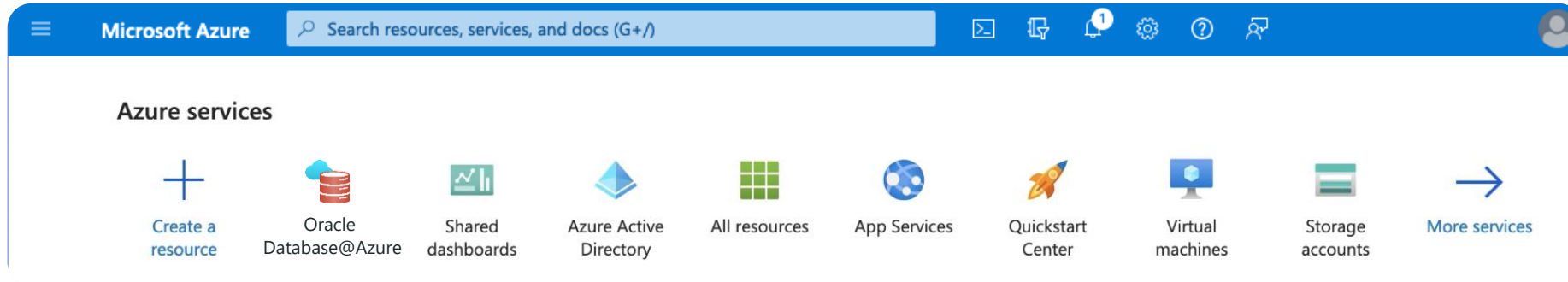
Available December 2023

*Oracle and Microsoft deliver
Oracle database services on OCI
in Microsoft Azure datacenters*

ORACLE



Oracle database services on OCI in Azure



**Run your workloads
where you choose**

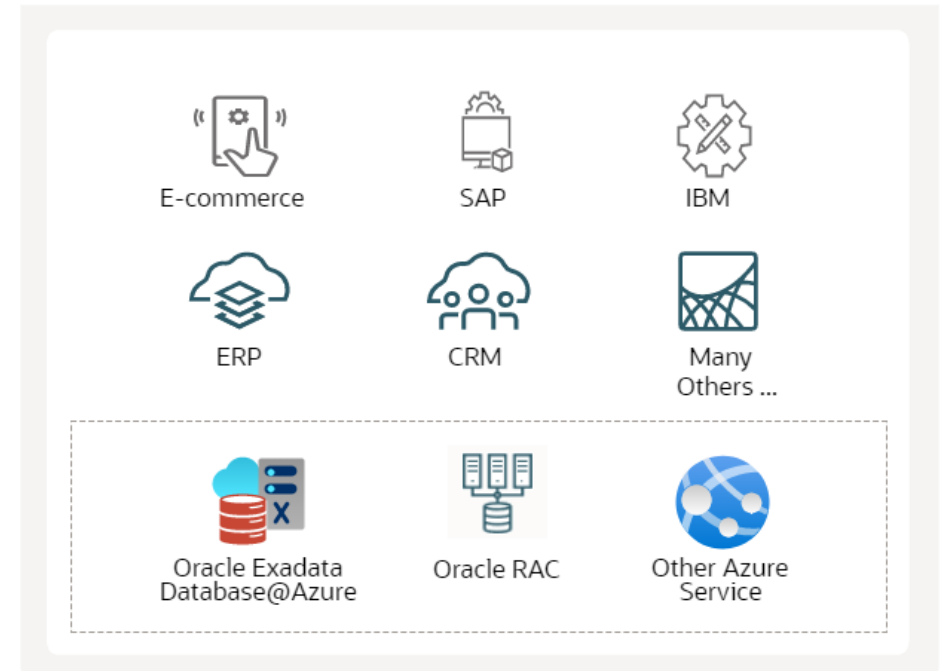
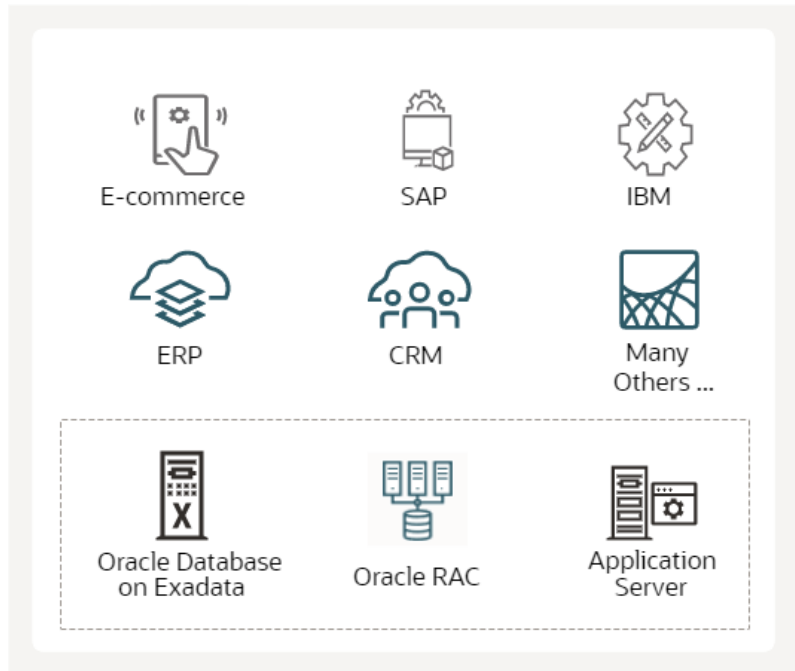
**Migrate, Modernize
and Innovate**

**Simplify operations
and purchasing**

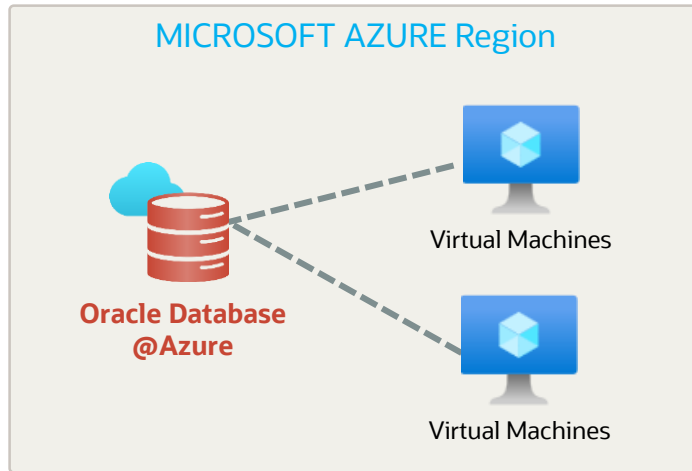
Run your workloads where you choose

Many customers have Oracle Database or Oracle Exadata powering their enterprise applications on-premises

Oracle Database@Azure enables you to run these applications in Azure, with a fully integrated experience and OCI databases with the highest levels of performance, scale, security, and availability

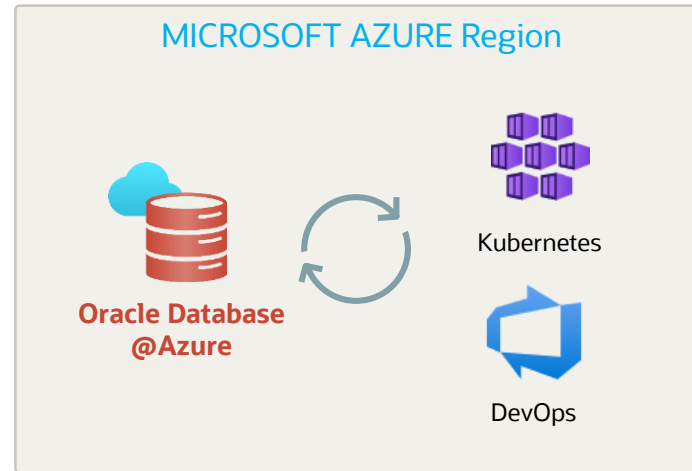


Migrate, modernize, and innovate critical applications



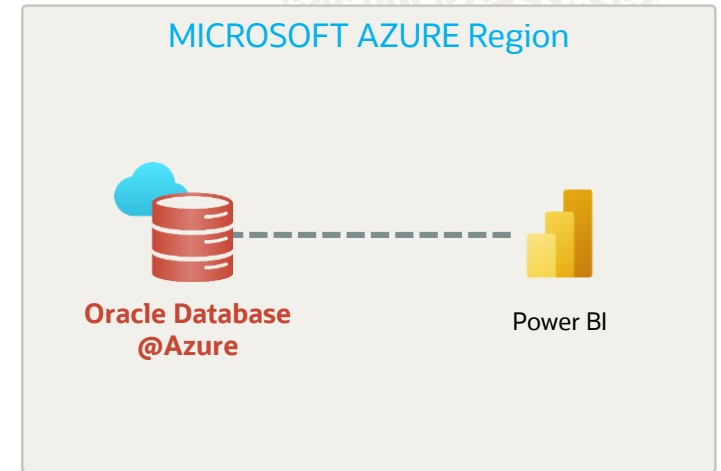
Enterprise Applications

Migrate and run even the most mission critical applications with microseconds of latency between resources



Modernize and Innovate

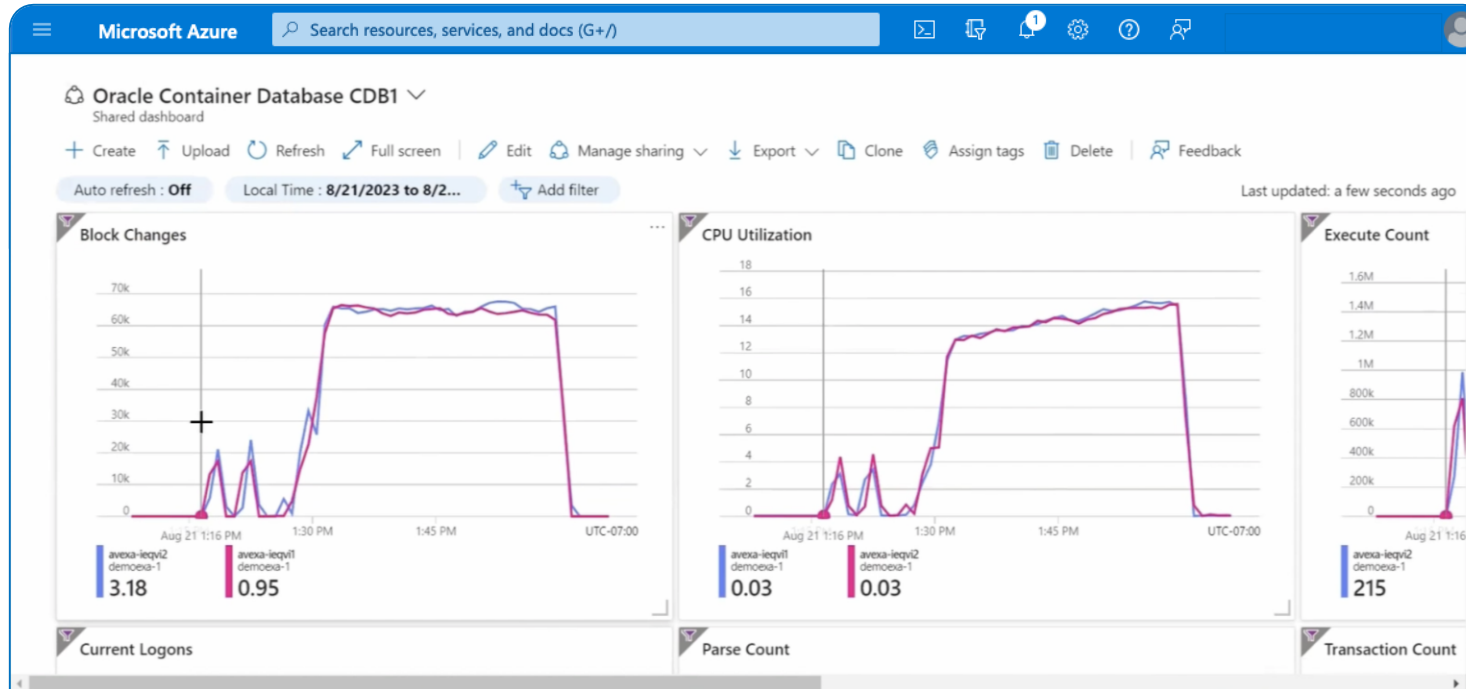
Modernize critical applications with CI/CD processes and gradually implement microservices, or build new modern applications



Data + Analytics

Combine Azure analytics capabilities with the highest performing, and most scalable Oracle database services

Simplify operations



- Use your existing Azure and Oracle skills together
- Oracle database service logs, metrics, and events are directly available in Azure to simplify monitoring and troubleshooting
- Federation with Microsoft Entra ID simplifies identity and access management
- Collaborative support model

Simplify purchasing



Take advantage of your Microsoft Azure Consumption Commitment

Purchase through Azure Marketplace and use Azure commitments for Oracle Database@Azure



Take advantage of your Oracle investments

Use Oracle Database BYOL, ULA, or purchase license-included database services



Get rewards to reduce your Oracle tech license support

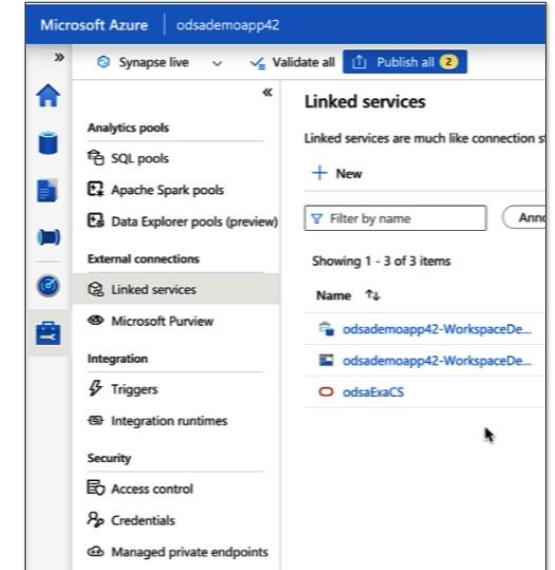
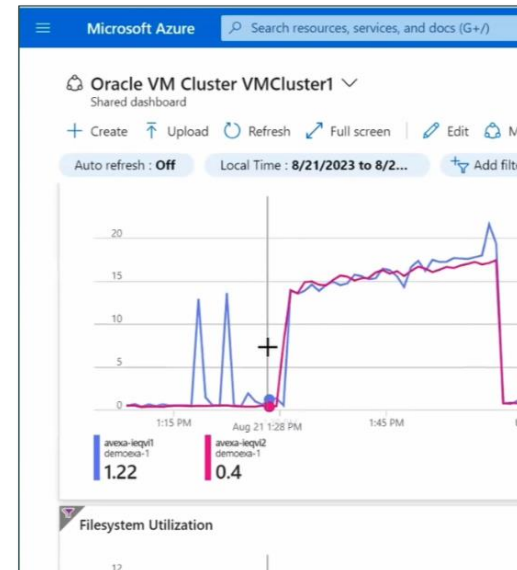
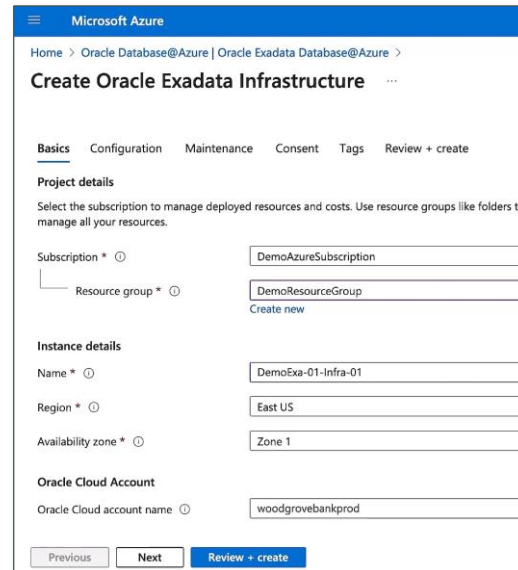
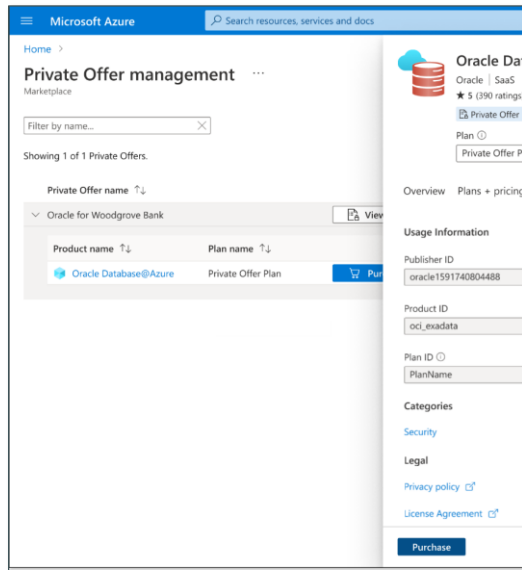
Get \$0.25 to \$0.33 in Oracle Support Rewards for every dollar you spend on Oracle Database@Azure

The best of Oracle and Microsoft, all in one place

Purchase in Azure Marketplace and parity with OCI

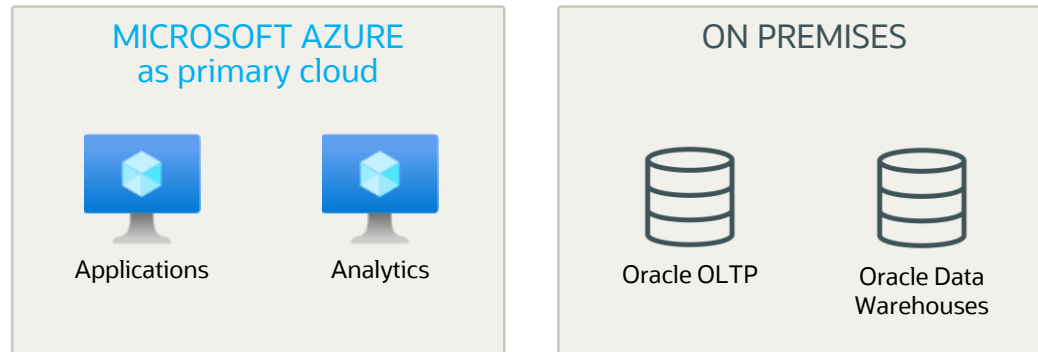
Deploy, manage, and monitor through Azure Portal and APIs

Combine with your choice of Azure services



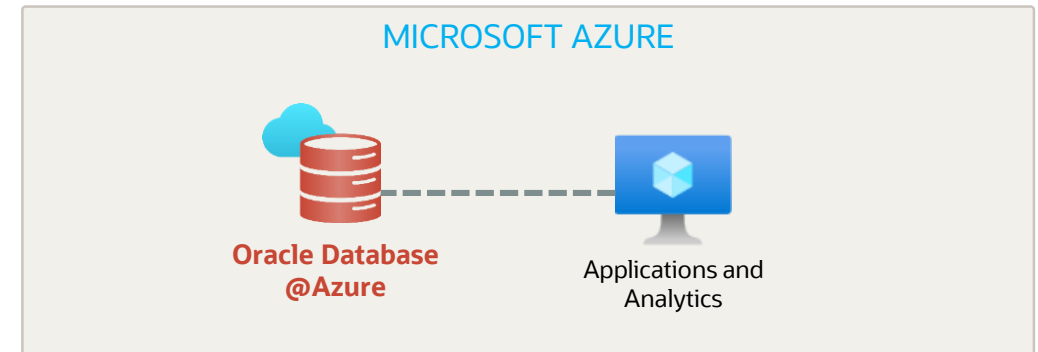
Fully modernize from on-prem with Oracle Database@Azure

Current state



- Disconnected systems, complicated integration that is difficult to maintain
- Expensive ExpressRoute links that only cover limited use cases
- Multi-vendor support challenges

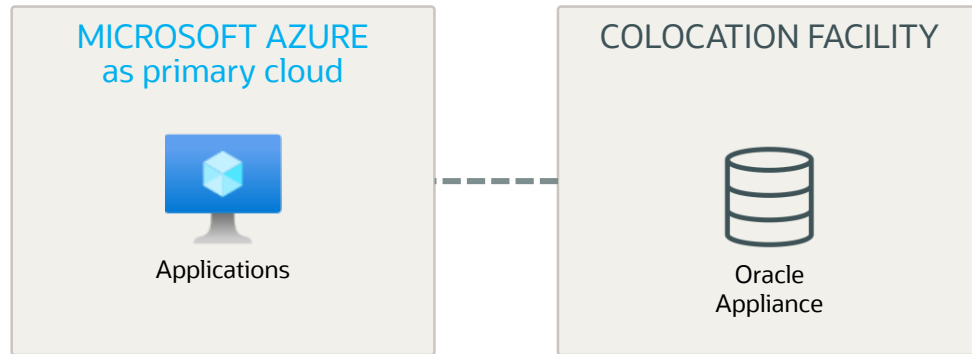
With Oracle Database@Azure



- Native integration between Azure and OCI resources
- No need for private interconnection, nearly any use case is supported
- Microsoft and Oracle collaborative support
- Single bill, MACC applicable, no extraneous charges

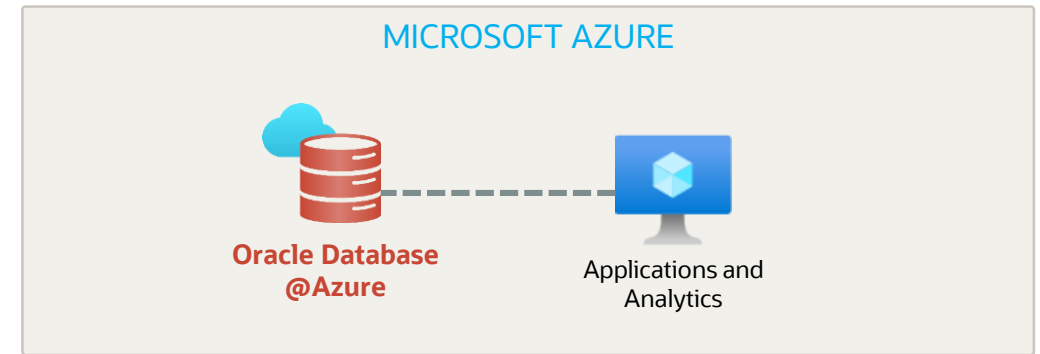
Fully modernize from colocation facility with Oracle Database@Azure

Current state



- Expensive cross-connection with performance and availability challenges
- Multi-vendor support challenges

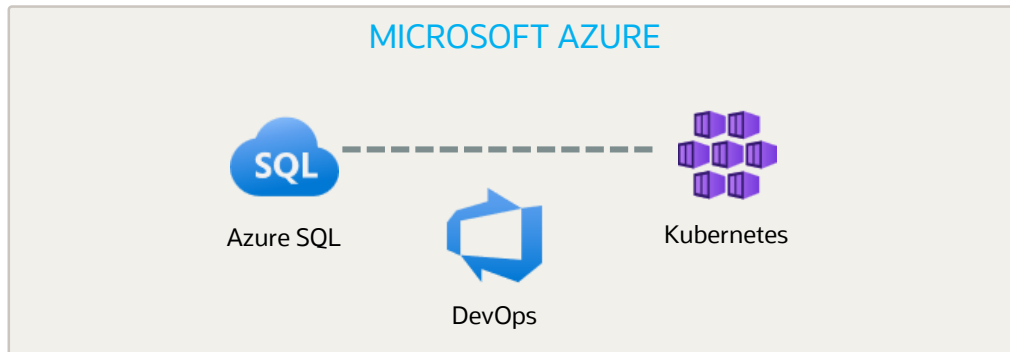
With Oracle Database@Azure



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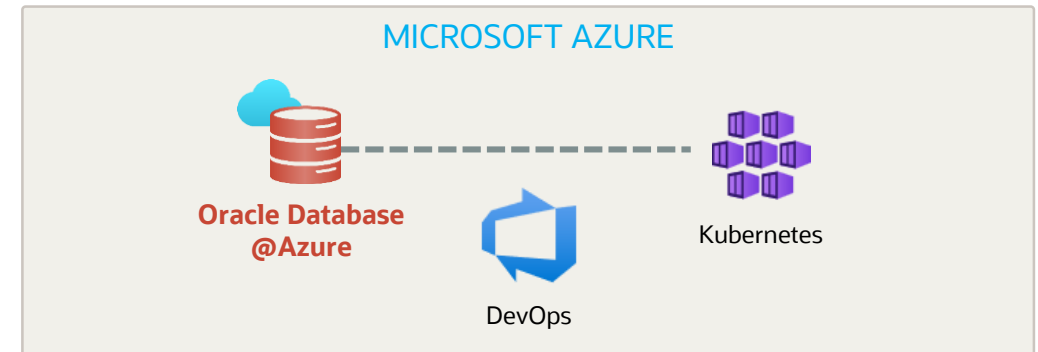
Application development with Oracle Database@Azure

Current state



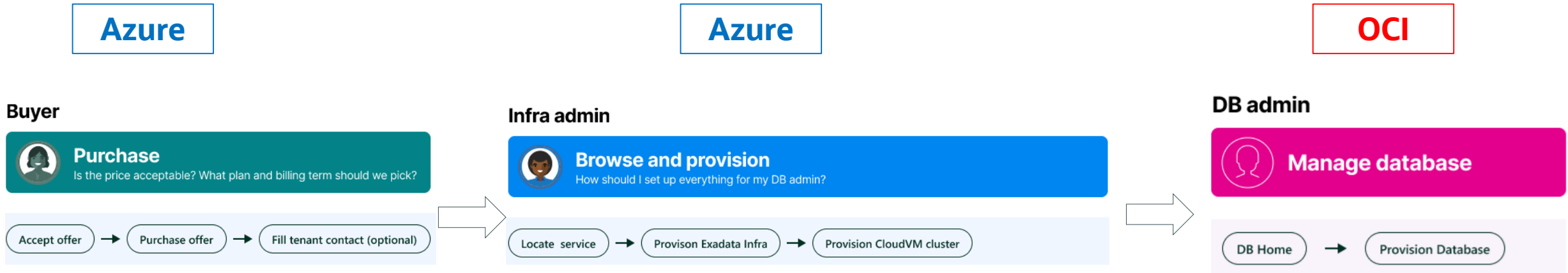
- Azure SQL is the only native option for enterprise applications

With Oracle Database@Azure



- A new option for enterprise applications
- The highest levels of Oracle database performance, scale, security, and availability
- Converged capabilities to handle any data, including JSON, spatial, graph, and more, greatly simplify data management

Oracle Database@Azure customer onboarding flow



- Oracle Database Service will be listed in the Azure marketplace.
- The public offer is not purchasable but will enable the customer to contact Oracle to negotiate a private offer to be able to use the service.
- Oracle will control which customers will be using ODB@A at GA because they will have to negotiate and accept a private offer with Oracle.
- At GA, we will support ExaCS only.

LAD Segmentation for Oracle Database@Azure

Target Oracle Install base customers with Azure Environments

Quick Wins	Existing Oracle install base with EE + RAC / Exadata on-premises with Active Support	<ul style="list-style-type: none">• Existing EA (Enterprise Agreement) or a MCA with Azure• OCI can't be onboarded as another CSP• Azure Interconnect can't be leveraged
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Compelling event to move Oracle EE+RAC / Exadata to Cloud as a Managed Service
(e.g. Application upgrade / DC Exit or capacity issues / Performance, availability or scalability issues / Database Modernization / HW or support renew)

Qualification questions

- *Is the customer at Azure? YES*
- *Can we create relationship with the customer and onboard to OCI? NO*
- *Can Azure Interconnect can't be leveraged? NO*



Roadmap

- Dec 13, 2023: East US
- Calendar Q1 2024: Germany West Central, Australia East, France Central, Canada Central
- Later in 2024: UK South, Brazil South, Japan East, Central US, South Central US
- Exadata Database Service
- We are continuously reviewing requests for additional regions and expect to provide regular updates.



Oracle Interconnect and ODSA talking points

Oracle Interconnect for Azure customers

- In almost all cases, stay on Interconnect. They should only consider Oracle Database@Azure if they are running a split stack workload and have latency issues.

Oracle Database Service for Azure (ODSA) customers

- If they are actively in the consideration stage, they should be redirected to Interconnect.
- If they are an existing ODSA customer, position Oracle Database@Azure when it is available in the appropriate region. We will support the customer in the meantime.



Customer reception



“As one of the largest food and beverage companies in the world, the ability to run our mission-critical systems and associated data in the cloud with Oracle Database@Azure gives us a scaled strategic advantage across our global operations.”

Magesh Bagavathi, SVP and global CTO
PepsiCo.



“...cloud partnerships have the potential to help the entire industry maintain better security, compliance and performance, helping to accelerate the development of new technology products, solutions and services that enhance customer experience and help achieve better financial outcomes.”

Santhosh Keshavan, EVP and CIO
Voya Financial, Inc.



“We are looking to our technology partners to support Vodafone’s strategic focus on customers, simplicity, and growth across Europe and Africa. This new offering from Oracle and Microsoft does that by enabling us to deliver innovative and differentiated digital services faster and more cost-effectively to our customers.”

Scott Petty, CTO
Vodafone

Analyst perspectives



“This extension of the two companies’ earlier partnership further reconstructs industry expectations, showcasing just what a next gen cloud should look like.”

**Bradley Shimmin, Chief Analyst,
AI & Analytics, Omdia**



“It’s a huge win for Azure customers, as they can now get Oracle’s prime database services, running on OCI, physically inside of Azure, and procure it seamlessly from the Azure Marketplace—all while having their database managed by Oracle.”

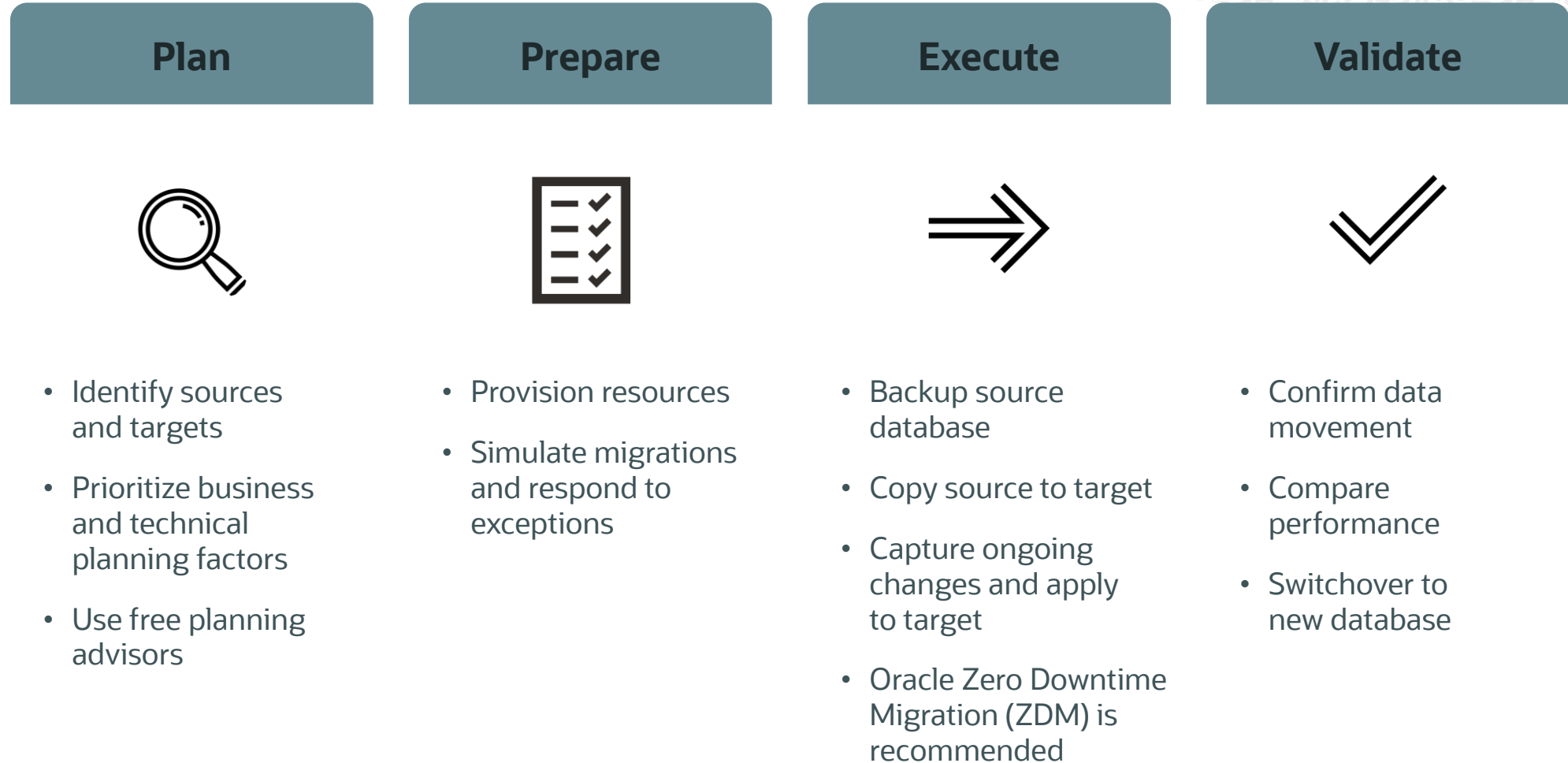
**Holger Mueller, VP & Principal
Analyst, Constellation Research**



“Microsoft and Oracle just completely redefined what it means to be multicloud. In an unprecedented and truly unexpected move, Exadata and all of the Oracle Database cloud services, including the Autonomous Databases, running on OCI, are now co-located in Azure data centers.”

Marc Staimer, Sr. Analyst Wikibon

Proven database migration strategies and services



Proven Oracle Maximum Availability Architectures (MAA)

Production/ departmental (MAA Silver)

- Single AZ Database HA with RAC Active/Active clustering
- Automatic database backup
- Application continuity
- Sharding (optional)
 - Provides fault isolation, scalability and geographical distribution
- RTO/RPO = Hours to days/since last backup

Business critical (MAA Gold)

Prod/departmental +

- Physical replication
- DB replication with Active Data Guard or Data Guard
 - Comprehensive data protection
- Local backup on both primary and standby
- RTO/RPO = Seconds to 2 minutes/zero or seconds

Mission critical (MAA Platinum)

Business critical +

- Logical Active/Active replication
- DB replication with GoldenGate
- Advanced HA options
- Edition-based redefinition (Alternative)
- RTO/RPO = Zero/zero

Microsoft + Oracle: partnering to make multicloud amazing

2019

•**Oracle Interconnect for Microsoft Azure**

•Improving multicloud connectivity

2022

Oracle Database Service for Azure

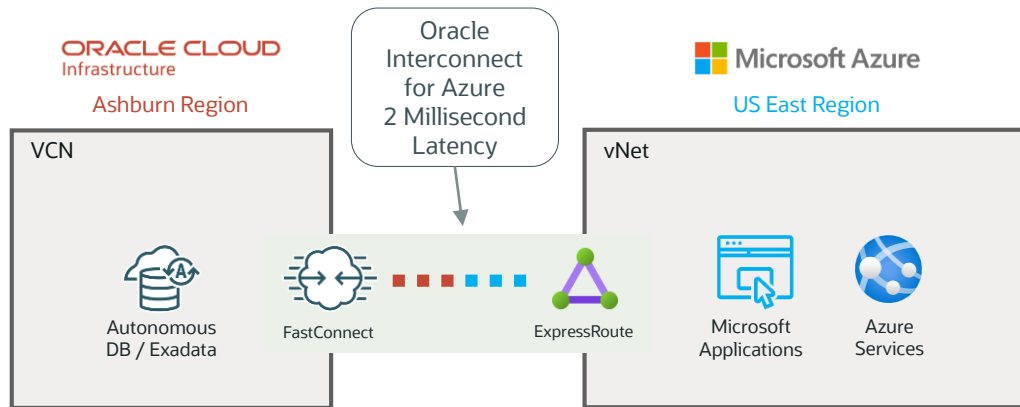
Oracle managed service built on Interconnect

2023

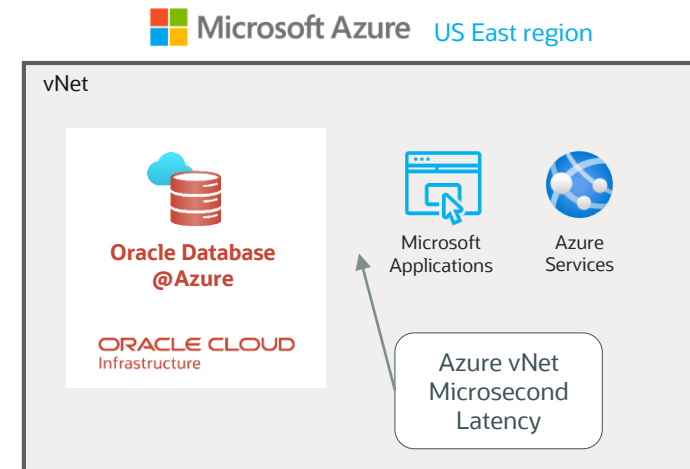
The Future Begins Today

Oracle Database@Azure compared to previous offerings

Oracle Database Service for Azure with Oracle for Azure Interconnect

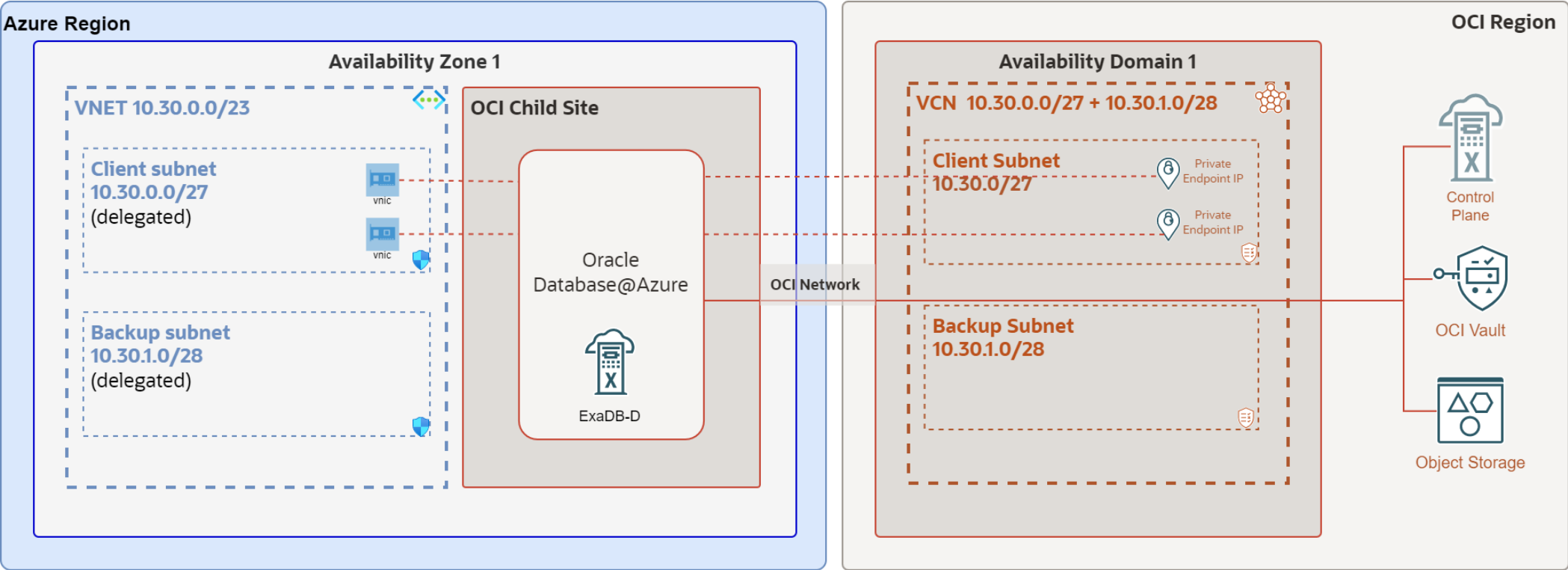


Oracle Database@Azure

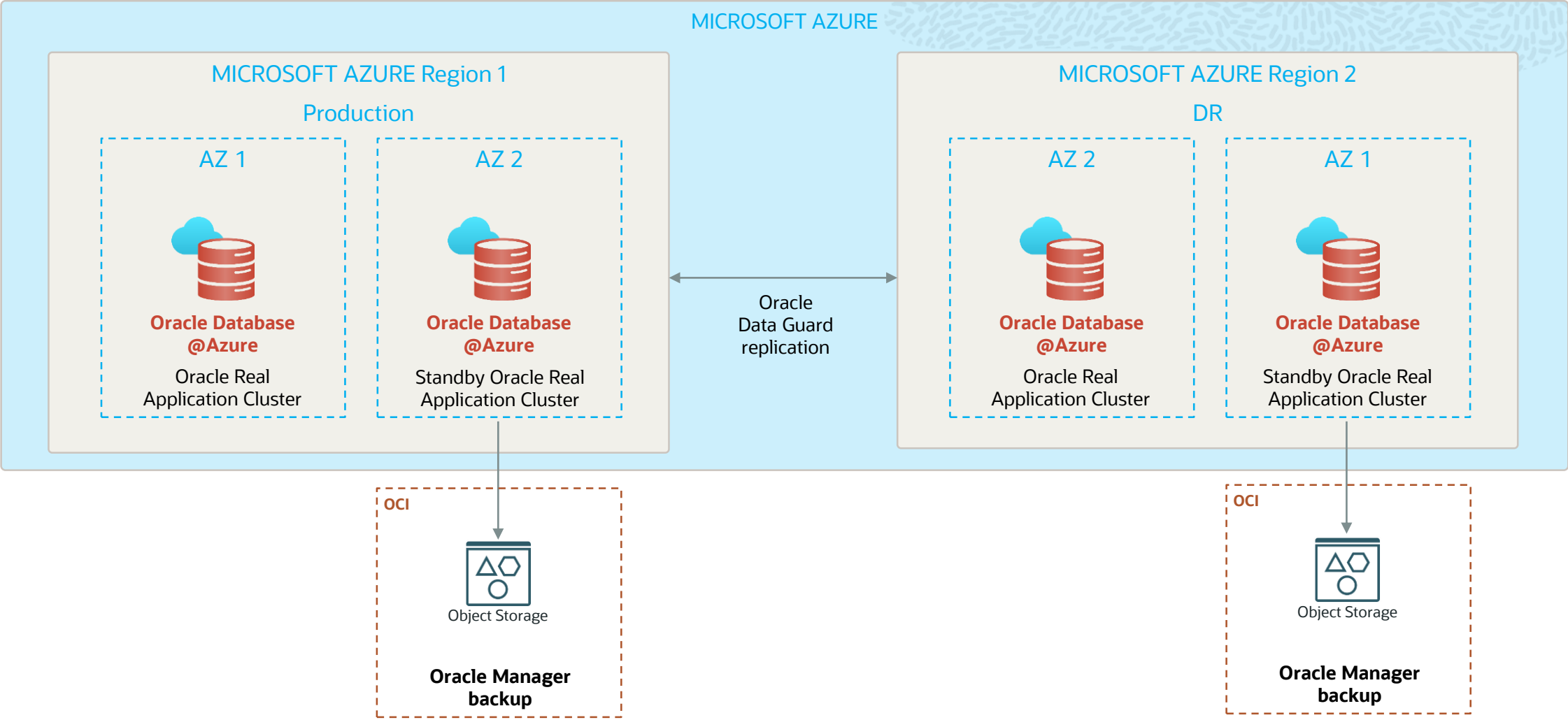


- Lower latency, identical to other Azure services, enables even the most mission critical workloads
- Equivalent to Oracle database services in OCI
- Drawdown Azure commitments

High Level Architecture – Single AZ Deployment



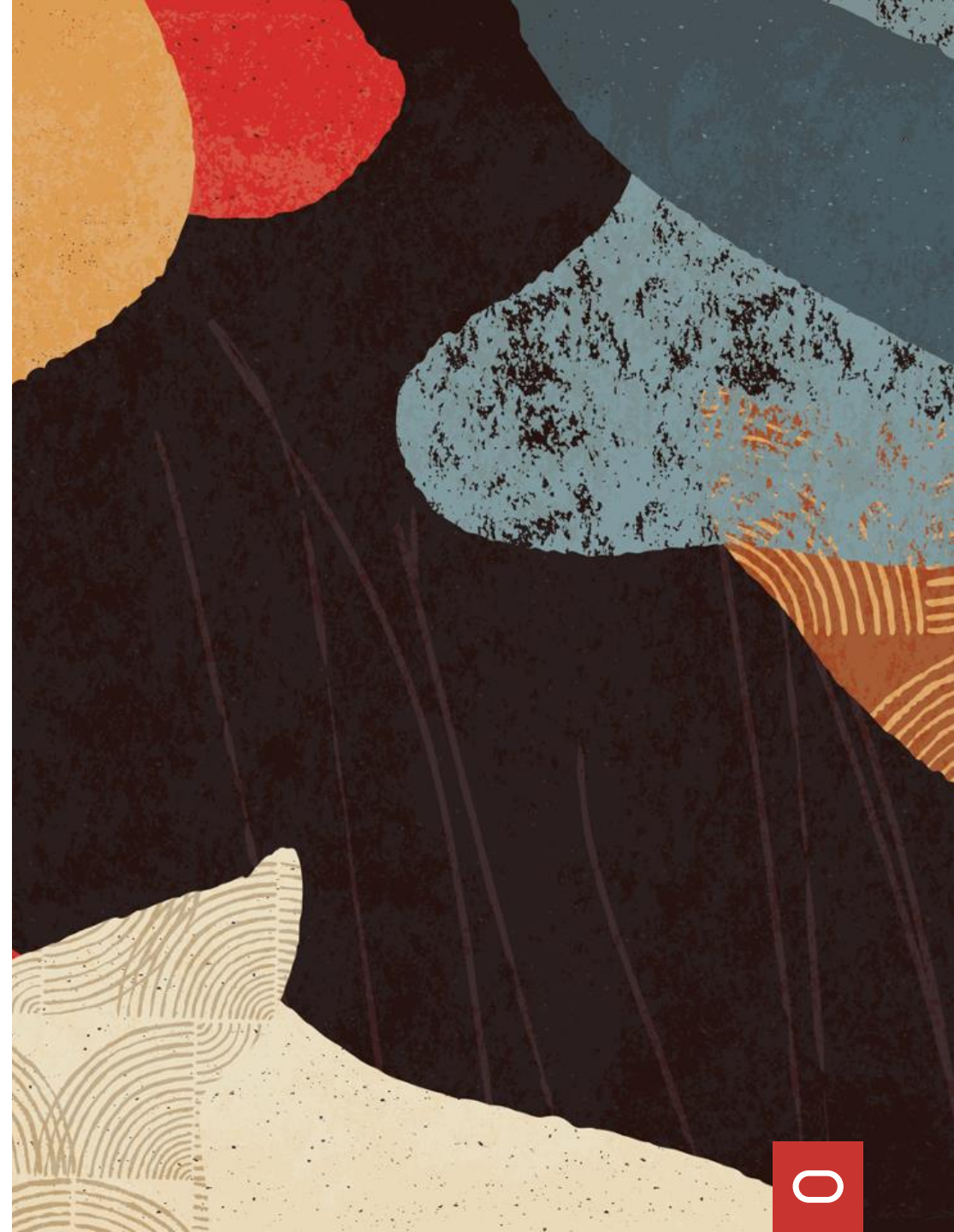
HA and DR



Exadata has HA built-in by default through RAC



FAQ



What's the difference between the Oracle Database Service for Azure and the OCI-Azure Interconnect?

	Oracle Database Service for Azure	OCI and Microsoft Azure Interconnect
Primary Use	Azure customers who want to connect Azure resources to Oracle Databases on OCI.	Customized bi-directional scenarios. Usable with all OCI and Azure resources.
What is it?	A guided experience to automate and simplify account linkage, user entitlements, and provides a portal on Azure to manage OCI database services with a UX experience familiar to Azure users.	Direct connectivity between OCI and Azure built on Oracle FastConnect and Azure ExpressRoute to create low-latency, high throughput, and redundant connections in multiple regions with unified identity and access management between Azure and OCI.
Support	Collaborative support model (same as interconnect)	Collaborative support model
Network Cost	No interconnection port or ingress/egress charges.	Interconnection ports (FastConnect and ExpressRoute) Zero data ingress/egress charges
Network scaling	Fully managed by OCI	Customer managed in the customer's tenancy
Monitoring	Consolidated metrics and events consumed in Azure App Insights and Azure Log Analytics	Customer managed
Pricing	No cost for Oracle Database Service for Azure. Pay only for Azure and OCI service consumption.	Interconnection ports (FastConnect and ExpressRoute), plus Azure and OCI service consumption

What database features are available in Oracle Database Service for Azure today?

Key capabilities	Oracle Database Service for Azure Portal	OCI Console
Manual Backup	✓	✓
Automated Backup	✓	✓
Restore to existing database	✓	✓
License Management	✓	✓
RAC	✓	✓
Service Requests	✓	✓
Data Guard	Coming soon	✓
Scaling Infrastructure	Coming soon	✓
Autoscaling	Coming soon	✓



Backup options

Automated backup

- Backup from Oracle Database@Azure to OCI Object Storage in related OCI Region

Customer-managed backup

- RMAN to Azure Blob Storage



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

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

Zero

Downtime
maintenance and
non-disruptive scaling



Linear

Performance increase with
server scale-out

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



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

What project should we consider first?

- Migrating applications
- Migrating SaaS applications
- Migrating and modernizing



Oracle.com/azure

Features, use cases, how it works,
how to purchase

Thank you



Alexandre Fagundes
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