VMware Cloud Migration Advanced Services

At a glance

VMware Cloud Migration Advanced Services move application workloads from your on-premises data center to public cloud or a new data center location efficiently and reliably.

Key benefits

- Migrate applications quickly and securely
- Gain a complete view of your applications and infrastructure
- Understand dependencies between applications
- Minimize disruption to existing resources and operations
- Get started migrating firewall rules
- Minimize downtime and reduce risk
- Free IT staff to work on business-critical tasks

SKUs

Azure VMware® Solution
PS-AVS-MIG-ADV-C

Google Cloud VMware® Engine
PS-GCVE-MIG-ADV-C

Oracle Cloud VMware® Solution
PS-CLD-MIG-ADV-C

VMware Cloud™ on AWS
PS-CLD-MIG-ADV-C

All other HCX-enabled platforms
PS-CLD-MIG-ADV-C

Service overview

VMware Cloud Migration Advanced Services can help you efficiently and securely move applications to a new VMware based platform whether it is on-premises infrastructure, private cloud, or public cloud. Our tools, proven methodology, and factory model help ensure a quick, accurate, and successful migration.

First, we develop a migration strategy based on business goals and constraints. Then we perform a readiness assessment where we gather technical and functional requirements and evaluate the current and target environments. We create an inventory of applications, infrastructure, and data. We identify target state requirements, map application dependencies, and validate applications and infrastructure.

We create a migration methodology, define the migration process, discover required firewall rules, and configure them on the target VMware NSX® environment.

We create a migration plan where we bundle and schedule the migration events, create migration runbooks, and develop test and contingency plans. We map the source infrastructure to the target infrastructure. Then we perform the migration in waves and do a validation with the customer to ensure the migration is accurate and complete.

This service requires the following VMware on-premises and/or 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 HCX®[1]
- VMware Aria Operations™ for Networks[1,2]
- NSX 3.0 or higher[1] at the target

Service delivery description

Service activities will be entirely delivered remotely by VMware Professional Services offshore resources. Due to the nature of some on-premises

[1] Check the VMware Requirements and Product Interoperability Matrix links in the Appendix.
[2] If VMware Aria Operations for Networks (4.x or higher) is already running in the source environment VMware may be able to leverage it if it matches the requirements for the discovery.

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:

- Discover current application workloads
- Validate and schedule workloads for virtual machine migration
- Perform virtual machine migration
- Configure Distributed firewalls in target environment

Project scope

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

Discovery		
Specification	Parameters	Description
VMware product required		A valid VMware Aria Operations for Networks License or SaaS subscription through http://cloud.vmware.com
Review current VMware Aria Operations for Networks	Up to one (1)	Review current VMware Aria Operations for Networks setup for application discovery
Source VMware vCenter® environment	Up to one (1)	Discover one source vCenter environment virtual machines and their application dependencies using VMware Aria Operations for Networks
Discovery of firewall rules	Up to one hundred (100)	Discover firewall rules using automated discovery tool (VMware Aria Operations for Networks)

Analysis and planning		
Specification	Parameters	Description

Conduct data validation and planning workshops	Up to five (5)	Data validation workshops to review discovered application data dependencies and to create and schedule migration event bundles
Review application dependencies	Up to ten (10)	Review up to ten applications dependencies with application owners for Migration bundling and scheduling
Distributed firewall configuration workshop	Up to one (1)	Distributed firewall workshop with the customer to discuss to review Micro segmentation and propose VMware Aria Operations for Networks suggested rules

Workload migration		
Specification	Parameters	Description
Virtual machines included in migration	Up to one hundred (100)	This is the total number of virtual machines in scope for this migration effort. These will be included into two (2) migration waves.
Configure migration waves	Up to two (2)	Configure workload migrations in VMware 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 waves	Up to two (2)	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.
Configure distributed firewall rules	Up to twenty (20)	Configure distributed firewall rules in target environment

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

- Installation and configuration of VMware Products including HCX, NSX and VMware Aria Operations for Networks
- 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 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
- Setup and configuration of source and target infrastructure
- More than one source and one target environment
- Distributed firewall rules are specific to micro-segmentation which is suggested by VMware Aria Operations for Networks
- No physical firewall rules will be migrated

Source and target environment

- 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 required by the specific service scope
- Design or configuration of interconnectivity between different SDDCs or other native cloud services

Workload migration

- Application discovery and dependency mapping for more than 10 applications
- Pre- and post-application validation
- Backup/restore of virtual machines
- Multi-instances databases and/or part of database clusters will not be migrated

- Virtual machines with raw device mappings (RDM)
- 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
- Migration of physical to virtual environments
- Migration of clustered virtual machines
- Migration of virtual machines other than vSphere as source and target

Estimated schedule

VMware estimates that the duration of this project will not exceed 5 weeks. VMware Professional Services will operate according to a schedule agreed to by both parties. Typically, 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
- Service kickoff presentation

Phase 3: Execute

The key activities for this phase are organized into three sub phases.

Sub-phase 1: Discovery

This sub-phase includes the following activities:

- Collect available asset data including asset dependencies
- Provide high-level migration strategy recommendations, including advantages and disadvantages of selected migration tools, bandwidth needed, and methods to be used for the migration
- Conduct data collection interviews and workshops, per infra owner and application owner based on the discovery findings
- Conduct validation and reconciliation workshops/meetings based on the discovery findings with customer
- Inventory list of in scope servers
- Complete discovery sub-phase milestone
- Discover firewall rule required on target

Sub-phase 2: Analysis and planning

This sub-phase includes the following activities:

- Conduct workshops to review bundling strategy criteria
- Analyze dependencies among assets: applications, servers, and key Infrastructure components
- Finalize asset bundles and event schedule including event dates based on bundle and Customer calendar constraints
- Develop master migration event workbook and review draft migration runbook
- Develop scripts needed to execute server migrations
- Identify risks and prepare a mitigation plan

- Complete analysis and planning phase milestone
- Conduct workshops to analyze and fine-tune firewall rules as per the requirement

Sub-phase 3: Migration execution

This sub-phase includes the following activities:

- Conduct dry run migration event and task validation
- Validate standard operating procedure and migration runbook
- Perform any required migration runbook adjustments and complete pre-migration event preparation
- Manage the command center and support executing the migration event
- Migrate in-scope servers
- Perform in-scope firewall rules configuration in target infrastructure
- Follow up Standard Operating Procedure and Migration runbook validation
- Complete migration execution subphase
- Implement and verify firewall rules in target environment

Deliverables include:

- Infrastructure discovery workbook
- Migration runbook
- Workload bundling report

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.

Learn more

Visit vmware.com/services.

Terms and conditions

All VMware service engagements are governed by the VMware General Terms and Professional Services Exhibit on the VMware ONE Contract Center. If you are located in the United States, the VMware contracting entity for the service will be VMware, Inc. If you are outside the United States, the VMware contracting entity will be VMware International Limited.

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 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 HCX is deployed and configured and paired between source and target environments
- VMware NSX is deployed and configured on the target environment
- VMware Aria Operations for Networks is available, configured, and ready for application discovery at the source environments
- Each virtual machine allocated disk size should not exceed more than 250 GB
- Average throughput between source and target environments is 10 Gbps
- Virtual machines must be running hardware version 9 or higher
- Virtual machines must have VMware tools installed
- Virtual machines must reside in a service cluster (defined in the compute profile)
- Distributed vSwitch exists for networks that must be extended
- 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
- VMware HCX Documentation
- VMware Products Interoperability Matrix for VMware Aria Operations for Networks
- System Requirements for VMware Aria Operations for Networks
- Before you onboard with VMware Aria Operations for Networks