VMware Cloud on Dell EMC FAQs

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1   **What is VMware Cloud on Dell EMC?**

VMware Cloud on Dell EMC is a fully managed cloud service that allows provisioning, deployment, and ongoing operation of VMware SDDC and Dell EMC VxRail infrastructure at customer-owned sites. VMware Cloud on Dell EMC accommodates both traditional data center use cases and edge computing.

2   **When was VMware Cloud on Dell EMC announced?**

VMware initially announced Project Dimension for the Edge at VMworld 2018, organized at Las Vegas and Barcelona in August and November, respectively. The first version of this service for data center and edge locations, running on Dell EMC VxRail-based hardware was officially announced at Dell Technologies World in April 2019 under the new branding VMware Cloud on Dell EMC.

3   **Why should I use VMware Cloud on Dell EMC?**

The VMware Cloud on Dell EMC is a service for customers who want to do away with managing infrastructure so that they can dedicate their time to build, run, and support applications that help in innovation and growth of the organization. VMware Cloud on Dell EMC helps you reduce your operational complexities through acquiring the foundation based on consistent infrastructure and operations that accelerate innovation, enables a strong enterprise security model, and provides the architecture required to support modern applications and workloads.

4   **What is included with the VMware Cloud on Dell EMC service?**

VMware Cloud on Dell EMC is a fully managed VMware Cloud Service. This service includes online ordering, shipping, and installation of the hardware stack, virtual software infrastructure (VMware Cloud Foundation), monitoring, updates, software patching, life cycle management of the complete infrastructure, and break-fix services backed by enterprise-grade Service Level Agreements (SLAs).

5   **How is VMware Cloud on Dell EMC Different from other managed services solutions?**

VMware Cloud on Dell EMC is a cloud service managed by VMware in collaboration with Dell EMC.

- **Initial Deployment**: VMware provides a zero-touch provisioning experience by delivering an integrated appliance experience.

- **Patching and Upgrading:** Leveraging our experience with VMware Cloud on AWS, VMware takes care of all patching and upgrades, relieving customers from the tedious, time-consuming, and error-prone tasks.

- **Monitoring and Troubleshooting**: You no longer need to worry about infrastructure availability. The VMware support engineers working closely with our hardware partners monitor your virtual and physical infrastructure, and take proactive actions if any issues are detected, even dispatching a hardware service technician to your location when needed.

- **Infrastructure Technology**: VMware Cloud on Dell EMC delivers fully managed infrastructure racks featuring Hyper-Converged Dell VxRail servers and Dell top of rack (ToR) network switches. VeloCloud SD-WAN appliances can optionally be included.

6 **How does VMware Cloud on Dell EMC compare with other SDDC solutions such as VMware Cloud Foundation (VCF) on Dell EMC VxRail?**

With the addition of VMware Cloud on Dell EMC, VMware provides you the choice of architecting your infrastructure.

- VMware Cloud on Dell EMC is a fully managed on-premises infrastructure, delivered as a service. If you want to stay out of managing your physical and virtual infrastructure, VMware Cloud on Dell EMC brings the simplicity of the public cloud to your on-premises data center.

- VMware Cloud Foundation on Dell EMC VxRail delivers the simplest path to a VMware Hybrid Cloud allowing you to maintain flexibility of networking and topology. Cloud Foundation on VxRail delivers the simplest path to hybrid cloud with full stack integration that is future proof for next generation VMware cloud technologies. Full-stack integration means both HCI infrastructure layer and VMware cloud software stack life cycle with automated life cycle across the entire stack.

- VMware Validated Designs provides you with a step-by-step approach to building and operating a Software-Defined data center on VxRail HCI with comprehensive and extensively tested blueprints, while maintaining flexibility over topology and networking.

- You can certainly build your own software-defined data center by using the best of breed modern infrastructure, such as leading Dell EMC PowerEdge servers. But to make it even easier, vSAN Ready Nodes come pre-validated with VMware Validated Designs, optimized nodes ready to run vSphere and vSAN, but without an automated life-cycle management.

7 **What are the key benefits of VMware Cloud on Dell EMC?**

You can use VMware Cloud on Dell EMC to simplify operations in data center and edge locations.

- **Reduce operational complexity and costs**: VMware Cloud on Dell EMC simplifies your distributed and edge infrastructure. VMware delivers a fully managed offering, capable of handling everything from the initial deployment, to patching and upgrades, to monitoring and remediation, to providing a global view of all your infrastructure across data center and edge.

- **Consistent operations and infrastructure for data center and edge locations**: VMware Cloud on Dell EMC provides a simple, secure, and scalable infrastructure for your on-premises data center and edge locations. It uses the same VMware technology that powers VMware Cloud on AWS and VMware Cloud Foundation (VCF). With this consistent infrastructure, you can seamlessly move workloads according to business demands without having to think about replatforming. Consistent operations mean that you can access familiar tools such as VMware vCenter and VMware NSX Manager, allowing you to use existing skill sets and operational models across private cloud, public cloud, and edge locations.

- **Accelerate innovation**: The infrastructure provided by VMware Cloud on Dell EMC is completely managed by VMware, whether it is deployed in your data center or edge locations. This infrastructure is always on the latest SDDC version, giving you access to the latest capabilities of VMware product offerings. This empowers your administrators to focus on developing the best infrastructure for your business goals. This unique approach empowers you to focus on business innovation and differentiation, while VMware operates the entire infrastructure end-to-end.

- **Built-in Enterprise Security**: VMware Cloud on Dell EMC provides built-in security by design from the intrinsic security of the SDDC software to the resilient architecture of the hardware components. vSphere and vSAN provide encrypted data at rest and encrypted vMotion for secure data in flight. Security is further ensured through TPM 2.0 for key storage and code attestation. Communications by way of Hybrid Cloud Control Plane are also tunneled through the VeloCloud Edge, and the management network is isolated from the workload networks. Additional security is provided by the micro-segmentation capabilities offered by VMware NSX.

8 **How much does VMware Cloud on Dell EMC cost?**

For VMware Cloud on Dell EMC pricing and eligible discounts, work with the VMware Accounts team or contact the VMware Cloud on Dell EMC team at vmcondellemc@vmware.com.

9 **What are the subscription terms for VMware Cloud on Dell EMC?**

VMware Cloud on Dell EMC is available through one or three-year terms with respective pricing for each.

10 **Besides subscribing to the VMware Cloud on Dell EMC service, is there anything else I need to purchase or subscribe to?**

The cost of the service includes the infrastructure, VMware SDDC software, support on security updates and software patching, proactive monitoring, and break-fix service. VMware cloud on AWS does support add-on services such as data protection from certified partners. These add-on services are simple to subscribe and can be activated with the VMware Cloud on Dell EMC service.

11 **How long does it take to deliver the hardware after placing the order?**

The fully assembled rack is delivered on-premises within six weeks after you place the order.

12 **Where will the customer data reside?**

The customer data resides on-premises.

13 **What if a customer needs more capacity?**

The customer order additional capacity from the VMware Cloud on Dell EMC Portal.

14 **How can a capacity be right-sized?**

Currently, we cannot right-size the service, it is prescriptive.

15 **As a customer, what if I want to stop using the service?**

VMware arranges for the infrastructure to be removed from your (customer) premises.

16 **Which industries are best suited to take advantage of VMware Cloud on Dell EMC?**

Based on surveys, we see significant opportunities to support the infrastructure needs of the following industries:

- Energy: Oil and Gas Production, Clean Energy Monitoring
- Manufacturing: Process and discrete manufacturing
- Logistics/Warehouse Management: Shipping, Receiving, Inventory
- Transportation: Airports, Depots, Traffic, Automotive Systems
- Retail: Self-checkout, Modern in-Store Recommendations and Experiences

17 **How do I subscribe to VMware Cloud on Dell EMC?**

You can subscribe to the VMware Cloud on Dell EMC service through the Cloud Service Portal (CSP). The process is simple and captures all details needed to size and build your service infrastructure.

18 **How is VMware Cloud on Dell EMC paid for?**

You can pay for the service by using SPP tokens through an ELA process.

19   Is VMware Cloud on Dell EMC based on VMware Cloud Foundation (VCF)?

The on-premises infrastructure technologies of VMware Cloud on Dell EMC share many technologies with VMware Cloud Foundation, but the delivery model of these two offerings is different. VMware Cloud on Dell EMC is a fully managed cloud service, operated by VMware and leveraging certain technologies and operational processes that have made VMware Cloud on AWS a popular alternative to traditional on-premises data centers. VCF is an integrated VMware SDDC offering that is purchased and deployed on-premises by customers along with OEM partners. VCF includes automated lifecycle management capabilities that the customers can operate directly.

20   **What does it mean for VMware Cloud on Dell EMC to be a managed service?**

VMware Cloud on Dell EMC infrastructure does not require hands-on installation, configuration, and integration by skilled IT professionals. Instead, you can order compute capacity that is automatically configured and deployed to your locations. VMware Cloud on Dell EMC infrastructure includes secure wide-area connectivity, monitoring, and life cycle management.

21   **What is the expected workflow for VMware Cloud on Dell EMC deployments?**

New locations are provisioned in a self-service fashion from a web portal interface. Configuration and sizing of compute, storage, and networking is done online, and the hardware is delivered directly to a specified data center or edge location. A deployment engineer coordinates with the point of contact to arrange for physical delivery and connection to power and networks.

22   **Can infrastructure be expanded after the initial deployment?**

Yes, you can order additional capacity for an existing deployment. This can be done by increasing the number of hyperconverged nodes in a rack or by adding additional expansion racks.

23   **What are the requirements for a location to support VMware Cloud on Dell EMC?**

The primary requirements are similar to those for other IT infrastructure environments: Network connections, reliable power, and reasonable temperature. You can work with VMware during the ordering process to ensure that the selected site is compatible.

24   **Who has access to customer applications and data?**

As with any cloud environment, customers own and control data and applications running on VMware Cloud on Dell EMC infrastructure. Customers can specify where their data is permitted to flow and there is no requirement store any customer data in the cloud. Measures are taken to restrict unnecessary access by administrative personnel through policies, permissions, encryption, and other means.

25   **Do I have administrator access to the managed hosts?**

VMware Cloud on Dell EMC operates with a model similar to VMware Cloud on AWS. You can perform the administrative tasks required for workload management. Certain low-level configuration and management actions are restricted and only performed through the automation provided by VMware Cloud on Dell EMC.

26 **How will my operations team monitor apps that run on VMware Cloud on Dell EMC?**

VMware Cloud on Dell EMC is based on proven VMware SDDC technologies, so existing tools and operational best practices will still be applicable. The VMware Cloud on Dell EMC service includes dashboards to show the health and utilization of individual sites and higher-level aggregations.

27 **What is the user interface for VMware Cloud on Dell EMC infrastructure?**

VMware Cloud on Dell EMC workloads are managed through various interfaces depending on the use cases. One option is the new hybrid cloud console for general monitoring and certain virtual network configuration tasks. You can also use the nimble HTML5 vSphere Client or various VMware SDDC automation technologies, such as PowerCLI depending on workflow requirements and operational procedures.

28 **Does the vCenter Server for VMware Cloud on Dell EMC integrate with my other vCenter Servers?**

Yes, VMware Cloud on Dell EMC provides a Hybrid Linked Mode to integrate with other vCenter Servers.

29 **What storage will be provided with VMware Cloud on Dell EMC deployments?**

VMware Cloud on Dell EMC clusters are built on hyperconverged infrastructure powered by VMware vSAN storage technology.

30 **What applications are supported on VMware Cloud on Dell EMC infrastructure?**

Because VMware Cloud on Dell EMC is based on industry-leading VMware SDDC technology, it can be a platform for any application. You can deploy virtual machines, containers, and other vSphere-compatible workloads, such as Kubernetes applications.

31 **Can I migrate workloads between VMware Cloud on Dell EMC infrastructure and private data centers or public clouds?**

VMware Cloud on Dell EMC nodes are based on vSphere infrastructure, which is compatible with numerous private and public clouds, including VMware Cloud on AWS.

32 **Are workloads, VMs, containers, and data in transit protected from unauthorized access?**

VMware Cloud on Dell EMC offers data encryption though vSAN encryption, and data transfers are protected from snooping with industry-standard encryption technologies.

33 **Are VMware Cloud on Dell EMC nodes offered with specialized hardware components?**

Initially, hardware nodes comprise standard, performant compute, storage, and networking components. Hardware acceleration, such as GPU will be offered based on demand.

34 **What backup and recovery measures are part of the VMware Cloud on Dell EMC service?**

The VMware Cloud on Dell EMC service provides automatic backup of site configurations, that can be recovered. Backup of applications and data is the responsibility of the customer or application owner. Through the Partner Ready for VMware Cloud program, various popular data protection solutions can be used.

35 **Can I bring my own hardware to VMware Cloud on Dell EMC?**

VMware Cloud on Dell EMC is a fully managed cloud service that includes hardware and software.

36 **What version of vSphere does VMware Cloud on Dell EMC include?**

VMware Cloud on Dell EMC uses the "cloud releases" of the SDDC, the same as VMware Cloud on AWS, which is released on a regular cadence. Therefore, VMware Cloud on Dell EMC always uses the most recent version of vSphere and other SDDC technologies.

37 **As a customer, what control do I have over the update frequency?**

Because VMware handles the updates, you cannot determine whether updates happen, but you can specify the best time for your businesses to align with desired maintenance windows.

38 **How is VMware Cloud on Dell EMC managed?**

The infrastructure is managed by VMware Site Reliability Engineers (SREs). You can view the status of the infrastructure through the VMware Hybrid Cloud Control Plane, which shows your deployments, the status of each deployment, and any activities performed by VMware SREs to keep your deployments healthy. This is also where you will be informed when there are patches or updates that need to be deployed. You, as a customer, can always schedule these updates to meet the infrastructure needs. You can use vCenter to manage your VMs and associated virtual environment just as you do in existing on-premises environments.

39 **How often will the SDDC software be updated?**

VMware will patch and/or upgrade the SDDC software when new versions are made available. The customer's infrastructure and operations team are notified when a maintenance window needs to facilitate upgrades or patching. There will be an option to defer maintenance windows so that the production activities are not interrupted.

40 **How often will the hardware be refreshed?**

Hardware is typically refreshed at the end its practical lifespan, which is five years.

41 **Will there be a standby host in the rack for faster recovery or capacity expansion?**

Yes, the rack includes an additional host. Therefore, if you buy a 3-node deployment, it includes a fourth node for maintenance or break-fixes by the VMware Site Recovery Engineers (SREs). However, the standby host is not a part of your cluster.

42 Can vRealize be used as a cloud service add-on, or can a current vRealize installation be used?

There may be some network topology to work through, but it should not matter where the vRealize instance resides.

43 What physical network connections are required for a VMware Cloud on Dell EMC deployment?

There are two types of connections from the rack: one for management and one for customer workload networks. The management connections are 1 Gb fiber or copper interfaces and the workload networks are either 1 Gb or 10 Gb fiber links.

44 How does management traffic reach the VMware Cloud on Dell EMC infrastructure?

The management traffic is tunneled over a pair of VeloCloud SD-WAN devices that share a single IP address from an existing customer network. This IP address can be assigned statically or through DHCP and can be placed behind a NAT firewall. The IP must be allowed to connect to the Internet on ports TCP 443 and UDP 2426.

45 What networks does VMware Cloud on Dell EMC infrastructure use for management?

Within the rack, there are several management networks that provide the typical VMware SDDC capabilities such as ESXi management, vMotion, vSAN, and NSX-T. This is a /24 CIDR block and must be routable to networks in the data center if workload migration is desirable. There is also an out-of-band network for devices and the server management consoles (iDRAC). This is a /26 and does not need to be routable. In the cloud, there is also a dedicated private network for each organization that can service multiple VMware Cloud on Dell EMC sites. This is a /24 CIDR block and does not need to be routable.

46 Why should the subnets that customers allocate for management networks be routable?

To enable management capabilities such as Hybrid Linked Mode and workload migration, the network must be able to connect to other networks in the data center.

47 How does the VMware Cloud on Dell EMC infrastructure connect to the existing data center networks?

Each rack includes a dual top of rack (ToR) switches that are connected to the existing customer switches over single or dual 1 Gb or 10 Gb links. A layer 3 connection is enabled over these links with up to four point-to-point connections using ECMP to balance the traffic flow.

48 How do customers create new networks on the VMware Cloud on Dell EMC infrastructure?

As a customer, you can access the VMware Cloud on Dell EMC hybrid cloud control plane and use a designated interface to create and configure new NSX-T network segments.

49 What routing protocols are supported for workload networks on the infrastructure?

The initial release of VMware Cloud on Dell EMC supports static routes. Dynamic routing might be offered in future updates.

50 Where can I find more information?

For more information on VMware Cloud on Dell EMC, see http://www.vmware.com/go/vmc-on-dell-emc.