VMware Cloud Activation Advanced
For VMware Cloud on Dell EMC

Service overview
VMware Cloud Activation™ Advanced for VMware Cloud™ on Dell EMC Solution provides an expedites deployment of VMware HCX® product components, L2 stretching of network segments and successful migration of fifteen (15) virtual machine (VMs) from your on-premises environment to VMware Cloud on Dell EMC.

An important aspect of migrations is evaluating application dependencies to successfully plan of the activities; Using VMware vRealize® Network Insight Cloud™ we will enable Customer with insight into their virtual infrastructure network and to the virtual machine dependencies.

The analysis and methodology provided can be used by Customer to determine data flows into and out of applications and application groups as part of application migration, network troubleshooting or disaster recovery planning.

Finally, to ensure the Customer’s team is fully enabled, this service includes knowledge transfer sessions, an overview of the VMware application migration methodology, best practices, and Information resources.

The following activities are included in this service:
- Validation of requirements and review of your first VMware Cloud SDDC
- Virtual machines network dependencies analysis using vRealize Network Insight Cloud
- Deployment of HCX components and pairing with VMware Cloud on Dell EMC
- L2 stretching of one network segment
- Preparation of 3 routed network segments in VMware Cloud on Dell EMC
- The migration of up to (15) low-complexity virtual machines
- A VMware Migration Methodology knowledge transfer session

This service requires the following VMware on-premises and VMware SaaS products, with vendor-supported versions as agreed to by VMware and Customer at project kickoff, but limited to those that are in general availability (GA):

- VMware Cloud on Dell EMC
- VMware HCX (source requires VMware vSphere 6.0 or higher) (*)
- vRealize Network Insight Cloud (requires vSphere® 6.5 or higher) (*), (**) (*) Note 1: please check the VMware Requirements and Product interoperability matrix links in the Appendix
(**) Note 2: if Customer already has VMware vRealize Network Insight™ (4.x or higher) running in the source environment we will be able to leverage it if it matches the requirements.

AT A GLANCE
VMware Cloud Activation Advanced for VMware Cloud on Dell EMC accelerates migration to a modern VMware vSphere®-based infrastructure. This service includes a solution overview, connecting to your first SDDC, deployment and pairing of VMware HCX components, L2 extension of a network segment, virtual machine’s network dependencies mapping, and the successful migration of 15 low-complexity virtual machine.

KEY BENEFITS
- Quickly start your cloud journey
- Analyze Applications dependencies
- Expedite deployment of HCX
- L2 stretch of one network segment
- Creation of 3 routed network
- Successfully migrate 15 virtual machines
- Learn about workload migration best practices and methodology in a guided workshop

SKU
PS-VMC-D-ACT-ADV-C
Service Delivery Description
Service activities will be entirely delivered remotely by the VMware Professional Services. Due to the nature of some on-premises components and security aspects we require Customer to join virtual sessions and engage their infrastructure, network and security teams when appropriate to execute required actions (i.e., firewall port configurations or appliance deployments) under VMware Team supervision. The delivery team will also require validating the proper configurations and requirements are in place before proceeding with the remote installation.

Service Capabilities
This service provides the following:

• Review and finalize connectivity to your VMware Cloud on Dell EMC SDDC
• Enable of the application and workload mobility platform (HCX)
• Migration of VMs with no need to change IP or network topology

Project scope
The scope of the service is defined in the following tables.

**VMWARE SDDC IN VMWARE CLOUD ON DELL EMC**

<table>
<thead>
<tr>
<th>SPECIFICATION</th>
<th>PARAMETERS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>VMware Cloud on Dell EMC SDDC</td>
<td>Up to one (1) Cluster</td>
<td>Review connectivity and validation of requirements for the first existing SDDC of VMware Cloud on Dell EMC</td>
</tr>
<tr>
<td>Configure firewall Rules</td>
<td>Up to five (5)</td>
<td>Configure VMware on Dell EMC firewall rules</td>
</tr>
<tr>
<td>Network segments</td>
<td>Up to three (3)</td>
<td>We will configure up to 3 routed network segments</td>
</tr>
</tbody>
</table>

**VMWARE HCX**

<table>
<thead>
<tr>
<th>SPECIFICATION</th>
<th>PARAMETERS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>VMware Cloud on Dell EMC VMware vCenter Server® Instances</td>
<td>Up to one (1)</td>
<td>VMware Cloud on Dell EMC SDDC vCenter Server instance where to pair VMware HCX</td>
</tr>
<tr>
<td>On-Premises vCenter Server Instances</td>
<td>Up to one (1)</td>
<td>On-premises vCenter Server instance where to deploy VMware HCX for pairing</td>
</tr>
<tr>
<td>On-premises Layer 2 networks extended</td>
<td>Up to one (1)</td>
<td>On-premises Layer 2 networks to extend with VMware HCX</td>
</tr>
<tr>
<td>Additional VMware HCX Activities</td>
<td></td>
<td>Review of the source VMware HCX vCenter Server plug-in and standalone interfaces, the migration of one low-complexity virtual machine for validation.</td>
</tr>
</tbody>
</table>
### Workload Migration

<table>
<thead>
<tr>
<th>Specification</th>
<th>Parameters</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virtual Machines Included in Migration</td>
<td>Up to fifteen (15)</td>
<td>This is the total number of Virtual Machines in scope for this migration effort. These will be included into one (1) migration wave.</td>
</tr>
<tr>
<td>Configure Migration Waves</td>
<td>Up to one (1)</td>
<td>Configure workload migrations in HCX with proper resource selections for the target site. This includes monitoring and management of workload replication to ensure synchronization prior to the migration event.</td>
</tr>
<tr>
<td>Run Migration Waves</td>
<td>Up to one (1)</td>
<td>During the scheduled migration window, the VMware Consultant will operate the HCX console to ensure a secure and seamless migration process. This includes facilitating failback if necessary.</td>
</tr>
<tr>
<td>Additional Activities</td>
<td></td>
<td>Review of the exists list of workloads planned for migration to the new SDDC.</td>
</tr>
</tbody>
</table>

### VMware vRealize Network Insight Cloud

<table>
<thead>
<tr>
<th>Specification</th>
<th>Parameters</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VMware product required</td>
<td></td>
<td>Network Insight subscription through <a href="http://cloud.vmware.com">http://cloud.vmware.com</a>. Customer must provide access user account if Customer subscription is used.</td>
</tr>
<tr>
<td>VMware vCenter Server instances</td>
<td>Up to one (1)</td>
<td>VMware vCenter Server instances used during the application discovery process.</td>
</tr>
<tr>
<td>Applications</td>
<td>Up to three (3)</td>
<td>Unique application instances discovered and mapped, across all vCenter instances (total).</td>
</tr>
</tbody>
</table>

**Out of scope**

The following are out of scope items for this project.

**General**

- Installation and configuration of custom or third-party applications and operating systems on deployed virtual machines
- Operating system administration including the operating system itself or any operating system features or components
- Management of change to virtual machines, operating systems, custom or third-party applications, databases, and administration of general network changes within Customer control
• Remediation work associated with any problems resulting from the content, completeness, accuracy, and consistency of any data, materials, or information supplied by Customer
• Installation or configuration of VMware products not included in the scope of this document
• Installation and configuration of third-party software or other technical services that are not applicable to VMware components
• Installation and configuration of Customer-signed certificates
• Configuration of VMware products used for the service other than those implemented for the mutually agreed-to-use cases
• Customer solution training other than the defined knowledge transfer session

VMware Cloud on Dell EMC
• Creation of user roles and groups
• Creation of local accounts
• Configuration of LDAP/Active Directory sources
• Creation of Networking segments, VPNs, and additional firewall rules not included in the specific service scope
• Design or configuration of interconnectivity between different SDDCs or other native cloud services
• Creation of additional SDDCs

VMware HCX
• Creation of additional network extensions or stretched networks
• Deployment of additional target or source endpoints
• Deployment and configuration of Enterprise features like OSAM, MON, RAV or Mobility Groups

vRealize Network Insight Cloud
• Valid product license must be provided by the customer
• Configuration of customer’s physical devices
• Applications that consume only physical resources may not be recognized by the discovery process.
• Troubleshooting of Customer’s networking and devices

Workload Migration
• Pre and Post Application validation
• Backup/Restore of Virtual Machines
• Multi-instances databases and/or part of database Clusters will not be migrated
• No Specific application dependency will be analyzed
• Virtual machines with Raw Device Mappings (RDM) in Physical Compatibility mode cannot be bulk migrated.
• Virtual machines with SCSI bus sharing cannot be migrated.
• NSX Security tags and configurations related to the virtual machine will not be migrated. vSphere tags will be migrated
• Virtual machine (with) Snapshots cannot be migrated. HCX bulk migration allow to remove the snapshot
Estimated Schedule
VMware estimates that the duration of this project will not exceed 6 weeks. VMware Professional Services will operate according to a schedule agreed to by both parties. Typically, professional services are performed during normal business hours and workdays (weekdays and non-holidays).

Project Activities
Phase 1: Initiate
VMware hosts a project initiation call with key Customer and VMware stakeholders.
Topics to be discussed include:
• Project business drivers, scope, and objectives
• Project deadlines, timelines, scheduling, and logistics
• Identification of key Customer team members who VMware will work with to accomplish the tasks defined in this data sheet
• Technology prerequisites necessary for a successful project, including review of the Service Checklist for the VMware solution
• Confirmation of team members and contact details will be exchanged to schedule the project kickoff meeting

Deliverables include:
• Initial pre-engagement call

Phase 2: Plan
VMware leads a project kickoff meeting with Customer to assess prerequisite completion readiness, review the VMware standard architecture, and confirm project milestone dates.

The objectives of the meeting are as follows:
• Introducing the VMware team, roles, and responsibilities
• Describing the project goals, phases, and key dates
• Explaining the expected project results and deliverables
• Agreeing on communication and reporting process
• Validating the project expectations and clarifying roles and responsibilities

After Customer and VMware agree on project expectations, the VMware Project Manager and the Customer Project Manager work together on the detailed project plan.

Deliverables include:
• Project kickoff meeting minutes
• VMware Cloud on Dell EMC Cloud activation kickoff presentation

Phase 3: Execute
The key activities for this phase are organized into Deploy and Knowledge Transfer subphases.

In the Deploy subphase VMware deploys, documents, and validates the technology components according to the specifics. VMware does the following:
VMware Cloud Activation Advanced for VMware Cloud on Dell EMC

- Installs and configures the VMware technologies according to the specifics
- Finalizes the Configuration Workbook
- Identifies the VMs and apps relationships
- Run migration wave
- Executes service and service component functional test validation

In the Knowledge Transfer subphase, VMware conducts knowledge transfer sessions covering the design, deployment procedures, and operations procedures relating to the technologies in the scope of this project. VMware does the following:

- Conducts technical knowledge transfer sessions for administrators and operators
- Conducts up to eight (8) hours of knowledge transfer sessions, including fundamental operational discussions

**Phase 4: Close**

VMware conducts a closure meeting of up to 2 hours with the Customer covering project status, reviewing completions, next steps and how to engage with VMware support.

**Appendix**

The following Customer stakeholders are required to deliver this service:

- VMware operations team leads
- Application operations leads
- Security policy team leads
- Enterprise Architect
- Infrastructure Architect
- Network Operations team leads
- Network Architecture team leads

The following are the technical prerequisites to deliver this service:

- The VMware Cloud on Dell EMC hardware should have been already delivered and physically provisioned at customer’s site
- The VMware Cloud on Dell EMC first SDDC is already created
- VMware vCenter Server version 6.0 or higher for HCX Components at the source
- VMware vCenter Server version 6.5 or higher for vRealize Network Insight Cloud
- Virtual machines must be running hardware version 9 or higher
- 3+ IP addresses from management network for HCX service installation
- 1 IP address for vRealize Network Insight collector
- Virtual machines must have VMware tools installed
- Virtual machines must reside in a service cluster (defined in the compute profile)
- Each Virtual machine overall allocated disk size should not exceed more than 250 GB
- Distributed vSwitch for networks that has to be extended and analyzed
The availability of the NTP service is critical to system operations.

IPFIX for networking flow information

Bulk migration potential throughput can vary depending on bandwidth available for migrations, latency, available CPU/MEM/IOPS, and disk read speed. For successful switchover phase, the bandwidth and network conditions must be sufficient to satisfy the operation considering the dataset and virtual machine data change rate. For more information about how to determine bandwidth requirements, see Bandwidth Requirements for vSphere Replication

Please verify the following requirements and VMware Products Interoperability Matrices:

- VMware Products interoperability matrix for HCX
- System Requirements for HCX
  https://docs.vmware.com/en/VMware-HCX/services/user-guide/GUID-D64901F4-6AB4-4820-9303-27927648A34D.html
- Software Version Requirements for HCX
- VMware Products Interoperability Matrix for vRealize Network Insight
- Before you onboard with vRealize Network Insight Cloud
- System Requirements for vRealize Network Insight Cloud
- VMware Cloud on Dell EMC overview:
  https://www.vmware.com/products/vmc-on-dell-emc.html