VMware Cloud Activation Advanced
For Google Cloud VMware Engine

At a glance
VMware Cloud Activation Advanced for Google Cloud VMware Engine provides rapid creation of a VMware SDDC on the Google Cloud Platform. This service includes a solutions overview, deployment of your first SDDC, deployment and pairing of VMware HCX components, migration of up to fifteen (15) virtual machines and a get started with key components of vRealize Cloud Management solutions.

Key benefits
• Rapidly create a VMware Cloud™ SDDC
• Quickly activate VMware HCX for migrating VMs
• Free IT staff to work on business-critical activities
• Start consuming Cloud resources and minimize disruption to existing operations
• Learn how to operate and automate your cloud and perform additional migrations through knowledge transfer

SKU
PS-GCVE-ACT-ADV-C

Service overview
VMware Cloud Activation™ Advanced for Google Cloud VMware® Engine helps you instantiate your first VMware software defined data center (SDDC), expedite the deployment of VMware HCX® product components on-premises, preparation of VMware NSX® segments in the target SDDC with an overview of network security capabilities, and successful migrate virtual machines (VMs) from your on-premises environment to Google Cloud VMware Engine.

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

Since successfully operating the Google Cloud VMware Engine Solution is key to your success, VMware will build the first capacity management dashboard using VMware vRealize Operations Cloud™ and we will help deploy and publish the first blueprint as a service catalog item within VMware vRealize Automation Cloud™.

To ensure Customer's team Is fully enabled, this service includes a knowledge transfer workshop that includes an overview of the VMware migration methodology, best practices, and Information resources.

The following activities are included in this service:
• Validation of requirements and creation of your first VMware SDDC
• Deployment of HCX on-premises components and pairing with VMware SDDC in Google Cloud
• L2 extension of a network segment using HCX built-in capabilities
• The migration of up to fifteen (15) low-complexity virtual machine in a single event
• An NSX distributed firewall workshop for security and knowledge transfer
• A workshop about how to leverage vRealize Network Insight Cloud for application dependencies mapping using networking flows
• A workshop about building your first dashboard using vRealize Operations Cloud
• A workshop about building your first service catalog with vRealize Automation Cloud
• A VMware migration methodology knowledge transfer session

This service requires the following VMware and third-party 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):
• Google Cloud VMware Engine
• HCX (on-premises requires VMware vSphere® 6.0 or higher) (*)
• vRealize Network Insight Cloud (requires vSphere 6.5 or higher) (\(\ast\)), (\(\ast\)\(\ast\))
• vRealize Automation Cloud (VMware Cloud Assembly™ and Service Broker™)
• vRealize Operations Cloud

\(\ast\) Note 1: please check the VMware Requirements and Product Interoperability Matrix links in the Appendix.

\(\ast\)\(\ast\) Note 2: if customer has already 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 delivered remotely by 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 activities.

**Service capabilities**

This service provides the following Customer capabilities:

• Creation of the VMware SDDC on the Google Cloud Platform
• Enablement of the workload mobility platform
• Migration of up-to 15 VMs in a single event
• Assistance with getting started with NSX for application security and isolation
• Performance and capacity dashboards
• A cloud service catalog
Project scope
The scope of the service is specified in the following tables per specific product and component:

### Google Cloud VMware Engine

<table>
<thead>
<tr>
<th>Specification</th>
<th>Parameters</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review requirements and validate user accounts</td>
<td>Up to one (1) cluster</td>
<td>Review and validation of SDDC requirements</td>
</tr>
<tr>
<td>Cloud VPN</td>
<td>Up to one (1)</td>
<td>On-premises interconnectivity using Google Cloud VPN is useful for low-volume data connections. For additional Google Cloud connection options, please check the Hybrid Connectivity product page.</td>
</tr>
<tr>
<td>Configure firewall rules</td>
<td>Up to five (5)</td>
<td>Configure NSX firewall rules within the VMware SDDC</td>
</tr>
</tbody>
</table>

### VMware HCX

<table>
<thead>
<tr>
<th>Specification</th>
<th>Parameters</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Google Cloud VMware Engine instances</td>
<td>Up to one (1)</td>
<td>VMware vCenter instance in Google Cloud VMware Engine 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 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 network to be extended with VMware HCX</td>
</tr>
<tr>
<td>Additional HCX activities</td>
<td></td>
<td>Review of the on-premises HCX integration (plug-in) with vCenter server and standalone interfaces, the migration of a virtual machine using HCX for validation purposes.</td>
</tr>
</tbody>
</table>
### VMware NSX

<table>
<thead>
<tr>
<th>Specification</th>
<th>Parameters</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of applications to be secured</td>
<td>Up to three (3)</td>
<td>Target applications identified for micro-segmentation, with each application comprised of five (5) or less virtual machines.</td>
</tr>
<tr>
<td>Number of NSX segments</td>
<td>Up to three (3)</td>
<td>Number of NSX network segments created inside the VMware SDDC</td>
</tr>
<tr>
<td>Number of infrastructure service policies</td>
<td>Up to five (5)</td>
<td>Security rules that contain mutually agreed upon widely used core and foundation services (e.g., NTP, active directory, DNS, etc.).</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>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>vCenter server instances on-premises 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>

### 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; Only those that will fit into a single (1) migration event will be included.</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 wave.</td>
</tr>
</tbody>
</table>
Run migration wave | Up to one (1) | 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.

Additional activities | | Review of the existing list of workloads planned for migration to the new SDDC.

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### vRealize Operations Cloud

<table>
<thead>
<tr>
<th>Specification</th>
<th>Parameters</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VMware product required</td>
<td>A vRealize Operations 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>
<td></td>
</tr>
<tr>
<td>Instances of vRealize Operations Cloud</td>
<td>Up to one (1) vRealize Operations Cloud entitlement via cloud.vmware.com, one dashboard per instance.</td>
<td></td>
</tr>
<tr>
<td>Configuration scope</td>
<td>Predefined capacity management and planning related dashboard configured within vRealize Operations Cloud entitlement.</td>
<td></td>
</tr>
<tr>
<td>VMware vCenter endpoint</td>
<td>Up to one (1) vCenter data source(s).</td>
<td></td>
</tr>
<tr>
<td>Capacity management and planning workshop</td>
<td>Discuss how to use vRealize Operations Cloud for virtual infrastructure capacity management and planning.</td>
<td></td>
</tr>
<tr>
<td>Out-of-the-box alert review workshop</td>
<td>Discuss the relevance of enabled/triggered out-of-the-box alerts to Customer’s environment and operational needs. Disable alerts, if required, with guidance from Customer to focus alert notifications.</td>
<td></td>
</tr>
<tr>
<td>Specification</td>
<td>Parameters</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------------------------------------</td>
<td>------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<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. (e.g., a vanilla Windows or Linux OS)</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 service.

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

Google Cloud VMware Engine

• 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

• Google Cloud Platform, non-VMware components configuration and troubleshooting

• Design or configuration of interconnectivity between different SDDCs or other native cloud services

• Google Cloud Hybrid connectivity configuration for dedicated interconnect or partner interconnect (see https://cloud.google.com/hybrid-connectivity for details)

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 or mobility groups
- Available bandwidth and size of VMs will affect the time to replicate; the group of VMs that does not fit in an 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-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
- Virtual machine (with) snapshots cannot be migrated; HCX bulk migration will remove any snapshots

**NSX for application security and isolation**
- Applications hosted on physical workloads or containers

**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 for on-premises environment

**vRealize Automation Cloud**
- Valid product license must be provided by the Customer
- Cloud proxy for on-premises environment
- 3rd party integrations
- Scripting inside blueprint(s)
- Any product customizations
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 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
- Activation services kickoff presentation
VMware Cloud Activation Advanced for Google Cloud VMware Engine

- List of VMs to be migrated
- vRealize Network Insights Cloud requirements validation
- vRealize Operations Cloud requirements validation
- vRealize Automation Cloud requirements validation
- Identification of one template to be used as blueprint for vRealize Automation Cloud

**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 specifics
- Finalizes the configuration workbook
- Executes a single migration wave (up to 15 VMs)
- Configures vRealize Network insight Cloud
- Configures vRealize Operations Cloud dashboard
- Configures 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 up to 4 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 and Google support.
Appendix: service requirements and compatibility

The Google Cloud VMware Engine require customer to have a proper entitlement on the Google Cloud Platform before the activation of the VMware SDDC.

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

Migration potential throughput can vary depending on bandwidth available for migrations, latency, available CPU/MEM/IOPS, and disk read speed. For a 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, please see Bandwidth Requirements for vSphere Replication.

Please verify product requirements with the following:

• VMware Products interoperability matrix
• System Requirements for HCX
• Software Version Requirements for HCX
• Google Cloud VMware Engine documentation
• VMware vRealize Network Insight Cloud documentation
• VMware vRealize Operations Cloud documentation
• VMware vRealize Automation Cloud documentation

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