Detailed Walk Through of the VMware Cloud on Dell EMC Service

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Sr. Product Marketing Manager
Cloud Platform Business Unit, VMware
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The Key Role of On-Premises Infrastructure

Data Sovereignty
- Regulatory and privacy requirements
- Sensitive data located on-premises
- Custom security standards
- Need to prove compliance to auditors

Workload / Data Proximity
- Low data latency requirements
- Workloads with local data processing
- Data Center workloads tightly integrated with backend systems

Command and Control
- Keep control over critical workloads
- Leverage existing IT investments
- Maximize value of existing talent and processes
The Dell EMC and VMware Partnership

- VMware is the industry leader for compute, storage, and networking infrastructure software in the data center.

- VMware infrastructure runs over 25 Million workloads on Dell EMC solutions today.

- Dell EMC VxRail is the only fully integrated, pre-configured, and pre-tested VMware hyper-converged appliance on the market.

- Dell EMC Enterprise Class services enable an organization for end-to-end data protection and enterprise integration.
Cloud infrastructure delivered as a-service on-premises

Co-engineered and delivered by Dell Technologies; ongoing service fully managed by VMware

Built on VxRail – Dell EMC’s enterprise-grade cloud platform

VMware SDDC including compute, storage and networking

Intrinsic Security & Lifecycle Automation

Powered by VMware Cloud Foundation

VMware Cloud Console provides familiar workload provisioning tools and information dashboards

Monthly subscription model

VMware Cloud on Dell EMC

Customer Data Center Co-Location Partner Edge

VMware Cloud on Dell EMC

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How does VMware Cloud on Dell EMC work?
Cloud Consumption Model Delivered as-a-service

**HW + SW**
- VMware branded service
- Jointly operated with the HW partner
- VMware is the “single point of contact”

**Services**
- VMware takes first level support call from customer
- Operated by VMware cloud SREs
- Dell EMC supply chain
- HW +SW rack & Stack
- Shipping and on-site activation

**Support**
- VMware support
- Dell EMC support with 4-hour on-site break fix service

All inclusive Service - HW, SW, Support, and Managed Services

- VMware branded service
- Freedom from asset ownership
- Jointly operated with the HW partner
- Subscription based pricing
- VMware is the “single point of contact”
- Choice of payment terms
Advantages of VMware Cloud on Dell EMC

Cloud Advantages

- Increased Agility
  Self service provisioning and elasticity of resources

- Simplified Operations
  Offload management and automated version mgmt

- 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
Regional Expansion of Service

VMware Cloud on Dell EMC Expands Its Service to UK, Germany, and France
Simple Pricing Model: VMware Cloud on Dell EMC Subscription
Predictable Pricing - No Hidden Costs – No CapEx Expense

Node / Instance Cost Component

- Monthly Node base cost determined by type of Node and term: 1 or 3 years
- Node cost includes:
  - VxRail Node
  - VMware SDDC software for that node
  - Share of rack infrastructure cost
  - Share of fully managed support and service

Subscription Term Component

- 1-Year or 3-Year Subscription Terms
- 3-Year term commitment pricing generally is 33% less than 1-Year
- Monthly ‘Cloud-like’ Billing – Pay by credit card or invoice

White Glove Customer Experience

Monthly Node Cost \( \times \) Number of Nodes \( \times \) Subscription Term

12 (1 Year Subscription)
or
36 (3 Year Subscription)

Total monthly Subscription cost – includes:
- Infrastructure hardware
- SDDC Software and updates
- Security Updates
- 24x7 Fully managed service/support including required onsite visits
Global and Vertical Regulatory Certification / Compliance

- VMware Cloud on Dell EMC continues to expand its broad compliance certification portfolio with new releases.

- Certifications ensure compliance for the implementation, management, and maintenance for information security within an organization.

- Compliance certifications address information security needs specific to various regions and industries.
VMware Cloud Console

- Announcing VMware Cloud Console
- Provides single-pane of glass access to VMware Cloud on AWS and Dell EMC services
- Unified access to tools and workload services including Tanzu Kubernetes, HCX, and vRealize Suite
- Dashboard access to health, performance, and status information
- Allows scheduling of non-critical patches and updates as well as requests for additional capacity

For more information on VMware's Cloud Console: [http://vmc.vmware.com/home](http://vmc.vmware.com/home)
Key VMC on Dell EMC Use Cases

**Advanced VDI Workloads**
- Powerful Infrastructure for VDI
- Delivers Enterprise-class security
- Provides optimal workspace density

**Data center modernization**
- Streamlined operations
- Switch from CapEx to OpEx
- Hardware refresh

**Data latency and sovereignty**
- Low data latency requirements
- Data sovereignty requirements
- Data governance and security

**Application modernization**
- Development agility
- Kubernetes and modern applications
- Traditional application developments
What’s New In Our Latest Release

Updated Instance portfolio featuring increased CPU core counts and ConnectX-5 Network adapters increases workload scale.

New M1d.xSmall HW instance type ideal for cost-effective Microsoft VDI RDSH workload hosting applications
### VMware Cloud on Dell EMC Hardware Instance Types

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*Significant capacity storage needs can be addressed through VMware Partnership with Faction storage services.*
New M1d.xSmall Instance (Host) Type

New M1d.xSmall Workload and Storage Optimized Host Type:

- Ideal for Microsoft VDI RDSH workload environments
- Specs:
  - Dual Intel ‘Cascade Lake’ 28 core SP CPUs
  - 2.2 GHz All Core Turbo
  - 2 x 28 Core (112 vCPUs))
  - 768 GB RAM
  - 3.8 TB (Raw) SSD Storage
  - 1.6 TB SSD SAS Cache Storage
  - 2x 25 Gbps NIC
  - E560F 1U VxRail Chassis Form Factor
Where Should You Deploy VMware Cloud on Dell EMC?

Data Center

• Maintain on-premises security of data and proximity to users
• Avoid CapEx infrastructure investment
• Divert management cost to growth – VMware fully manages hardware

Edge

• Bring Enterprise-class compute power to the network edge.
• Allows data to be processed near where its generated or requested
• Fully managed nature of service avoids costly localized IT service / support.
VMware Cloud on Dell EMC – On Premises Data Centers
Refresh, Expand, Consolidate, Relocate

VMware Cloud on Dell EMC ideal for:

- **Refresh / Modernization**
  - Infrastructure built around Dell EMC VxRail
  - Delivered infrastructure is Hyper Converged
  - Latest Intel SP Processor technology
  - Shift from CapEx to Opex

- **Expansion**
  - Expand Data Center resources: No CapEx or additional management responsibility
  - Allows gradual expansion of nodes or slow refresh

- **Consolidation / Budget Reduction**
  - Migrate workloads to modern, OpEx expensed service

- **Relocation**
  - VMware is partnered with several leading Co-location providers – Deploy this service in a ‘CoLo’ facility that offers premium connectivity services
### Edge Use Cases

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<td>VMware Cloud on Dell EMC can be used in geographically diverse manufacturing environments that require compute-intensive needs.</td>
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<tr>
<td>Profession-diverse private practice offices with application compute and storage needs</td>
<td>In private practice offices, a proton beam treatment machine from GE can be used to demonstrate the application compute and storage needs.</td>
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<td>Healthcare facilities (hospitals, clinics) with patient-oriented compute / storage hungry application needs</td>
<td>In healthcare facilities, the development of a software application for a Philips AirWay can illustrate patient-oriented compute and storage needs.</td>
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<td>‘Brick and Mortar’ retail storefronts running product tracking and/or customer-oriented digital promotion or services applications</td>
<td>‘Brick and Mortar’ retail storefronts, such as a Walmart retail store, can use VMware Cloud on Dell EMC for product tracking and customer-oriented digital promotion or services applications.</td>
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VMware Cloud on Dell EMC – Manufacturing Edge
Providing Compute Power for Intelligent, Real-Time Factory Automation

VMware Cloud on Dell EMC: Ideal for Remote Factory Automation

- Compute power necessary to run next-generation Industrial automation
- Compute and storage to leverage IoT in the factory environment for instrumentation and/or production process tracking of assemblies
- Ability to make real-time manufacturing / process changes and decisions and track production
- Ability to optimize and automate supply chain process
- Fully managed, proactively monitored infrastructure including support and break-fix service
VMware Cloud on Dell EMC – Practice Offices
Provides Compute Power for Today’s Digitally-Rich Private Practices

VMware Cloud on Dell EMC: Power for Today’s Private Practices
• Private Dentistry, medical, legal, Counselling, Civil Engineering businesses
• Compute needs for billing, patient or customer records, record compliance, imaging, Engineering applications
• Often a franchise or chain business
• IT needs traditionally met by a third-party IT service and support provider - so accustomed to full IT support
• Typically running business-specific applications not seen in corporate IT.
VMware Cloud on Dell EMC – Healthcare

Ensuring *Always On* Health Care Access

**VMware Cloud on Dell EMC: Perfect for Healthcare Edge Compute**

- Power to allow application access patient records, imaging, telemetry from a single device anywhere and anytime
- Allows recording of patient telemetry records to meet regulatory or health organization policies and provide enhanced patient record depth.
- Allows use of IoT for tracking equipment, expendable patient medicals supplies, and simplifying supply chain and patient billing processes
- Ability for remote or satellite clinics continue to fully serve patients in the event communications link is lost
VMware Cloud on Dell EMC – Edge Compute for Big Box Retailers
Digitally Improving Customer Shopping Experience

VMware Cloud on Dell EMC: Ideal for Compute-Hungry Retailers

• Provides edge infrastructure as a fully managed service – eliminating need for 3rd party IT services
• Built on Enterprise-scale Dell EMC VxRail architecture
• Resources to host Inventory Tracking (IoT), supply chain control and other automated functions
• Provide the infrastructure to host a digitally rich, visually enhanced mobile-involved shopping experience for customers. This includes:
  • Store Navigation to locate products
  • On demand product availability, information, reviews, comparisons, automated warranty registration.
  • Digitalized product visual advertisement and promotions
  • Proximity sensed personalized shopper experiences
The VMware Cloud on Dell EMC Experience Walkthrough

Order  Deploy  Support
Three Easy Steps – #1: Ordering

Order  ➔  Deploy  ➔  Support
Ordering starts with the IT Architect accessing the VMware Cloud Console showing the different services supported – including VMware Cloud on Dell EMC.
After selecting VMware Cloud on Dell EMC – the IT Architect is presented an informative overview of this service and the major parts of this offering.
Next, The VMware Cloud Console shows the IT Architect the steps along the journey to ordering VMware Cloud on Dell EMC, providing guidance and education along this path.
The IT Architect now specifies the location of where they wish to locate the VMware Cloud on Dell EMC infrastructure rack.
The IT Architect is then prompted to select the rack and power configuration for the infrastructure.
Multiple Infrastructure Rack Options

R1 Rack
- Best suited for small satellite data center or edge applications.
- UPS included for locations that lack power backup or experience unreliable power.
- Compact: fits in small areas.

R2 Rack
- Best suited for Enterprise –scale deployments.
- Will accommodate up to 26 primary + 1 standby instances.
- PDU power inputs consistent with Enterprise data center power connectivity.

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Note: For the latest specifications and options – please see the VMware Cloud on Dell Data Sheet
Next, the IT Architect selects the instance type, number of instances, and cluster configuration.
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The Network Administrator can now configure the network requirements for the SDDC.
The IT Architect selects the subscription term (1 or 3 years) and confirms pre-requisite information entered.
Subscription Options for VMware Cloud on Dell EMC

1 Year and 3 Year Term Subscription Options

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<td>• 3 Year term subscription commitment by customer</td>
</tr>
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<td>• Includes VMware VCF software and fully managed Dell EMC VxRail Infrastructure</td>
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<td>• Pricing reflects a lower price than pilot, however, is more expensive than 3 Year Term</td>
<td>• Pricing reflects a ~33% discount over the shorter 1 Year term</td>
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Finally, the IT Architect reviews and confirms the order.
The IT Architect completes the order and receives an anticipated delivery date.
The IT Architect is informed that the order has been processed.
The IT Architect is informed that the equipment is shipped.
Three Easy Steps – #2: Deploy

Order  Deploy  Support
Service Infrastructure Build and Deployment Details

• After VMware Cloud on Dell EMC order is placed:
  • Customer Infrastructure is built in the Dell EMC Order Fulfillment Center
  • It is pre-loaded with VMware SDDC Software
  • Customer network configuration is pre-configured
  • System is run through a battery of tests and burnt in
  • System is packaged for delivery and shipped to customer site

• A Dell EMC Technician arrives on site to install Infrastructure
  • Rack is uncrated and moved into position
  • Power and networking connections are made
  • Testing of the network connections and system are completed
  • Infrastructure is formally handed off to customer and becomes ‘live’
  • VMware begins management of the infrastructure
  • Customer can begin migrating workloads to their new service infrastructure

There is no additional cost for deployment - Cost is included in subscription
A Dell Technician will install the Infrastructure, connect power and networking, and test the deployment before activating the service. Once live, the IT Architect is free to move workloads to the new, fully managed infrastructure.
Using the same familiar vSphere interface, the IT Architect can setup the needed VMs and Containers.
The IT Architect can now activate HCX, allowing migration of VM’s to the new service infrastructure.
Using HCX migration, the IT Architect can easily migrate workloads to the new service infrastructure.
Three Easy Steps – #3: Support

Order → Deploy → Support
Understanding the VMware Cloud Console

Current State

Multiple Control Planes

Compute | Storage | Networking

VMware Cloud Console
✓ VMware Managed
✓ Full Transparency of Operations
✓ Single Pane of Glass

Cloud Connectivity

Compute | Storage | Networking
When needed, the IT Architect can order additional instances.
The IT Architect selects how many additional instances are needed and how they will be applied to the clusters.

<table>
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<th>Metric</th>
<th>Current</th>
<th>To be</th>
<th>New Total</th>
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<tbody>
<tr>
<td>Hosts</td>
<td>11</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>CPU</td>
<td>628</td>
<td>528</td>
<td>1,156</td>
</tr>
<tr>
<td>Memory</td>
<td>22,114 GB</td>
<td>33,772 GB</td>
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The VxRail PE-A09-037G-0017-1 Order additional hosts interface allows the IT Architect to specify the number of additional hosts and their configuration. The interface shows the current configuration and allows for the selection of new total hosts, CPU, and Memory for the additional hosts.
The IT Architect confirm order of additional instances. These instances are installed onsite by a Dell Technician in about a week.
Leveraging the VMware Cloud Console - the IT Architect can observe the health of the system at any point.
The IT Architect can also check the status of service tickets being worked on by VMware managed services.
The IT Architect can access the maintenance and update page – showing information on updates and patches requiring deployment and is able to schedule these actions as to not interfere with critical periods.
Learn more about VMware Cloud on Dell EMC

Additional Resources are available

- VMware.com Product Page: [Here](#)
- VMware Cloud on Dell EMC Overview Video: [Video](#)
- VMware Cloud on Dell EMC Solution Brief: [Brief](#)
- VMware Cloud on Dell EMC Overview Deck: [Deck](#)
Thank You