

VMware Cloud on Dell EMC

Frequently asked questions (Ver. D4)

TABLE OF CONTENTS

- 1 *Solution overview questions*
- 5 *Operations questions*
- 7 *Networking questions*
- 8 *Support questions*

Solution overview questions

What is VMware Cloud on Dell EMC?

VMware Cloud on Dell EMC combines the simplicity and agility of the public cloud with the enhanced security and control of on-premises infrastructure, delivered as-a-service. This fully managed VMware Cloud service provides a simple, secure, and scalable infrastructure for customer on-premises data center and edge locations. VMware's industry leading compute, storage, and networking software stack is integrated with Dell EMC VxRail hardware for a complete infrastructure solution. The unique approach of this service empowers customers to focus on business innovation and differentiation, while VMware operates the entire infrastructure end-to-end.

What infrastructure is included in VMware Cloud on Dell EMC?

VMware Cloud on Dell EMC's service includes all required infrastructure hardware including specific VxRail nodes, redundant Top of Rack (ToR) network switches, a dedicated management plane switch, redundant power distribution units (PDU), and a redundant pair of VeloCloud appliances used to provide the management connection to VMware's monitoring and service center.

The infrastructure comes pre-built in either a half-height rack or a full-height rack. The half-height rack (R1) supports from 3 to 5 nodes. The full-height rack (R2) supports from 3 up to 24 nodes.

The following diagram summarizes how the infrastructure rack is configured:

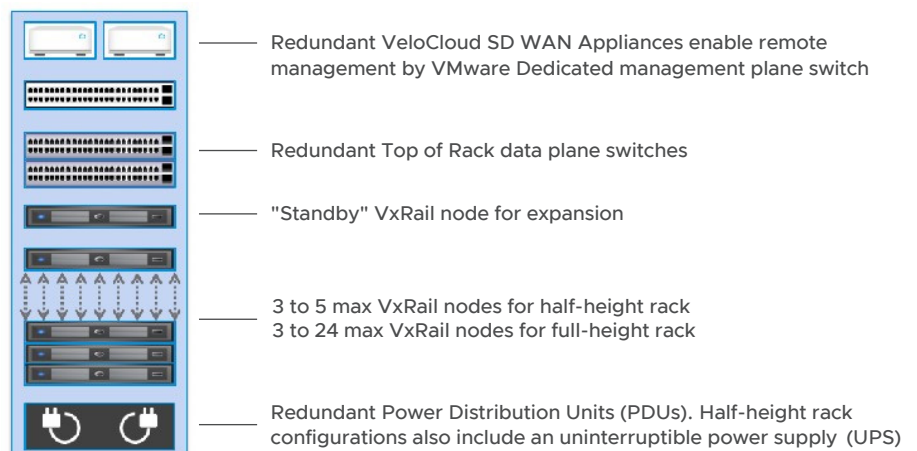


Figure 1. VMware Cloud on Dell EMC infrastructure rack

What is the node naming convention for VMware Cloud on Dell EMC?

VMware Cloud on Dell EMC have adopted a node naming convention consisting of several descriptive elements. The breakdown of the naming convention follows:

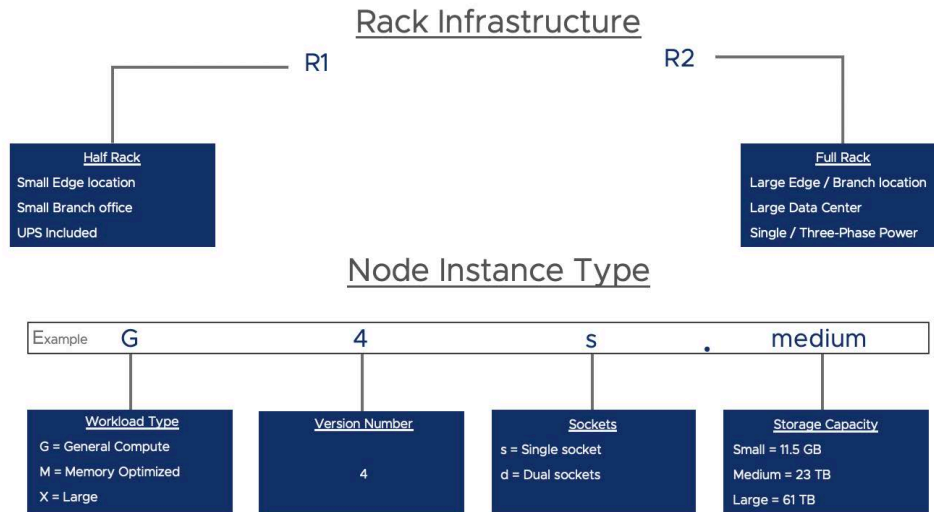


Figure 1. VMware Cloud on Dell EMC nomenclature

What Node types are available for VMware Cloud on Dell EMC?

The following table provides specifications for the currently supported node types:

Host Configuration	G1S.SMALL	M1S.MEDIUM	M1D.MEDIUM	X1D.XLARGE
VxRail Nodes	1U1N VxRail E560F	1U1N VxRail E560F	1U1N VxRail E560N	1U1N VxRail E560F
CPU Sockets	1 x 24 (3.1 GHz)	1 x 24 (3.1 GHz)	2 x 24 (3.1 GHz)	2 x 24 (2.9 GHz)
Physical / Virtual cores	24 / 48	24 / 48	48 / 96	48 / 96
Physical Memory	256 GB	384 GB	768 GB	1536 GB
Cache storage	800 GB SSD	1.6 TB SSD SAS	3.2 TB NVMe	3.2 TB NVMe
Primary storage	11.5 TB SSD	23 TB SSD	23 TB NVMe	61 TB SSD
Disk Groups	1	2	2	2
Power Supplies	Redundant x 750W 100-240v	Redundant x 750W 100-240v	Redundant x 1100W 200-240v	Redundant x 1100W 200-240v

[Datasheet](#)

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. In the future, we will offer a broader array of instance types that will offer larger amounts of storage and other attributes allowing optimized support for any modern workload.

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

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

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 specific hardware and software provided exclusively by VMware and its partner.

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

VMware Cloud on Dell EMC will be using the same “cloud releases” of the SDDC components 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.

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 GPUs may be considered for future releases.

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

VMware Cloud on Dell EMC subscription is available through a 1- or 3-year term commitment.

What is included in the subscription?

The cost of the service includes software defined infrastructure elements powered by VMware Cloud Foundation that are managed as a service by VMware. This includes VMware managed security updates and software patching, proactive monitoring and hardware break-fix service.

How do customers subscribe to VMware Cloud on Dell EMC?

Customers subscribe to VMware Cloud on Dell EMC through the VMware Cloud Service Portal (CSP). The CSP provides customers with a self-service journey where they learn more about the service, size the service infrastructure they need, and provide additional details about their environment that allows the infrastructure to be configured at the factory so that installation is simple and fast. Alternatively, customers can work with their VMware account team to order the service.

How is VMware Cloud on Dell EMC paid for?

The service is paid for using SPP or HPP credits.

Do customers need to pay separately for VMware vSphere, vSAN and NSX licenses once subscribed to VMware Cloud on Dell EMC?

No – The VMware Cloud on Dell EMC subscription includes VMware vSphere, vSAN and NSX software for the term of the subscription.

What if a customer decides to stop using the service?

VMware will arrange for the infrastructure to be picked up and removed from the customer’s site. VMware will go thru the standard decommissioning process where a VMware SRE will execute a remote wipe of the infrastructure and delete the data. Dell will coordinate a date with the customer to retrieve the hardware and after the hardware is removed a second stage NIST 800-88 secure wipe is performed and the hardware is recycled.

How long will it take to deliver the hardware once it has been ordered?

Once the service order is confirmed, it takes roughly 4-6 weeks to factory-build the customer's service infrastructure and dispatch the infrastructure with a deployment technician to the customer site for installation. There is no added charge for the on-site deployment of the service infrastructure.

What are the terms of service for VMware Cloud on Dell EMC?

For complete and detailed information on the terms of service for VMware Cloud on Dell EMC, please consult VMware's Cloud Service Offering Terms of Service document

Can capacity be expanded?

Customers can order additional nodes from the VMware Cloud Service Portal (CSP). VMware will schedule with the customer a time to send a service technician onsite to install the additional nodes

Can capacity be customized?

To ensure SLAs and a cost-effective solution the service it is prescriptive and not customizable by the customer. The service offers several predetermined capacity options that customers can select to best fit their requirements.

Where will the customer's data reside?

The customer's data will always reside on-premises and the customer will retain full control over their data and workloads.

What compliance certifications has VMware Cloud on Dell EMC achieved?

The service has achieved compliance certifications for SOC2 type-1, ISO27001, ISO27017, ISO 27018, CCPA, GDPR, and the Cloud Security Alliance (CSA) Star Security assessment. Go to [VMware Cloud Trust Center](#) to get the latest.

How is VMware Cloud on Dell EMC managed?

The infrastructure is operated and managed by VMware Site Reliability Engineers (SREs). Customers can view the status of the infrastructure via the VMware Hybrid Cloud Control Plane, which will show all of their deployments, the status of each deployment, and any activities that have been taken by VMware SREs to keep their deployments healthy. This is also where customers will be informed when there are patches or updates that need to be deployed. Customers will always have the ability to schedule these updates to meet their business needs.

How do customers access the platform?

Customers manage their overall service through the [Cloud Services Portal \(CSP\)](#), while daily customer management of their VM's and associated virtual environment can be done through vCenter, on-premise or SaaS. Customers can also view the status of the infrastructure via the VMware Cloud Services Portal (CSP), which will show all their deployments, the status of each deployment, and any actions the VMware SREs have taken to keep their deployments healthy. This is also where customers will be informed when there are patches or updates that need to be deployed. Customers have the ability to schedule these updates to meet their infrastructure needs.

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 will be notified when a maintenance window is needed to facilitate upgrades or patching. There will be an option to defer maintenance windows, so production activities are not interrupted.

How often will the hardware be refreshed?

Hardware typically will be refreshed at the end of the hardware's practical lifespan, which is 5 years.

Will there be extra "standby" capacity in the rack for faster recovery or capacity expansion?

Yes, an additional "standby" node offering additional compute and storage capacity will be included with the delivered infrastructure. This additional capacity can be enabled through a VMware service call.

Operations questions**Who is responsible for directory service integration?**

The customer performs the same Active Directory or LDAP integration for the VMware Cloud on Dell EMC service as they do for customer deployed vSphere environments.

Does the customer have full control of vCenter in VMware Cloud on Dell EMC?

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

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 refer to [VMware Cloud on Dell EMC documentation](#) for details.

How will a customer's operations team monitor applications and infrastructure 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 for application monitoring. The VMware Cloud on Dell EMC service includes dashboards to show the health and utilization of individual sites as well as higher-level aggregations.

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

VMware Cloud on Dell EMC workloads are managed through a variety of 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 a variety of VMware SDDC automation technologies, such as PowerCLI depending on workflow requirements and operational procedures.

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.

Does VMware Cloud on Dell EMC support multiple vSphere Clusters?

Yes. With multi-cluster support in VMware Cloud on Dell EMC customers can create up to 8 clusters in a rack with a minimum of 3 hosts in each cluster. In an R2 rack with single-phase power a customer can deploy up to 12 hosts with multi-cluster support. In an R2 rack with three-phase power a customer can deploy up to a maximum of 24 hosts which represents a dramatic increase in host and VM density over systems without multi-cluster support.

Does VMware Cloud on Dell EMC support multiple vSphere Clusters?

Yes. With multi-cluster support in VMware Cloud on Dell EMC customers can create up to 8 clusters in a rack with a minimum of 3 hosts in each cluster. In an R2 rack with single-phase power a customer can deploy up to 12 hosts with multi-cluster support. In an R2 rack with three-phase power a customer can deploy up to a maximum of 24 hosts which represents a dramatic increase in host and VM density over systems without multi-cluster support.

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 on behalf of a customer. Backup of applications and data is the responsibility of the customer or application owner. Through the Partner Ready for VMware Cloud program, a variety of popular data protection solutions are offered.

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

Because updates are handled by VMware, you cannot determine whether or not updates will happen, but you can specify the best times for your businesses to align with desired maintenance windows.

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 will be notified when a maintenance window is needed to facilitate upgrades or patching. There will be an option to defer maintenance windows so that the production activities are not interrupted.

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 customers run on vSphere today within the performance thresholds of the infrastructure. Customers can deploy virtual machines, containers, and other vSphere-compatible applications on the solution.

Are vRealize Suite products supported?

VMware has now certified key products of vRealize Suite to integrate with VMware Cloud on Dell EMC. This enables customers to combine VMware Cloud on Dell EMC with their existing on-premises or public cloud instances and gives customers a unified cloud management portal (single pane of glass) for managing all of their compute, network, and storage across cloud environments

Can a customer run virtual desktop infrastructure on VMware Cloud on Dell EMC?

Yes. VMware has certified VMware Horizon Desktop to run on VMware Cloud on Dell EMC. With this certification, customers can build out their Horizon Desktop deployments with VMware Cloud on Dell EMC as the underlying digital foundation for Virtual Desktop Infrastructure (VDI).

Can a customer run containers and Kubernetes on VMware Cloud on Dell EMC?

Yes. Customers can now deploy Kubernetes on-top of VMware Cloud on Dell EMC to orchestrate containerized microservices based applications with Tanzu Kubernetes Grid Plus. This allows customers to run an easy to deploy and conformant Kubernetes distribution that is built upon the open-source Kubernetes community.

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

Yes, customers have the flexibility to migrate workloads between VMware Cloud on Dell EMC and private data centers and public clouds. Options include the following:

- If L2VPN is configured, it is possible to perform zero-downtime live migrations with vMotion from existing infrastructure onto the new rack. This is critical for applications that cannot be easily re-addressed or cannot be disrupted until a later time period.
- Cold VM migrations, manual uploads of ISO images and VM templates are also possible and do not require a L2VPN.
- For large environments that require bulk migrations, customers can leverage HCX. HCX is VMware's automated workload migration platform. With this add-on service customers can now enable HCX Advanced with no additional cost or license. VMware automatically deploys HCX into the VMware Cloud on Dell EMC service. Once HCX is deployed and connected to a customer's existing environment they can leverage the advanced migration tools in the platform to move workloads between VMware Cloud on Dell EMC and their existing data center. In addition to the included licenses VMW provides end to end support for HCX to help customers resolve technical problems and answer questions.

Networking questions

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.

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.

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.

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.

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

Each rack includes 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.

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

Customers 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.

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

VMware Cloud on Dell EMC now supports eBGP (external border gateway protocol) for dynamic routing between the TORs and the customer's existing network. This replaces the static routing in earlier versions of the product. Dynamic routing with eBGP enables fast routing fail-over in the event of a TOR switch failure or upstream aggregation switch failure. Fail-over from one TOR switch to the other requires the underlay network to update its routing tables so that packets can route to the right destination bi-directionally. eBGP automates this between autonomous systems in a quick and efficient way without manual customer intervention.

Support questions

What support offerings are available?

SaaS Production Support is standard with VMware Cloud on Dell EMC and is included in the overall service cost. With VMware Cloud on Dell EMC, deployment and full management of the infrastructure is included in the cost of the subscription. There are no additional professional services to purchase.

What is the support model?

VMware product support will be provided by GSS Cloud Support Engineers (CSE) through the Cloud Services Portal (CSP). This includes both chat and support request filing via the CSP "In-Product Support Panel." Infrastructure support is managed by a team of Site Reliability Engineers.

What are the VMware end user terms and conditions for VMware Cloud on Dell EMC?

The general terms of service are provided at this link:

[VMware Cloud Service Offerings Terms of Service](#).

How do customers get support?

Customers are encouraged to manage all Cloud Services through the Cloud Services Portal (CSP), which includes a common In-Product Support Panel experience to engage support.

What is the customer support flow?

Org Owners or their delegates, will go directly to the Cloud Services Portal (CSP) to chat with support or file support issues.

When the customer engages the In-Product Support Panel in CSP, the customer will have the option to chat with a CSE member immediately or file an SR for callback. Chat engagement will be handled directly in the CSP portal, while SRs will be routed to GSS technical support via Salesforce. Should the case require platform assistance to resolve, the GSS team will raise a Jira ServiceDesk incident to engage the SRE team. While not preferred, exception processes are in place should a customer reach out directly to VMware or Dell EMC CS Teams (CSRs) for support. The VMware CSR team will file a case on behalf of the customer and let them know they can expect a call back from the CSE team. There is no phone queue. At Dell, the CSR team will instruct the customer that the solution is fully supported and operated by VMware. They will then provide instructions to engage VMware directly for support either via support.vmware.com or directly through the CSP. A similar reminder message will also be posted to Dell's support site, should a customer look up the product or service tag.

How are Site Reliability Engineers (SREs) different from Cloud Support Engineers (CSEs)?

The SRE is part of the VMware product organization and works in the background to manage the core platform, ensuring ultimate reliability. The SRE is responsible for monitoring, maintenance and life cycle management, while also working with Product Engineering directly for continuous improvement. For VMware Cloud on Dell EMC, the SRE Team is also interlocked with Dell EMC in the background to address any hardware issues from remote troubleshooting to on-site dispatch and repair.

A CSE is part of VMware Global Services (GSS) and is the primary customer engagement team. The CSE handles all incoming chat and support requests to assist customers in realizing their business needs and use-cases. CSE also works as a conduit between customers, SREs and other VMware core teams to resolve customer impacting issues.

How do customers get support? Customers are encouraged to manage all Cloud Services through the Cloud Services Portal (CSP), which includes a common In-Product Support Panel experience to engage support.

What happens to the service if the management network loses connectivity?

In the event the management network loses connectivity to the Internet the VMware SRE team will not have management visibility to the customer's environment during the outage. However, the on-premises VMC on Dell EMC infrastructure and workloads will continue to run, and the customer will retain access to vCenter. The SRE team will regain management oversight when the Internet connection to the VeloCloud switches is restored.