



Migrate & Modernize VMware Workloads on Oracle Cloud

Oracle Cloud VMware Solution (OCVS)

Rick Chuang 莊復貴

首席雲端顧問

July 2022

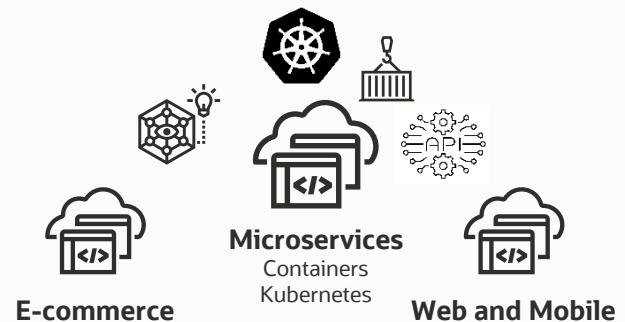
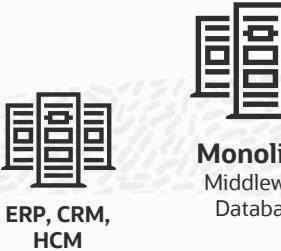


為了保持競爭力，企業必須確保應用程序的敏捷性-

適用於既有的/傳統應用程序和新的現代應用程序

80% 的關鍵應用程序仍然是運行在自己的資料中心

- 較低的可用性和沒有彈性
- 較少的開發者支持
- 與雲端斷開連接

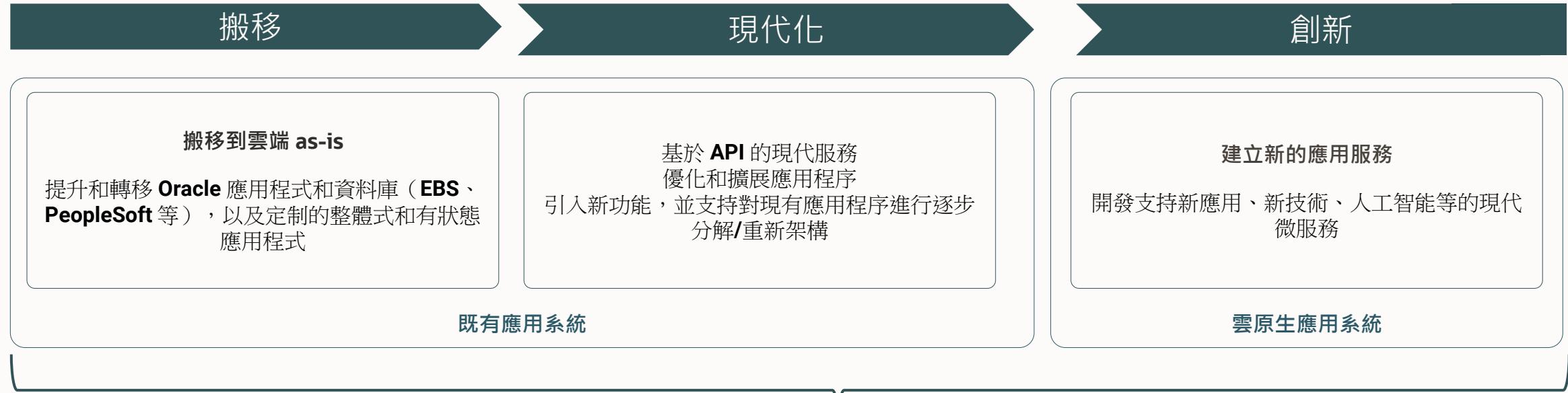


用於雲原生應用程序的 **1,000** 種技術

- 雲原生技術依然複雜
- 缺乏雲原生開發人員和維運技能
- 對現有數據和應用程序的存取不方便

我們滿足您的需求

OCI在任何現代化戰略中提供最快的價值實現時間和最佳 TCO



釋放數據：可跨現有/新應用程序以及跨多雲和混合環境存取可信數據

開放框架和 OSS 支持跨環境的快速開發、可移植性和一致操作

自主營運和智慧基礎設施，以最大限度地減少管理開銷

無需任何應用程序更改即可開始獲得雲優勢



Lift & shift

Oracle Cloud Lift Services

雲專家幫助您遷移，無需額外費用

Automated Migration & Provisioning Tools

簡化打包應用程序的部署、遷移和維護



Improve performance

Oracle Exadata Database Service, Database RAC, Autonomous Database

運行 **Oracle** 資料庫的最佳雲平台

Bare Metal Compute*

專用裸機服務器提供最高性能、隔離和控制



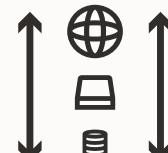
Use hybrid cloud architectures

Dedicated Region, Exadata Cloud@Customer

輕鬆在本地運行服務和應用程序，並具有雲優勢

Oracle Cloud VMware Solution

公共雲、政府雲或專用區域中的原生 **VMware**



Reduce cost

Flex Infrastructure

精準供應計算資源，不浪費

Lowest Cost Bandwidth

與其他雲相比，以最多降低 **80%** 的成本移動大量數據

最全面的混合和多雲策略支持



Oracle Public Regions

全球 **39** 個地點的
超大規模雲區域



Dedicated Regions

所有 **OCI** 服務，在
客戶數據中心運行



Oracle Cloud VMware Solution

公共雲或專用區域中
OCI 上的原生 **VMware**



Exadata Cloud@Customer

自主式資料庫，在您的
數據中心用雲的維運模
式運行



Roving Edge Infrastructure

用於遠端、無網路連接
的場景的 **OCI** 計算和存
儲

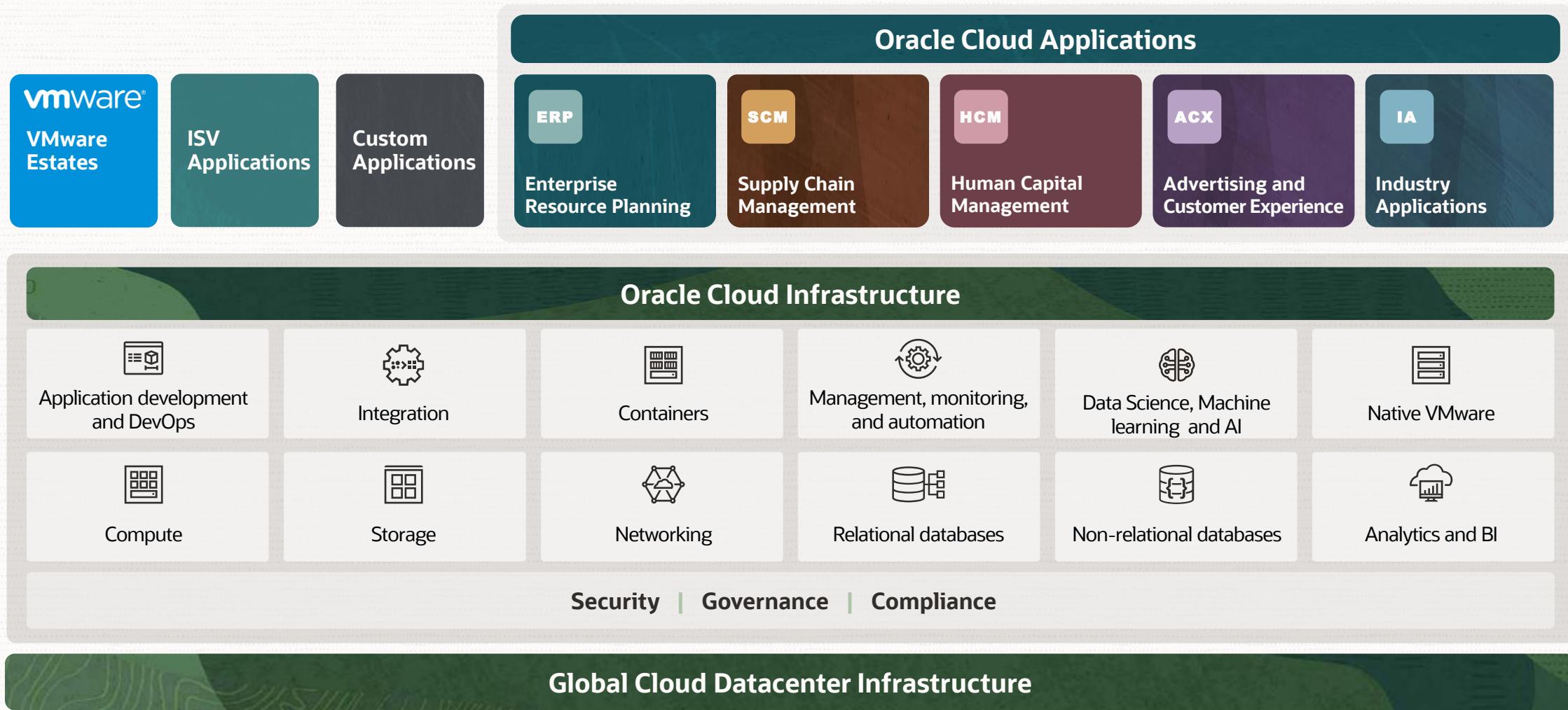


Microsoft Azure Interconnect

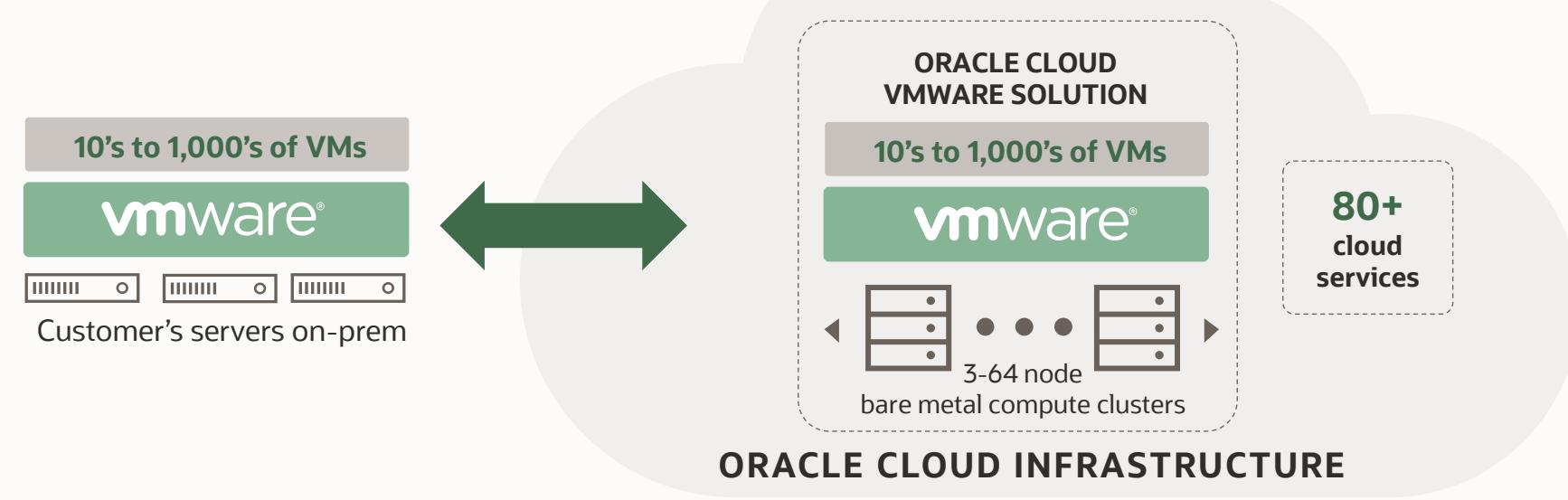
多雲架構的區域
低延遲的網路速度

在全球範圍內或在您需要的地方，具有規模和控制能力

Oracle Cloud Infrastructure + Oracle Applications



Oracle Cloud VMware Solution



主要應用場景:

- 資料中心搬移
- 混合雲擴充
- 災難備援
- 虛擬桌面

保護 VMware 投資

最接近本地 VMW 控製版本、策略
完全訪問，所有功能
HCX、vRealize、Horizon、SRM

現代化基礎架構

按需彈性容量
OCI + NSX + 混合靈活性 安全優先架構

現代化應用服務

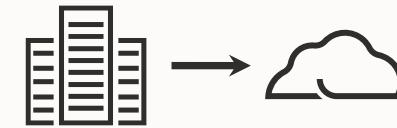
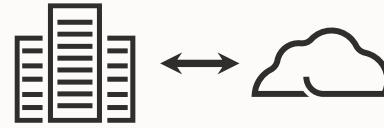
提高性能和規模
集成 80 多種 OCI 服務
集成 Oracle SaaS

全球可用性

所有 Oracle 雲區域
本地專用區域
一致的價格
1年和3年折扣

應用案例和客戶故事

OCVS支持所有行業的多個應用案例



| 混合雲 - 容量擴充 | 災難備援 | 資料中心搬移 | 虛擬桌面基礎架構 |
|--|----------------------------|--|---------------------------------------|
| 將部分本地 VMware 工作負載移動或擴展至雲正式環境, 測試環境, UAT 環境 | 在雲端建立新的災難復原環境；或替換或補充現有的 DR | 將所有本地 VMware 工作負載遷移到雲端 正式環境, 測試環境, UAT 環境 | 在雲端建立虛擬桌面基礎架構 |
| 按需擴容 輕鬆適應成長 從單一管理介面管理 | 為關鍵服務取得備援 輕鬆達成故障轉移和備份 | 快速搬移 數據中心退役 最小的干擾 最高效率 | 輕鬆管理雲上的虛擬桌面環境 根據 VDI 用戶的基礎設施使用情況付費 |

OCVS 獨特的價值

1



客戶完全控制

- 完全的 root 訪問和管理控制，VMware 特性的全部功能
- 端到端網絡控制
- 控制是否/何時修補、更新、升級

2



就是熟悉的VMware，
快速搬移

- 按原樣（相同版本）和整體遷移 VM
- 使用與本地相同的工具、操作和技能
- L2 網絡支持 - OCI 原生

3



較低的 TCO

- 每核、每 **GB RAM**、每 **TB** 存儲的市場成本最低 對於長期的工作負載甚至更低
- **-33% for 1-year commit**
-46% for 3-year commit

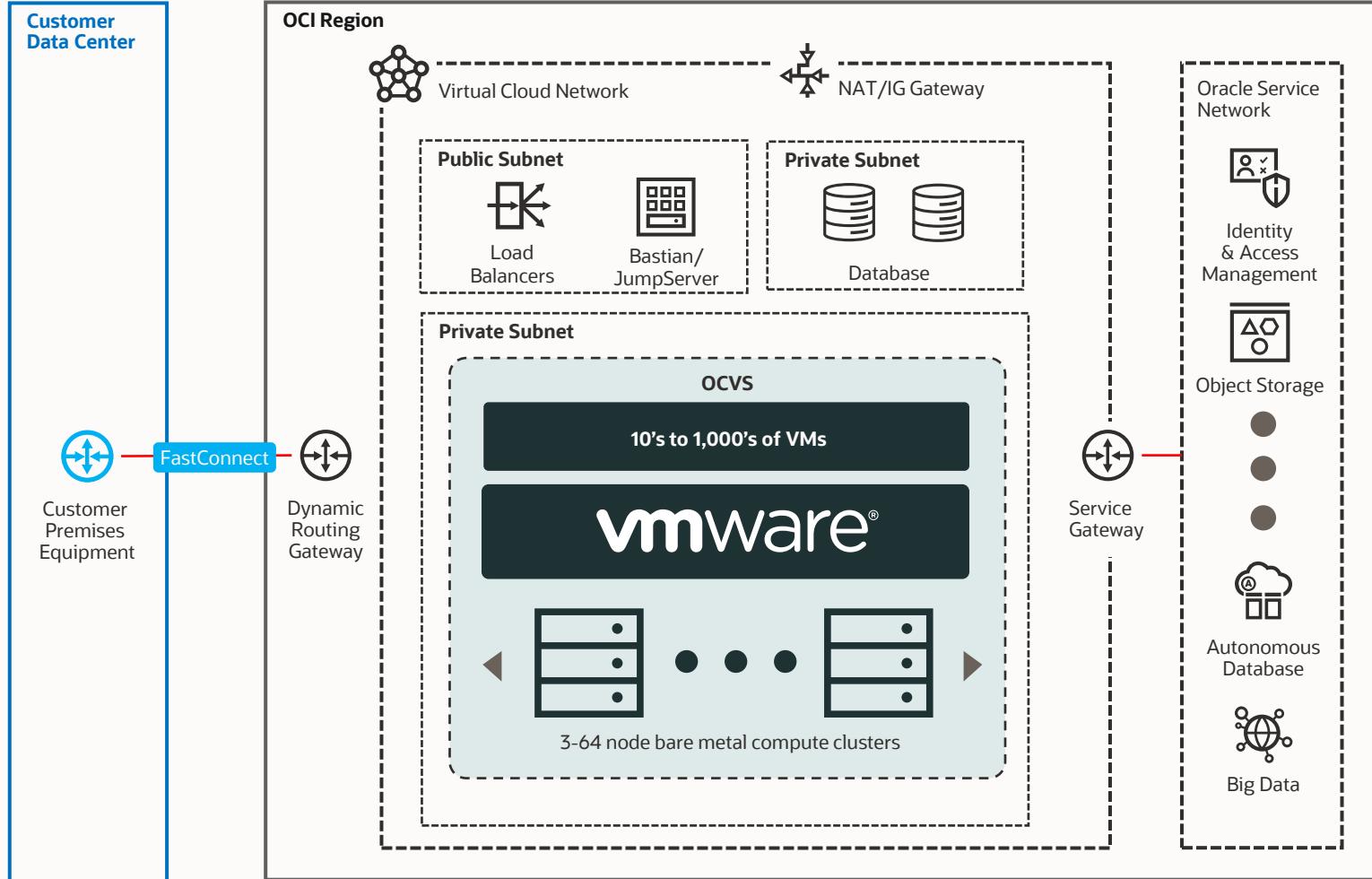
4



通過 Oracle 雲和部署
選擇實現現代化

- 使用 ExaCS、RAC 數據庫、自主化資料庫庫部署虛擬機
- 利用所有其他 OCI 服務
- 在 39 個 OCI 公有云區域和專用區域 C@C 中的部署選擇

客戶完全控制



- 運行 **VMware** 工作負載的專用伺服器
- 部署在您自己的虛擬網絡中，您可以完全控制 VCN、DRG、NAT/IG 網關和服務網關。
- 您擁有 VMware 根訪問權限和密碼，而不是 Oracle
- 您控制 **VMware** 軟體更新/版本（**6.5、6.7、7.0**），較少需考慮應用程序兼容性問題
- 您可以完全控制 **NSX-T 第 0 層和第 1 層 Gateway**
- 您可以通過 NSX-T 完全控制虛擬機之間的微分段和防火牆

Oracle Cloud提供企業在VMWare應用上最經濟實惠的方案

| | | Oracle | AWS | Azure | GCP |
|----------|--|-----------------|---------------------------------------|----------------------|----------------------|
| COMPUTE | Flex Virtual Machine (Hourly, 2 core, 16 GB RAM) | \$0.074 | +132% | +159% | +104% |
| | Bare Metal Standard (\$/OCPU/Hour) | \$0.0638 | +82% | N/A | N/A |
| | Bare Metal Dense IO (\$/OCPU/Hour) | \$0.1275 | +64% | N/A | N/A |
| | Kubernetes Cluster (Monthly, 50 cores, 750 GB RAM) | \$2,297 | +56% | +47% | +31% |
| STORAGE | Block Storage High IO (Monthly, 400 GB, 25K IOPS) | \$23.80 | 70X | 54X | 77X |
| NETWORK | Public Bandwidth Transferred Out (50 TB/Month) 10Tb Outbound for Free/Per Month Over 10Tb - \$0.025/Per Gb for Asia | \$340 | 12X 100G for Free \$0.08/Per Gb | 12X \$0.08/Per Gb | 12X \$0.08/Per Gb |
| DATABASE | Private Line Network (Monthly, 1 Gbps, 100 TB data) | \$155 | 14X | 36X | 14X |
| | Managed MySQL (Monthly, 100 OCPUs, 1 TB data) | \$5,486 | 3X | 3X | 2.5X |

No charge for Site to Site VPN

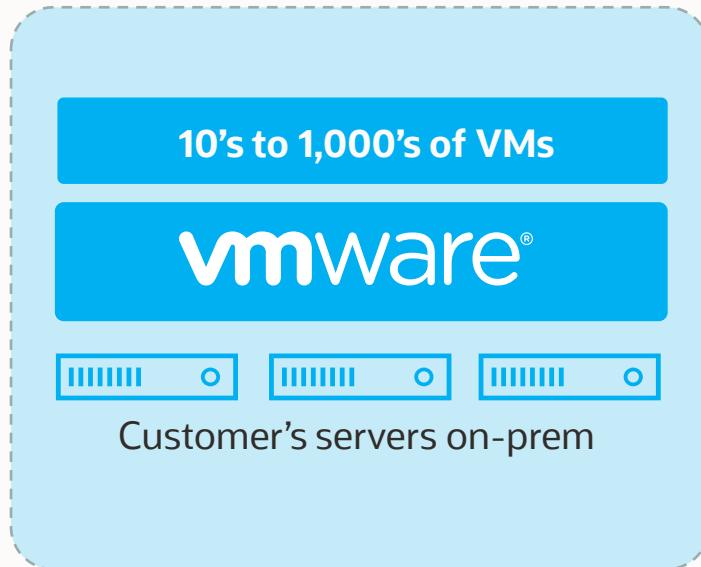
Green = Lowest cost





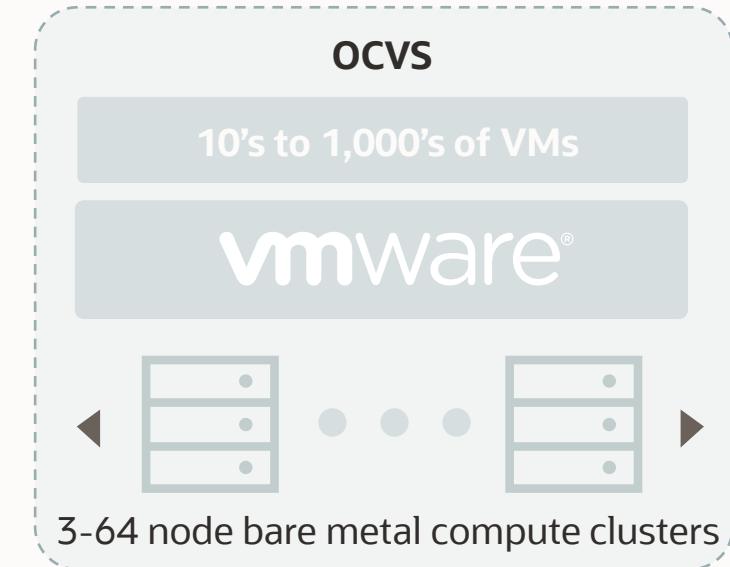
最原生的VMWare Solution

自有資料中心 VMware



| Virtual Machines |
|--|
| VMware Software vCenter vSphere vSAN NSX-T |
| VMware Environment Customer owns root/admin password |
| Customer manages VMware updates |
| Servers Owned by Customer |
| Data Center Customer's Data Center On-Premises |

Oracle Cloud VMware Solution



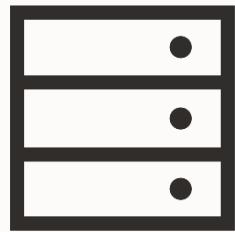
角色跟責任分工



| Task | OCVS / OCI | Other Cloud Provider |
|---|--------------------------|-----------------------------|
| Create / Start / Stop / Terminate VM | Customer | Customer |
| Move VM to other clusters | Customer | Customer |
| Backup / Restore VM | Customer | Customer |
| Patch VM's Guest OS | Customer | Customer |
| Manage NSX-T Network | Customer w/ Full Control | Customer w/ Limited Control |
| Manage vSAN and Datastore | Customer w/ Full Control | Customer w/ Limited Control |
| Monitor VMware / SDDC Environment | Customer | Customer & Cloud Provider |
| Patch VMware / SDDC Environment | Customer w/ Automation | Cloud Provider |
| Upgrade VMware / SDDC Environment | Customer | Cloud Provider |
| Add / Remove Nodes | Customer w/ Automation | Customer w/ Automation |
| Create VMware Environment | Customer | Customer |
| Detect & Replace Failed Physical Hardware | Oracle | Cloud Provider |
| Detect & Fix Physical Network Issue | Oracle | Cloud Provider |

For illustration purpose.

The ESXi 裸機使用 vSphere 6.5 or 6.7



BM.DenseIO.52

Attached VNICs

Virtual Distributed Switch – NIC 0

INSIDE VCN CIDR Block

- Management
- vSAN (storage replication & access)
- vMotion Network
- HCX migrations
- Optional: VM traffic via VLANs

NSX-T – NIC1

INSIDE VCN CIDR Block

- NSX Edge and Uplinks

OUTSIDE VCN CIDR Block

- VM traffic

A [virtual network interface card \(VNIC\)](#) lets an instance connect to a virtual cloud network (VCN) and determines how the instance connects with endpoints inside and outside the VCN.

| Create VNIC | | | | | | |
|--|--|------------|---|----------|-------------------|---|
| Name | Subnet or VLAN <i>i</i> | State | FQDN <i>i</i> | VLAN Tag | MAC Address | |
| oci-prov-vnic (Primary VNIC) | Subnet - Subnet-OCVS | ● Attached | ocvs-1... Show Copy | - | BC:97:E1:D3:77:90 | ⋮ |
| vsphere-net-vnic | VLAN - VLAN-OCVS-vSphere | ● Attached | - | 1523 | 02:00:17:02:EC:B8 | ⋮ |
| vmotion-net-vnic | VLAN - VLAN-OCVS-vMotion | ● Attached | - | 3156 | 02:00:17:06:3A:10 | ⋮ |
| vsan-net-vnic | VLAN - VLAN-OCVS-vSAN | ● Attached | - | 2554 | 02:00:17:06:81:90 | ⋮ |
| nsx-vtep-vnic | VLAN - VLAN-OCVS-NSX VTEP | ● Attached | - | 2573 | 00:00:17:02:E3:AA | ⋮ |
| nsx-edge-vtep-vnic | VLAN - VLAN-OCVS-NSX Edge VTEP | ● Attached | - | 3812 | 00:00:17:02:FC:B5 | ⋮ |
| nsx-edge-up1-vnic | VLAN - VLAN-OCVS-NSX Edge Uplink 1 | ● Attached | - | 2468 | 02:00:17:02:0D:4D | ⋮ |
| nsx-edge-up2-vnic | VLAN - VLAN-OCVS-NSX Edge Uplink 2 | ● Attached | - | 1119 | 02:00:17:06:3E:8A | ⋮ |
| hcx-vnic | VLAN - VLAN-OCVS-HCX | ● Attached | - | 1663 | 02:00:17:06:04:11 | ⋮ |

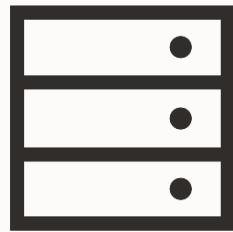
Physical Nic 0

Physical Nic 1

Physical Nic 0



The ESXi 裸機使用vSphere 7.0*



BM.DenseIO.52

Virtual Distributed Switch – **NIC 0 + 1**

INSIDE VCN CIDR Block

- Management
- vSAN (storage replication & access)
- vMotion Network
- HCX migrations
- Optional: VM traffic via VLANs

NSX-T – **NIC 0 + 1**

INSIDE VCN CIDR Block

- NSX Edge and Uplinks

OUTSIDE VCN CIDR Block

- VM traffic

Attached VNICs

A [virtual network interface card \(VNIC\)](#) lets an instance connect to a virtual cloud network (VCN) and determines how the instance connects with endpoints inside and outside the VCN.

| Create VNIC | | | | | |
|--|--|------------|---|----------|-------------------|
| Name | Subnet or VLAN <i>i</i> | State | FQDN <i>i</i> | VLAN Tag | MAC Address |
| oci-prov-vnic (Primary VNIC) | Subnet - Subnet-OCVS | ● Attached | ocvs-1... Show Copy | - | BC:97:E1:D2:E5:10 |
| vsphere-net-vnic.nic0 | VLAN - VLAN-OCVS-vSphere | ● Attached | - | 3806 | 02:00:17:0B:D0:CF |
| vsphere-net-vnic.nic1 | VLAN - VLAN-OCVS-vSphere | ● Attached | - | 3806 | 00:00:17:02:65:F1 |
| vmotion-net-vnic.nic0 | VLAN - VLAN-OCVS-vMotion | ● Attached | - | 3378 | 02:00:17:06:FB:79 |
| vmotion-net-vnic.nic1 | VLAN - VLAN-OCVS-vMotion | ● Attached | - | 3378 | 00:00:17:02:31:86 |
| vsan-net-vnic.nic0 | VLAN - VLAN-OCVS-vSAN | ● Attached | - | 1212 | 00:00:17:02:C0:77 |
| vsan-net-vnic.nic1 | VLAN - VLAN-OCVS-vSAN | ● Attached | - | 1212 | 02:00:17:0B:8E:39 |
| nsx-vtep-vnic.nic0 | VLAN - VLAN-OCVS-NSX VTEP | ● Attached | - | 1048 | 02:00:17:0B:67:35 |
| nsx-vtep-vnic.nic1 | VLAN - VLAN-OCVS-NSX VTEP | ● Attached | - | 1048 | 02:00:17:06:D7:4E |
| nsx-edge-vtep-vnic.nic0 | VLAN - VLAN-OCVS-NSX Edge VTEP | ● Attached | - | 1824 | 00:00:17:02:7E:F5 |
| nsx-edge-vtep-vnic.nic1 | VLAN - VLAN-OCVS-NSX Edge VTEP | ● Attached | - | 1824 | 02:00:17:0B:3B:C8 |
| nsx-edge-up1-vnic.nic0 | VLAN - VLAN-OCVS-NSX Edge Uplink 1 | ● Attached | - | 1952 | 00:00:17:02:5D:FB |
| nsx-edge-up1-vnic.nic1 | VLAN - VLAN-OCVS-NSX Edge Uplink 1 | ● Attached | - | 1952 | 02:00:17:06:CF:FC |

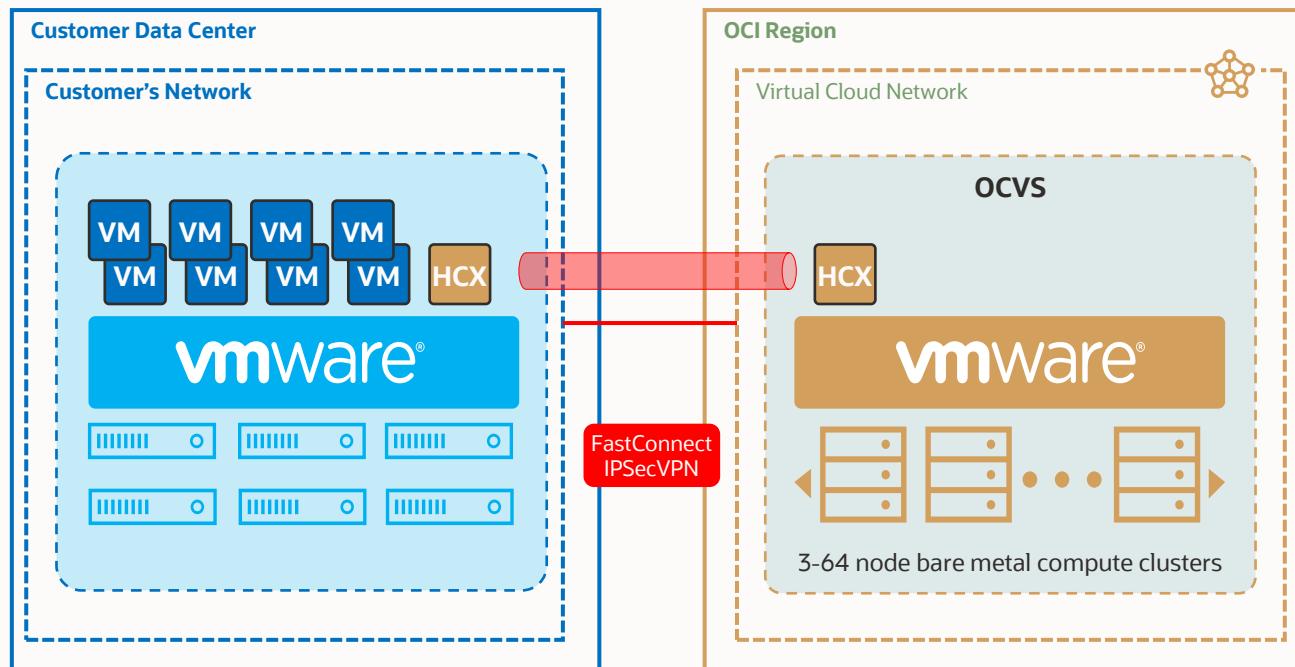
Physical Nic 0
&
Physical Nic 1

* Currently available under limited availability



原生 VMware, 快速搬移

在 1-3 個月內遷移數百台虛擬機。 無需更改應用程序，無需培訓，使用相同的工具和操作



1. 在 2 分鐘內創建一個虛擬云網絡 (VCN)
2. 在分鐘/小時內配置 FastConnect 或 IPSec VPN
3. 5分鐘填寫創建參數，OCI會在~2小時內自動創建一個OCVS集群
4. 在本地安裝和配置 HCX 連接器通過防火牆更改
5. 在 HCX Web 控制台中選擇 VM 進行遷移，然後將在預定時間自動開始遷移

SDDC 建置精靈

Software-Defined Data Centers in ocvsm-small-cidr Compartment

A Software-defined data center (SDDC) contains the resources required for a functional VMware environment. Instances in an SDDC (ESXi hosts) run in a virtual cloud network (VCN) and are preconfigured with VMware and storage. Use the Center utility to manage and deploy VMware virtual machines (VMs) in the SDDC.

| Name | State | Created |
|-----------------|-------|---------|
| No items found. | | |

- ✓ Select VMware version and is HCX should be included
- ✓ Select number of hosts (between 3 and 64)
- ✓ Provide SSH keys for ESXi servers
- ✓ Select AD (OCVS is deployed in a single AD)
- ✓ Select VCN to be used and a /22 CIDR block
- ✓ Provide CIDR block for initial NSX-T segment for VMs (can later be easily changed)

Basic Information

This workflow walks you up an SDDC with a minimum of three ESXi hosts in a VCN. Each host in the SDDC is created with VMware, storage, and access to the VCN network.

- In the next few pages, you provide information required to create and configure the hosts within a VCN of your choice.
- The workflow provisions the SDDC. The provisioning process can take up to two and a half hours.
- When the workflow is complete, a password and one-time password are presented that you can use the Center management utility for the SDDC.

OCVS

SDDC Compartment ocvsm-small-cidr

Create HCX Insert to HCX page. You cannot insert the plugin after the SDDC is created. [Learn more](#)

VMware Software Version 6.7 update 3

ESXi Hosts

Number of ESXi Hosts: 3

Provide Firewall Contextual IP: 192.168.1.10

Provide for ESXi Hosts: OCVS

To connect to ESXi hosts, you need to use an SSH key pair. Ensure that you have specified a public SSH key file (.pub) if the image does not already include one, and that you have access to the associated private SSH key (.pri). See [Managing Key Pairs on Linux Instances and Connecting to an Instance](#)

Choose SSH Key File Paste SSH Keys

Drop SSH Key File of [select file](#) .pub file

PuttySSH public key

Availability Domain Putty PVH-AD-1

Show Advanced Options

Networking

The workflow creates ESXi hosts in a VCN subnet of your choice. 8 VLANs are required by different VMware components in the SDDC (vSphere, vSAN, vMotion, NSX, and HCX). You can choose to name the workflow, create the subnet and VLANs, or use ones you already set up in your VCN.

Virtual Cloud Network (VCN) OCVS

Choose a VCN ocvsm-small-cidr [Choose Contextual](#)

Create New Subnet and VLANs Use a CIDR block of your choice to create a subnet and VLANs, along with basic security rules and route tables.

Select Existing Subnet and VLANs You choose a subnet and VLANs that are already configured appends after your VCN.

SDDC Networks

The SDDC CIDR is used to provision the required subnet and VLANs. Enter a CIDR block contained in the VCN and click **Check Availability**. The CIDR must meet the workflow requirements for size and availability, and it cannot overlap with any other subnet or VLAN CIDR in the VCN.

SDDC CIDR 10.0.0.0/22

Example 10.0.0.0/22

Check Availability

Subnet (1)

| Function | Subnet Name | CIDR | Subnet Access |
|-------------------|-------------|-------------|---------------|
| Processing Subnet | Subnet OCVS | 10.0.0.0/25 | Private |

VLANs (8)

| Function | VLAN Name | VLAN Gateway CIDR |
|-------------------|-----------------------------|-------------------|
| vSphere | VLAN OCVS-vSphere | 10.0.3.128/28 |
| vMotion | VLAN OCVS-vMotion | 10.0.2.128/25 |
| vSAN | VLAN OCVS-vSAN | 10.0.1.0/25 |
| NSX VTEP | VLAN OCVS-NSX VTEP | 10.0.2.0/25 |
| NSX Edge VTEP | VLAN OCVS-NSX Edge VTEP | 10.0.1.128/25 |
| NSX Edge Uplink 1 | VLAN OCVS-NSX Edge Uplink 1 | 10.0.0.128/25 |

Review and Create

Basic Information

SDDC Name OCVS

HCX Enabled

SDDC Compartment ocvsm-small-cidr

VMware Software Version 6.7 update 3

Name of ESXi Hosts

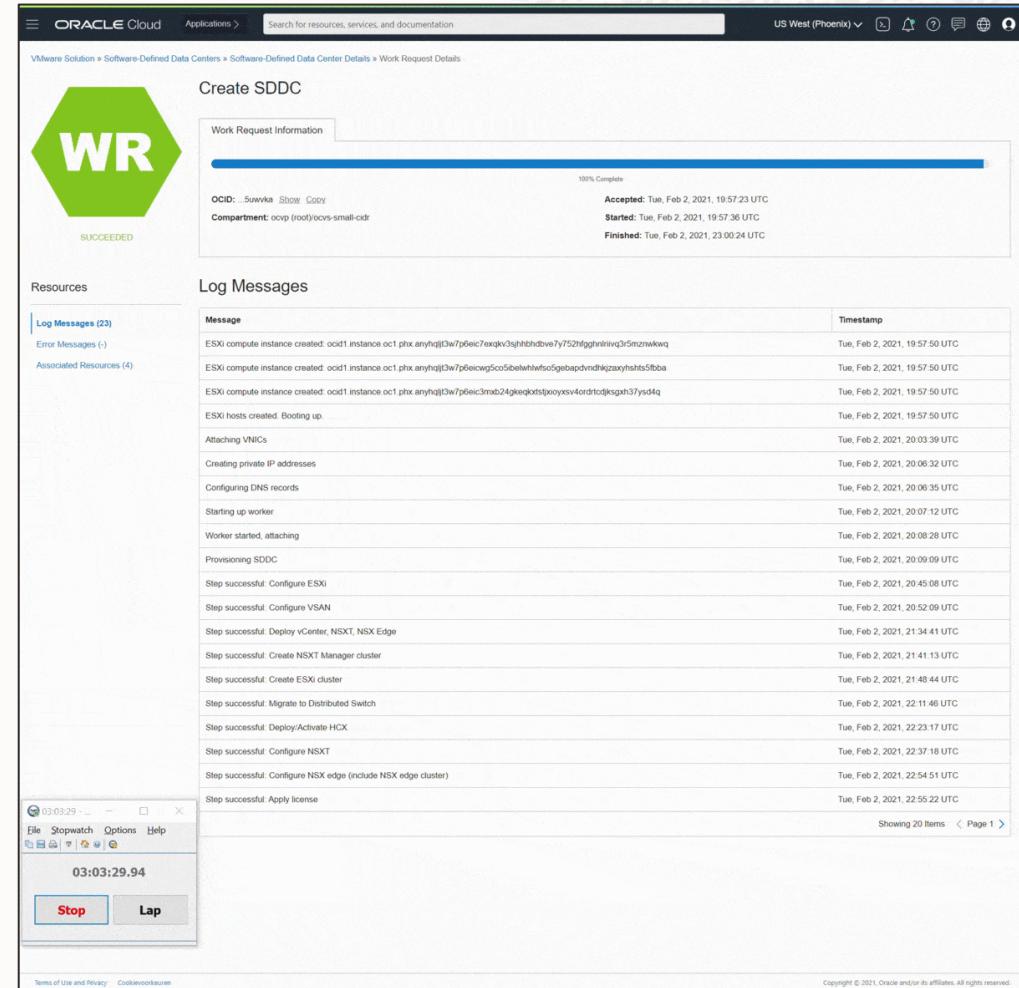
Prefix for Hosts OCVS

SSH Key [AnOcvsmf1m3n4p5o6p6o7o8o9o9o10o11o12o13o14o15o16o17o18o19o1o2o3o4o5o6o7o8o9o10o11o12o13o14o15o16o17o18o19o20o21o22o23o24o25o26o27o28o29o20o30o31o32o33o34o35o36o37o38o39o30o40o41o42o43o44o45o46o47o48o49o40o50o51o52o53o54o55o56o57o58o59o50o60o61o62o63o64o65o66o67o68o69o60o70o71o72o73o74o75o76o77o78o79o70o80o81o82o83o84o85o86o87o88o89o80o90o91o92o93o94o95o96o97o98o90o100o101o102o103o104o105o106o107o108o100o110o111o112o113o114o115o116o117o118o110o120o121o122o123o124o125o126o127o128o120o130o131o132o133o134o135o136o137o138o130o140o141o142o143o144o145o146o147o148o140o150o151o152o153o154o155o156o157o158o150o160o161o162o163o164o165o166o167o168o160o170o171o172o173o174o175o176o177o178o170o180o181o182o183o184o185o186o187o188o180o190o191o192o193o194o195o196o197o198o190o200o201o202o203o204o205o206o207o208o200o210o211o212o213o214o215o216o217o218o210o220o221o222o223o224o225o226o227o228o220o230o231o232o233o234o235o236o237o238o230o240o241o242o243o244o245o246o247o248o240o250o251o252o253o254o255o256o257o258o250o260o261o262o263o264o265o266o267o268o260o270o271o272o273o274o275o276o277o278o270o280o281o282o283o284o285o286o287o288o280o290o291o292o293o294o295o296o297o298o290o300o301o302o303o304o305o306o307o308o300o310o311o312o313o314o315o316o317o318o310o320o321o322o323o324o325o326o327o328o320o330o331o332o333o334o335o336o337o338o330o340o341o342o343o344o345o346o347o348o340o350o351o352o353o354o355o356o357o358o350o360o361o362o363o364o365o366o367o368o360o370o371o372o373o374o375o376o377o378o370o380o381o382o383o384o385o386o387o388o380o390o391o392o393o394o395o396o397o398o390o400o401o402o403o404o405o406o407o408o400o410o411o412o413o414o415o416o417o418o410o420o421o422o423o424o425o426o427o428o420o430o431o432o433o434o435o436o437o438o430o440o441o442o443o444o445o446o447o448o440o450o451o452o453o454o455o456o457o458o450o460o461o462o463o464o465o466o467o468o460o470o471o472o473o474o475o476o477o478o470o480o481o482o483o484o485o486o487o488o480o490o491o492o493o494o495o496o497o498o490o500o501o502o503o504o505o506o507o508o500o510o511o512o513o514o515o516o517o518o510o520o521o522o523o524o525o526o527o528o520o530o531o532o533o534o535o536o537o538o530o540o541o542o543o544o545o546o547o548o540o550o551o552o553o554o555o556o557o558o550o560o561o562o563o564o565o566o567o568o560o570o571o572o573o574o575o576o577o578o570o580o581o582o583o584o585o586o587o588o580o590o591o592o593o594o595o596o597o598o590o600o601o602o603o604o605o606o607o608o600o610o611o612o613o614o615o616o617o618o610o620o621o622o623o624o625o626o627o628o620o630o631o632o633o634o635o636o637o638o630o640o641o642o643o644o645o646o647o648o640o650o651o652o653o654o655o656o657o658o650o660o661o662o663o664o665o666o667o668o660o670o671o672o673o674o675o676o677o678o670o680o681o682o683o684o685o686o687o688o680o690o691o692o693o694o695o696o697o698o690o700o701o702o703o704o705o706o707o708o700o710o711o712o713o714o715o716o717o718o710o720o721o722o723o724o725o726o727o728o720o730o731o732o733o734o735o736o737o738o730o740o741o742o743o744o745o746o747o748o740o750o751o752o753o754o755o756o757o758o750o760o761o762o763o764o765o766o767o768o760o770o771o772o773o774o775o776o777o778o770o780o781o782o783o784o785o786o787o788o780o790o791o792o793o794o795o796o797o798o790o800o801o802o803o804o805o806o807o808o800o810o811o812o813o814o815o816o817o818o810o820o821o822o823o824o825o826o827o828o820o830o831o832o833o834o835o836o837o838o830o840o841o842o843o844o845o846o847o848o840o850o851o852o853o854o855o856o857o858o850o860o861o862o863o864o865o866o867o868o860o870o871o872o873o874o875o876o877o878o870o880o881o882o883o884o885o886o887o888o880o890o891o892o893o894o895o896o897o898o890o900o901o902o903o904o905o906o907o908o900o910o911o912o913o914o915o916o917o918o910o920o921o922o923o924o925o926o927o928o920o930o931o932o933o934o935o936o937o938o930o940o941o942o943o944o945o946o947o948o940o950o951o952o953o954o955o956o957o958o950o960o961o962o963o964o965o966o967o968o960o970o971o972o973o974o975o976o977o978o970o980o981o982o983o984o985o986o987o988o980o990o991o992o993o994o995o996o997o998o990o1000o1001o1002o1003o1004o1005o1006o1007o1008o990o1010o1011o1012o1013o1014o1015o1016o1017o1018o1010o1020o1021o1022o1023o1024o1025o1026o1027o1028o1020o1030o1031o1032o1033o1034o1035o1036o1037o1038o1030o1040o1041o1042o1043o1044o1045o1046o1047o1048o1040o1050o1051o1052o1053o1054o1055o1056o1057o1058o1050o1060o1061o1062o1063o1064o1065o1066o1067o1068o1060o1070o1071o1072o1073o1074o1075o1076o1077o1078o1070o1080o1081o1082o1083o1084o1085o1086o1087o1088o1080o1090o1091o1092o1093o1094o1095o1096o1097o1098o1090o1100o1101o1102o1103o1104o1105o1106o1107o1108o1100o1110o1111o1112o1113o1114o1115o1116o1117o1118o1110o1120o1121o1122o1123o1124o1125o1126o1127o1128o1120o1130o1131o1132o1133o1134o1135o1136o1137o1138o1130o1140o1141o1142o1143o1144o1145o1146o1147o1148o1140o1150o1151o1152o1153o1154o1155o1156o1157o1158o1150o1160o1161o1162o1163o1164o1165o1166o1167o1168o1160o1170o1171o1172o1173o1174o1175o1176o1177o1178o1170o1180o1181o1182o1183o1184o1185o1186o1187o1188o1180o1190o1191o1192o1193o1194o1195o1196o1197o1198o1190o1200o1201o1202o1203o1204o1205o120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精靈建置SDDC完成執行步驟跟所需要的時間

- 1 min - Create provisioning subnet, VLANs and Network Security Rules
- 6 min (15%) – Provision Baremetal servers and booting
- 3 min (25%) – Attaching vNICs
- 1 min (40%) – Creating private IP Addresses and DNS Records
- 1 min (45%) – Starting up worker (temp VM to configure VMware)
- 1 min (47%) – Attaching worker correct networks
- 36 min (50%) – Start provisioning SDDC
- 7 min (54%) – Configure ESXi
- 41 min (58%) – Configure vSAN
- 7 min (58%) – Deploy vCenter, NSX-T and NSX Edge appliances
- 8 min (67%) – Create NSX-T Manager Cluster
- 22 min (71%) – Create ESXi Cluster
- 12 min (75%) – Migrate to Distributed Switch
- 14 min (79%) – Deploy and Activate HCX
- 17 min (79%) – Configure NSX-T
- 1 min (83%) – Configure NSX Edge and Edge Cluster
- 5 min (88%) – Apply License
- Done (100%)

Total time: ~3 hours



Above picture runs as an animation in presentation mode

較低的成本 – OCVS Pricing

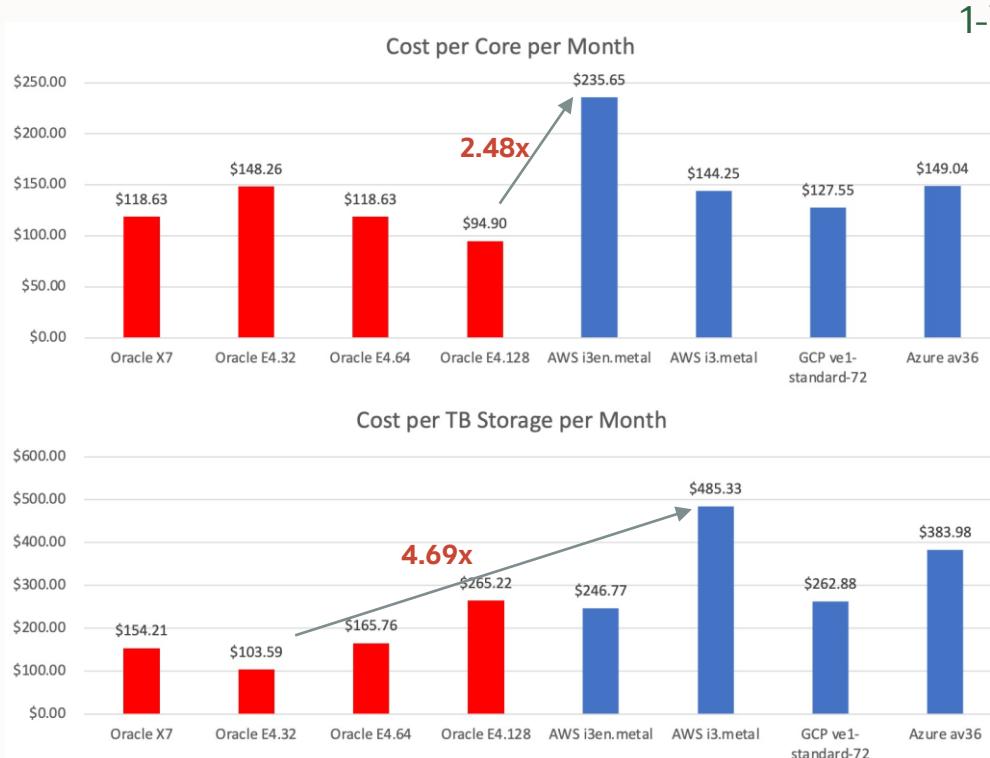
| | 較低的成本在臨時性 或突發性的需求 | 更高的成本在 長期性的需求 | | |
|--|--|--|--|--|
| | Hourly Commit | Monthly Commit ~ -17% | 1 Year Commit ~ -33% | 3 Year Commit ~ -46% |
| Intel Host X7 BM.DenseIO2.52 52 Cores, 768GB RAM, 51.2TB NVMe | ~\$12.67/Host/Hour (~\$304/3Host/8Hour) | ~\$10.56/Host/Hour (~\$23K/3Host/Month) | ~\$8.45/Host/Hour (~\$222K/3Host/Year) | ~\$6.86/Host/Hour (~\$541K/3Host/3Year) |
| AMD Host E4.32 BM.DenseIO.E4.32 32 Cores, 2TB RAM, 54.4TB NVMe | ~\$9.75/Host/Hour (~\$234/3Host/8Hour) | ~\$8.12/Host/Hour (~\$18K/3Host/Month) | ~\$6.50/Host/Hour (~\$171K/3Host/Year) | ~\$5.28/Host/Hour (~\$416K/3Host/3Year) |
| AMD Host E4.64 BM.DenseIO.E4.64 64 Cores, 2TB RAM, 54.4TB NVMe | ~\$15.60/Host/Hour (~\$374/3Host/8Hour) | ~\$13.00/Host/Hour (~\$28K/3Host/Month) | ~\$10.40/Host/Hour (~\$273K/3Host/Year) | ~\$8.45/Host/Hour (~\$666K/3Host/3Year) |
| AMD Host E4.128 BM.DenseIO.E4.128 128 Cores, 2TB RAM, 54.4TB NVMe | ~\$24.96/Host/Hour (~\$599/3Host/8Hour) | ~\$20.80/Host/Hour (~\$46K/3Host/Month) | ~\$16.64/Host/Hour (~\$437K/3Host/Year) | ~\$13.52/Host/Hour (~\$1066K/3Host/3Year) |

Note: (1) Minimal 3 hosts (2) Minimal 8 hours for Hourly Commit. (3) The pricing interval is *always* tied to the *host*, not the SDDC or cluster.

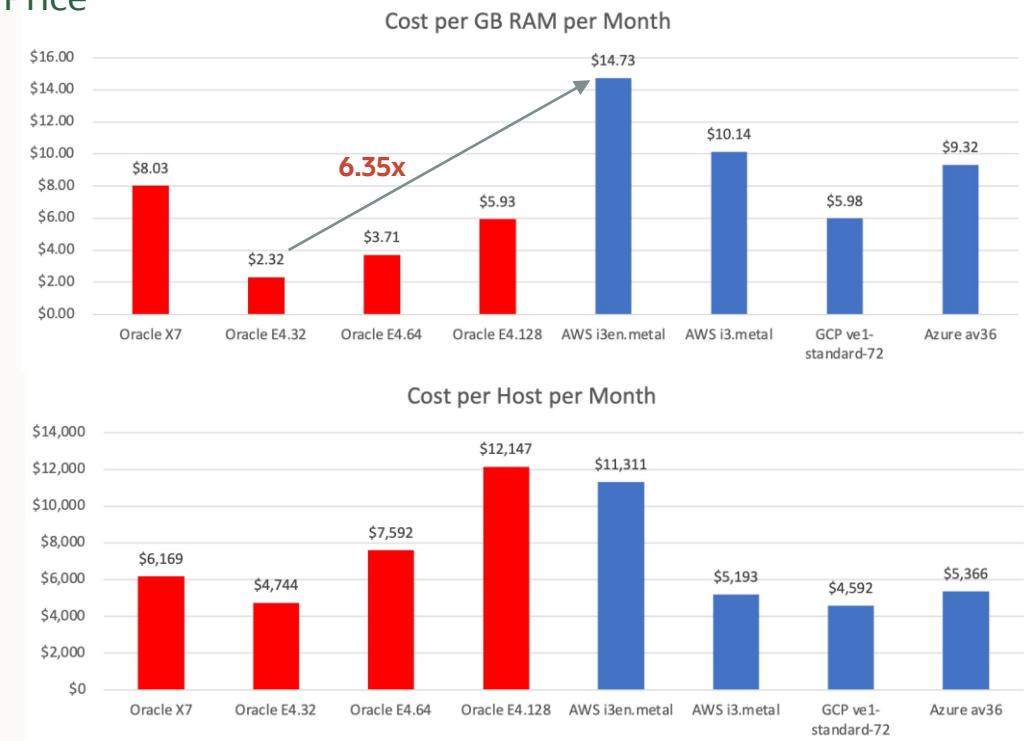


市場上最低成本

Lowest Cost per Core, per GB RAM, per TB Storage



1-Year Commit Price



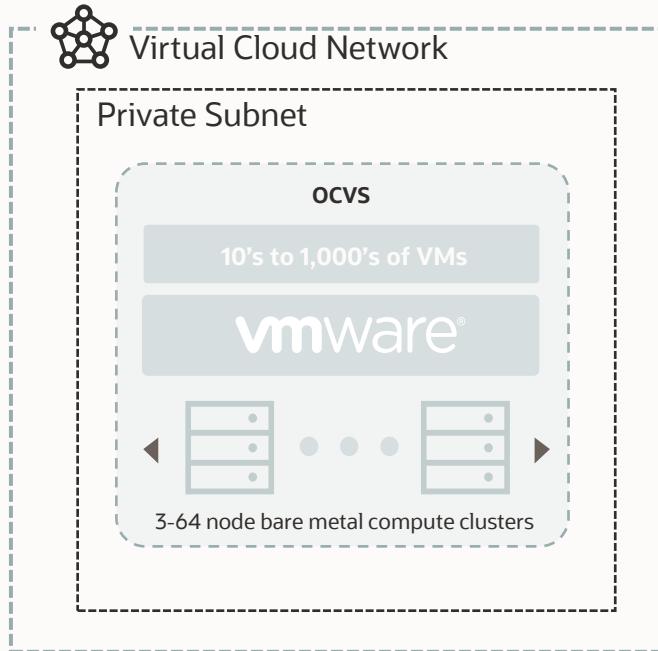
| | X7 | E4.32 | E4.64 | E4.128 | AWS | AWS | Google | Azure |
|-------------------|-------|-------|-------|--------|-------|-------|--------|-------|
| # of Core | 52 | 32 | 64 | 128 | 48 | 36 | 36 | 36 |
| Memory Size (GB) | 768 | 2,048 | 2,048 | 2,048 | 768 | 512 | 768 | 576 |
| Storage Size (TB) | 40.00 | 45.80 | 45.80 | 45.80 | 45.84 | 10.70 | 17.47 | 13.97 |

For illustration purposes based on published list price



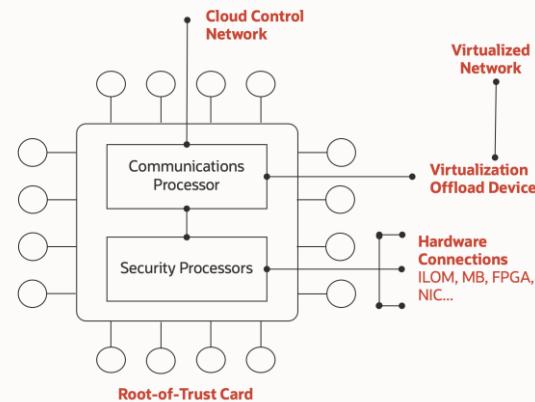
4: 強化的安全性

1 VMware Layer



- 您擁有 VMware 根訪問權限和密碼
- 您控制 VMware 軟體更新/版本
- 您可以通過 NSX-T 控制虛擬機之間的微分段和防火牆
- OCVS 部署在您的虛擬網絡中

2 OCI Layer

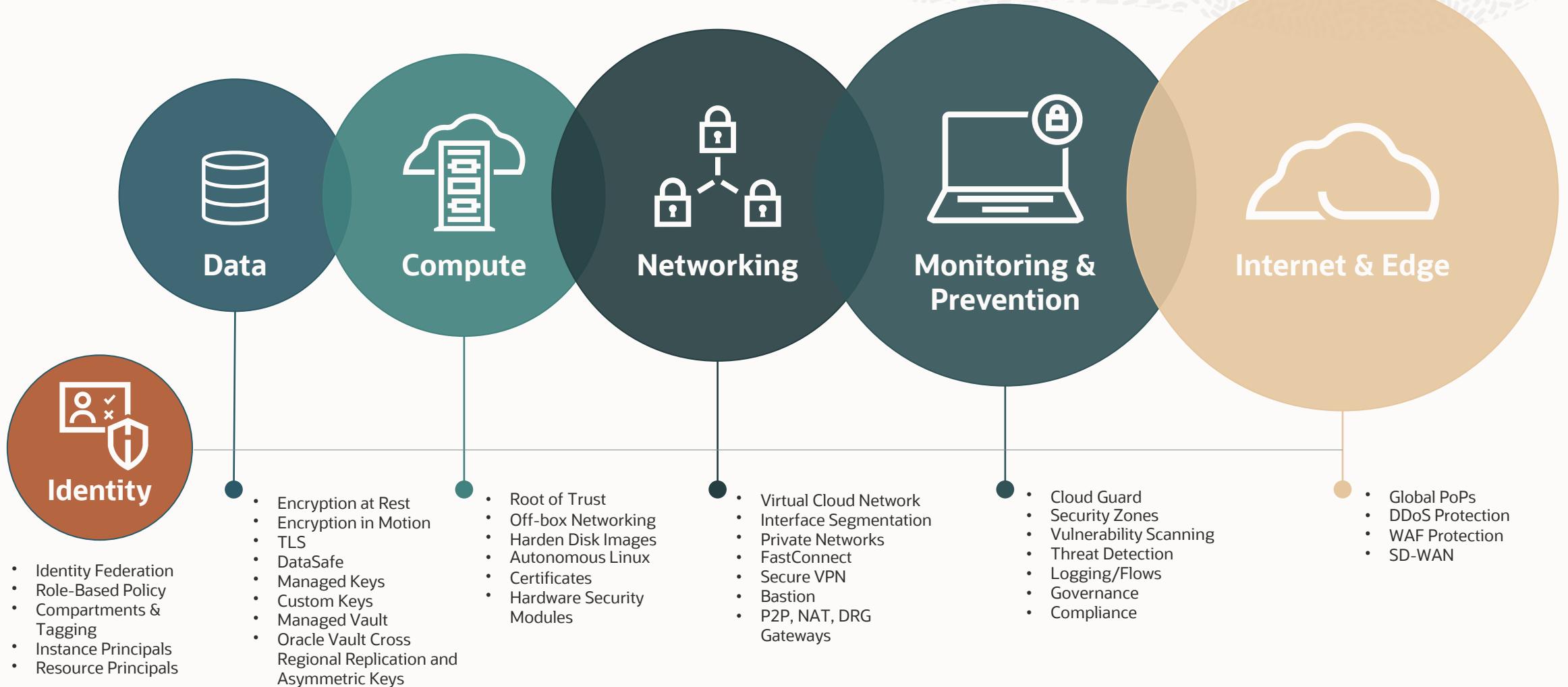


Hardware-based Root-of-Trust
每次為租戶或租戶之間配置新服務器時移除並重新安裝韌體，降低了基於韌體的攻擊的風險，例如 永久 DoS 或後門嵌入。

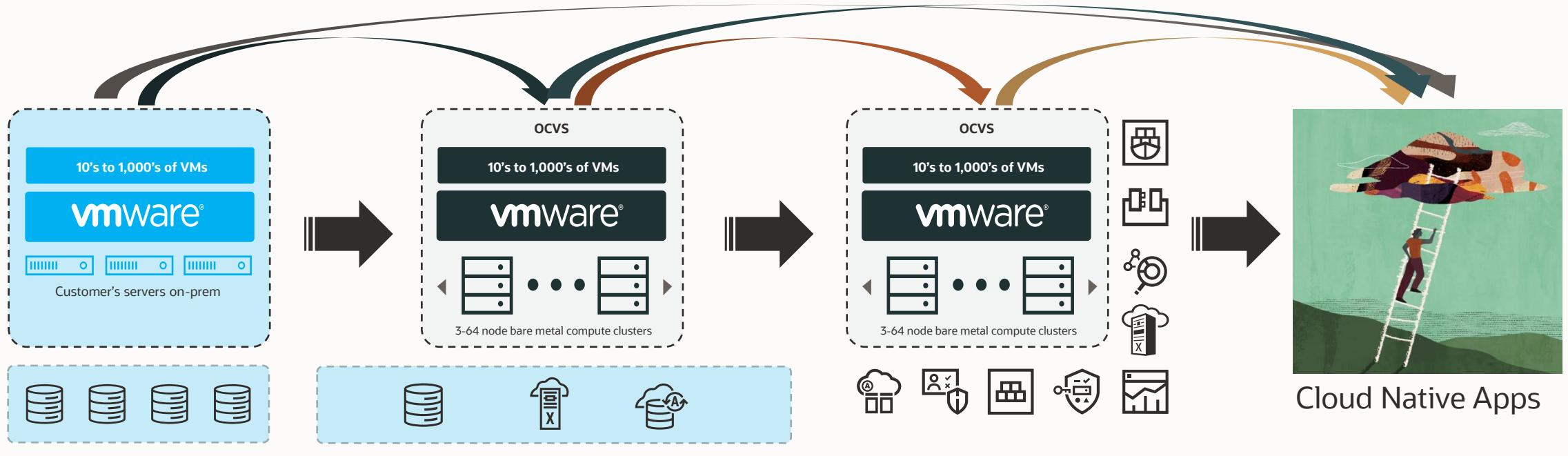
- **零信任架構.**將您的程式碼、資料和資源與 Oracle 的管理機器分開
- **客戶隔離.**隔離計算和網絡資源，以確保您的數據不受其他用戶的影響
- **從核心到端點的保護.**Oracle 擁有業界最廣泛的安全服務組合之一，涵蓋雲和自建解決方案，例如內置防火牆、DDoS、內部威脅檢測、高度自動化的威脅修復

4: 強化的安全性

從數據到端點的整合和自主化安全



5.以您自己的節奏更快地採用雲



階段一：

- 按原樣遷移和整體遷移 沒
- 有依賴問題，沒有延遲問題
- 通過雲彈性支持業務激增或擴展

階段二：

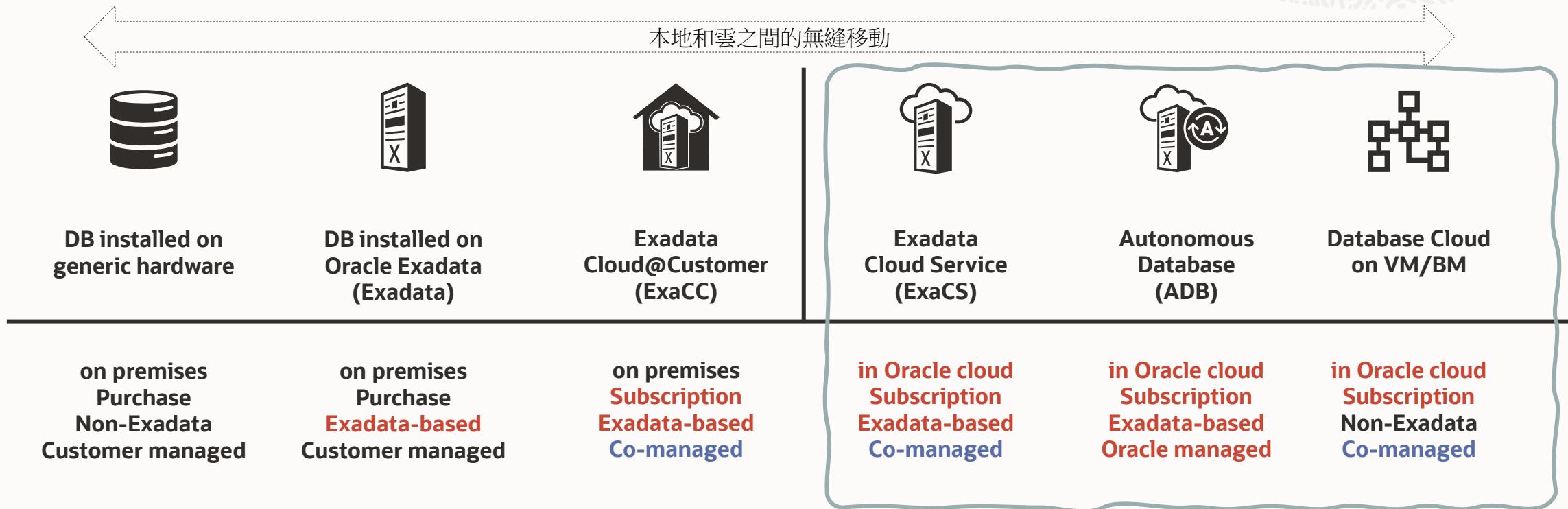
- 利用 80 多種 Oracle 雲服務和 SaaS 加速創新
- 通過 NSX-T 和虛擬機內的微分段增 強安全性

階段三：

- 輕鬆按您的節奏將您的系統轉換為 雲原生
- 向輕資產商業模式轉型

5:以您自己的節奏更快地採用雲

OCI - The Only Cloud Provides RAC & Exadata



Note:

- Co-Managed:** Oracle manages infrastructure and provide automation to simplify administration. Customer manages Database and Database server
- Oracle Managed:** Oracle manages Infrastructure, Database and Database server. Self-driving, self-repairing, self-securing
- More info: <https://www.oracle.com/database/cloud-services.html>

從您現有的系統和數據中獲得更多



多雲能力

Oracle Azure Interconnect

為您的所有工作負載啟用對兩種雲的低延遲網路

Portability

對 Terraform、Kafka、Docker 等開放標準的強大支持



內建的安全性

Cloud Guard

快速/持續監控和報告安全狀況，無需額外費用

Security Zones

使用您的所有應用系統輕鬆實施最大的基礎架構安全性



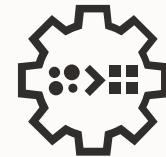
洞察力和可視化

Analytics Cloud

在雲中的所有應用系統中啟用對數據分析的自助服務

Observability and Management

所有層的可見性和快速洞察力



新應用的使用案例

Integration Cloud

遷移/構建集成到廣泛的 SaaS 和其他應用系統生態系統

API Gateway

為外部或內部客戶安全地服務和管理 API

內建的安全性

簡單且默認開啟

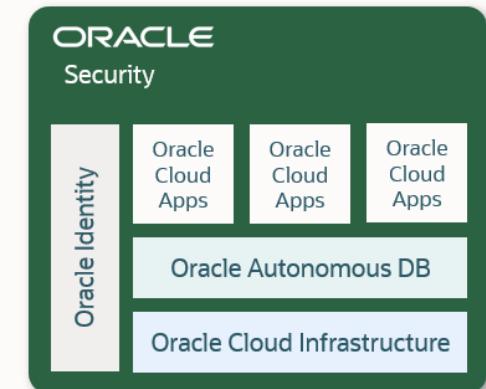
- **Autonomous DB:** 適用於所有數據工作負載的一種數據庫和安全狀態，具有始終在線的加密功能，可保護靜態和傳輸中的數據
- **OCI** 目的在內置安全性（例如加密、網絡隔離、硬體底層信任）

自主化 & 合規範的

- **Autonomous DB:** 自動保護敏感和受監管的數據，為安全漏洞上更新，並防止未經授權的訪問
- **OCI** 通過 **Security Zone** 和 **Cloud Guard** 配方實現規範的安全策略實施和補救
- 限定的身份角色，以最大限度地減少跨用戶的配置錯誤

整合各層級

- 跨 **IaaS**、**PaaS** 和 **SaaS** 構建一個身份解決方案
- **Oracle** 雲應用建立在 **OCI** 和自治數據庫之上，在應用級別提供額外的安全性



Oracle Observability & Management

完整的解決方案選擇，共同觀察和管理您的環境

雲原生平台 匯集所有遙測數據——跟蹤、指標、日誌——用於分析、可視化和建議

混合雲跟多雲的支持 –跨自有資料中心、
Oracle 雲和多雲

可擴展 –基於支持第三方技術收集的開放標準

完整層級的可視性 跨企業 - 單個組件，跨複雜的應用程序拓撲，直至 SQL

基於機器學習的演算法跟模型 消除噪音、檢測問題、確定根本原因並幫助確保可用性和性能



Oracle Integration

連接應用程序並自動化端到端業務流程



預建連結

| | |
|-----------------------|---------|
| Adapters | Recipes |
| Business Accelerators | RPA |

能力

| | |
|-----------------|--------------------|
| App Integration | B2B |
| Visual Builder | Process Automation |
| | Insight |

使用案例

| | |
|---------------------|----------------------------|
| Recruit to on-board | Publish to Social Channels |
| | IoT |
| Invoice-to-payment | Augmented Analytics |
| Order-to-invoice | Activity Creation |
| Guest Tracking | eCommerce Personalization |
| 360 Customer View | Engineered Selling |
| Mobile extension | Document Workflows |
| Digital Assistant | Approval Workflows |
| Blockchain | B2B Sales & Service |

彈性的部屬



Ground to Ground



Cloud to Ground



Cloud to Cloud

80+ OCI Cloud services

| | |
|-------------------|------------------|
| Runtime | File Server |
| Logging & Metrics | Data Integration |
| API Gateway | Functions |
| Streaming | Machine Learning |
| Identity & Access | |

1000s of cloud applications

| | |
|-----------|-----------------------|
| Cloud ERP | Database connectivity |
| Cloud HCM | Enterprise Messaging |
| Cloud SCM | Social Apps |
| Cloud CX | Productivity Apps |

100s of on-prem applications

| | |
|---------------------|--|
| Custom Applications | |
| SAP | |
| EBS | |
| SOA | |



按照自己的節奏提高速度和效率



提高效率

Autonomous services

使用 ML 自動化數據庫和 Linux 任務並提高營運效率

Infrastructure-as-Code

使用開放標準 Terraform 提高 DevOps 生產力



更佳的靈活度

DevOps

簡化您的軟體部署流程

Containers*

減少部署現代應用程序的時間和成本



更聰明的應用程式

Digital Assistant and AI services

通過預建服務增強用戶體驗並推動創新

Machine Learning

為數據科學家提供協作構建、管理和部署 ML 模型的服務



連動的商業流程

Oracle Cloud Apps

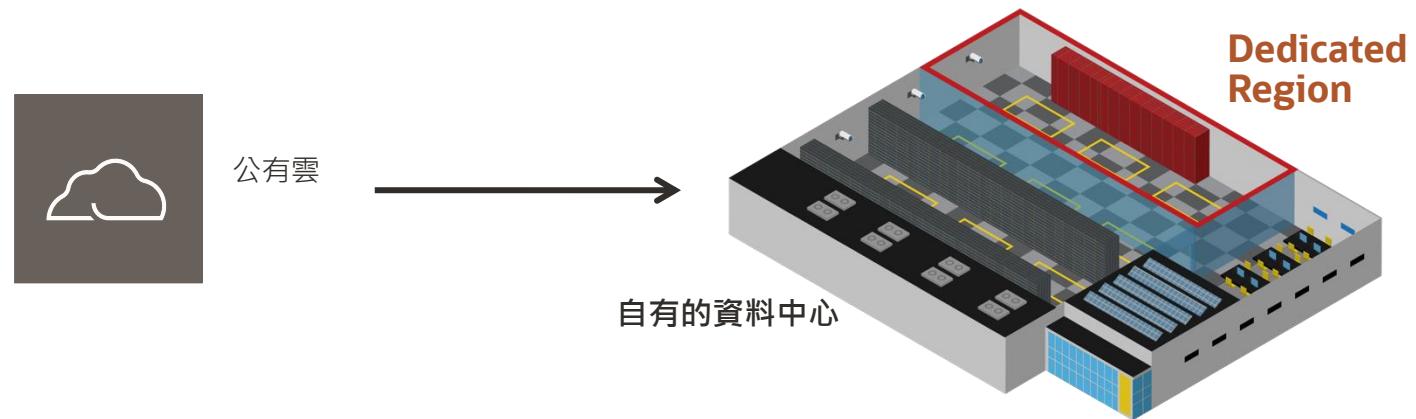
利用與您的打包應用程序整合的一套 Oracle SaaS 應用程序

Oracle Blockchain Platform Cloud Service

與多方共享不可變的可信數據

如果你能夠擁有...

... 雲端的使用經驗, 為你管理, 在你的資料中心專用



... 完整的彈性, 擴充性, 安全性, 跟公有雲一樣的計價模式



相同的公共雲服務
包括VMWare



從小開始, 快速啟用, 彈性擴充



使用雲端服務而不
是花時間建置跟整合



National Stock Exchange Selects Oracle Cloud to Support its DevTest

- National Stock Exchange of India is the world's largest derivatives Exchange, accounts for 21% of the global derivatives market (contracts traded), and the largest exchange of India.
- Continuing NSE's reputation for technology-driven enterprise, NSE has selected Oracle Cloud Infrastructure, including Oracle Exadata Cloud Service and Oracle Cloud VMware Service, to support test and development for their critical trade clearing and settlement application.
- Once successful, the company expects to further expand the instances for test and development of all critical applications at NSE.



"Oracle Cloud VMware Solution takes just a matter of hours to move workloads into the cloud as we need them while keeping the full security credentials intact. Overall, we have seen a 55% lower annual TCO, paving the way for us to move additional VMware workloads in the future."

Minn Wint Oo

Deputy Managing Director and Chief Technology Officer, AYA Bank

AYA Bank Improves Efficiency and Cuts TCO 55% with OCVS

- The second largest private bank in Myanmar, with more than 3.2 million customers and 265 branches.
- The bank difficulty keeping pace with the banking sector's constant digital transformation due to its massive, costly, and hard to scale on-premises IT landscape.
- AYA Bank selected OCVS because the platform could function as an extension of the bank's on-premises environment. It allows the bank to move workload faster and offer the bank root privileges, a critical requirement that only Oracle would meet.
- Using OCVS instead of scaling legacy on-premises infrastructure has reduced AYA bank's TCO by 55%. The bank can maintain continuity with existing tools, processes, and policies while enjoying the ease of management, scalability, security and full admin rights.

Success Story: <https://www.oracle.com/customers/aya-bank/>





Oracle Cloud VMware Solution has allowed us to strengthen our business continuity and disaster recovery workflow, while building more capacity and scaling on demand.

Louis Mah
Director of Information Technology, Maxim's Group

Maxim's Chooses OCVS to Protect their Critical Systems from Disaster

- One of Asia's largest food, beverage and restaurant chains, Maxim's Group operates more than 1,800 outlets. It is one of the best-known providers of mooncakes.
- With the rapid digitization of its business in response to COVID-19 and ongoing geographic expansion, Maxim's looked to leverage the cloud to strengthen its agility and capacity to respond rapidly to risks.
- Maxim's chose Oracle because of security and scalability of OCVS.
- Maxim's automated its DR workflow, reduced RTO to ~5 minutes, and created a hybrid-cloud model for the company to 'burst' to gain 100% production-capacity support, as the need arises.
- Maxim's found that an on-premises system was 65% more expensive than OCVS and a 3-year commitment with other VMware Cloud was 114% more expensive.

Success Story: <https://www.oracle.com/customers/maxims/>

Press Release: <https://www.oracle.com/vn/news/announcement/maxims-group-enhances-business-continuity-and-customer-service-with-oci-2021-10-18/>

Video: https://videohub.oracle.com/media/Customer+SpotlightA+Maxim%27s+Caterers+Limited/1_lb6j8us5





We knew relying on our on-premises systems had a shelf-life, but we couldn't risk lengthy downtime or rearchitecting our platforms to make the switch to cloud. Oracle Cloud VMware Solution has helped us remove these challenges and support our clients in delivering unmatched customer experience, while also scaling as our business expands.

Steve Challans
CISO, Prophecy International

Prophecy International Sees Bright Future with Oracle and VMware

- A global cybersecurity and business intelligence software provider, has migrated its entire VMware environment to the cloud using Oracle Cloud VMware Solution, eliminating the need to re-write applications..
- Leveraging the Oracle Cloud VMware Solution, Prophecy can now, in a few clicks, rapidly transpose its entire VMware estate to the cloud without any changes to established practices allowing the company to continue using its familiar VMware tools.
- In addition to providing increased scalability, and reduced operations costs from decommissioning its data centre, the solution has provided flexible on-demand disaster recovery, and seamless integration with out-of-the-box archival solutions. Overall, OCVS has improved Prophecy's backup speed and restore speed making them 10-12 times faster. It has also improved recovery time to 12 hours, minimising risk including data loss.

Press Release: <https://www.oracle.com/my/news/announcement/prophecy-international-bright-future-oracle-vmware-2022-05-13/>



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