

VMware Cloud Activation Advanced

For Azure VMware Solution

AT A GLANCE

VMware Cloud Activation Advanced for Azure VMware Solution provides rapid creation of a VMware SDDC in Microsoft Azure. This service includes a solutions overview, deployment of your first SDDC, deployment and pairing of VMware HCX components, and the successful migration of up to fifteen (15) virtual machines.

KEY BENEFITS

- Rapidly create 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-AVS-ACT-ADV-C

Service overview

VMware Cloud Activation™ Advanced for Azure VMware® Solution helps you instantiate your first VMware software defined data center (SDDC), expedite the deployment of VMware HCX® product components on-premises, and migrate a single wave of up to 15 low-complexity virtual machines (VMs).

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 Azure VMware 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 provides 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 in Azure
- Deployment of HCX on-premises components and pairing with VMware SDDC in Azure
- 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
- A VMware NSX® distributed firewall workshop and knowledge transfer
- 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
- 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):

- Azure VMware Solution (2.0 or later)
- Azure ExpressRoute
- VMware HCX (on-premises requires VMware vSphere® 6.0 or higher) (*)
- vRealize Network Insight Cloud (requires vSphere 6.5 or higher) (*), (**)
- vRealize Automation Cloud (VMware Cloud Assembly™ and Service Broker™)
- vRealize Operations Cloud

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

(**) 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 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 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 contributes to the full development of the following capabilities:

- Create your VMware SDDC in Microsoft Azure
- Enable of the application and workload mobility platform
- Migration of up-to 15 VMs in a single event
- Get started with NSX for application security and isolation
- Performance and Capacity dashboard
- Provide a cloud service catalog

Project scope

The scope of the service is defined in the following tables:

VMWARE SDDC IN AZURE VMWARE SOLUTION		
SPECIFICATION	PARAMETERS	DESCRIPTION
Review Azure VMware Solution SDDC requirements and validate user accounts	Up to one (1) Cluster	Review and validation of SDDC requirements
Configure gateway firewall Rules	Up to five (5)	Configure NSX firewall rules for the workload to be migrated within the Azure VMware Solution SDDC

VMWARE HCX		
SPECIFICATION	PARAMETERS	DESCRIPTION
Azure VMware Solution VMware vCenter® Instances	Up to one (1)	Azure VMware Solution SDDC VMware vCenter instance where to pair VMware HCX
On-Premises VMware vCenter Instances	Up to one (1)	On-premises VMware vCenter instance where to deploy VMware HCX for pairing
On-premises Layer 2 networks extended	Up to one (1)	On-premises Layer 2 networks to extend with VMware HCX
Additional VMware HCX Activities		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.

VMWARE NSX		
SPECIFICATION	PARAMETERS	DESCRIPTION
Number of Applications to be Secured	Up to three (3)	Target applications identified for micro-segmentation, with each application comprised of ten (5) or less virtual machines.
Number of NSX Segments	Up to three (3)	Number of NSX network segments created with NSX in Azure VMware Solution
Number of Infrastructure Service Policies	Up to five (5)	Security rules that contain mutually agreed upon widely used core and foundation services (e.g. NTP, Active Directory, DNS, etc.).

VMWARE VREALIZE NETWORK INSIGHT CLOUD		
SPECIFICATION	PARAMETERS	DESCRIPTION
VMware product required		A vRealize Network Insight Cloud subscription through http://cloud.vmware.com . Customer must provide access user account if Customer subscription is used.
VMware vCenter Server® instances	Up to one (1)	VMware vCenter Server® instances used during the application discovery process.
Applications	Up to three (3)	Unique application instances discovered and mapped, across all vCenter instances (total).

WORKLOAD MIGRATION		
SPECIFICATION	PARAMETERS	DESCRIPTION
Virtual Machines Included in Migration	Up to fifteen (15)	This is the total number of Virtual Machines in scope for this migration effort. These will be included into one (1) migration wave.
Configure Migration Waves	Up to one (1)	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.
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 exists list of workloads planned for migration to the new SDDC.

VREALIZE OPERATIONS CLOUD		
SPECIFICATION	PARAMETERS	DESCRIPTION
VMware product required		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 vCenter 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 operational needs. Disable alerts, if required, with guidance from Customer to focus alert notifications.
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VREALIZE AUTOMATION CLOUD		
SPECIFICATION	PARAMETERS	DESCRIPTION
VMware product required		A vRealize Automation Cloud subscription through http://cloud.vmware.com . Customer must provide access user account if Customer subscription is used.
Cloud accounts	Up to one (1)	Configuration of the cloud accounts that will be needed for endpoint connectivity to the Customer's Cloud environments.
Projects	Up to one (1)	Project configurations that provide access to creation of blueprints, provisioning of blueprints, network profiles, storage profiles, cloud zones, images, and integrations.
Cloud Zones	Up to one (1)	Creation of cloud zones which provides access into the cloud environment that will be provisioned to.
Flavor Mappings	Up to one (1)	Creation of flavor mappings that will provide the Customer with the ability to size the workloads upon deployment.
Image Mappings	Up to one (1)	Images mapped from connected cloud endpoints. (e.g. a vanilla Windows or Linux OS Image)
Network Profiles	Up to one (1)	Network profiles configured for IP allocation of provisioned workloads.
Blueprint(s)	Up to one (1)	Creation of blueprints that are used to provision workloads to the Customer connected clouds.
vRealize Automation Service Catalog Review Workshop	Up to one (1)	Workshop to provide knowledge of what the Service Catalog is. Describes Entitlements, Approval Policies, Publishing of Blueprints, and flow of provisioning requests.

Service Catalog Development	Up to one (1)	Service Catalogs, Entitlements, and Approval Policies will be created and configured. Up to one (1) blueprint will be published to the Service Catalog.
Demonstration of Service Catalog Functionality	Up to one (1)	Service Catalog items requested and provisioned to validate the usability and functionality of the Entitlements, Approval Policies and the Service configuration.

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

Azure VMware Solution

- 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
- Azure ExpressRoute configuration and troubleshooting
- Design or configuration of interconnectivity between different SDDCs or other native cloud services

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

- Bandwidth available and size of VMs will affect the time to replicate; the group of VMs that doesn't 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. vSphere tags will be migrated
- Virtual machine (with) Snapshots cannot be migrated. HCX bulk migration will remove the snapshot.

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 to connect on-premises environment

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

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
- Azure VMware Solution 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
- List of VMs to be migrated

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)
- 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 4 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.

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This service must be delivered and accepted within the first 12 months of purchase, or the service will be forfeited. Pricing for this service excludes travel and other expenses. For detailed pricing, contact your local VMware representative.

Appendix – Service Checklist

The Azure VMware Solution SDDCs should have been already created and activated together with VMware HCX in the Microsoft Azure Cloud side.

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 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
- 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 must 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](#)
- [Azure VMware solution documentation](#)
- [System Requirements for vRealize Network Insight Cloud](#)
- [Before you onboard with vRealize Network 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](#)