Cloud flexibility AND on-premises control

VMware Cloud on Dell EMC

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Today Enterprise’s Multi-Cloud Reality

Application transformations

- Re-platform
- Re-factor
- Deploy hybrid
- Build cloud-native
- Replace with SaaS

Multiple Public Cloud
Private and Local Clouds
Distributed Edge Clouds

Build and run diverse applications in optimal cloud
Explosive Customer Momentum Behind Local Cloud Market

Proven customer outcomes...

- Protect sensitive customer information
- Deliver better service to front-line workers at the edge
- Address latency demands of life critical workloads
- Avoid costly and complex refactoring of applications

...for enterprise and edge workloads....

Advanced VDI | Data Center & App Modernization | Data Latency & Sovereignty

...across all industries

Government | Insurance | Healthcare | Finance
Local Cloud Market Grows at a Five-year CAGR 151.8%*

Local Cloud: the next BIG thing

Customers need cloud model on-premises

$7.6+ billion in revenue* by 2025

IDC refers to the Local Cloud market segment as “Dedicated Cloud Infrastructure as a Service”

What is Local Cloud? Cloud Flexibility and On-premises Control

**PRIVATE CLOUD**
- Customer on-premises or co-location
- Increased performance
- Controlled cost
- Mitigated risk

**PUBLIC CLOUD**
- Increased agility
- Simplified operations
- Accelerated innovation

Local Cloud: *the best of both worlds*
VMware’s Local Cloud Strategy

Consumption choice

Cloud service options

VMware Cloud™

Multi-cloud advantage

Infrastructure choice

Ecosystem flexibility

Freed from the burden of managing infrastructure

Customer outcomes

Accelerate application delivery

Control cost, risk and performance
VMware Current Offerings within the Local Cloud Market

- **VMware Cloud on Dell EMC**
  - VMware Managed
  - Available since August 2019

- **APEX Cloud Services with VMware Cloud**
  - Dell Managed
  - Generally available January 2022

- **VMware Cloud on AWS Outposts**
  - VMware Managed
  - Availability announced October 2021
Introducing VMware Cloud on Dell EMC

A proven and robust Local Cloud solution

**Fully managed:** infrastructure solution for compute, storage, and networking.

**Backed SLAs:** managed for tight security requirements, through automated patching and system maintenance.

**Self-service:** operated and controlled through VMware Cloud Console

**Subscription-based:** operated in a cloud model, delivering subscription financials and on-demand services.
Overview of the VMware Cloud on Dell EMC Service

Hardware
- Management Switch
- Network Switches
- Standby Host
- Capacity Expansion

Software
- vSphere, vSAN, NSX
- HCX
- Tanzu Services

Services
- Shipping
- Installation
- Lifecycle Management

Support
- Production Support for Cloud Services
- Four-Hour Onsite Break-Fix (Hosts)
- Proactive Monitoring

Branded Service
Jointly Operated

Freedom from Asset Ownership
Subscription Based Pricing
Choice of Payment Terms

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VMware managed SDDC:

Unifies containers, Kubernetes, and virtual machines

Automates the orchestration of advanced compute, storage, and networking resources

Provides life cycle management and consistent infrastructure and operations for multi-cloud

On-premises or colocation facility
Delivered as a Cloud Service

Service delivered and supported by VMware and Dell

Updates, upgrades and patches of the SDDC managed by VMware

Mature service operations and response teams in place to provide world-class experience
Free from the Burden of Managing Infrastructure

Order
Access via the VMware Cloud Console and step-by-step guidance on configuration options

Activate
Technician installs pre-loaded infrastructure at location. Customer activates the SDDC to go live

Consume
As-a-service to set-up VMs and containers; migrate workloads and expand capacity as required

Cloud simplicity with VMware Cloud on Dell EMC
Shift Infrastructure Cost from CapEx to OpEx

<table>
<thead>
<tr>
<th>1 Year Commitment</th>
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</thead>
<tbody>
<tr>
<td>• 1 Year term subscription commitment by customer</td>
</tr>
<tr>
<td>• Includes VMware Cloud managed SDDC and fully managed Dell EMC VxRail Infrastructure</td>
</tr>
<tr>
<td>• Pricing reflects a lower price than pilot, however, is more expensive than 3 Year Term</td>
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<tr>
<td>• Pricing reflects a ~33% discount over the shorter 1 Year term</td>
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Subscription choice for VMware Cloud on Dell EMC
VMware Cloud Console – Integrated Cloud Control Plane

- Easy access to and simplified ordering of the VMware Cloud on Dell EMC service
- Unified access to tools and workload services including Tanzu Kubernetes, HCX, and vRealize Suite
- Automated Life Cycle Management, Availability and Security
- Dashboard access to health, performance, and status information
- Request additional capacity as needed
<table>
<thead>
<tr>
<th>Host Type</th>
<th>G1s.small</th>
<th>M1s.medium</th>
<th>M1d.xSmall</th>
<th>M1d.medium</th>
<th>M1d.xLarge</th>
<th>X1d.xLarge</th>
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</thead>
<tbody>
<tr>
<td>VxRail Chassis</td>
<td>VxRail E560F 1U1N</td>
<td>VxRail E560F 1U1N</td>
<td>VxRail E560N 1U1N</td>
<td>VxRail E560F 1U1N</td>
<td>VxRail E560F 1U1N</td>
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<tr>
<td>CPU Sockets and Cores</td>
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<tr>
<td>vCPU</td>
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<td>56 (28 cores)</td>
<td>112 (56 cores)</td>
<td>112 (56 cores)</td>
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<td>2.2 GHz All Core Turbo</td>
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<tr>
<td>RAM</td>
<td>256 GB</td>
<td>384 GB</td>
<td>768 GB</td>
<td>768 GB</td>
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<td>1536 GB</td>
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<td>Cache Storage</td>
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<td>Primary Storage Capacity</td>
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<td>Networking</td>
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<td>2 x 25 Gb</td>
<td>2 x 25 Gb</td>
<td>2 x 25 Gb</td>
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</table>

**Single Socket**

**Dual Socket**

**Rack Specifications**
- Number of VxRail E560F Nodes: 3 → 12 or 26
- Power Requirements: 4 x 30amp single-phase, 2 x 60amp three-phase
- Power Source Location: Floor or ceiling
- Top of Rack Switches: 2 x 25GbE
- Secure Management: SD-WAN by VeloCloud - Edge (HA pair)

*Exact configurations are subject to ongoing refinements*
VMware Cloud Universal

- Easily convert infrastructure entitlements between on premises and public cloud.
- Subscription solution with OpEX financial treatment
- Credits can be deployed for Tanzu Standard

VMC on Dell is part of VMware Cloud Universal
Why Do Customers Need DRaaS?

Challenges with traditional DR Solutions

High Business Risk: No or minimal DR strategy often limited to Tier 1 apps

Complex Deployment: DR sites slow to deploy and DR planning process difficult

Costly Operations: Complex management strains IT budgets with dedicated resources
Disaster Recovery as a Service (DRaaS)
VMware Site Recovery (VSR) with VMware Cloud on Dell EMC

**Increased Reliability**
Get a high confidence, reliable DR solution and achieve the highest SLAs (RTO and RPO) for on-premise workloads

**Simplified Operations**
Subscribe to a fully managed DRaaS solution with built-in automation and non-disruptive testing

**Cloud Economics**
Reduce strain on IT budget and resources and benefit from an enterprise-ready, cloud-delivered disaster recovery service

Conduct DR operations using VMC on Dell EMC as a failover target or source site
Understanding VMware DRaaS Solutions
Utilize the Cloud for Unpredictable Disaster Events

**DRaaS Requirements**

- **Willingness to pay for better SLAs**
- **Low TCO**
- **Good RTO and RPO sufficient**
- **Best RTO and RPO required**

**VMware Cloud Disaster Recovery**
*On-demand DRaaS*

**VMware Site Recovery**
*Hot DRaaS*

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**VMware Cloud Disaster Recovery**
*On-demand DRaaS*

- **Replicate to cloud storage**
- **Instant power-on with Live Mount to VMC SDDC**
- **Low RPOs (30 min)**

**VMware Site Recovery**
*Hot DRaaS*

- **Consistent, familiar VMware environment**
- **DR orchestration: failover + failback**
- **Replicate directly to VMC failover capacity**
- **Fast RTOs w/ pre-provisioned failover capacity**
- **Lowest RPOs (<30 minutes)**

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Why Do Customers Need Multi-rack Support?

Customer needs to deploy large-scale workload that requires capacity beyond a single-rack

Customer needs to accommodate additional workloads being migrated to the Local Cloud model

Customer needs capacity expansion after initial order to address business and application growth
Add capacity at initial order or to a MR-aware single-rack in the future

Simply order via VMware Cloud Console, VMware will ship, deploy and activate

Specify instances and clusters within and across racks based on workload needs

Fully managed as a single SDDC

3X Scale for Enterprise Workloads

VDI, Database, Application Modernization
Why Do Customers Need Tanzu services?

VMware Cloud™ with Tanzu® services

Modernize your development environment and accelerate application delivery

Ease the burden of administering and managing containerize workloads

Deliver Kubernetes as-a-service quickly and easily to developer teams

Centrally manage all Kubernetes clusters across any cloud securely and efficiently
VMware Cloud™ with Tanzu® services on Dell EMC

Tanzu services for VMware Cloud on Dell EMC (included in subscription)
Easy path to enterprise-grade Kubernetes on a fully managed, multi-cloud ready IaaS and CaaS platform

- VMware Tanzu Kubernetes Grid
- Managed Kubernetes service

- VMware Tanzu Mission Control Essentials
- Multi-cloud Kubernetes Management plane

VMware Tanzu Standard  (upgrade purchase)
Provides an enterprise-grade Kubernetes runtime for multi-cloud deployment with a global control plane for consistent and secure management at scale.

Deploy and run Kubernetes multi-cloud
Operate all clusters consistently at scale
Enhance security and governance
Global and Vertical Regulatory Certification and Compliance

Certification for VMware Cloud on Dell EMC ensures compliance for:

the implementation, management, and maintenance for information security within an organization

The information security needs specific to various regions and industries
Local Cloud Use Cases

1. **Data/App Locality**: Data volume and low latency data processing driving cloud proximity.
2. **Data Sovereignty/Regulations**: Workloads with compliance and residency requirements.
3. **Data Center/App Modernization**: Applying company’s cloud-first strategy to on-premises workloads.
4. **Hybrid Cloud**: Consistent cloud experience on-prem with common control plane.
5. **Cloud Service Extension**: Access to native AWS Cloud services through VMC on AWS Outposts.
VMware Cloud on Dell EMC Customers

### Financial Services
- Cloud operating model
- Sensitive customer information
- Avoid licensing penalties

### Healthcare
- Deliver IT Services at the edge
- Centralized support model
- Fully managed IaaS solution

### Public Sector
- Infrastructure refresh
- Leverage existing skills & tools
- “Cloud First” policy

### Retail
- Upskilling IT staff
- Latency sensitive applications
- “Pay as you go” consumption
Customer 1 - State Government *

➢ A fully managed cloud solution on premises and a steppingstone to future cloud expansion

➢ Migrated their Microsoft SQL server workloads off their existing UCS infrastructure and onto VMware Cloud on Dell EMC

➢ Alleviated the need to manage infrastructure on-premises

➢ Avoided the cost and complexity of moving their Microsoft license to the Public Cloud

Motivated to get out of the business of managing infrastructure

* VMware customer who chooses to remain anonymous
Customer 2 - Financial Company*

Executive mandate to move to a public cloud operating model with minimal cost and risk

- Enabled moving their Microsoft VDI environments to a fully managed solution with a cloud procurement model
- Obtained the benefits of the public cloud operating model
- Maintained sensitive customer information on-premises
- Avoided Microsoft licensing cost in the public cloud

* VMware customer who chooses to remain anonymous
Customer 3 - Healthcare Company*

➢ VMware Cloud on Dell EMC enabled the shift to an Opex model and move their EMR to the cloud

➢ Moved away from the day-to-day management of physical infrastructure

➢ Addressed the need for latency-sensitive EMR workloads kept on-premises

➢ Alleviated the challenge of talent, budget, and time constraints

Needed a fully managed infrastructure capable of handling their Emergency Response Systems (EMR)

* VMware customer who chooses to remain anonymous
Customer 4 - Retail Company*

Desire to upskill internal IT talent to focus on business value generating tasks

- VMware Cloud on Dell EMC enabled the shift to a modern software defined cloud fully managed by VMware
- Preserved the locality of latency sensitive workloads to reside in close proximity to the mainframe
- Fast path to cloud migration with no disruption to the application
- TCO advantage over term, including egress and consolidation savings

* VMware customer who chooses to remain anonymous
Local Cloud Customer Outcomes

Freed from the burden of managing infrastructure

Accelerate application delivery

Maintain control over data and compliance
Advantages of VMC on Dell EMC

**Cloud Advantages**

- **Increased Agility**
  Self service provisioning and elasticity of resources

- **Simplified Operations**
  Offload management and automated version management

- **Accelerated Innovation**
  Increased developer velocity and access cloud services

**On Premises Advantages**

- **Mitigate Risks**
  Comply with data residency and regulatory requirements

- **Controlled Costs**
  Predictable cost model and resource transparency

- **Increased Performance**
  Low data latency and high-performance networking
The Local Cloud economics speak for themselves

25%
Average TCO savings

50%
Average licensing cost avoidance

UP TO 44%
Lower workload migration costs
Thank You