VMware Cloud on Dell EMC @Equinix
Partner Solution Guide

Ken Smith – Sr Product Marketing Manager
VMware Cloud on Dell EMC

March 2021
Agenda

Thank you for coming

- VMware Cloud on Dell EMC Overview
- Introduction to Equinix Services
- Compelling Events for Deployment
- Use Cases
- Conclusion - VMware + Equinix Better Together
VMware Cloud on Dell EMC

What is VMCDE?
The VMware Hybrid Cloud is Everywhere
Consistent infrastructure and operations anywhere

Same People, Processes, Tools
Key Reasons Customers Still Invest In On-Premises

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
A New Delivery Model for On-Premises

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.
Overview of the VMware Cloud on Dell EMC Service

Cloud Consumption Model Delivered as-a-service

<table>
<thead>
<tr>
<th>Hardware + Software</th>
<th>Services</th>
<th>Support</th>
</tr>
</thead>
</table>
| ![Diagram](image)   | VMware branded service  
  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  | 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 subscription payment terms
Understanding the Hybrid Cloud Control Plane

Current State

Multiple Control Planes

- Compute
- Storage
- Networking

Hybrid Cloud Control Plane

- VMware Managed
- Full Transparency of Operations
- Single Pane of Glass

Cloud Connectivity

Compute | Storage | Networking
Rack AVAILABLE and Ready to Consume
Pre-configured, racked, cabled and ready – Fully Managed Data Center as a Service

- Hyperconverged infrastructure: Compute and storage scale together
- Flexible sizing – Start with 3 or 4 nodes
- More than a vSphere Cluster
  - Redundant networking
    Top-of-rack switches
    VeloCloud SD-WAN
  - Dedicated OOB switch
  - Smart PDUs
- Ready to power on at Equinix
  - High Performance Connectivity to Clouds
  - Physical Data Center Five 9’s Availability / SLAs
  - Remote Smart Hands
## Hardware Tech Specs for VMware Cloud on Dell EMC

*Exact configurations are subject to ongoing refinements*

<table>
<thead>
<tr>
<th>Chassis Form Factor</th>
<th>G1s.small</th>
<th>M1s.medium</th>
<th>M1d.medium</th>
<th>X1d.xLarge</th>
<th>M1d.xLarge</th>
</tr>
</thead>
<tbody>
<tr>
<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>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CPU sockets and cores</th>
<th>G1s.small</th>
<th>M1s.medium</th>
<th>M1d.medium</th>
<th>X1d.xLarge</th>
<th>M1d.xLarge</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 x 24</td>
<td>1 x 24</td>
<td>2 x 24</td>
<td>2 x 24</td>
<td>2 x 28</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>vCPU</th>
<th>G1s.small</th>
<th>M1s.medium</th>
<th>M1d.medium</th>
<th>X1d.xLarge</th>
<th>M1d.xLarge</th>
</tr>
</thead>
<tbody>
<tr>
<td>48 (24 Cores)</td>
<td>48 (24 Cores)</td>
<td>96 (48 Cores)</td>
<td>96 (48 Cores)</td>
<td>112 (56 Cores)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CPU frequency</th>
<th>G1s.small</th>
<th>M1s.medium</th>
<th>M1d.medium</th>
<th>X1d.xLarge</th>
<th>M1d.xLarge</th>
</tr>
</thead>
<tbody>
<tr>
<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>
<td>2.2 GHz All Core Turbo</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RAM</th>
<th>G1s.small</th>
<th>M1s.medium</th>
<th>M1d.medium</th>
<th>X1d.xLarge</th>
<th>M1d.xLarge</th>
</tr>
</thead>
<tbody>
<tr>
<td>256GB</td>
<td>384GB</td>
<td>768GB</td>
<td>1536GB</td>
<td>768GB</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>vSAN Disk Groups</th>
<th>G1s.small</th>
<th>M1s.medium</th>
<th>M1d.medium</th>
<th>X1d.xLarge</th>
<th>M1d.xLarge</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (800GB SAS)</td>
<td>2 (800GB SAS)</td>
<td>2 (1.6TB NVMe)</td>
<td>2 (1.6TB NVMe)</td>
<td>2 (1.6TB NVMe)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>All flash capacity storage*</th>
<th>G1s.small</th>
<th>M1s.medium</th>
<th>M1d.medium</th>
<th>X1d.xLarge</th>
<th>M1d.xLarge</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.5TB (SATA)</td>
<td>23TB (SATA)</td>
<td>23TB (NVMe)</td>
<td>61TB (SATA)</td>
<td>61TB (SATA)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Networking</th>
<th>G1s.small</th>
<th>M1s.medium</th>
<th>M1d.medium</th>
<th>X1d.xLarge</th>
<th>M1d.xLarge</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 x 10Gb</td>
<td>2 x 10Gb</td>
<td>2 x 25Gb</td>
<td>2 x 25Gb</td>
<td>2 x 25Gb</td>
<td></td>
</tr>
</tbody>
</table>

### Rack Specifications

<table>
<thead>
<tr>
<th>Number of VxRail E560F Nodes</th>
<th>Rack R1 (24U)</th>
<th>Rack R2 (42U)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 → 5</td>
<td>3 → 12 or 26 (Req. 3 Phase power)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Power Requirements</th>
<th>Rack R1 (24U)</th>
<th>Rack R2 (42U)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 x 30 amp + UPS</td>
<td>4 x 30amp single-phase</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 x 60amp three-phase</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Power Source Location</th>
<th>Rack R1 (24U)</th>
<th>Rack R2 (42U)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Floor</td>
<td>Floor or ceiling</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Top of Rack Switches</th>
<th>Rack R1 (24U)</th>
<th>Rack R2 (42U)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 x 10GbE</td>
<td>2 x 25GbE</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Secure Management</th>
<th>Rack R1 (24U)</th>
<th>Rack R2 (42U)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SD-WAN by VeloCloud - Edge 620 (HA pair)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

R1 Rack
R2 Rack
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 transparancy
- **Increased Performance**
  Low data latency and high performance networking
VMware Cloud on Dell EMC – On Premises Data Centers
Refresh, Expand, Consolidate, Relocate

VMware Cloud on Dell EMC ideal for:

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

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

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

- **Infrastructure Relocation**
  - VMware is partnered with Equinix – Deploy this service in a ‘CoLo’ facility that offers premium connectivity services
VMware Cloud on Dell EMC

Introduction to Equinix Services
At Equinix, everything is within reach. Our global platform for digital business physically and virtually allows you to reach everywhere, interconnect everyone, interact together and integrate everything you need to power your digital future.

Reach everywhere
Deploy digital infrastructure anywhere you need to be

Interconnect everyone
Discover and reach anyone on demand, through one connection to the world

Integrate everything
Drive competitive advantage—activate your digital edge as a service

Interact together
Come together in ecosystems to find, share and deliver value
EQUINIX

What you get

- **1,800+ Networks**
- **675+ Content & Digital Media**
- **1,250+ Financial Services**
- **2,900+ Cloud and IT Services**
- **8,000+ Enterprises**
- **356,000 Interconnections**

**High performance LAN connections to ecosystems and clouds**

**Enforce consistent security and controls across all your clouds**

**High Performance workloads: <1ms to public cloud edge nodes**

**Leverage platform availability of 99.9999%**

**Reap cloud rewards: choose a more efficient path to increase business agility**

---

Data Center  | Equinix  | Branch Office  | Edge/IoT
The right platform helps you interconnect with everyone

Discover and reach anyone on demand, through one connection to the world

370,000+ Interconnections
15,300+ Gbps Internet Exchange peak average traffic
1,600+ Equinix Cloud Exchange Fabric™ customers

*Total interconnections include both physical cross connections and virtual connections.
The right platform helps you integrate everything

Drive competitive advantage – streamline the deployment of processing data, applications and security with Edge Services

Network Edge
Equinix SmartKey®
Digital strategy expertise
The right platform helps you interact in the world’s largest global ecosystem

Engage and collaborate with the world’s leading clouds, networks and service providers, and integrate top partners and services into your offering and organization

1,800+ Networks
1,250+ Financial Services
650+ Content & Digital Media

3,000+ Enterprises
2,900+ Cloud & IT Services
INDUSTRY-LEADING
99.9999%
GLOBAL UPTIME RECORD

PROTECTED BY
MULTIPLE LAYERS
OF PHYSICAL
SECURITY

LEED GOLD
CERTIFIED

MINIMUM OF
N+1 POWER
REDUNDANCY

8x
IBX DATA
CENTERS

PROTECTED
BY
MULTIPLE
LAYERS
OF PHYSICAL
SECURITY

LEED GOLD
CERTIFIED

MINIMUM OF
N+1 POWER
REDUNDANCY

8x
IBX DATA
CENTERS

PROTECTED
BY
MULTIPLE
LAYERS
OF PHYSICAL
SECURITY

LEED GOLD
CERTIFIED

MINIMUM OF
N+1 POWER
REDUNDANCY

8x
IBX DATA
CENTERS

PROTECTED
BY
MULTIPLE
LAYERS
OF PHYSICAL
SECURITY

LEED GOLD
CERTIFIED

MINIMUM OF
N+1 POWER
REDUNDANCY

8x
IBX DATA
CENTERS

PROTECTED
BY
MULTIPLE
LAYERS
OF PHYSICAL
SECURITY

LEED GOLD
CERTIFIED

MINIMUM OF
N+1 POWER
REDUNDANCY

8x
IBX DATA
CENTERS

PROTECTED
BY
MULTIPLE
LAYERS
OF PHYSICAL
SECURITY

LEED GOLD
CERTIFIED

MINIMUM OF
N+1 POWER
REDUNDANCY

8x
IBX DATA
CENTERS

PROTECTED
BY
MULTIPLE
LAYERS
OF PHYSICAL
SECURITY

LEED GOLD
CERTIFIED

MINIMUM OF
N+1 POWER
REDUNDANCY

8x
IBX DATA
CENTERS

PROTECTED
BY
MULTIPLE
LAYERS
OF PHYSICAL
SECURITY

LEED GOLD
CERTIFIED

MINIMUM OF
N+1 POWER
REDUNDANCY

8x
IBX DATA
CENTERS

PROTECTED
BY
MULTIPLE
LAYERS
OF PHYSICAL
SECURITY

LEED GOLD
CERTIFIED

MINIMUM OF
N+1 POWER
REDUNDANCY

8x
IBX DATA
CENTERS

PROTECTED
BY
MULTIPLE
LAYERS
OF PHYSICAL
SECURITY

LEED GOLD
CERTIFIED

MINIMUM OF
N+1 POWER
REDUNDANCY

8x
IBX DATA
CENTERS

PROTECTED
BY
MULTIPLE
LAYERS
OF PHYSICAL
SECURITY

LEED GOLD
CERTIFIED

MINIMUM OF
N+1 POWER
REDUNDANCY

8x
IBX DATA
CENTERS
Certifications to meet your compliance needs

Benefit from our commitment to the highest operating standards
We help customers lower emissions through embracing green technology

- HIPAA
  Health Insurance Portability and Accountability Act

- ISO 27001
  Information Security Management Systems

- NIST 800-53/FISMA
  Information Security Management Act (FISMA)

- PCI DSS
  PCI Data Security Standard Compliant

- SOC 1 Type II
  Financial Reporting Management

- SOC 2 Type II
  Trust Services Principles
Power your digital infrastructure with green energy

100% clean, renewable energy pledge

Clean and renewable power

$100 million+ investment

The fourth-largest user of renewable energy in the U.S.

EcoVadis Silver certification

For our full sustainability report visit: Sustainability.Equinix.com
Five Key Security Checkpoints at an Equinix Data Center

1: Security Lobby
Prior to entry, authorized access required.

2: Physical Check-in w/ Security
Identity must be verified with valid government-issued photo identification. Visitor access logs track name/date/time.

3: Mantrap Entry
Controls ingress/egress into IBX as one door will not open until the other closes. Managed by security personnel with the ability to activate lock down if needed.

4: IBX Colocation Area
Before entering, a visitor must have authorized access.

5: Cage or Cabinet
Authorized access is required before a visitor can enter the customer space (private cage or cabinet).
Accelerate your digital journey with experience, insight and scale

Equinix is your trusted advisor for digital transformation
VMware + Equinix

Compelling Events for Deployment
## VMware Cloud On-Premises Drivers

**Compelling events attracting customers to VMware Cloud on Dell EMC**

<table>
<thead>
<tr>
<th>Infrastructure Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Center</td>
<td>- Public Cloud Mandate Driven Outside IT Org.</td>
</tr>
<tr>
<td>Colocation Facility</td>
<td>- Application &amp; data center modernization</td>
</tr>
<tr>
<td>Branch Office</td>
<td>- Infrastructure Expansion / Consolidation</td>
</tr>
<tr>
<td>Edge/IoT</td>
<td>- Data Center Relocation / Consolidation</td>
</tr>
<tr>
<td></td>
<td>- VxRail as-a-Service for private cloud &amp; edge infrastructure</td>
</tr>
<tr>
<td></td>
<td>- Focus valuable IT resources on higher priority business applications</td>
</tr>
</tbody>
</table>

*Focus valuable IT resources on higher priority business applications.*
VMware + Equinix, Better Together

What Makes VMware Cloud on Dell EMC @Equinix the Perfect Solution for Your Business?
Better Together
Unique benefits that are not found with other offerings

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Availability SLAs + VMware uptime</td>
<td>Simplified, private, proximate, secure, high-performance direct connections to public clouds</td>
</tr>
<tr>
<td>Access to Network Fabric - 10Gbps uplinks</td>
<td>Enables digital and network transformation</td>
</tr>
<tr>
<td>Reduced cloud egress and metered charges</td>
<td>Scalable infrastructure: flexible for bandwidth, connections and providers</td>
</tr>
</tbody>
</table>

Enables digital and network transformation

Reduced cloud egress and metered charges

Scalable infrastructure: flexible for bandwidth, connections and providers
VMware Cloud on Dell EMC @ Equinix - Combined Benefits

VMware Cloud on Dell EMC

• Provides a fully managed physical infrastructure as a service to the data center or edge.
• Service offers a predictable monthly subscription bill - no upfront CapEx investment.
• Includes infrastructure, VMware SDDC software, and full lifecycle management, proactive monitor, and onsite remediation when needed for the term of contract.

Equinix: Secure, Resilient Hosting Environment

• Equinix IBX facility multi-layer physical access security and secured data center cage
• Equinix Exchange Cloud Fabric (ECX) ensures secure data center cage to cage or cage to external data center resilient connectivity.
• Facility cooled using multiple methods including chilled water pumps, external cooling towers, cold-aisle containment, and CRAC cage cooling units.
• Full Uninterruptible Power Supply (UPS) systems with N+1 redundancy levels or greater and backup generator systems capable of powering entire facility

Inclusive, fully managed infrastructure as a service hosted in Equinix's highly secure and resilient hosting facilities
Call to Action
Increase your comp through selling VMware Cloud on Dell EMC

Schedule a briefing or follow up call
Refer someone
Share brief with Potential Customers
Learn more about VMware Cloud on Dell EMC

Additional Resources are available

VMware Cloud on Dell EMC Resources
• VMware Cloud on Dell EMC Product Page
• VMware Cloud on Dell EMC Overview Deck
• VMware cloud on Dell EMC Service Data Sheet
• VMware Cloud on Dell EMC Solution Brief

Equinix Resources
• Equinix Data Center Services
• ‘Platform Equinix’ Solution Site
• Press Release – Equinix and VMware Cloud on Dell EMC
• Contact us for a free trial or more information!
• Email: VMConDellEMC@equinix.com