

The background is a dark teal color with a pattern of white snowflakes and small white dots. In the upper right corner, there is a stylized sun or moon with concentric orange and yellow circles. Two light green, cloud-like shapes are positioned in the upper middle and lower middle of the slide.

ORACLE

Oracle Cloud Winter Camp

How to migrate enterprise applications to the Cloud

Febrero 2021

Speakers

Mariano Jiménez y Guillermo Best

Cloud Solution Engineers, Oracle



Safe harbor statement

A decorative graphic on the right side of the slide, featuring a stylized fingerprint pattern in a light gray color.

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, timing, and pricing of any features or functionality described for Oracle's products may change and remains at the sole discretion of Oracle Corporation.

Oracle Cloud in 8 Steps | Agenda

- 4th Feb **Immersion in the 2nd Generation Cloud**
Borja Gómez, Jesús Brasero
- 5th Feb **High-reliability architectures for mission-critical applications**
Alejandro de Fuenmayor, Raúl de Diego
- 11th Feb **Forecasting, optimization and cost management in the Cloud**
José Criado, Sergio Álvarez
- 12th Feb **Efficiency in Cloud management**
David Simón, David Mauri
- 18th Feb **How to protect critical data in the Cloud**
David Núñez, Juan Carlos Diaz
- 19th Feb **AI & Machine Learning: Migrating your data to the Cloud**
Andrés Araujo, Serena Pérez
- 24th Feb **How to migrate enterprise applications to the Cloud**
Mariano Jimenez, Guillermo Best
- 26th Feb **Cloud-Native development with Oracle Cloud**
Iván Sampedro, Victor Mendo



Scan to see all events

Format

Day of the event

1. Topic Presentation
2. Demo
3. Live Q&A Chat

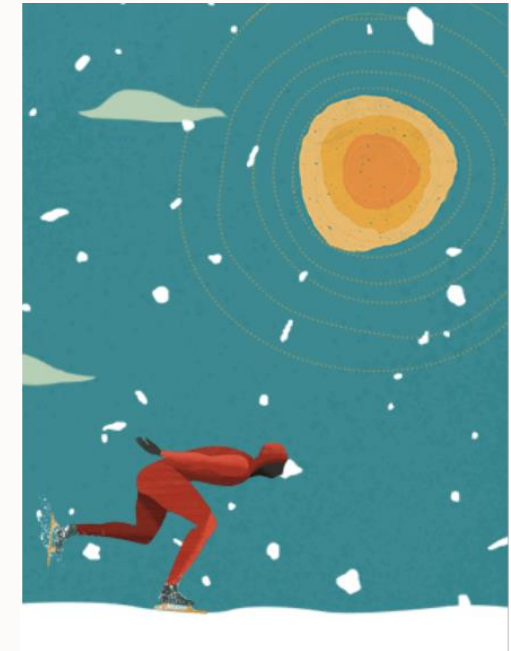
Post event | During the week

4. Hands-on @home
5. Need help? Dedicated group on LinkedIn (<https://bit.ly/2NCCp7P>)



How to migrate enterprise applications to the Cloud | Agenda

A Practical Cloud Strategy
Migrating to Oracle Cloud Infrastructure
Pace of Transformation
Applications Migration Step by Step
Facilitators



A Practical Cloud Strategy

On premises Apps that can be moved to Cloud

3rd Party Applications



Custom Applications



Oracle Applications



Back End

- ERP, CRM
- HR
- Field Service
- Marketing

Front End

- Omnichannel
- Custom offering
- Branding image
- Self service

Analytical

- OLAP
- ML
- Bigdata
- Data Analytics
- Data Governance

On-Premises deployments of enterprise apps pose challenges



Managing hardware presents challenges

Face-to-face actions should be minimized due to the current situation

Can be difficult to scale quickly and capacity planning can become burdensome

Hardware obsolescence

Refreshes are costly, risky and often deferred



Challenges with keeping software updated

Maintaining OS and database patches

Accommodating new feature changes and integrations rapidly

Lack ability to deploy new environments quickly

Adapt to new standards and market trends

Business needs are driving enterprises toward modernization

STRATEGIC



Introduce more products, take them to market faster, respond faster to changes in requirements.

FINANCIAL



Reduce over-provisioning, and move from fixed to variable costs, lowering total cost of ownership.

BUSINESS OPS



Reduce risk of interrupting business operations, recover faster from outages and failures.

IT OPS



Automate standard operations, redirect IT to support higher value business processes.

Improved Agility,
Rapid Innovation

Pay-As-You-Go,
Elastic Scaling

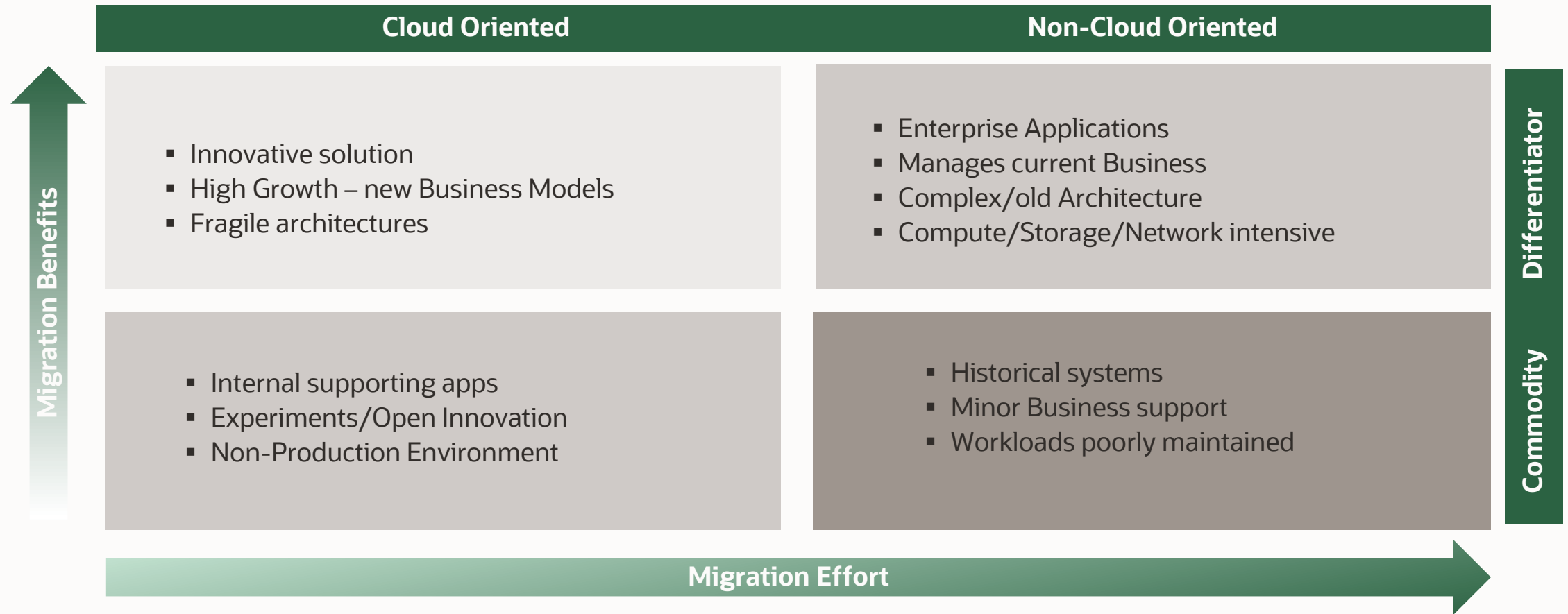
Reduced Risk,
Increased Insights

Repeatable Best Practices
(Infrastructure-as-Code)

Modernization and Cloud migration goals

A Practical Cloud Strategy

A cloud-first strategy may start from on-premise workload



A Practical Cloud Strategy

Use Cases

DevTest in the cloud.

- Test customizations and new app versions
- Validate patches
- Test cloud native technologies and frameworks like containers and Continuous integration and deployment

Backup and DR in the cloud.

- Take advantage of built-in storage resiliency, availability and security
- Use automation/virtual appliances to back up and restore key files and archive infrequently accessed files

Extend the data center to the cloud.

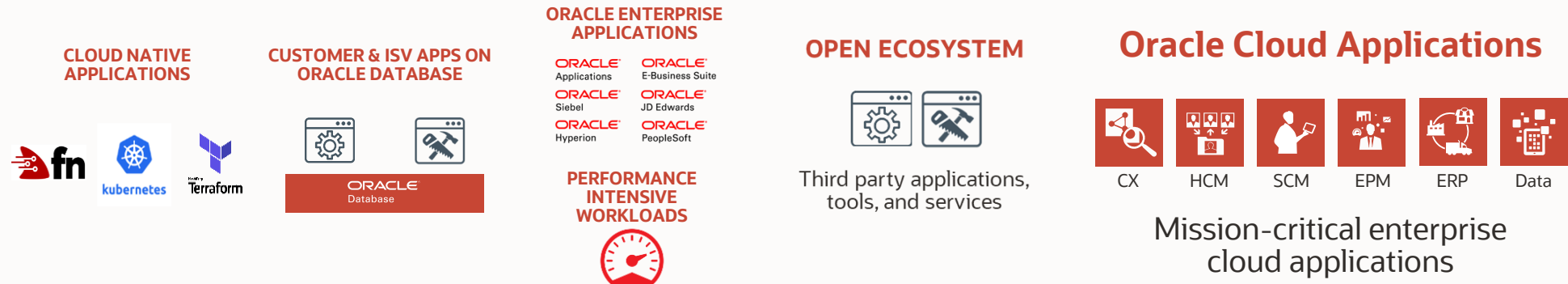
- Connect an on-premise data center to the cloud.
- Reduce the risk of technology obsolescence by accessing the latest infrastructure

Production in the cloud.

- Modernize apps migrating to the cloud
- Adapting infrastructure to real use and needs
- Use multiple availability domains, load balancing and high availability to increase HA

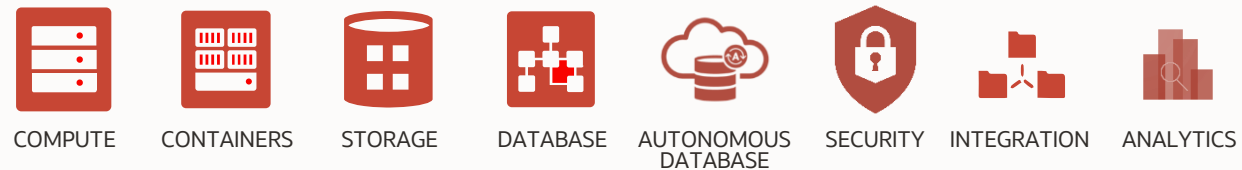
A Comprehensive Cloud Strategy

Professional Services: Global System Integrators, Oracle Advanced Customer Support



Oracle Cloud Infrastructure

Tools and services to migrate, build, extend, and deploy enterprise applications



Oracle Cloud Regions

Migrating to Oracle Cloud Infrastructure

29 Oracle Cloud regions and growing

November 2020: 29 Regions Live, 9+ Planned; 6 Azure Interconnect Regions



High Availability for Oracle Cloud Infrastructure

Options for High Availability :

- Multi-Region
- Multi-Availability Domain
- Multi-Fault Domain

Region:

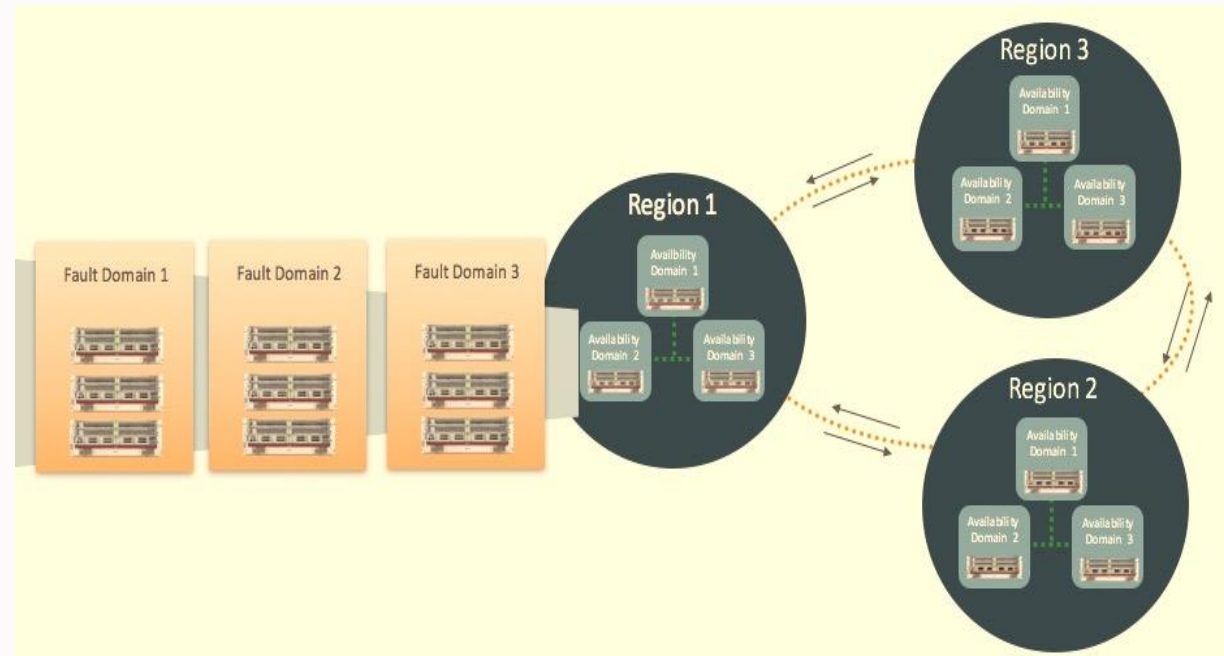
Serve different geographies.

Availability Domain:

Fault-decorrelated, completely independent datacenters in metropolitan area

Fault Domain:

Fault Domain provides a higher degree of protection from unexpected hardware failure or planned hardware maintenance using logical grouping of hardware and infrastructure



Compliance for all regions and services

Extensive and growing list of accreditations



<https://www.oracle.com/cloud/cloud-infrastructure-compliance/>

Network security reference architecture

Virtual Cloud Network
(Isolation)

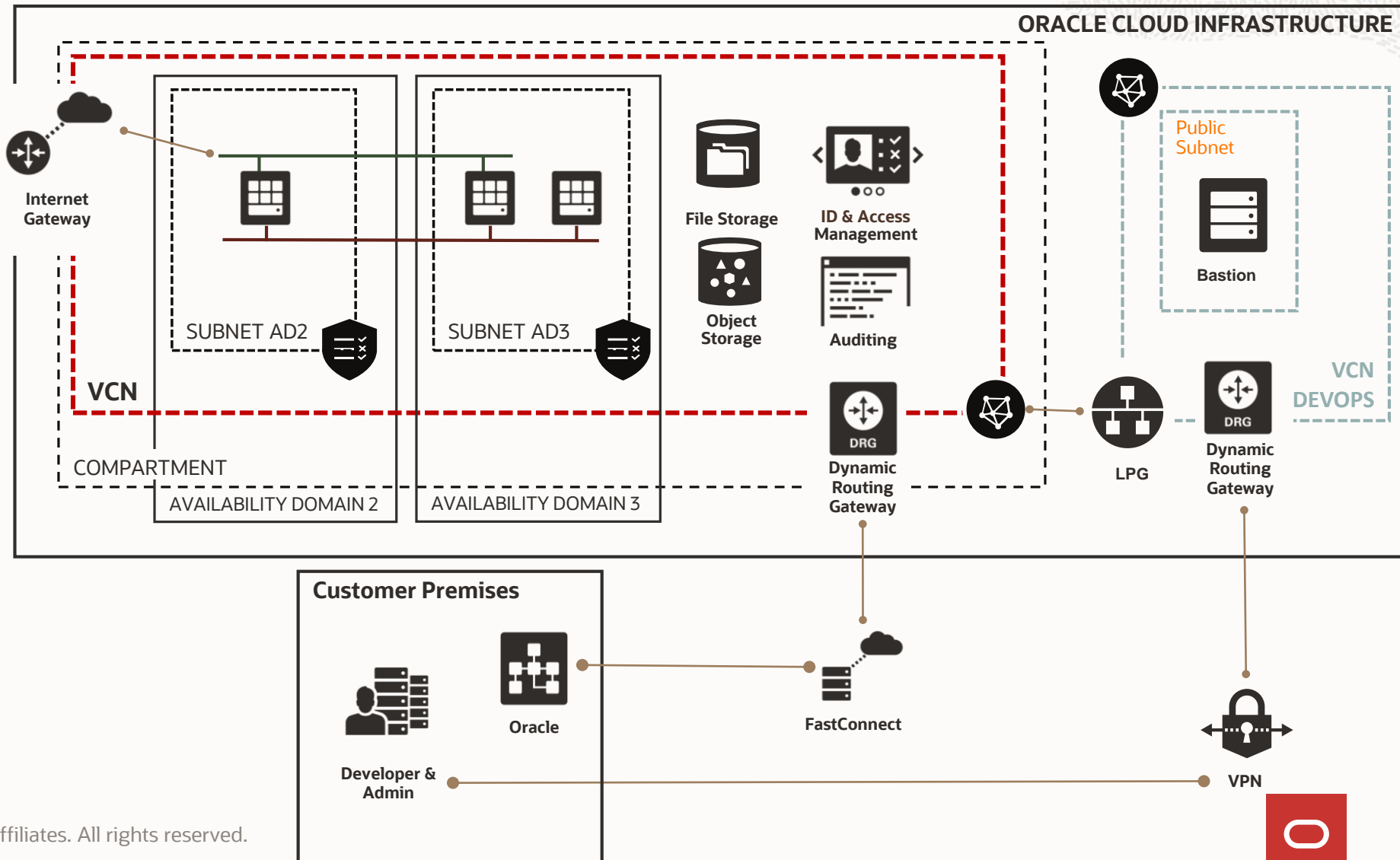
Internal firewalls (Security
Lists, Network Groups)

Secure load balancing (TLS)

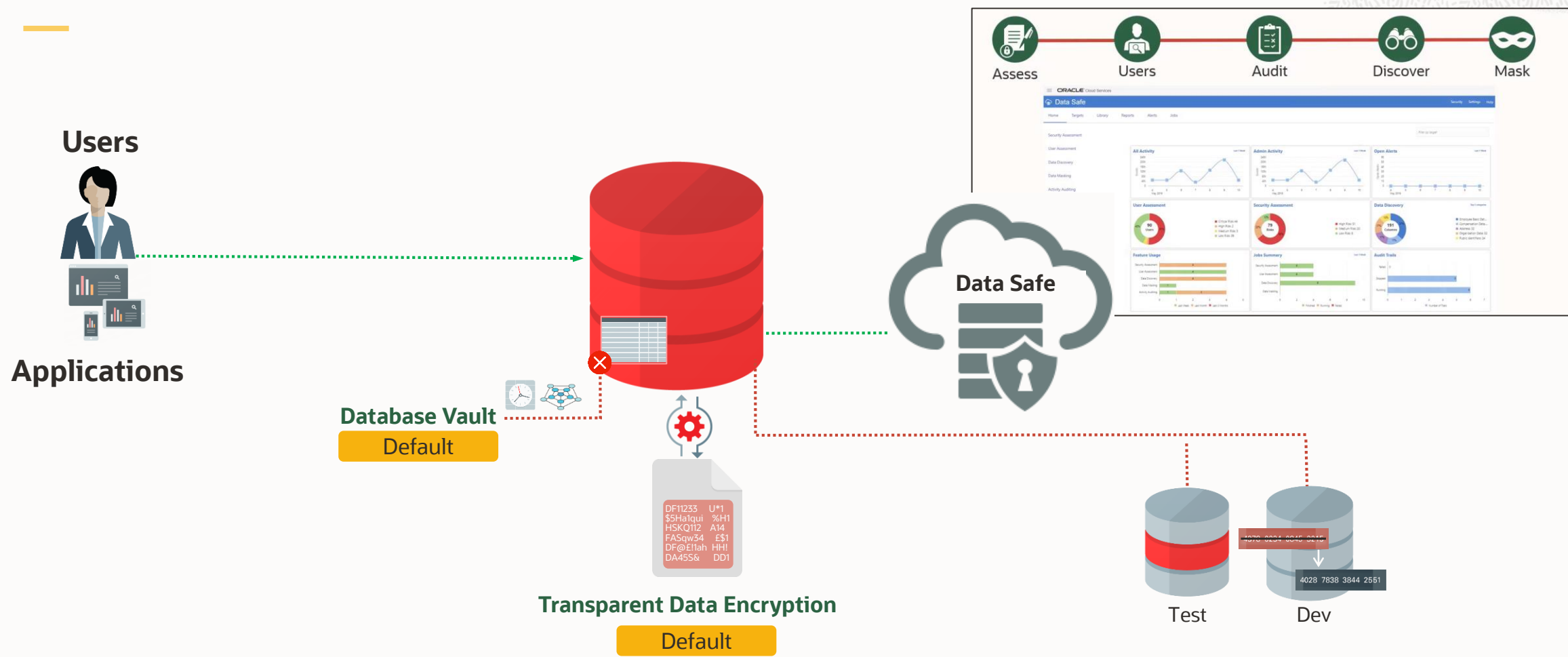
Secure connectivity to internet
(Internet Gateway)

Secure connectivity to your
data center (IPSec VPN & Fast
Connect)

Protect web applications (WAF)



Maximum Data Security Architecture



Resiliency and high availability reference architecture

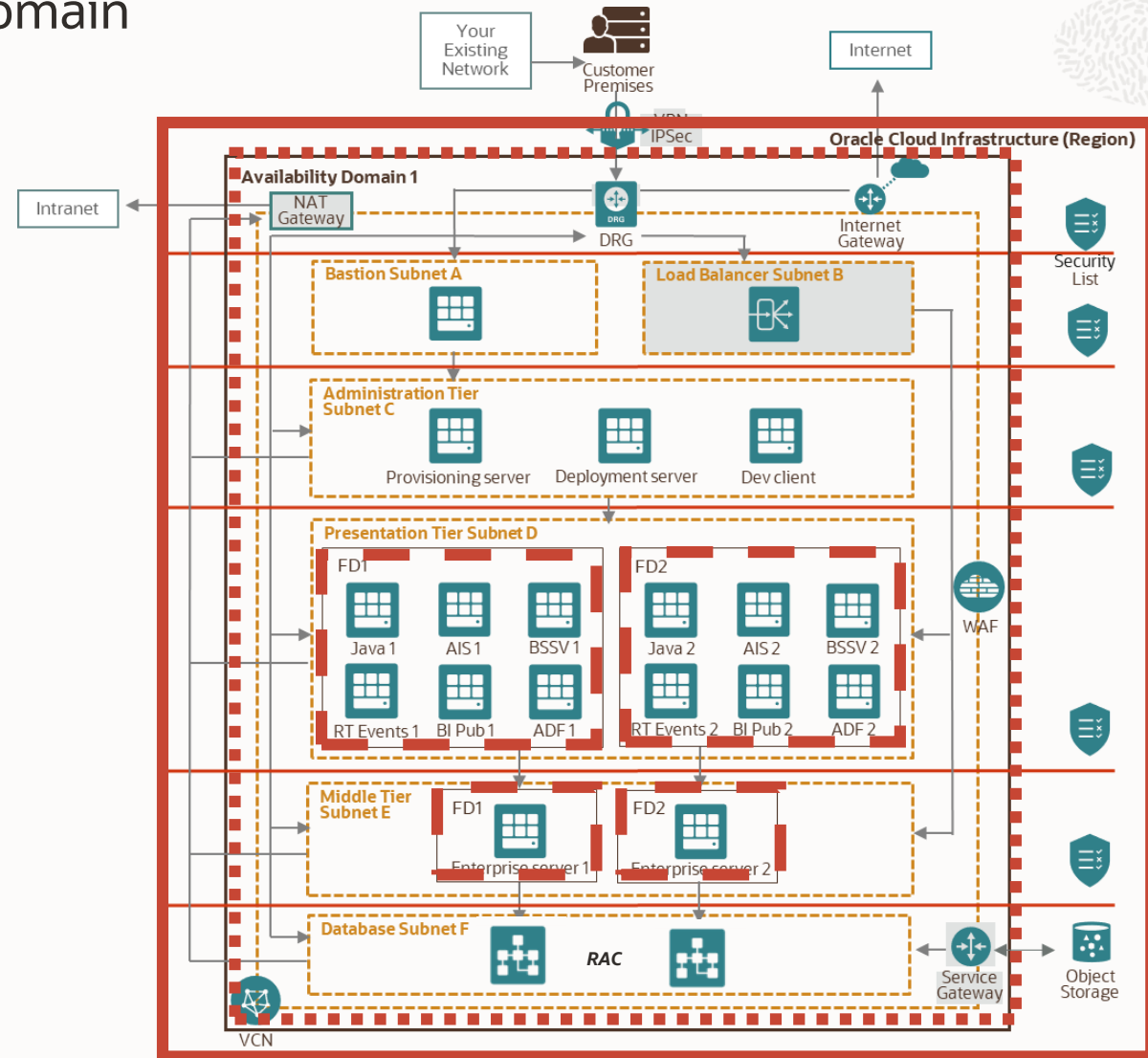
Achievable in single Availability Domain

Active-Active Server Redundancy

System Resilience (Fault Domains)

Database Redundancy (Oracle RAC)

Backup Strategy Application Tier & Database

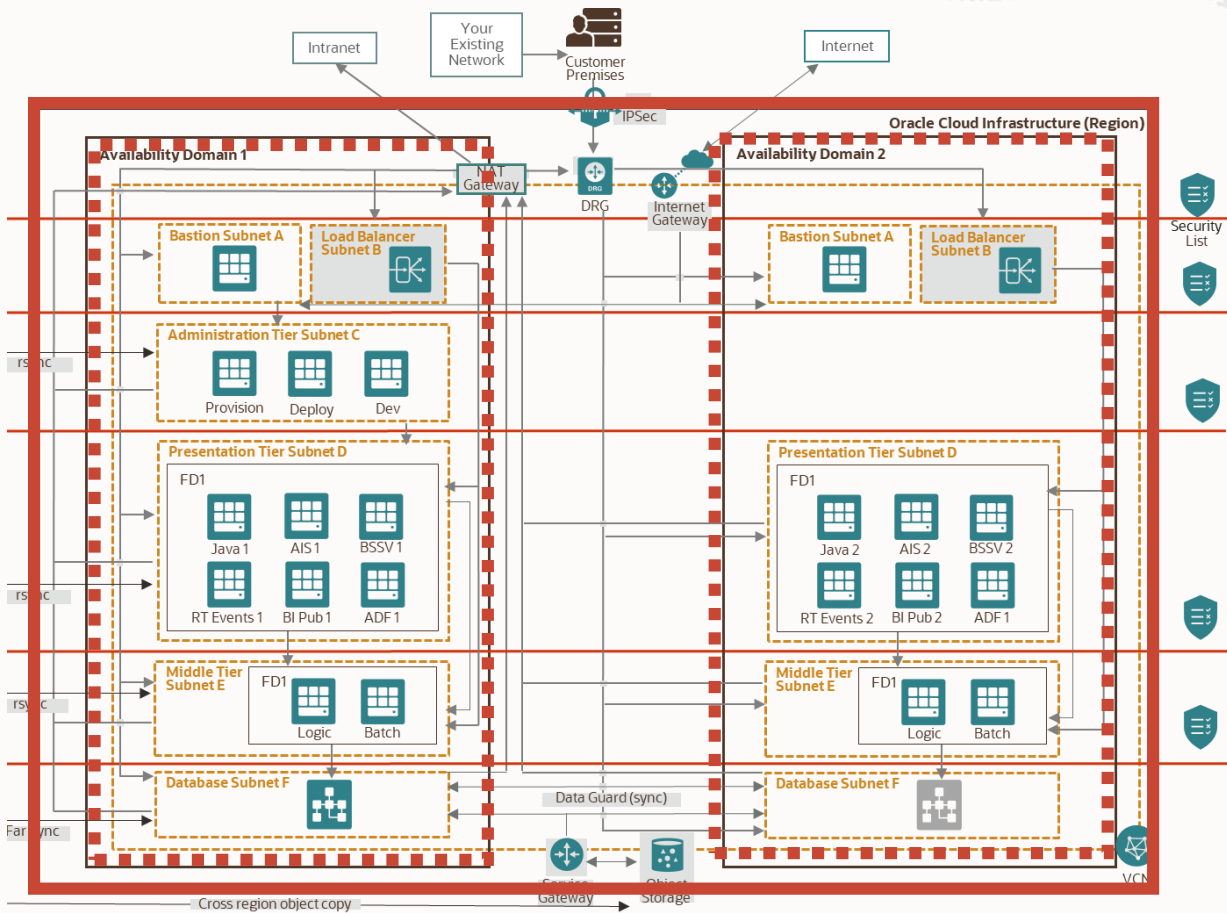


Disaster recovery across multiple ADs in a Region

Active-Active components across ADs

Database DR across Availability Domains

Storage synchronization across AD



Disaster recovery across multiple regions

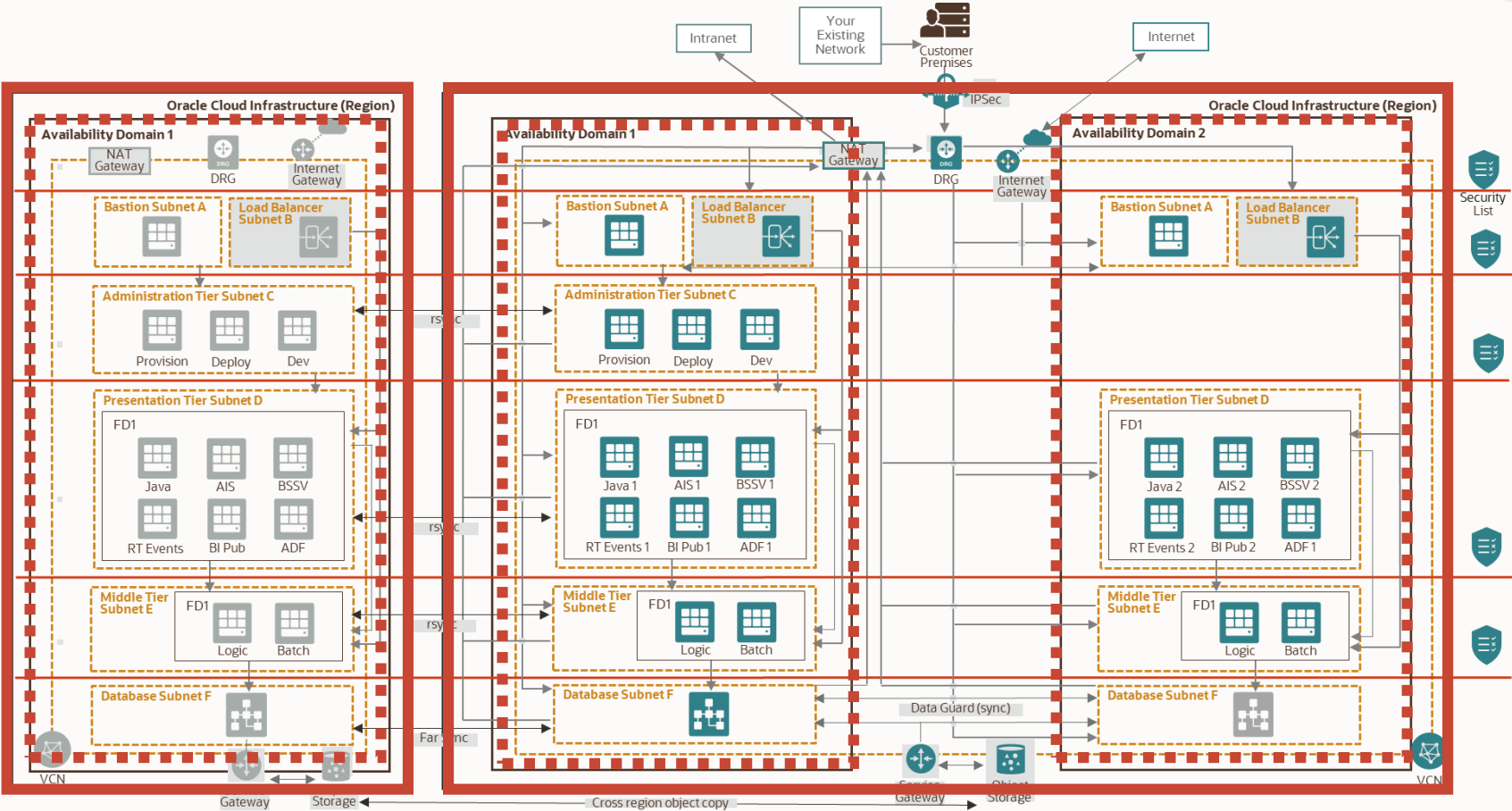
Active-Active components across ADs

Active-Passive components across regions.

Storage synchronization across AD

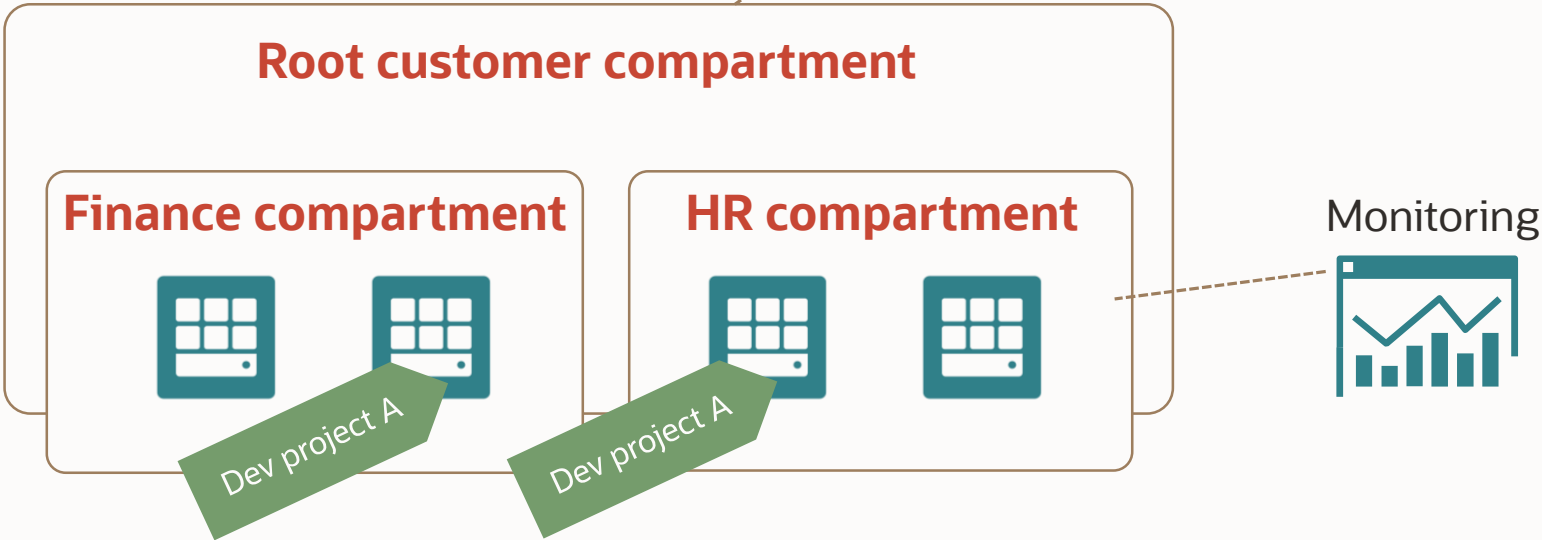
VCN Peering across regions

Database DR across Availability Domains



Cost management & governance

- **Compartments** logically group resources by department
 - **Tag** resources for project **cost tracking** that span departments
- Use **quotas** to allocate resources to projects, departments
 - Set **budgets** and configure alerts to prevent overspending
- 
- Visualize the big buckets that are contributing to cloud usage using **cost analysis** dashboard
- Export resource-level, hour by hour usage data
 - Leverage existing **3rd party business intelligence tools**



- Combine usage data with resource utilization data for cost optimization



Why Move Apps and DB to Oracle Cloud

Extended Benefits vs On-Premises and Other Clouds.



Superior performance and lower TCO, backed by SLAs



Security & HA from the core to the edge, with fine-grained controls



A full portfolio of cloud-native tools to boost developer productivity



Extensive support for JavaEE and WebLogic migrations to Oracle Cloud



Most comprehensive database portfolio and migration services in the industry



Lower TCO vs onprem

lower TCO vs AWS

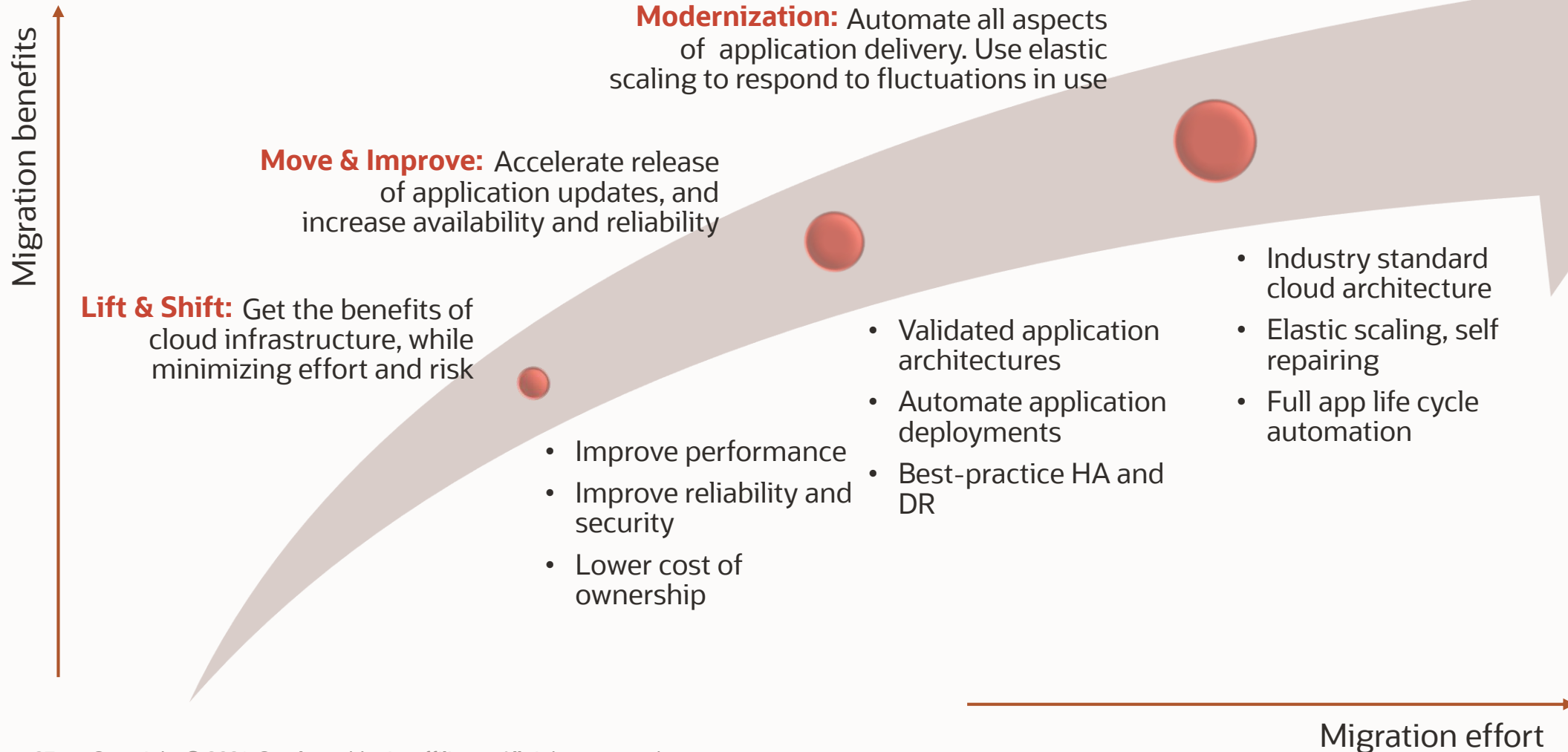
BYOL for all database services

Deploy in **minutes**

Migrate in **days/weeks**,
not **months**

Pace of Transformation

Application Migration Scenarios



Each App Requires Its Migration Path

	Lift & Shift	Move & Improve	Modernize
App (What)	<ul style="list-style-type: none">Require full control of version and patchesHave highly complex or customized domain structures	<ul style="list-style-type: none">Require control of version and patchesHave simple to medium complex domain structuresWant to unify deployments with Terraform scripts	<ul style="list-style-type: none">Are strategically moving enterprise architecture to containers (Docker & Serverless)SaaS
Paths (How)	<p>Move to Apps deployed on VM or bare metal Oracle Cloud Infrastructure</p>	<p>Move to Apps deployed on Cloud VMs via OCI marketplace or managed services</p>	<p>Move to Apps deployed in containers on Oracle Managed Kubernetes (OKE) or SaaS</p>
Benefits (Why)	<ul style="list-style-type: none">☺ Simplicity & Security☺ Performance elasticity☺ HW Flexibility & renewal☺ Licensing (BYOL)	<ul style="list-style-type: none">☺ Automation and Control☺ Increase Availability & Security☺ Licensing (BYOL)	<ul style="list-style-type: none">☺ Functional Flexibility☺ T2M☺ Future Convergency☺ Licensing (BYOL)

Oracle Database Migration Solutions

An optimum migration solution for every migration use case

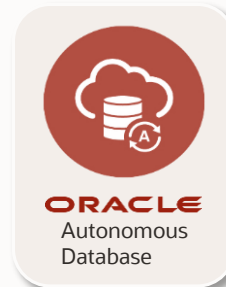
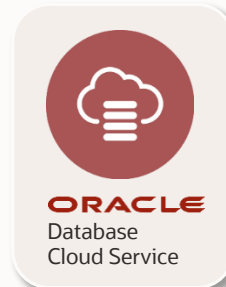
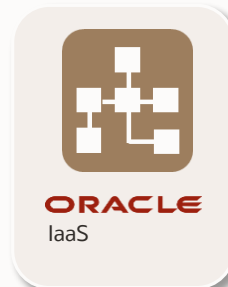
On premises,
public clouds:



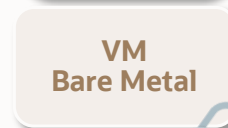
Migration
resources:

- Services: **Database Migration Service**, **Zero Downtime Migration**
- Additional Processes and Tools: SQL Developer, RMAN, Data Guard, Data Pump, Remote Cloning, Plugging / Unplugging, ZDLRA & GG
- Many Oracle consultative options to ensure migration success

Most
Manual



Most
Autonomous
&
Secure



RAC
Manageability
Security



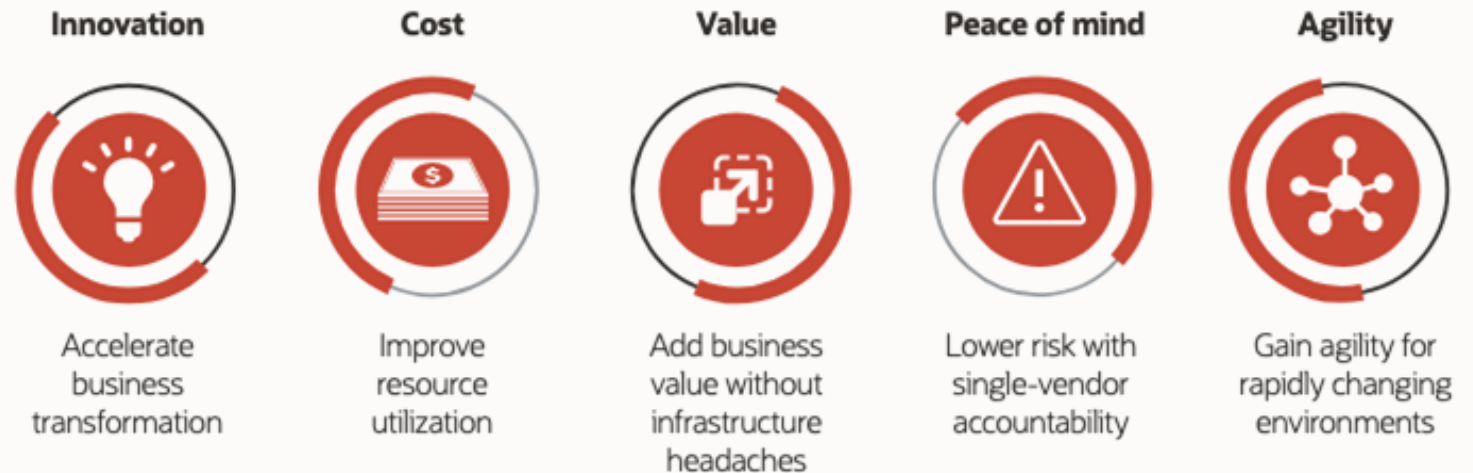
Applications Migration Step-by-step

Why migrate to Oracle Cloud

Longitude Research surveyed 730 senior IT leaders to determine key cloud trends.

Here are the top five motivations for moving to the cloud:

- Save on IT costs (33 %)
- Improve IT resource management (32 %)
- Update IT infrastructure (27 %)
- Improve the speed of innovation (25 %)
- Improve customer or client interactions (24 %)



Cloud Essentials: Oracle Cloud Infrastructure

Give your IT department the performance, price, and security advantages it needs to confidently support your organization's goals. Experience performance that exceeds most on-premises computing environments when you move your applications and workloads to Oracle Cloud Infrastructure.

Read the Cloud Essentials report to learn how Oracle Cloud can help you

- Minimize costs by paying only for what you consume
- Maximize value by matching capacity with demand
- Focus on competitive differentiation rather than routine IT tasks
- Launch and scale new apps quickly with on-demand infrastructure
- And more



[Read the Cloud Essentials guide](http://www.oracle.com/us/solutions/cloud/cloudessentials-oci-5100435.pdf)

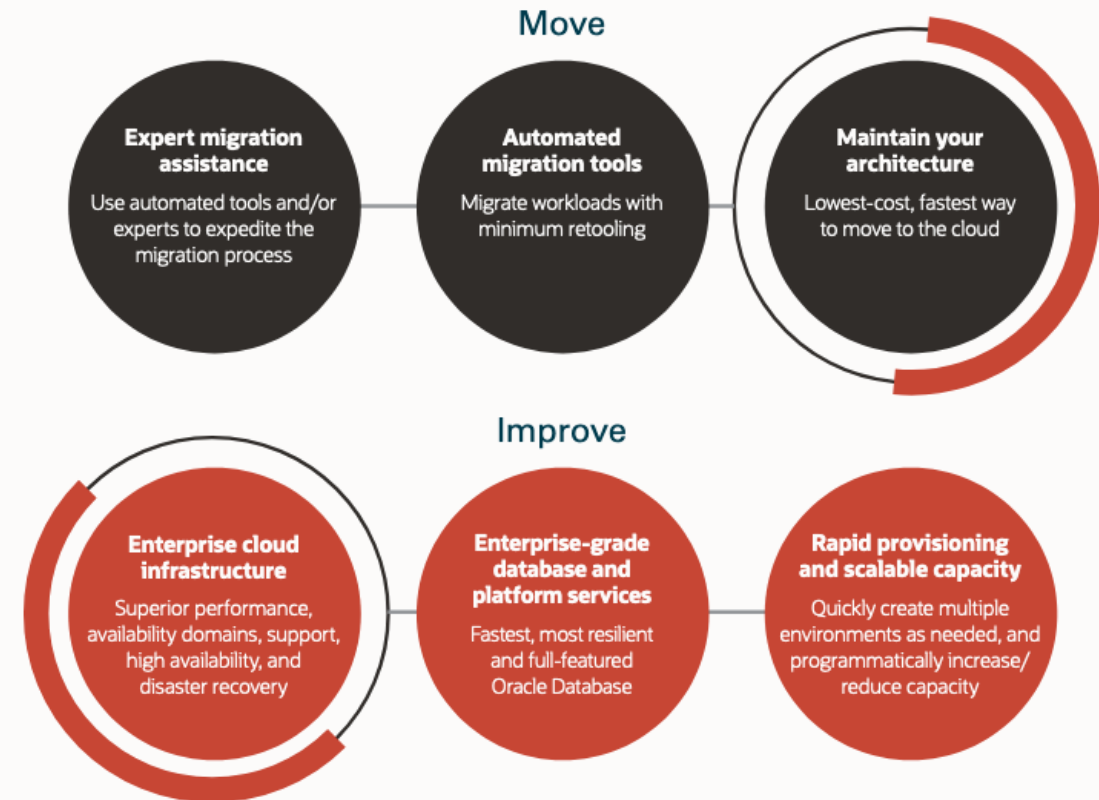
<http://www.oracle.com/us/solutions/cloud/cloudessentials-oci-5100435.pdf>

How to get Enterprise Apps into the Cloud Quickly

Move and improve application workloads.

Only Oracle offers:

- An easy, cost-effective way to move mission-critical Oracle Applications to the cloud
- Capabilities to improve application performance, resiliency, and agility in a purpose-built enterprise cloud
- A range of deployment and licensing options to meet any business need



Move your applications

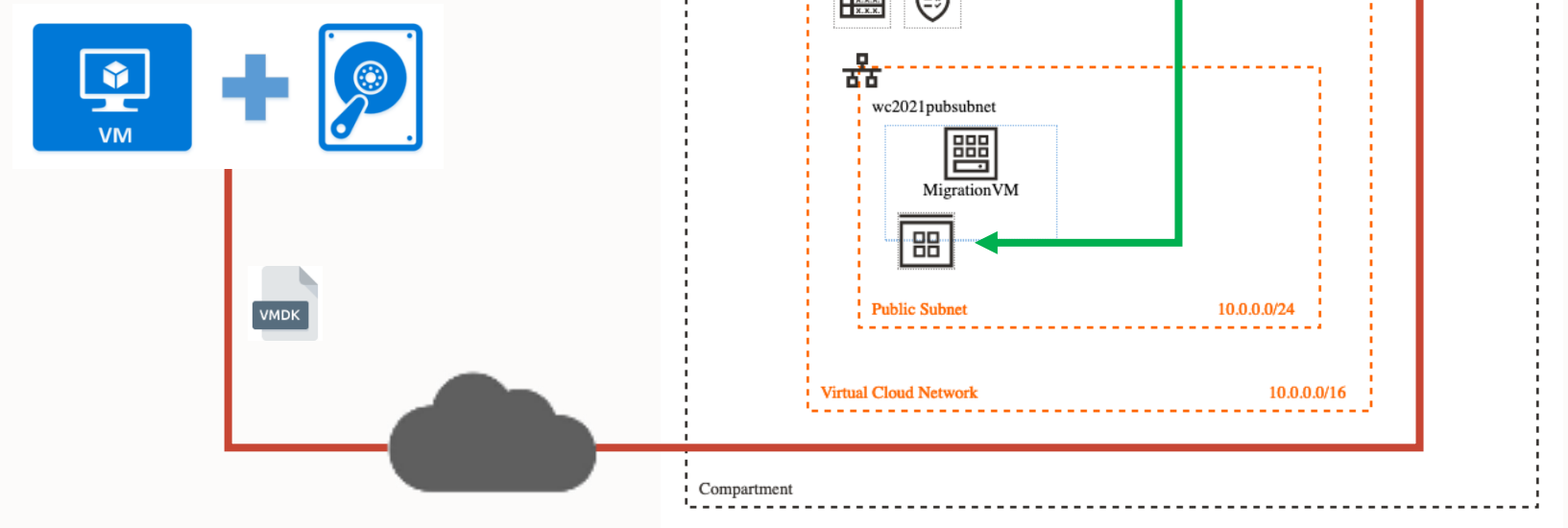
Import a Single VM Virtual Machine (VMDK disk) to Oracle Cloud Infrastructure

Single VM

VMware

Manual Process with possible automation (scripting)

1. Snapshot/stop on-premises VM
2. Upload VMDK or QCOW2 disk to OCI Object Storage
3. Create a Custom Image in
4. Deploy new OCI Compute VM from the Custom Image



DEMO1

HOL: Migration of a VM to Oracle Cloud – 8'

Move your applications

Oracle Cloud VMware Solution features

Single VM

Run VMware workloads
natively on Oracle Cloud

Dedicated environment
with full control

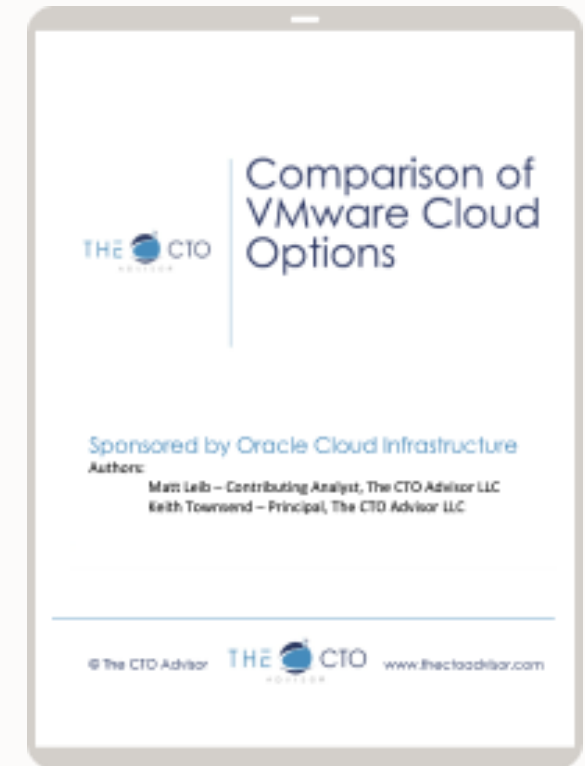
Use the same VMware
tools you use today

High-performance,
elastic, and verified

VMware

- Migrate VMware estate
- Innovate on your timeline
- Run production applications in the cloud
- Disaster recovery where needed
- Complete control over the cloud stack
- Security-first architecture
- Isolated and dedicated
- Familiar application management
- No retraining required
- Seamless cloud migration
- Leverage VMware best practices
- Powerful bare metal hardware
- High-speed virtual cloud network
- Elastic capacity
- Designed, built, and supported by Oracle

Read the report



<https://www.oracle.com/cloud/compute/vmware/>

Move your applications

Oracle Cloud VMware Solution features

Single VM

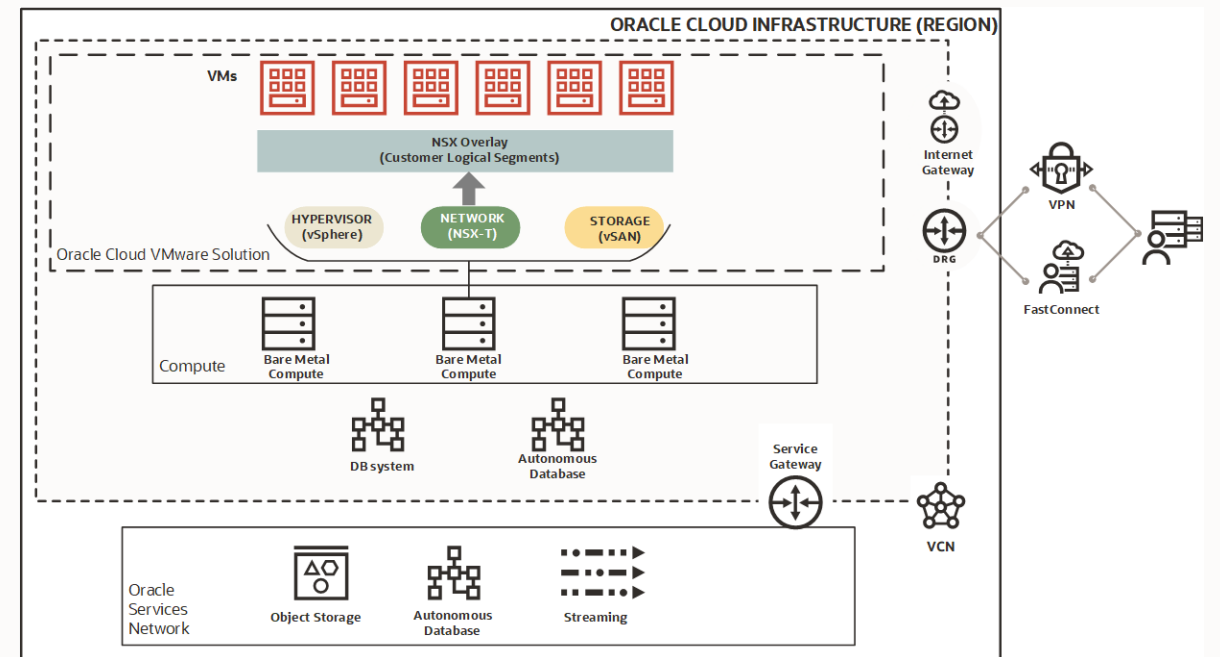
VMware

Architecture

Oracle Cloud VMware Solution gives you a fully automated implementation of a **VMware software-defined data center (SDDC) within your own Oracle Cloud Infrastructure tenancy**, running on Oracle Cloud Infrastructure bare metal instances, that contains the following VMware components:

- VMware vSphere ESXi
- VMware vSAN
- VMware vCenter
- VMware NSX-T
- VMware HCX (optional)

<https://docs.oracle.com/en/solutions/migrate-vmware-workloads-oraclecloud/#GUID-A06C6DB7-F19A-4473-BBAC-5FB408C7A9BC>



Move your applications

Oracle Cloud VMware Solution features

Single VM

VMware

Oracle Cloud VMware Solution use cases

Migrate VMware workloads to the cloud

- without compromising your proven architectures and processes
- while maintaining a single, integrated view to manage your cloud or hybrid environment.

[Read the solution playbook](#)

Hybrid cloud with native VMware tools

- Gain capacity and flexibility with your hybrid cloud by using familiar management and migration tools such as vCenter, ESXi, vSAN, and vMotion.

[View the hybrid cloud solution playbook](#)

Business continuity and disaster recovery

- Gain resiliency for business continuity and disaster recovery with vSphere by bridging existing infrastructure to an alternate site on Oracle Cloud.

[Read the disaster recovery solution playbook](#)

Move your applications

Oracle Cloud VMware Solution features

Single VM

VMware

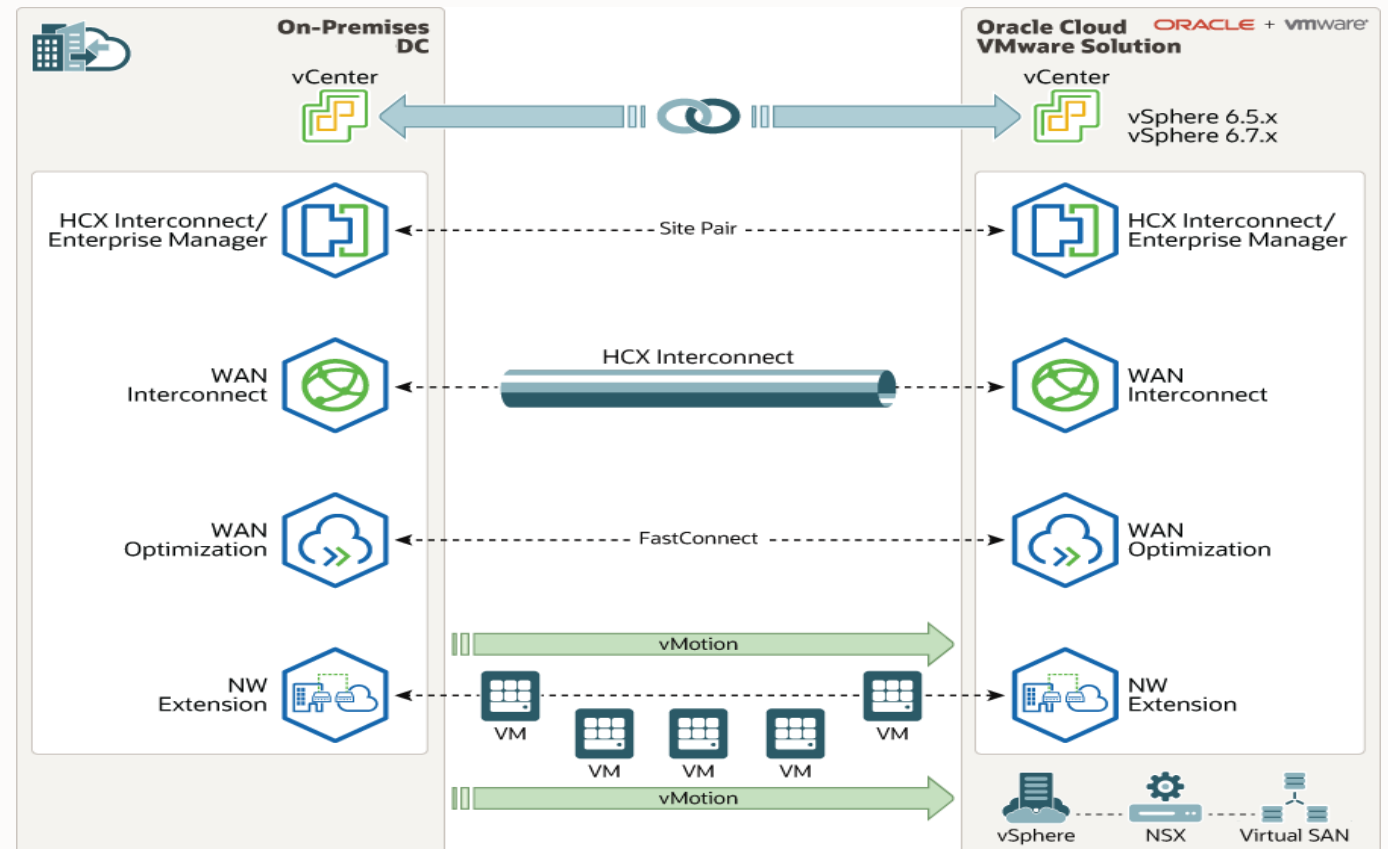
Migrate VMware workloads to the cloud

- without compromising your proven architectures and processes
- while maintaining a single, integrated view to manage your cloud or hybrid environment.

[Read the solution playbook](#)



**Intel expands using
Vmware-based apps
running in Oracle Cloud**



DEMO2

Migration of a VMware to Oracle Cloud – 16'

Two HCX Options:

- **Clone & Migrate to HCX Target Site (OCI)**
- **Protect to HCX Target Site (OCI) & Recovery**

Modernize your applications

E-Business Suite

JD Edwards

Siebel

PeopleSoft

Weblogic

E-Business Suite

Oracle E-Business Suite deployments can be migrated to run on Oracle Cloud Infrastructure without requiring significant configuration, integration, or business process changes. The migration results in an implementation that is more flexible, more reliable, higher performance, and lower cost than either on-premises or other cloud. You can reduce time and cost for new projects, increase business ability, better manage growth, and increase the productivity of your global IT workforce.

<https://www.oracle.com/cloud/apps-to-cloud/solutions/migrate-applications/>

EXPLORE MORE

[E-Business Suite solution guide \(PDF\)](#)

Learn how to move your existing E-Business Suite deployments to Oracle Cloud Infrastructure with this technical guide.

[EBS quick tour](#)

Join us and learn how to migrate Oracle E-Business Suite from your current on-premises deployments to Oracle Cloud Infrastructure

[SmartDog and Oracle Cloud](#)

Discovery how Oracle Cloud Infrastructure enables SmartDog to extend the value of their E-Business Suite



Modernize your applications

E-Business Suite

JD Edwards

Siebel

PeopleSoft

Weblogic

JD Edwards

Beyond being straight-forward to migrate, easier to manage, and more flexible to scale, a JD Edwards implementation on Oracle Cloud Infrastructure is actually cheaper than running it on-premises or in another cloud. Oracle provides JD Edwards-specific tooling and automation to streamline deployment, migration, upgrading and maintaining your implementation, reducing the time and expertise needed, as well as the risk and cost of migration and day-to-day operations.

<https://www.oracle.com/cloud/apps-to-cloud/solutions/migrate-applications/>

EXPLORE MORE

[JD Edwards solution guide \(PDF\)](#)

Learn how to move your existing JD Edwards deployments to Oracle Cloud Infrastructure with this technical guide.

[JD Edwards quick tour](#)

Join us and learn how to migrate JD Edwards from your current on-premises deployments to Oracle Cloud Infrastructure

[LifeScan drives innovation](#)

LifeScan partnered with Oracle to drive innovation and migrate to the cloud.



Modernize your applications

E-Business Suite

JD Edwards

Siebel

PeopleSoft

Weblogic

Siebel

For 25 year, Oracle has been offering leading edge customer relationship management (CRM) with Siebel. Our customers consider Siebel to be critical for managing their customer and partner relationships. Because most enterprises customize it to fit business processes and back-office systems, replacing it with an alternative cloud product could incur unnecessary risk and cost. You can migrate your existing Siebel CRM deployments to Oracle Cloud Infrastructure to experience higher performance, better reliability, and lower operational cost.

EXPLORE MORE

[Siebel solution guide \(PDF\)](#)

Learn how to move your existing Siebel deployments to Oracle Cloud Infrastructure with this technical guide.

[Siebel quick tour](#)

Join us and learn how to migrate Siebel from your current on-premises deployments to Oracle Cloud Infrastructure

[Smiles improves service](#)

By moving to the cloud Smiles can innovate without downtime.



<https://www.oracle.com/cloud/apps-to-cloud/solutions/migrate-applications/>

Modernize your applications

E-Business Suite

JD Edwards

Siebel

PeopleSoft

Weblogic

PeopleSoft

Oracle provides a simple way to migrate most on-premises PeopleSoft deployments to Oracle Cloud Infrastructure that doesn't require significant re-architecture, re-integration or business process changes. Significant savings come from eliminating upfront hardware, ongoing facilities, IT administration and support costs. With Oracle Cloud Infrastructure you gain access to better elasticity to support peak seasons, agility to add new capabilities, streamlined infrastructure management, and lower total cost of ownership.

<https://www.oracle.com/cloud/apps-to-cloud/solutions/migrate-applications/>

EXPLORE MORE

[PeopleSoft solution guide \(PDF\)](#)

Learn how to move your existing PeopleSoft deployments to Oracle Cloud Infrastructure with this technical guide.

[PeopleSoft quick tour](#)

Join us and learn how to migrate PeopleSoft from your current on-premises deployments to Oracle Cloud Infrastructure

[Improving field operations](#)

With the support of Oracle Cloud, CARE has empowered local teams to care for the world's most vulnerable.



Modernize your applications

E-Business Suite

JD Edwards

Siebel

PeopleSoft

Weblogic

WebLogic

Run your Oracle WebLogic Server applications in the Cloud. Upgrading your Oracle WebLogic Server workloads to Oracle Cloud gives you greater agility and superior performance; our experts can help you with your cloud journey. Get a complimentary technical review and consultation on how to move your Oracle WebLogic Server applications into containers.

Docker Containers

<https://github.com/oracle/docker-images/tree/main/OracleWebLogic/dockerfiles>

<https://www.oracle.com/cloud/apps-to-cloud/solutions/migrate-applications/>

EXPLORE MORE

[1. WebLogic solution guide \(PDF\)](#)

[2. WebLogic Server on Docker Containers](#)

Learn how to move your existing WebLogic applications to Oracle Cloud Infrastructure with these technical guides.

[WebLogic quick tour](#)

Join us and learn how to migrate PeopleSoft from your current on-premises deployments to Oracle Cloud Infrastructure

[CERN increases productivity](#)

Discover how CERN uses Kubernetes to reduce WebLogic deployment time.




See the difference for yourself

 Estimate

Oracle Cloud Infrastructure is designed to be fast, efficient, and priced competitively. See how we compare for your workloads.

[Discover your savings](#)

 Try it now

Build, test, and deploy applications on Oracle Cloud—at no cost.

[Try it for free](#)

 Contact us

Interested in learning more? Contact one of our industry-leading experts.

[Get in touch](#)



Oracle Cloud Café

Facilitators



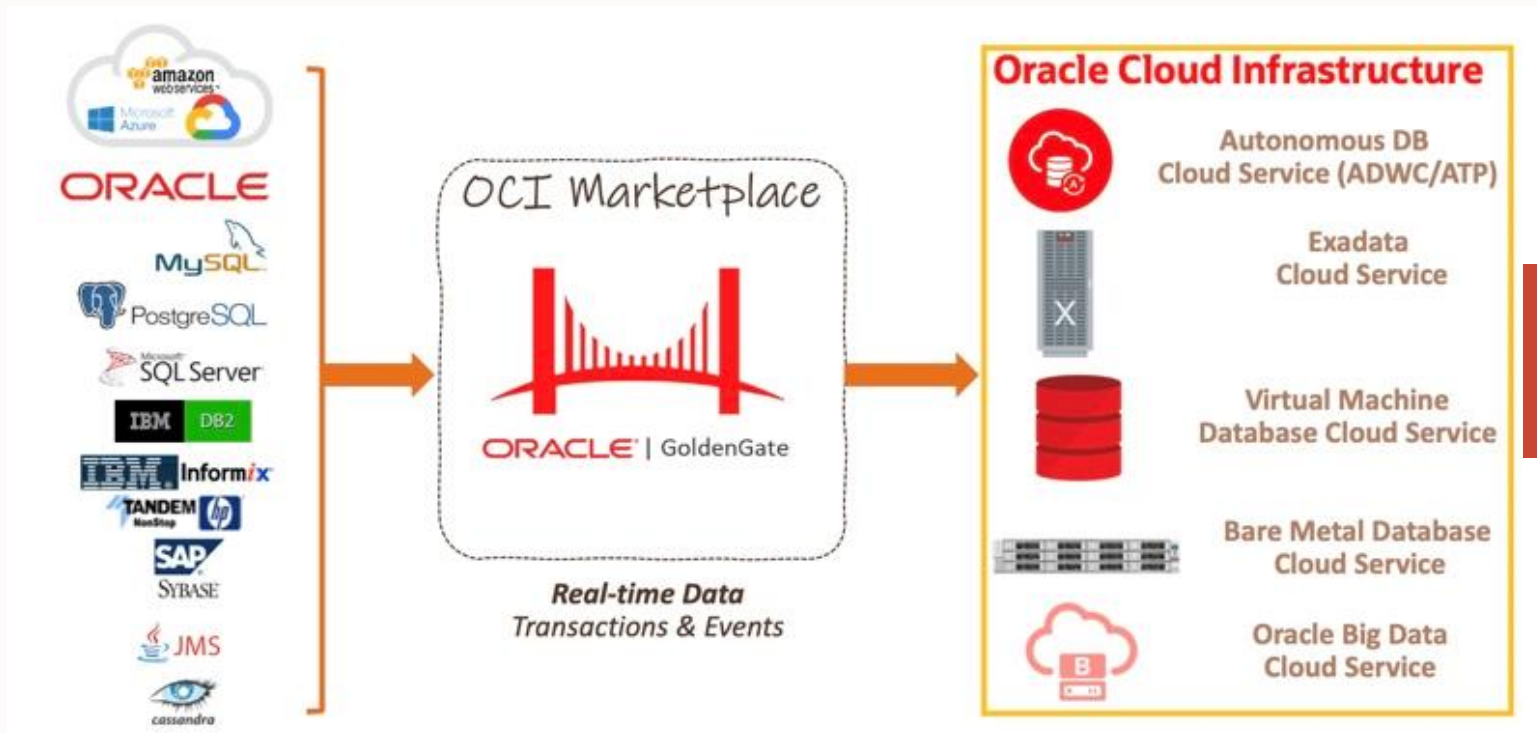
A unified enterprise cloud for best-in-class database and cloud services

A **cross-cloud interconnect** between Oracle and Microsoft data centers that delivers direct, fast and highly reliable network connectivity between OCI and Azure, along with **federated identity** and **joint support**.

This enables our customers to migrate entire sets of existing applications to the cloud without having to re-architect anything, preserving existing investments with Microsoft and Oracle.

Free GoldenGate Software on OCI Marketplace

UPDATE(06-OCT-2020): If you have provisioned any promotional (free) marketplace instance service prior to Dec 31, 2020, then you will be entitled to use the free promotion scheme through **May 31, 2021**.



<https://blogs.oracle.com/dataintegration/free-goldengate-software-on-oci-marketplace>

**Customers always pay for IaaS (Compute + Storage), using UCM/Credits. Minimum 4 OCPUs per Environment*

RackWare[™] on OCI Marketplace

RackWare's RMM Migrations are an automated, easy and convenient process to **move existing workloads** between different data centers and clouds, creating an exact duplicate of a running image without the burden of rebuilding or recreating template images and application

- ✓ Paid / Bring your own License
- ✓ Minimum requirements 1 OCPUs per Environment (prod/dev/test)

****Customers always pay for IaaS (Compute + Storage), using UCM/Credits***

Marketplace



RackWare RMM 6.5 for OCI

RackWare RMM provides an image mobility and disaster recovery...

Type: Image | Price: BYOL



Coriolis® performs software defined migrations of virtual workloads among different clouds and virtualization solutions at scale, supporting also **DRaaS** (disaster recovery as a service) scenarios.

- ✓ Through Oracle VM templates available on Cloudbase website
- ✓ Minimum requirements 1 OCPUs per Environment (prod/dev/test)

Supported Cloud Providers

In order for Coriolis to create a migration or a replica, connections to source and destination clouds, called **cloud endpoints** are necessary. Coriolis supports a lot of providers straight out of the box.



****Customers always pay for IaaS (Compute + Storage), using UCM/Credits***



Oracle Cloud Infrastructure Architecture Center

<https://www.oracle.com/cloud/architecture-center.html>



Reference Architectures

Access architectures, configurations, and best practices for deploying on Oracle Cloud Infrastructure



Quick Starts

Collection of Terraform examples to quick-start advanced infrastructure on Oracle Cloud Infrastructure



Solution Playbooks

Targeted and cross-product explanations and architectures for how to handle or implement a specific scenario on Oracle Cloud Infrastructure



Best Practices Framework

Explore best practices to build a secure, high-performing, resilient, and efficient application on Oracle Cloud Infrastructure



Learn On-Demand

Explore Oracle Cloud Infrastructure training videos, self-paced learning labs, onboarding, and certifications



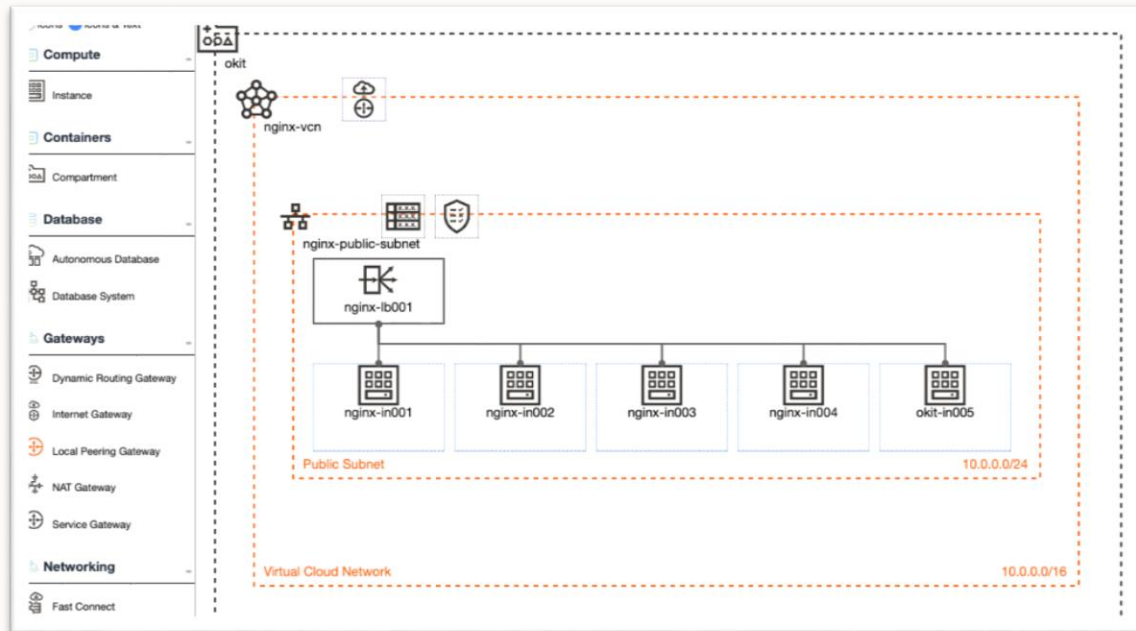
Blogs

Discovery the latest articles about Oracle Cloud Infrastructure



OKIT - The OCI Designer Toolkit

The OCI Designer Toolkit (OKIT) is a, standalone / offline, OpenSource browser-based Drag-n-Drop design tool for OCI providing rapid design and prototyping of OCI based infrastructure. Once the design is complete Terraform / Ansible scripts can be generated that can then be executed to build what has been designed



Visual Representation export

- SVG
- PNG
- JPEG

Infrastructure as Code export

- Ansible
- Terraform
- OCI Resource Manager



<https://github.com/oracle/oci-designer-toolkit>

<https://www.ateam-oracle.com/introduction-to-okit-the-oci-designer-toolkit>

DEMO3

OKIT – 3'

Q&A

Oracle Cloud in 8 Steps | Agenda

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- 18th Feb **How to protect critical data in the Cloud**
David Núñez, Juan Carlos Diaz
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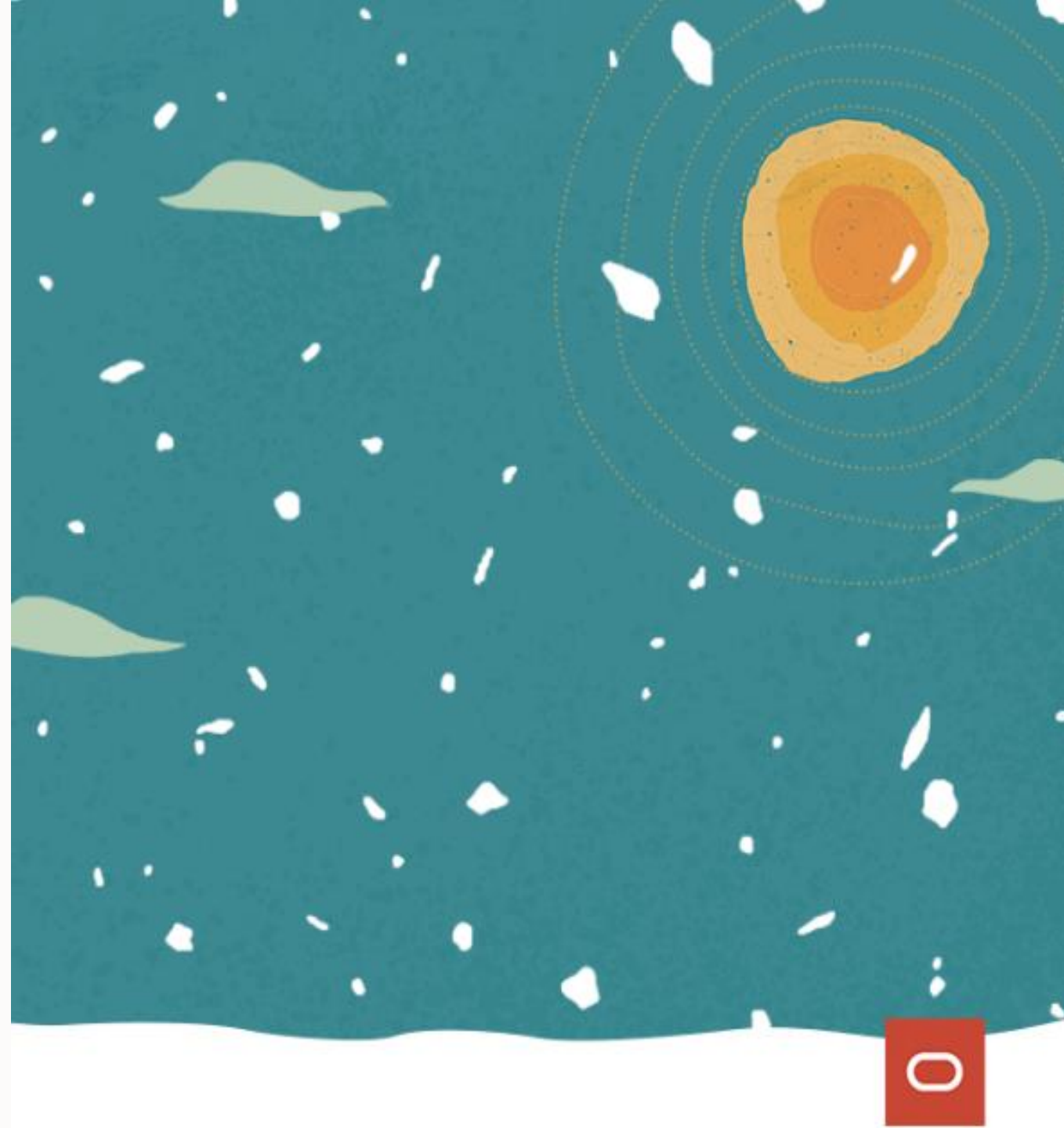
Thank you

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