The Second Generation of Data Center as a Service

VMware Cloud on Dell EMC

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Modern Business will run on Modern Applications
Application Strategy Defines Infrastructure Strategy

**Modern Apps**
- Time to market
- Innovation
- Scale
- Differentiation

- Refactor
- Develop for Cloud
- Replace

**Existing Apps**
- Reduce Costs
- Security
- Reliability
- Control

- Maintain
- Replatform
- Hybrid Apps
Point Cloud Tools and Silos
Impact Agility and Economics
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
VMware Cloud on Dell EMC

Delivering the Cloud Model to the Data Center

- Fully managed infrastructure solution for compute, storage, and networking.
- Managed for tight security requirements, through automated patching and system maintenance.
- Operated and controlled through a hybrid Cloud Control Plane.
- Operated in a cloud model, delivering subscription financials and on-demand services.
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
Introducing VMware Cloud on Dell EMC

VMware Cloud

Powered by VMware Cloud Foundation

- Automation & Operations
  - Compute
  - Storage
  - Network

Intrinsic Security & Lifecycle Automation

Dell EMC VxRail Appliance

VMs
Containers

Customer Data Center

- Cloud infrastructure delivered as-a-service on-premises
- Co-engineered and delivered by Dell Technologies; ongoing service fully managed by VMware
- VMware SDDC including compute, storage and networking
- Built on VxRail – Dell EMC’s enterprise-grade cloud platform
- Hybrid control plane to provision and monitor resources
- Monthly subscription model
How does VMware Cloud on Dell EMC work?

Cloud Consumption Model Delivered as-a-service

**HW + SW**
- VMware branded service
- VMware takes first level support call from customer
- Operated by VMware cloud SREs

**Services**
- VMware support
- 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
- Jointly operated with the HW partner
- VMware is the “single point of contact”
- Freedom from asset ownership
- Subscription based pricing
- Choice of payment terms
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**
- Low data latency requirements
- Data sovereignty requirements
- Data governance and security

**Data latency and sovereignty**
- Streamlined operations
- Switch from CapEx to OpEx
- Hardware refresh

**Application modernization**
- Development agility
- Kubernetes and modern applications
- Traditional application developments
Optimized for Advanced and Distributed VDI Workloads

- Delivers powerful infrastructure for virtual desktops and applications to power remote workspaces.
- Certified support for VMware Horizon to deliver enterprise class security and compliance with organizational requirements.
- High performance for strong workspace density and end user experience for the most demanding applications.

- Secure On-Premises VDI
- 100% Certified Horizon Support
- Enterprise Class
What’s New In Our Latest Release

Regulatory compliance and certifications for greater confidence

New HW node for increased capacity to grow and scale with your needs

Increased node counts allowing greater workload capacity per rack

Multiple clusters supported in a single rack to grow as your organizations does

HCX based workload migration support to seamlessly move your data
Global and Vertical Regulatory Compliance and Certifications

- VMware Cloud on Dell EMC offers broad compliance certification and regulation adherence supporting global and vertical industries

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

- Compliance certifications and address information security needs specific to various regions and industries
## Increased Capacity and Performance

<table>
<thead>
<tr>
<th>Instance type</th>
<th>G1s.small</th>
<th>M1s.medium</th>
<th>M1d.medium</th>
<th>X1d.xLarge</th>
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<tbody>
<tr>
<td>Chassis Form Factor</td>
<td>VxRail E560F 1U</td>
<td>VxRail E560F 1U</td>
<td>VxRail E560N 1U</td>
<td>VxRail E560F 1U</td>
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<tr>
<td>CPU sockets and cores</td>
<td>1 x 24</td>
<td>1 x 24</td>
<td>2 x 24</td>
<td>2 x 24</td>
</tr>
<tr>
<td>vCPU</td>
<td>48 (24 Cores)</td>
<td>48 (24 Cores)</td>
<td>96 (48 Cores)</td>
<td>96 (48 Cores)</td>
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<tr>
<td>CPU frequency</td>
<td>3.1 GHz All Core Turbo</td>
<td>3.1 GHz All Core Turbo</td>
<td>3.1 GHz All Core Turbo</td>
<td>2.9 GHz All Core Turbo</td>
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<tr>
<td>RAM</td>
<td>256GB</td>
<td>384GB</td>
<td>768GB</td>
<td>1536GB</td>
</tr>
<tr>
<td>vSAN Disk Groups</td>
<td>1 (800GB SAS)</td>
<td>2 (800GB SAS)</td>
<td>2 (1.6TB NVMe)</td>
<td>2 (1.6TB NVMe)</td>
</tr>
<tr>
<td>All flash capacity storage</td>
<td>11.5TB (SATA)</td>
<td>23TB (SATA)</td>
<td>23TB (NVMe)</td>
<td>61TB (SATA)</td>
</tr>
<tr>
<td>Networking</td>
<td>2 x 10Gb</td>
<td>2 x 10Gb</td>
<td>2 x 25Gb</td>
<td>2 x 25Gb</td>
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</table>
Increased Node Counts and Density Per Rack

- Support for up to 24 nodes per rack*
- Provides enterprises ‘scale-up’ capacity in support of modern advanced workloads
- Increased capacity to run more workloads per square foot of data center space
- Increase adds additional scale and flexibility to clustering configurations
- Density on par with typical Enterprise rack server buildouts

* Support for up to 24 nodes per R2 rack when configured for Three-Phase power source
Multiple Cluster Support in a Single Rack

• Multiple cluster support allows customers to segment their instances to provide specific CPU / storage resources to each workload

• All segmented resources remain viewable in a single vCenter screen (‘single pane of glass’)  

• Allows up to 8 clusters in a single rack*

• Each cluster must contain a minimum of 3 nodes

• Customers can create new clusters simply by adding additional nodes or reassigning existing nodes to new clusters

* Support for up to 8 clusters – each with a minimum of 3 nodes. Maximum requires R2 rack with Three-Phase power
Comprehensive HCX-based Workload Migration Support

- VMware HCX support allows customers to flexibly move their workloads via the customer portal.
- Provides ability to move workloads to any able host – cold, warm, or hot/active.
- Provides continuity between apps/workloads running in two locations.
- Facilitates the migration of workloads from legacy infrastructure to VMware Cloud on Dell EMC.
VMware Cloud on Dell EMC Experience Walkthrough

Order ➔ Deploy ➔ Support
The IT Architect can add new VMware Cloud locations to their architecture.
The IT Architect can specify the location of where they want to provision the SDDC.
The IT Architect selects the rack configuration
The IT Architect selects the host type, Number of hosts, and cluster configuration.
The Network Administrator can configure the network requirements for the SDDC.
The IT Architect selects the Subscription term commitment and confirms pre-requisite information entered.
The IT Architect 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.
When needed, customer can add extra nodes.
Select how many of extra nodes needed and how they will be applied to the clusters.
## SDDC West #1: Order additional hosts

### 1. Hosts

<table>
<thead>
<tr>
<th>SDDC Location</th>
<th>525 West 5th St, San Diego CA, 74509</th>
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<tbody>
<tr>
<td>Contacts</td>
<td>John Smith</td>
</tr>
<tr>
<td></td>
<td>Project Lead</td>
</tr>
<tr>
<td></td>
<td><a href="mailto:jsmith@acme.com">jsmith@acme.com</a></td>
</tr>
<tr>
<td></td>
<td>+1 650-345-0988</td>
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<tr>
<td>Notes</td>
<td>None</td>
</tr>
<tr>
<td>Hardware</td>
<td></td>
</tr>
<tr>
<td>Host Instance Type</td>
<td>G1s.small</td>
</tr>
<tr>
<td>Number of hosts</td>
<td>2</td>
</tr>
<tr>
<td>Current capacity</td>
<td>72 cores, 576 GiB, 34.5 TiB</td>
</tr>
<tr>
<td>Capacity to be added</td>
<td>48 cores, 384 GiB, 23 TiB</td>
</tr>
<tr>
<td>New total capacity</td>
<td>120 cores, 960 GiB, 57.5 TiB</td>
</tr>
<tr>
<td>Term commitment</td>
<td></td>
</tr>
<tr>
<td>Term</td>
<td>3-Year term</td>
</tr>
<tr>
<td>Start date</td>
<td>approx. Dec 2019</td>
</tr>
<tr>
<td>End date</td>
<td>approx. Dec 2022</td>
</tr>
</tbody>
</table>

### 2. Review

Review your selections and order hosts

CONFIRM ORDER OF EXTRA NODES
VMware Cloud on Dell Experience Walkthrough

Order  Deploy  Support
The deployment technician arrives on site, installs the infrastructure rack, and turns the system over to the IT Architect.

The IT Architect receives the appliance and activates the system.
The deployment technician arrives on site, installs the infrastructure rack
The technician connects the rack to the network uplinks and checks the network configuration and then turns the rack over to the IT group.

Once Activated, the IT Architect has the ability to start deploying workloads.
Using the same familiar vSphere interface, the IT Architect can setup the needed VMs and Containers.
The IT Architect can now activate HCX, allowing them to migrate VM’s to the new service infrastructure.
Using HCX migration, the IT Architect can easily migrate workloads to the new service infrastructure.
VMware Cloud on Dell EMC Experience Walkthrough

Order  Deploy  Support
Leveraging the Hybrid Cloud Control Plane, the IT Architect can observe the health of the system.
Leveraging the Hybrid Cloud Control Plane, the IT Architect can see the status of tickets proactively being worked on by VMware managed services.
The IT Architect can easily see maintenance windows for the system to be updated and patched as to not interfere with critical periods.
Thank You