VMware Cloud Activation Advanced
For VMware Cloud on AWS

AT A GLANCE
VMware Cloud Activation Advanced for VMware Cloud on AWS provides rapid instantiation of a VMware Cloud SDDC on AWS. This service also activates vRealize Automation Cloud, vRealize Operations Cloud, vRealize Network Insight Cloud, and VMware vRealize Log Insight Cloud; deploys and pairs VMware HCX components including L2 extension; and migrates up to 15 low-complexity virtual machines in a single wave.

KEY BENEFITS
• Rapidly instantiate a VMware Cloud SDDC
• Quickly deploy and validate a mobility platform
• Free IT staff to work on business-critical activities
• Minimize disruption to existing resources and operations
• Learn how to operate your cloud, create intuitive dashboards, and perform additional migrations through knowledge transfer

SKU
PS-VMC-ACT-ADV-C

Service overview
VMware Cloud Activation™ Advanced for VMware Cloud™ on AWS provides rapid instantiation of a VMware software defined data center (SDDC), expedites the deployment of VMware HCX® product components on-premises, and migrates a single wave of up to 15 low-complexity virtual machines (VMs).

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

Since successfully operating the new VMware Cloud on AWS environment is key to your success, VMware will get Customer started with VMware vRealize Log Insight Cloud™ for centralized auditing and logging, will help to deploy and publish Customer’s first blueprint as a service catalog item with VMware vRealize Automation Cloud™, and build Customer’s first dashboard using VMware vRealize Operations Cloud™.

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

The following activities are included in this service:
• Instantiation and/or review of a VMware Cloud SDDC environment
• Deployment of HCX and related on-premises environment to VMware Cloud site pairing
• L2 Extension of a network segment using HCX built-in capabilities
• Enablement session to use vRealize Network Insight Cloud for application dependencies mapping
• Building your first dashboard using vRealize Operations Cloud
• Publishing your first templates with vRealize Automation Cloud
• Overview of default capabilities provided by vRealize Log Insight Cloud
• A pilot migration of up to fifteen (15) low-complexity virtual machine in a single wave
• A VMware Migration Hub knowledge transfer session
• A VMware Migration Methodology workshop 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 AWS
• VMware HCX (on-premises requires VMware vSphere® 6.0 or higher) (*)
• vRealize Network Insight Cloud™ (requires vSphere 6.5 or higher) (*), (**)
• vRealize Automation Cloud™
• vRealize Operations Cloud™
• VMware vRealize Log Insight Cloud™

(*) 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.

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

Service Capabilities
This service contributes to the full development of the following capabilities:

• Create an SDDC on a VMware Cloud platform
• Enable the application migration and workload mobility platform
• Network stretching with no change to IP or network topology
• Virtual machines network dependency mapping
• Out-of-the-box logs dashboard
• Provide a cloud service catalog

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

<table>
<thead>
<tr>
<th>VMWARE CLOUD ON AWS - SDDC</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SPECIFICATION</strong></td>
<td><strong>PARAMETERS</strong></td>
<td><strong>DESCRIPTION</strong></td>
</tr>
<tr>
<td>Review VMware Cloud SDDC requirements and validate user accounts</td>
<td></td>
<td>Review SDDC deployment requirements and validate that the cloud user accounts are ready to begin SDDC deployments</td>
</tr>
<tr>
<td>Create VMware Cloud SDDC</td>
<td>Up to one (1)</td>
<td>Execute the deployment of the planned VMware Cloud SDDC through the VMware Cloud portal</td>
</tr>
<tr>
<td>Configure IPSec VPN access to selected SDDC</td>
<td>Up to one (1)</td>
<td>Configure route-based or policy-based IPSec VPN connections between VMware Cloud and on-premises data centers</td>
</tr>
<tr>
<td>Configure gateway firewall Rules</td>
<td>Up to five (5)</td>
<td>Configure gateway firewall rules for workloads within the VMware Cloud SDDC</td>
</tr>
</tbody>
</table>
### VMware VRealize Log Insight Cloud

<table>
<thead>
<tr>
<th>SPECIFICATION</th>
<th>PARAMETERS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alerts</td>
<td>Up to two (2)</td>
<td>Out of the box Alerts configured</td>
</tr>
<tr>
<td>Dashboards</td>
<td>Up to one (1)</td>
<td>Out of the box Dashboards configured</td>
</tr>
<tr>
<td>Widgets</td>
<td>Up to six (6)</td>
<td>Out of the box Widgets placed</td>
</tr>
</tbody>
</table>

### VMware HCX

<table>
<thead>
<tr>
<th>SPECIFICATION</th>
<th>PARAMETERS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>VMware vCenter® Instances</td>
<td>Up to one (1)</td>
<td>VMware vCenter instance where to activate VMware HCX</td>
</tr>
<tr>
<td>On-Premises VMware vCenter Instances</td>
<td>Up to one (1)</td>
<td>On-premises VMware vCenter 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 on-premises VMware HCX integration (plug-in) with VMware vCenter and standalone interfaces, the migration of a virtual machine using VMware HCX for validation purpose.</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>
<tr>
<td>SPECIFICATION</td>
<td>PARAMETERS</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>VMWARE VREALIZE NETWORK INSIGHT CLOUD</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VMware product required</td>
<td>A</td>
<td>A vRealize Network Insight Cloud 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>

| **VREALIZE OPERATIONS CLOUD**           |            |                                                                                                                                              |
| VMware product required                 | A          | A vRealize Operations Cloud subscription through http://cloud.vmware.com. Customer must provide access user account if Customer subscription is used. |
| Instances of vRealize Operations Cloud  | Up to one (1) | vRealize Operations Cloud entitlement via cloud.vmware.com, one dashboard per instance.                                                     |
| Configuration Scope                     |            | Predefined capacity management and planning related dashboard configured within vRealize Operations Cloud entitlement.                      |
| VMware Cloud on AWS Endpoint           | Up to one (1) | Data source(s).                                                                                                                               |
| Capacity management and planning workshop |            | Discuss how to use vRealize Operations Cloud for virtual infrastructure capacity management and planning.                                    |
| Out-of-the-box alert review workshop    |            | Discuss the relevance of enabled/triggered out-of-the-box alerts to Customer’s environment and operations needs. Disable alerts, if required, with guidance from Customer to focus alert notifications. |
### VRealize Automation 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>A vRealize Automation Cloud 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>Cloud accounts</td>
<td>Up to one (1)</td>
<td>Configuration of the cloud accounts that will be needed for endpoint connectivity to the Customer’s Cloud environments.</td>
</tr>
<tr>
<td>Projects</td>
<td>Up to one (1)</td>
<td>Project configurations that provide access to creation of blueprints, provisioning of blueprints, network profiles, storage profiles, cloud zones, images, and integrations.</td>
</tr>
<tr>
<td>Cloud Zones</td>
<td>Up to one (1)</td>
<td>Creation of cloud zones which provides access into the cloud environment that will be provisioned to.</td>
</tr>
<tr>
<td>Flavor Mappings</td>
<td>Up to one (1)</td>
<td>Creation of flavor mappings that will provide the Customer with the ability to size the workloads upon deployment.</td>
</tr>
<tr>
<td>Image Mappings</td>
<td>Up to one (1)</td>
<td>Images mapped from connected cloud endpoints.</td>
</tr>
<tr>
<td>Network Profiles</td>
<td>Up to one (1)</td>
<td>Network profiles configured for IP allocation of provisioned workloads.</td>
</tr>
<tr>
<td>Blueprint(s)</td>
<td>Up to one (1)</td>
<td>Creation of blueprints that are used to provision workloads to the Customer connected clouds.</td>
</tr>
<tr>
<td>vRealize Automation Service Catalog Review Workshop</td>
<td>Up to one (1)</td>
<td>Workshop to provide knowledge of what the Service Catalog is. Describes Entitlements, Approval Policies, Publishing of Blueprints, and flow of provisioning requests.</td>
</tr>
<tr>
<td>Service Catalog Development</td>
<td>Up to one (1)</td>
<td>Service Catalogs, Entitlements, and Approval Policies will be created and configured. Up to one (1) blueprint will be published to the Service Catalog.</td>
</tr>
<tr>
<td>Demonstration of Service Catalog Functionality</td>
<td>Up to one (1)</td>
<td>Service Catalog items requested and provisioned to validate the usability and functionality of the Entitlements, Approval Policies and the Service configuration.</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 AWS
• Creation of user roles and groups
• Creation of local accounts
• Configuration of LDAP/Active Directory sources
• VMware vCenter Content library creation, OS images creation/Copy/Sync
• Creation of networking segments, VPNs, and additional firewall rules not required by the specific service scope
• Design or configuration of interconnectivity between different SDDCs or other native cloud services

VMware HCX
• Deployment of additional target or source endpoints
• Deployment and configuration of Enterprise features like OSAM, MON, RAV or Mobility Groups
• Bandwidth available and size of VMs will affect the time to replicate; groups of VMs that doesn’t fit in up to two (2) days of replication time will not be included.

Workload Migration
• Pre- and post-application validation
• Backup/restore of virtual machines
• Multi-instance 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 migrated
• Virtual machines with SCSI bus sharing cannot be migrated.
• VMware 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 will remove the snapshot.
• Physical servers to virtual machines migration
• Clustered virtual machines migration

vRealize Log Insight Cloud
• Additional collectors that are not part of the VMware Cloud
• Log forwarding/Archival/Processing rules
• Webhook Configuration
• API configuration
• Custom dashboards and alerts

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

vRealize Operations Cloud
• Valid product license must be provided by the customer
• Cloud proxy to connect on-premises environment
• Troubleshooting

vRealize Automation Cloud
• Valid product license must be provided by the customer
• Cloud proxy to connect on-premises environment
• 3rd party integrations
• Scripting inside blueprint(s)
• Any product customizations or third-party integrations
• Troubleshooting

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 project
• 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 activation kickoff presentation
• vRealize network insights Cloud requirements validation
• vRealize Automation Cloud requirements validation
• Identification of one template to be used as blueprint for vRealize Automation Cloud
• vRealize Operations Cloud requirements validation
• Identification of VMs to be migrated
• Identification of network segment to be extended

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:
• Installs and configures the VMware technologies according to the specifications
• Finalizes the Configuration Workbook
• Executes a single migration wave (up to 15 VMs)
• Configure vRealize Log Insight Cloud dashboard
• Configure vRealize Network insight Cloud
• Configure vRealize Operations Cloud dashboard
• Configure vRealize Automation Cloud service catalog
• Executes 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 two (2) hours with the Customer covering project status, reviewing completions, next steps and how to engage with VMware support.
Appendix – Service Checklist

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:

• VMware vCenter Server version 6.0 or higher for on-premises HCX Components
• VMware vCenter Server version 6.5 or higher for vRealize Network Insight Cloud
• Virtual machines must be running hardware version 9 or higher
• 3+ on-prem IP addresses from management network for HCX service installation
• 1 on-prem IP address for vRealize Network Insight collector
• Virtual machines must have VMware tools installed and updated
• 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 are required for networks to be extended
• The availability of the NTP service is critical to system operations.
• IPFIX for networking flow information

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 product requirements with the following:

• VMware Products Interoperability Matrix for HCX
• System Requirements for HCX
• Software Version Requirements for HCX
• VMware Products Interoperability Matrix for vRealize Network Insight Cloud
• System Requirements for vRealize Network Insight Cloud
• Before you onboard with vRealize Network Insight Cloud
• Get Started with vRealize Log Insight Cloud
• Before you begin with vRealize Operations Cloud
• Before you begin with vRealize Automation Cloud Assembly
• Before you begin with vRealize Automation Service Broker

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