

# Accelerate your VMware Journey

—  
Running VMware on Oracle Cloud with OCVS

# Speakers



**Jan Leemans**

EMEA GTM Team Leader  
OCI & AI

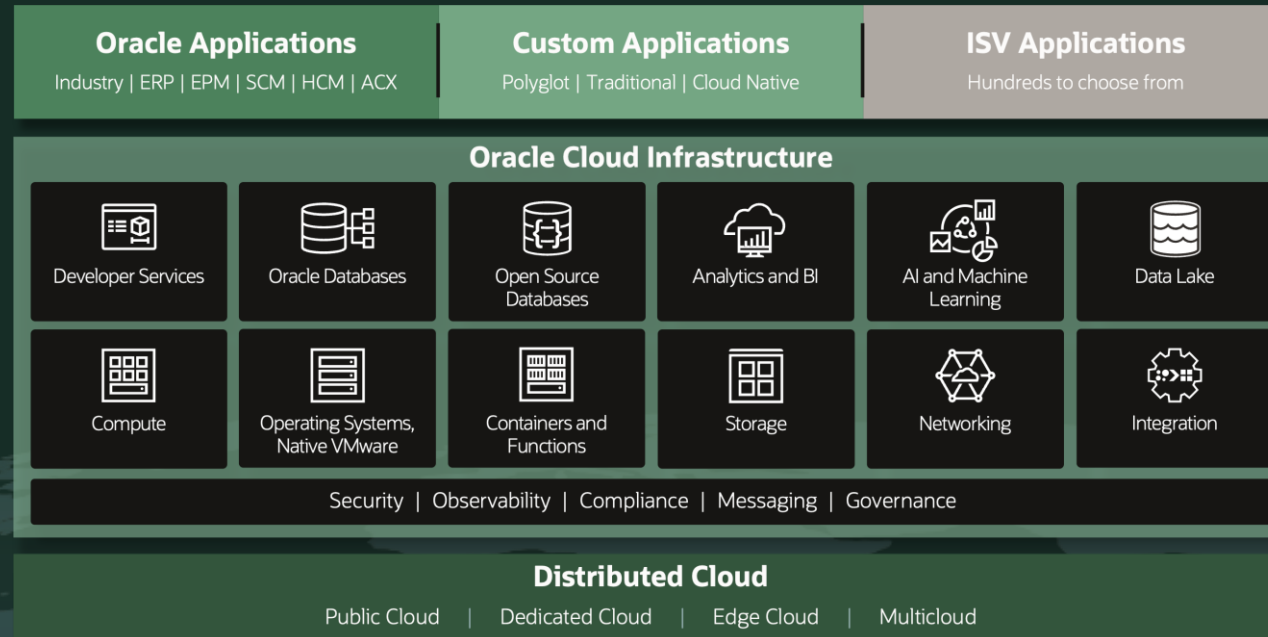


**Richard Garsthagen**

VMware Black Belt,  
Oracle EMEA

# Oracle Cloud Infrastructure

For you to focus on innovation, not cloud complexity



Public Cloud



Gov Cloud



Isolated  
Regions



Cloud@  
Customer



Dedicated Regions



Multicloud



Alloy



EU Sovereign

# Bring your existing technology stack to OCI

Use our managed open source or run your 3rd party and open source on our infrastructure

## Oracle Cloud Infrastructure

### OCI-Managed Open Source Services



### Key Supported Tech & Integrations



### Key Dev Tools



Security | Observability | Compliance | Messaging | Governance

## Distributed Cloud

85 Commercial and Government Public Cloud Regions | [Cloud@Customer](#) | [Dedicated Cloud](#) | [Roving Edge](#) | [Multicloud](#)



# Why customers migrate VMware estates to the cloud?

Optimize Costs

Gain Scalability &  
Agility

Avoid Hardware  
Refreshes

Improve DR  
Strategies

Incrementally  
modernize  
workloads

Protect existing  
investments

**Oracle Cloud VMware Solution** *allows enterprises to easily move or extend VMware based workloads to the cloud without re-architecting applications or retooling operations.”*

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# We built our cloud from the ground up to break the rules

11 years after the first generation of cloud, we started with a clean sheet



**Off-box  
virtualization**



**Nonblocking  
networks,  
minimal charges**



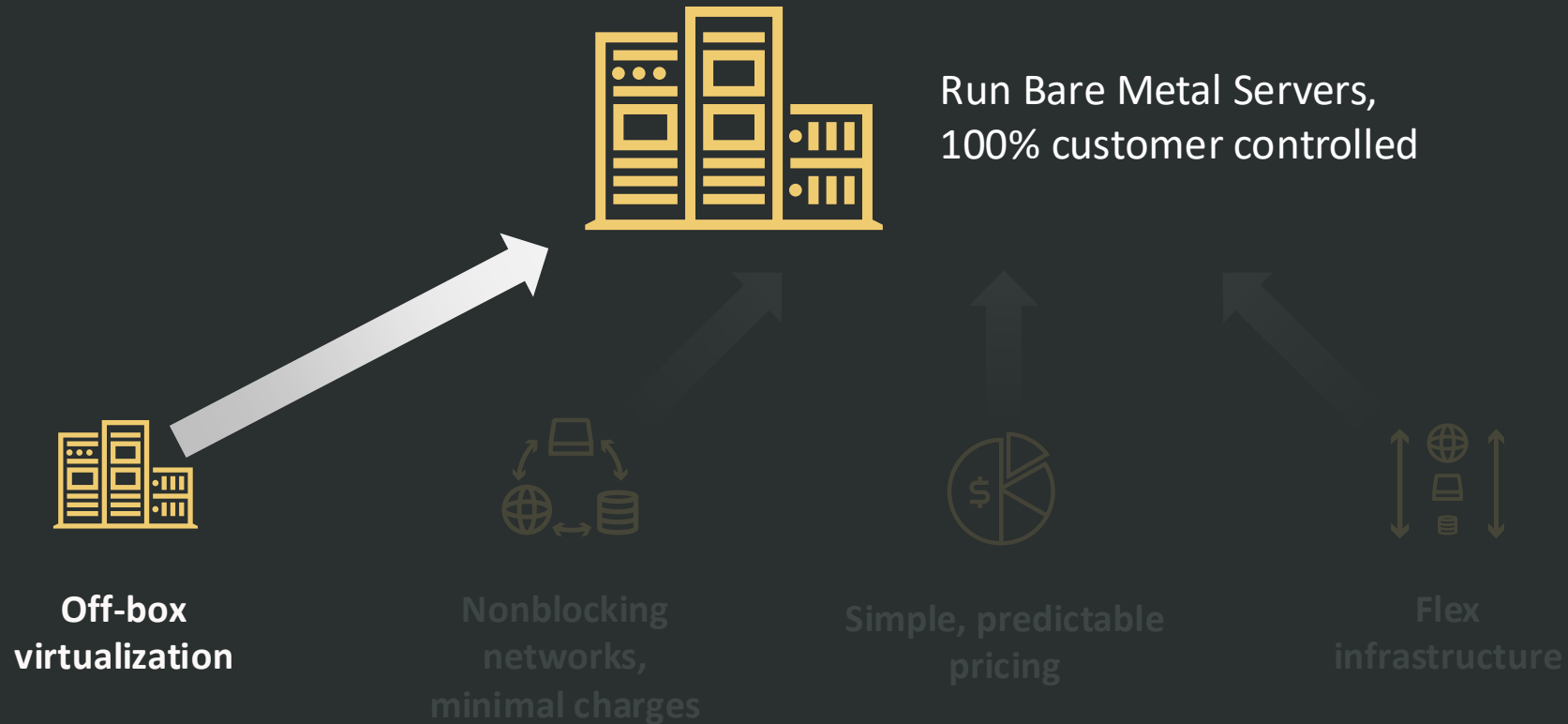
**Simple, predictable  
pricing**



**Flex  
infrastructure**

# We built our cloud from the ground up to break the rules

11 years after the first generation of cloud, we started with a clean sheet



# Flexible Cloud Infrastructure for Enterprise VMware Environments



## Compute

**Flexible infrastructure** that meets workload needs – choose the **shape that suits your workload**.

**Separate network and tenant environment** reduces network attack surface while improving performance at nearly line-rate (100%) throughput.

**Industry leading bare metal instances** with core counts of up to 64 (Intel) or 192 cores (AMD) and up to 2304 GB of memory.



## Storage

**VSAN** – provide BMs with local NVMe that can be used for a customer controlled vSAN Datastore

**Block Volumes** – meet any workload type with one flexible volume. Configure performance online from 3K to 300K IOPS per volume. Primary storage for Standard Compute Shapes

**File Storage** – scales elastically up to 8 Exabytes, and with a performance SLA. Secondary storage for VMware SDDC



## Networking

**Advanced L2 Network** - providing VLANs & Subnets for VMware Services

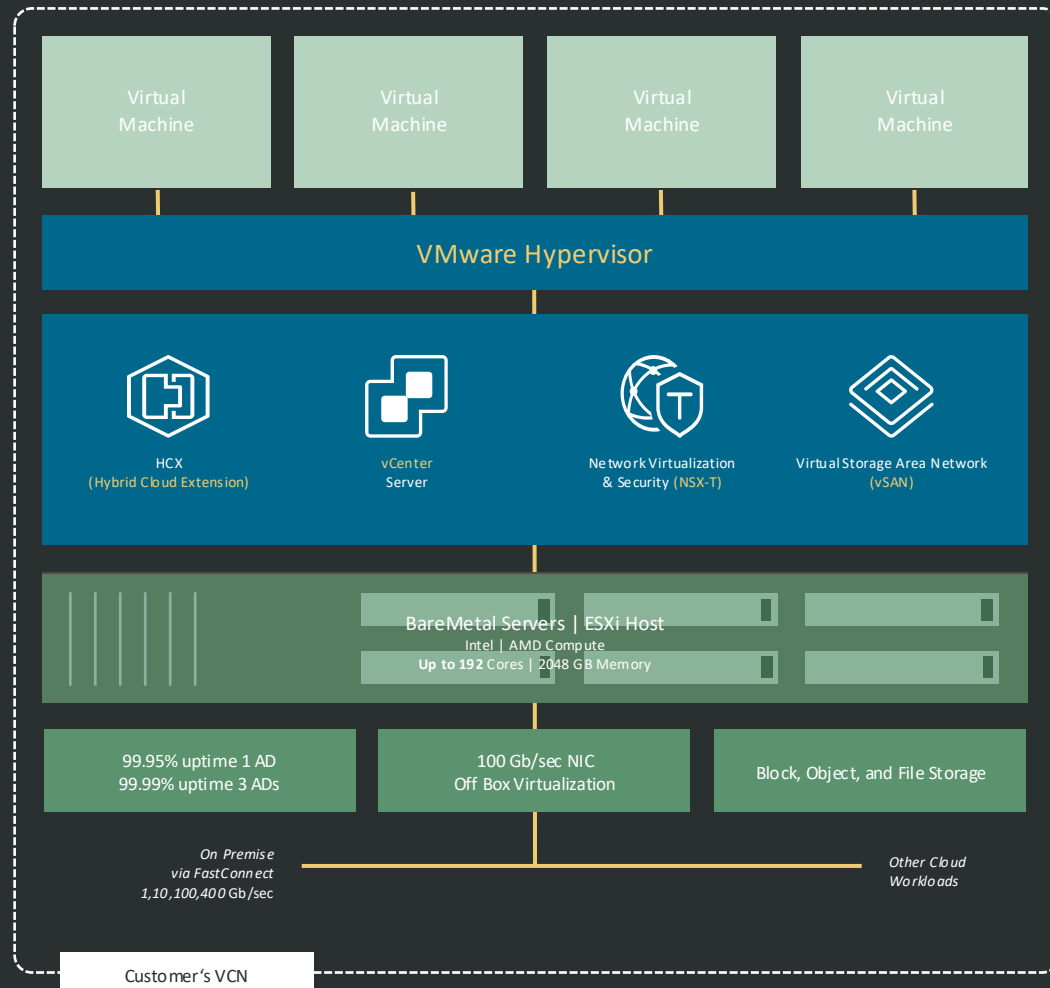
**Secure, low-latency, and high-bandwidth** virtual networks.

**High performance network services portfolio** without utilization charges

**Up to 400Gbps dedicated connectivity using Oracle FastConnect** – 4x higher bandwidth with lower operational overhead relative to competitive clouds.

# Oracle Cloud VMware Solution

## Enterprise-Grade VMware on OCI Infrastructure



### Native VMware in the cloud

- ✓ VMware Cloud Foundation (VCF 5.2-based components)
  - ✓ VMware vSphere, vCenter, vSAN, NSX, HCX
- ✓ Full administrative control with Root access
- ✓ Same tools & services as on-prem
- ✓ Direct access to Native OCI Services
- ✓ Licensed by customer using VCF subscription

### Widest range of offerings

- ✓ Scale 3 to 64 hosts per cluster
- ✓ Intel and AMD bare metal shapes
- ✓ Available in all public, government, sovereign regions
- ✓ Same rates in all regions

# Oracle Cloud VMware Solution Compute Shapes

Widest range of Compute Shapes for all Workloads & Use Cases

| GPU SHAPE   | DENSEIO SHAPES   |   |  | STANDARD COMPUTE SHAPES   |   |  |   |
|---|--|---|--|---|---|--|---|
| <b>GPU</b>  | <b>Intel X7</b>  | <b>AMD E4</b>   | <b>AMD E5</b>  | <b>Intel X7</b>   | <b>Intel X9</b>   | <b>AMD E4</b>  | <b>AMD E5</b>   |
| <b>Host</b><br>64 CPU Cores<br>1TB Memory<br>7.68 TB NVMe<br><br>2x 50 Gbps NIC<br><br>4x NVIDIA A10<br>96 GB GPU RAM | <b>Host</b><br>52 CPU Cores<br>768 GB Memory<br>51.2 TB NVMe<br><br>2x 25 Gbps NIC | <b>Host</b><br>128 CPU Cores<br>2 TB Memory<br>54.4 TB NVMe<br><br>2x 50 Gbps NIC | <b>Host</b><br>128 CPU Cores<br>1.5 TB Memory<br>81.6 TB NVMe<br><br>1x 100 Gbps NIC | <b>Host</b><br>52 CPU Cores<br>768 GB Memory<br>0 TB NVMe<br><br>2x 25 Gbps NIC | <b>Host</b><br>64 CPU Cores<br>1 TB Memory<br>0 TB NVMe<br><br>2x 50 Gbps NIC | <b>Host</b><br>128 CPU Cores<br>2 TB Memory<br>0 TB NVMe<br><br>2x 50 Gbps NIC | <b>Host</b><br>192 CPU Cores<br>2.3 TB Memory<br>0 TB NVMe<br><br>1x 100 Gbps NIC |
| Customer managed <b>vSAN Storage</b> Environment<br>Based on local NVMe drives  |  |   |  | Oracle managed, triple duplicate, flexible<br><b>OCI Block Volume Service</b>   |   |  |   |
| <b>optional</b><br>Oracle managed, triple duplicate, flexible<br><b>OCI Block Volume Service</b>                      |  |   |  |   |   |  |   |



# OCVS Provisioning

Simple, fully automated provisioning

## Managing VCF Licenses in OCVS

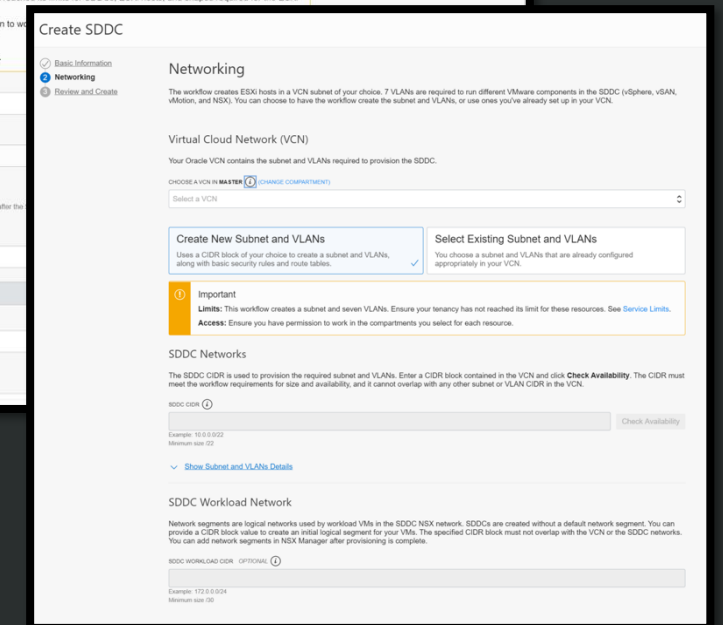
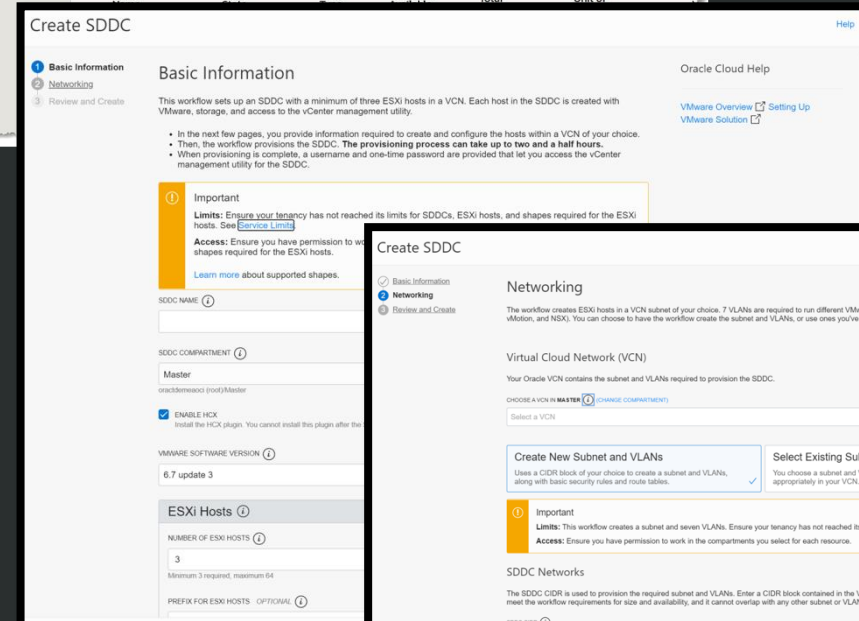
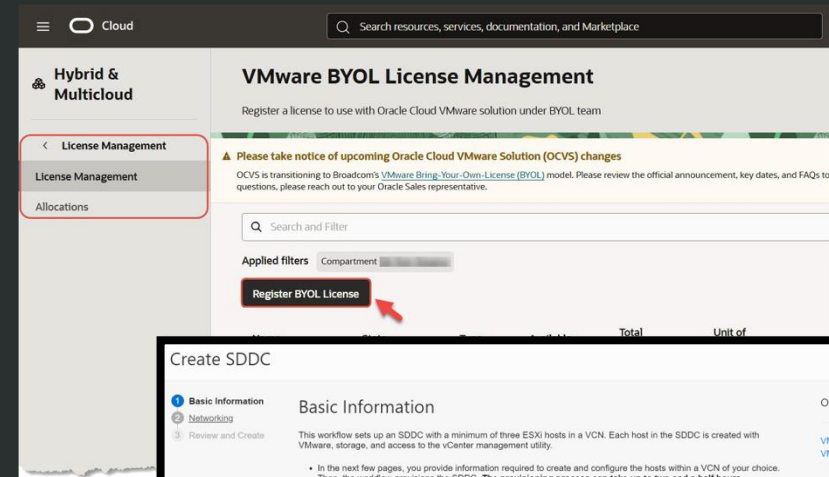
- Register VCF entitlements in the home region
- Create license allocations for deployment usage
- Maintain centralized visibility of license capacity

## Automated provisioning

- Simple Wizard in OCI Console
- Terraform
- OCI CLI

## Provisioning times:

- New environment:  $\pm 2$  Hours
- Additional hosts:  $\pm 15$  minutes (can be done in parallel)



# OCVS Provisioning

## Mixed Cluster Support

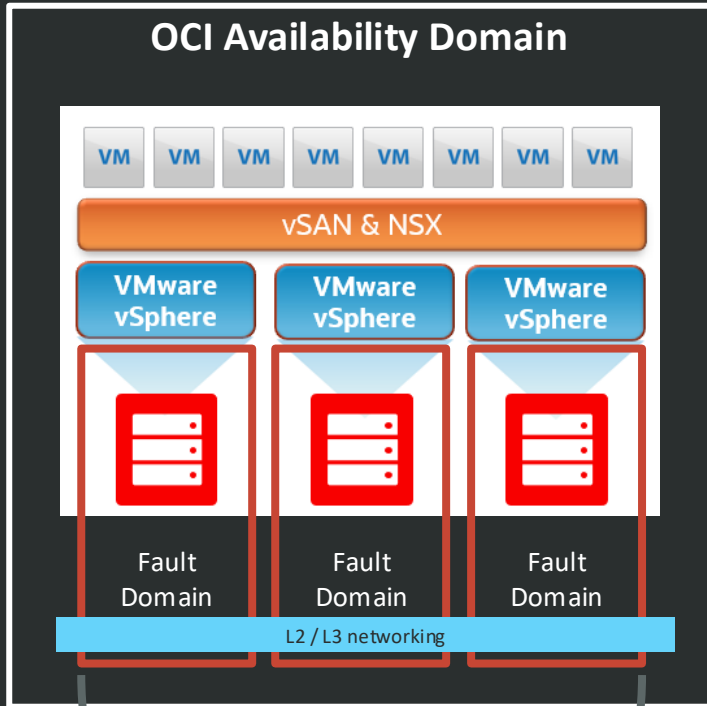
- Support for different shapes in one SDDC
- By default vMotion isolation per cluster.
- 1st cluster 3 node minimum
- additional clusters 2 node minimum
  
- Dense and GPU shapes max 64 hosts per cluster
- Standard shape max 32 hosts per cluster
- 15 Clusters per SDDC

The screenshot shows the Oracle Cloud console interface for creating an SDDC. The page is titled 'Create SDDC' and is in the 'Define clusters' step. It shows two clusters: 'Cluster 1: Production' and 'Cluster 2: Development'. Below the cluster configuration, there is a table summarizing the clusters.

| Name        | Cluster type | Number of ESXi hosts | Shape name        | Total datastore capacity |
|-------------|--------------|----------------------|-------------------|--------------------------|
| Production  | Management   | 4                    | BM.DenseIO.E4.128 | Not applicable ⓘ         |
| Development | Workload     | 2                    | BM.Standard3.64   | 4 TB                     |

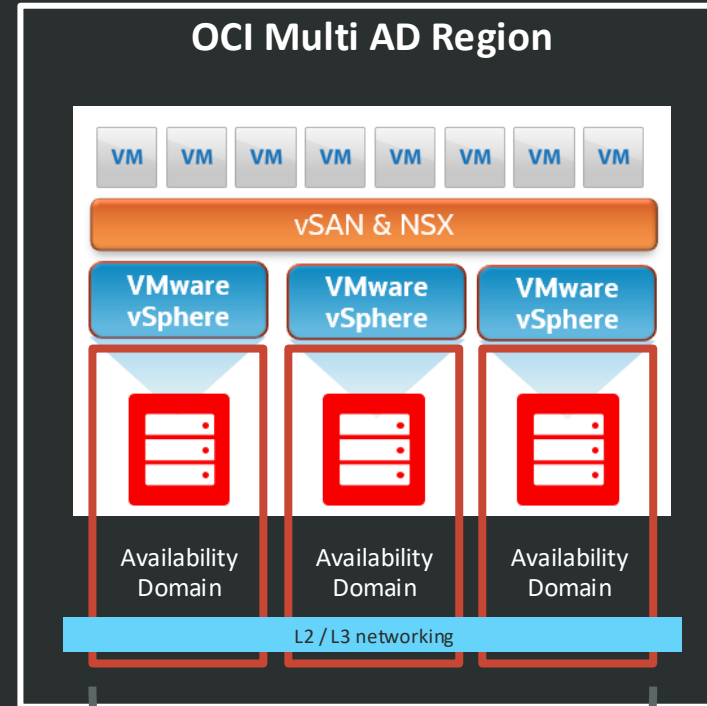


# Design for resilience



Isolation zones within one datacenter

Standard and DenseIO shapes



Isolation zones across 3 datacenters (~15km apart)

DenseIO Shapes

ORACLE

*Oracle Cloud VMware Solution delivers full administrative control, empowering customers with seamless VMware management and unmatched flexibility.*

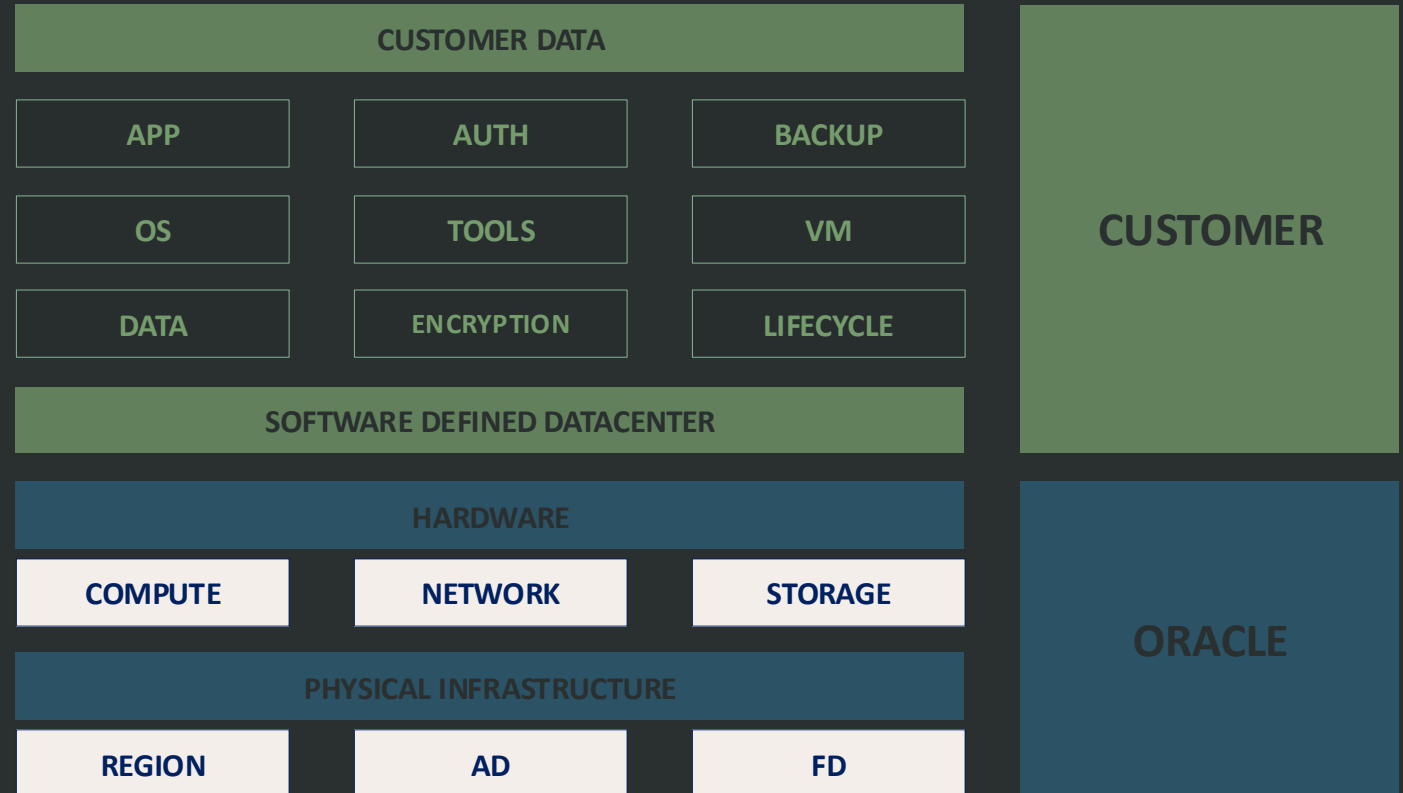
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# OCVS Shared Responsibility Model

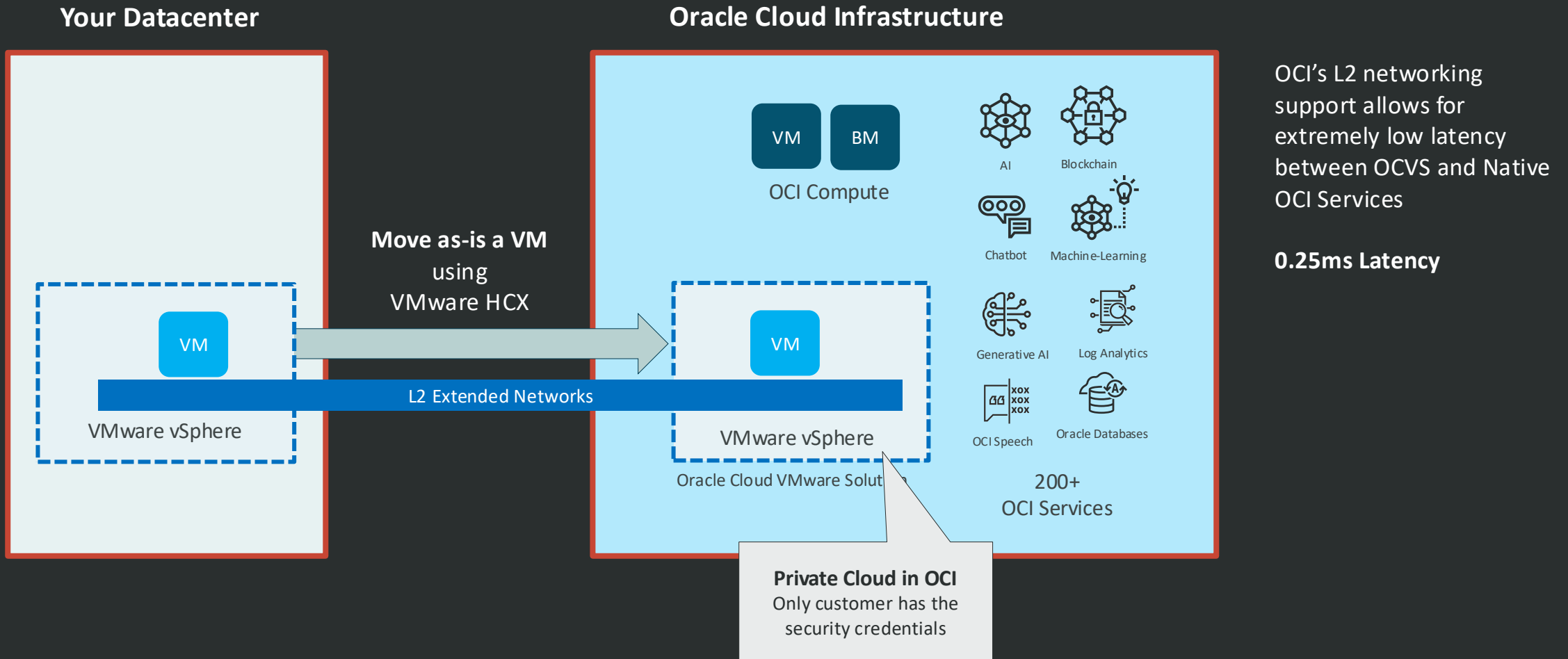
## Customer Managed Environment

Customers have **full root access** to SDDC appliances

- Customers or their SI representative has full control and responsibility for all SDDC components.
- On-premises operations and compliance models remain largely unchanged.
- Customers controls the LCM overall VMware elements.
- Oracle **does not** have access to the VMware environment!



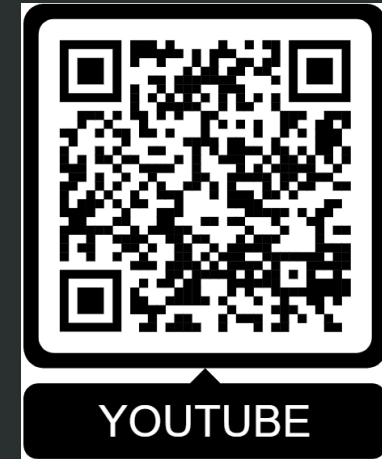
# Your Private Cloud in the Oracle Cloud



# VMware HCX – Workload Migration Strategies

<https://youtu.be/5VQobaZ70Bo>

|                          | Source Network | Source VNI/VLAN ID | Source Network Container | Gateway IP Address | Extension Appliance           | Status  |
|--------------------------|----------------|--------------------|--------------------------|--------------------|-------------------------------|---|
| <input type="checkbox"/> | VLAN200        | 200                | DVS2                     | 192.168.99.254/24  | Home-Cloud-ServiceMes h-NE-II | Configuration received<br>VLAN200: Extension complete |



Developer Coaching - VMware Workload Migration Strategies with Oracle Cloud VMware Solution

Oracle Developers  
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*Oracle Cloud VMware Solution offers flexible deployment options—public or private cloud—tailored to meet every customer’s unique business needs..*

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# OCVS Built for Global Scale

Deployment options built for the Enterprise

|                                | Public Cloud  |   |  | Dedicated Cloud  |   |  |
|--------------------------------|---|---|--|--|---|--|
|                                |  <b>Public Cloud Regions</b><br>Operated by personnel across the globe |  <b>EU Sovereign Regions</b><br>Operated by EU personnel |  <b>Government Regions</b><br>Serving Government agencies |  <b>Dedicated Region</b><br>The complete cloud in your datacenter |  <b>Isolated Region</b><br>Designed to work in disconnected mode |  <b>Alloy</b><br>Enable partner to become cloud providers |
| <b>Data center location</b>    | 50+ Cloud Regions in 28 countries   | 2 Cloud Regions in EU   | 8 Cloud Regions in Australia, UK and US  | Customer Defined   | Customer-defined  | Partner-defined  |
| <b>Operations and Support</b>  | Oracle Global   | Oracle EU   | Realm specific   | Oracle Global  | Customer-defined  | Partner-defined  |
| <b>Cloud Isolation (Realm)</b> | Global realm  | EU realm  | Government realms  | Dedicated realm  | Air-gapped dedicated realm  | Dedicated realm  |
| <b>Multi-tenancy</b>           | Yes   | Yes   | Yes  | Customer-defined   | Customer-defined  | Yes  |
| <b>Compliance</b>              | Standard industry certifications (e.g. SOC, CSTAR)  | Standard industry certifications (e.g. SOC, CSTAR)  | Specific government certifications   | Standard industry certifications + customer-defined  | Customer-defined  | Standard industry certifications + partner-defined   |
| <b>Security</b>                | Highly secure software delivery   | Highly secure software delivery   | Highly secure software delivery, that meets gov requirements   | Highly secure software delivery  | Customer pre-approved highly secure software delivery process   | Highly secure software delivery, reinforced by partner model   |
| <b>Time to deploy</b>          | Immediately available   | Immediately available   | Available in selected markets  | 9 to 18 months deployment timelines subject to datacenter, power and connectivity availability   |   |  |



# Oracle Cloud VMware Solution – Key Use Cases



## Data Center Exit

Move All on-premises VMware workloads to the cloud



## Capacity Expansion

Move or extend partial on-premises VMware workloads



## Disaster Recovery

Create a new or complement current DR environment



## Virtual Desktop Infrastructure

Establish desktop infrastructure in the cloud



## Mazda Motors improves agility by modernizing its IT Infrastructure

“Lifting and shifting our virtual machines to Oracle Cloud VMware Solution on OCI allows us to manage our own infrastructure on top of cloud-based bare metal. We maintained the ability to operate our environments the same as we did on-premises, without disruption or modifications.”

**Leander Diercks**

Cloud Domain Lead, Mazda Motor Logistics Europe

### Business Challenge

Mazda Motors Logistics Europe (MLE), a European importer and distributor of Mazda cars, parts, and accessories, wanted to move its VMware and database environments to the cloud as seamlessly as possible.

### Results

- ✓ Consolidated its Oracle and third-party applications on 12 nodes of OCVS without affecting its operations
- ✓ Migrated 80 Oracle Exadata Database environments to OCI, retaining the same stability and high performance as on-premises
- ✓ 85% of IT runs on OCI, since two data centers in Frankfurt closed
- ✓ Increased agility and responsiveness to fluctuating demands
- ✓ Provided quick and easy access to data management information
- ✓ Increased productivity and efficiency and facilitated compliance with data laws

### Products List

[Oracle Cloud Infrastructure \(OCI\)](#)

[Oracle Cloud VMWare Solution \(OCVS\)](#)

[Oracle Exadata Database Service](#)

[Read story](#)



## Lemtrans improves resiliency for rail systems

“Our skill set is based around VMware, so Oracle Cloud VMware Solution really appealed to us. The tools we use in OCI work exactly like what we use on-premises. Such identity preserved our investments in IT processes and greatly simplified the migration of our data and applications outside of Ukraine to ensure our business would not be disrupted. Oracle Cloud VMware Solution was the perfect choice for us.”

**Ivan Radchenko**

Head of IT Department, Lemtrans

### Business Challenge

Lemtrans, the largest private railcar operator in Ukraine, operated its on-premise VMware environment on HP Environment services. They wanted to maintain the highest level of rail transportation standards in the challenging Ukraine environment and unstable macroeconomic conditions.

### Results

With OCVS, they migrated its business-critical applications to OCI as-is

- ✓ Maintained, troubleshooted, and remediates issues with the ability to connect to an ESXi host via Secure Shell Protocol
- ✓ Full control of the vSAN cluster settings
- ✓ Controlled the policy for patches, updates, and upgrades.
- ✓ Preserved the compatibility with applications certified on previous versions of VMware

### Products List

[Oracle Cloud Infrastructure \(OCI\)](#)

[Oracle Cloud VMWare Solution](#)

[Read story](#)



*Oracle Cloud VMware Solution is evolving to align with Broadcom's VCF license portability model while preserving the same dedicated infrastructure and operational experience customers rely on today.*

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Oracle has switched for Oracle Cloud VMware Solution (OCVS) to a **BYOL model**, where customers use their own eligible VMware Cloud Foundation (VCF) subscriptions purchased directly from Broadcom or an authorized reseller.

- OCVS infrastructure continues to be purchased from Oracle via Universal Credits
- VCF Subscription License purchased from Broadcom
- Licensing and infrastructure managed separately
- Full License mobility

# Key Takeaways

1

Oracle Cloud VMware Solution delivers a **native VMware environment** on OCI with **full administrative control**

2

Enables **seamless migration** or extension of VMware workloads - **no re-architecture** required

3

Enterprise-grade, high performance **bare metal infrastructure** with **deep OCI integration**

4

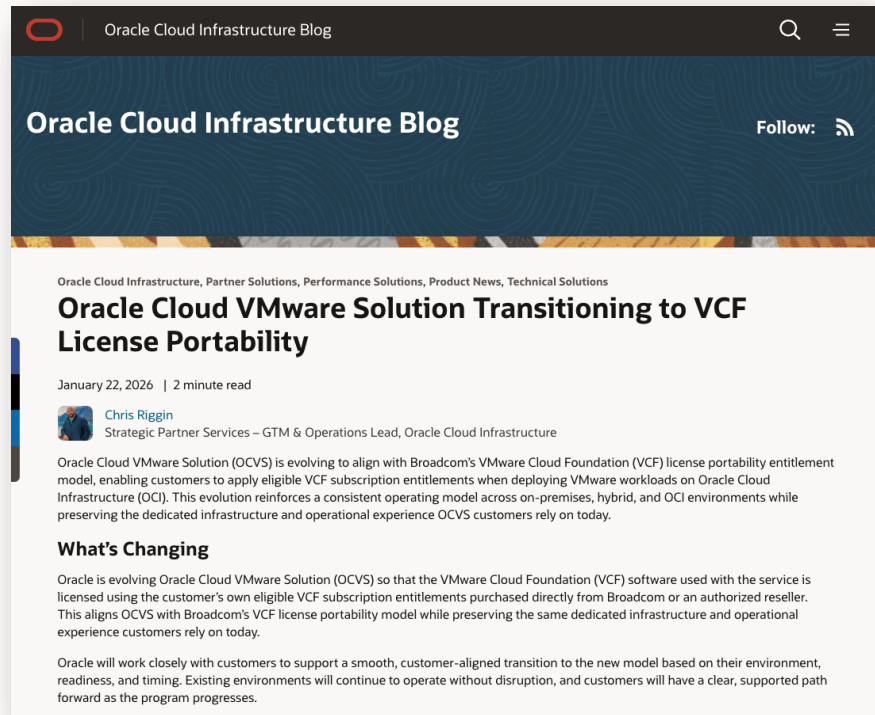
**Transitioning to a BYOL licensing model** aligned with the Broadcom License Portability model

5

Clear **separation of licensing and infrastructure responsibilities** under the BYOL model

# Resources

## External blogs



<https://blogs.oracle.com/cloud-infrastructure/ocvs-transitioning-to-vcf-license-portability>



<https://blogs.oracle.com/cloud-infrastructure/ocvs-vcf-byol-guidance>



# Partners




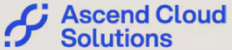


<https://www.oracle.com/europe/cloud/partner-packaged-offers/#vm-ware>

### Workloads

- Landing Zone
- 3rd party Apps to OCI
- Apps with Oracle DB to OCI
- Oracle Apps to OCI
- Analytics
- OCVS solution**
- AI
- DB consolidation
- Security
- Multicloud
- Application development
- Integration
- Non-Oracle to Oracle Migration

### Oracle VMware Solutions

Oracle Cloud VMware Solution is based on VMware Cloud Foundation (VCF) and provides a fully supported, customizable cloud environment for VMware deployments and migrations. The solution delivers a full-stack software-defined data center (SDDC), including VMware's vCenter, ESXi, NSX, and vSAN. Specific use cases targeted by Oracle Cloud VMware Solution include data center and application migration, hybrid extension, on-demand capacity, and disaster recovery.

|  |   |   |
|--|---|---|
|  <p>Offering region: Europe, Middle East and Africa</p> <p><a href="#">Read the brief (PDF)</a></p> |  <p>Offering region: United Kingdom, Europe, Middle East, Africa</p> <p><a href="#">Read the brief (PDF)</a></p> |  <p>Offering region: Nordics</p> <p><a href="#">Read the brief (PDF)</a></p>                         |
|  <p>Offering region: Europe, Middle East and Africa</p> <p><a href="#">Learn more</a></p>          |  <p>Offering region: Europe, Middle East and Africa</p> <p><a href="#">Learn more</a></p>                       |  <p>Offering region: Europe, Middle East and Africa</p> <p><a href="#">Read the brief (PDF)</a></p> |



# Resources

Get up to speed on OCVS

- OCVS on Oracle.com:  
<https://www.oracle.com/vmware/>
- OCVS – VMware migration strategies  
<https://youtu.be/5VQobaZ70Bo>
- Oracle University course:  
<https://mylearn.oracle.com/ou/course/lift-shift-vmware-virtual-machine-to-oracle-cloud-vmware-solution/82784/>
- Architecture Center:  
<https://docs.oracle.com/solutions/?q=VMWare&cType=reference-architectures%2Csolution-playbook%2Cbuilt-deployed&sort=date-desc&lang=en>

## Now it's your turn : Q&A



- Use the **Q&A** to ask your question

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