Service Description

VMware HCX®

Last Revised: 29 August 2022

vmware®

VMware, Inc.
3401 Hillview Ave.
Palo Alto, CA 94304
www.vmware.com

Rev. 29 Aug. 2022

1.   Introduction

VMware HCX® (the "Service Offering") enables IT organizations to securely connect their VMware infrastructure across both public and private data centers for hybrid capabilities such as workload migration and disaster recovery.

The Service Offering can be consumed via a user interface (UI) or an application programming interface (API), at either the source or the destination environment. Certain operations are context-aware and may only be available at the source environment but not the destination environment, or vice versa.

1.1   Technical Documentation and Training

Documents and videos outlining key concepts with usage examples are available through the VMware portal. See also https://hcx.vmware.com.

1.2   Legal Terms

Use of the Service Offering is subject to VMware's standard Terms of Service, found through the main VMware end user terms landing page, at http://vmware.com/download/eula.html.

1.3   Data Privacy

The Service Offering collects data directly from the machines and/or devices involved in the delivery or receipt of the Service Offering, such as configuration, performance, usage and consumption data, for the purposes of improving VMware products and services and your and your users' experiences.

1.4   Service Offering Components; Service Updates; Support

Service Offering Components

The Service Offering has two parts:

a) The Service Offering deployment inside the source and destination environments that a customer wants to interconnect. For this component, each environment (i.e., the source environment and the destination environment) must have its own instance of the Service Offering.

b) The Service Offering licensing, metering, and upgrade entitlement service, which is managed and operated by VMware. Service Offering instances in the source environment and the destination environment securely connect to the Service Offering licensing, metering and upgrade entitlement service. A list of required firewall ports that need to be opened can be found in the VMware HCX Installation Guide.

The connection between the two parts of the Service Offering MUST be maintained for continued licensing, metering, upgrade monitoring, and downloading of service updates. If constant communication is not maintained between the two parts of the Service Offering, the Service Offering will go into a degraded mode and will go out of support, since the service updates will not be current.

Service Updates

VMware will provide service updates for the on-premise software components of the Service Offering that must be deployed in a customer's source and destination environments (the "HCX

Rev. 29 Aug. 2022

vmware®

appliances"), as follows:

- Service update notifications are visible to customers via the HCX Service UI.
- Service updates are published to the source and the destination environments. Service updates can include security enhancements, new features, and bug fixes. The latest update and the release date are visible in the Service Offering UI.
- The Service Offering does not provide patches. If a bug is reported, or a new feature is released, an updated version of the Service Offering is published and made available to the Service Offering instance in the customer's source and destination environments.
- Each service update is cumulative, so applying only the latest service update is sufficient.
- The customer is guided via notifications and banners built into the Service Offering UI for Service Updates to be consumed.

Support

Prior to raising a support ticket for the Service Offering, customers must have deployed one of the four most recent service updates of the Service Offering. Troubleshooting will not occur until the Service Offering components have been upgraded to one of the last four service updates. If multiple Service Offering instances are involved, they must all be running on one of the last four service update versions (although the instances do not need to all be on the same version). The exception to this is if the problem is with the upgrade process itself.

If multiple service updates are not consumed, the customer is alerted with warning notifications of increasing urgency, ultimately resulting in the Service Offering being disabled, and out of support, until it is upgraded to a supported service update.

Support is invalidated if the HCX appliances are altered in any way, including but not limited to the insertion of agents of any kind

To log a support ticket, the VMware HCX System ID and the VMware HCX logs must be provided. These can both be found on the "Support" tab in the VMware HCX UI.

The Service Offering includes support for problems related to your account and the Service Offering's availability and features. Support may be provided from both U.S. and non-U.S. locations. See https://www.vmware.com/support.html.

2. Operations

2.1 Capabilities

The Service Offering has following capabilities:

- **Hybrid Interconnect** provides secure, optimized datacenter inter-connectivity between VMware-compatible sites. The overlay can be established on basic Internet connectivity or on a private connection (such as a dedicated MPLS connection), or a combination of both. The Service Offering's Hybrid Interconnect capability features include WAN optimization, intelligent routing, traffic prioritization, multi-site layer 2 network extension, and proximity routing, for optimized connectivity.

- **Migration** allows secure bi-directional workload migration between two VMware-compatible sites.

- **Disaster Recovery** provides replication, failover, and recovery of virtual machines (VMs) across two VMware-compatible sites.

Rev. 29 Aug. 2022

A "VMware-compatible site" is a VMware vSphere®, VMware Cloud Foundation™, or VMware vCloud Director® environment in your on-premises or cloud data center. VMware NSX® is required to run the Service Offering on the destination environment, however NSX is not required on the source environment.

2.2   Delivery of the Service Offering

The following sections outline the respective roles and responsibilities of VMware and the customer in the delivery of the Service Offering. While specific roles and responsibilities have also been identified as being owned by the customer, any roles or responsibilities not set forth in this Service Description are either not provided with the Service Offering or are assumed to be the customer's responsibility.

Service Provisioning

You will be responsible for Installing and maintaining deployments of the Service Offering, including but not limited to

- Activating the Service Offering on-premise components (i.e., the HCX appliances) in both the source environment and the destination environment;
- Pairing the Service Offering the HCX appliances with remote VMware-compatible sites enabled with the Service Offering;
- Selecting VMs for migration or replication;
- Assigning a Recovery Point Objective (RPO) for replication frequency; and
- Extending networks.

Data Recovery

The Service Offering provides the ability to back up Service Offering configurations, including deployment settings such as network information to enable a successful recovery should the environment become corrupted or lost through an event such as hardware failure, this is the customer's responsibility to configure

Incident and Problem Management

You are responsible for incident and problem management (e.g., detection, severity classification, recording, escalation, and return to service) pertaining to your Service Offering-enabled VMware-compatible site.

Change Management

We will provide the following change management elements:

- Processes and procedures for applying VMware HCX Service Updates

You are responsible for:

- Management of changes to your VMs, operating systems, custom or third-party applications, databases, and administration of general network changes within your control.

Rev. 29 Aug. 2022

Security

You are responsible for end-to-end security of your Service Offering-enabled VMware-compatible sites.

We will use commercially reasonable efforts to release new code versions, hot fixes, and service packs related to the Service Offering to address critical vulnerabilities in a timely manner.

Hybrid Interconnect

The Service Offering's hybrid interconnect feature ("Hybrid Interconnect") includes following capabilities:

- **Encryption**: Suite B Encryption to secure data in transit across your VMware-compatible sites.
- **HCX Intelligent Routing:** The Service Offering's intelligent routing feature allows for multiplexing of Internet and private lines like MPLS (if available). This optimizes connectivity to avoid Internet congestion points and dynamically traffic engineer around problem points.
- **WAN Optimization:** Optimizes WAN traffic across your VMware-compatible sites. This feature reduces cross-WAN bandwidth usage costs and allows line conditioning to optimize the link. This allows large data transfers to be reduced and compressed in flight.
- **Layer 2 Network Extension:** Extend layer 2 networks between your VMware-compatible sites so you can migrate VMs while retaining the same IP and MAC address. This allows those VMs to communicate with other VMs in the source vSphere or vCloud Director environments.

Migration

With the Service Offering, you have the following migration capabilities:

- Zero or low downtime migration between VMware-compatible environments.

- High Throughput Network extension enables stretching multiple layer 2 segments in one tunnel between VMware-compatible environments, so VMs can migrate across sites while retaining the same IP and MAC address.

The Service Offering enables bi-directional migration of workloads between VMware-compatible sites in three ways: no-downtime migration, bulk migration, and cold migration.

- **No-Downtime Migration**: The Service Offering uses the VMware HCX vMotion® protocol to transfer a live VM across the Hybrid Interconnect to the remote site.
- **Bulk Migration**: Bulk migration allows replication of one or more VM(s) to a remote environment across Hybrid Interconnect. The source VMs remain powered on until a final delta consistency check is performed, a maintenance window can be specified, in which the source VMs will be powered down for the consistency check to occur
- **Cold Migration:** Cold migration allows migration of a powered off VM to a destination environment across Hybrid Interconnect.
- **HCX Cloud Migration**: The replication of one or more VM(s) to a remote environment across Hybrid Interconnect. The source VMs remain powered on while the data is replicated. A maintenance window can be specified for the final **live** delta consistency check.

Rev. 29 Aug. 2022

Disaster Recovery

The disaster recovery capabilities of the Service Offering provide protection for VMs hosted in your VMware-compatible sites. This functionality replicates those workloads to remote VMware-compatible site and allows for self-directed failover and recovery in the event of a disaster or similar disruptive event.

As part of the Service Offering, we will:

- Provide secure access to remote capacity for test, failover, and recovery operations.

- Provide capabilities to enable routine configuration, maintenance, and optimization services in conformance with industry best practices.

You will be responsible for:

- Deploying the Service Offering from the vSphere web client extension in your source vSphere environment or from the Service Offering UI when protecting workloads between two Service Offering-enabled cloud instances.

- Pairing remote sites to the Service Offering, and deploying the Service Offering on the remote sites.

- Ensuring the appropriate network connectivity type and bandwidth is available between your local and remote VMware-compatible environments to support your replication requirements.

- Configuring VMs for protection in the Service Offering as your vSphere web client and defining a disaster recovery plan, including RPO, per VM.

- Developing any custom runbook procedures for test, failover, recovery, and failback operations available as part of the Service Offering.

- Implementing and executing any recovery tasks that extend beyond the scope of the Service Offering's disaster recovery capabilities.

- Ensuring that sufficient reserved capacity is available in your destination environment to accommodate variable failover loads.

- Configuring VM-level backups for your destination site.

3.   Business Operations

3.1   Ordering and Invoicing

Ordering

The Service Offering is available on a monthly subscription or an on-demand basis. You can purchase an entitlement to the Service Offering through a qualifying VMware managed service provider. You can also use the Service Offering's functionality as part of the VMware Cloud™ on AWS offering, or as part of the VMware NSX® Data Center Enterprise Plus offering (the VMware NSX® Hybrid Connect Advanced feature of that offering).

Metered Usage

If you are using the Service Offering via a qualifying VMware service provider, consumption is measured based on one or more of the metered components, such as number of Service Offering instances, number of CPU cores, host count, migration count, number of VMs under the management of the Service Offering, etc. For details, consult your VMware sales specialist.

If you are using the Service Offering as part of your use of NSX Data Center Enterprise Plus, you are entitled to connect three simultaneous source vCenters to the VMware HCX destination environment. All host CPUs under management of the destination vCenter must be licensed with NSX Data Center Enterprise Plus; customers are entitled to unlimited VM migrations into and to protect unlimited source VMs in that destination environment.

Invoicing

You will be invoiced for metered components at the then-current rates published by us if you purchased the Service Offering directly from us, or at the rates agreed with your VMware authorized reseller if you purchase the Service Offering through that reseller.

If you purchase the Service Offering directly from us, we will invoice you for all ordered services within thirty (30) business days after the beginning of each Billing Period. "Billing Period" is the period for which the Service Offering is being billed. Billing Periods are monthly and are related to the provisioning of your SID. Metered usage charges will be invoiced and are payable on a monthly basis.

If you purchase an entitlement to use the Service Offering through a VMware qualifying service provider, the service provider will invoice you as mutually agreed between you and that service provider.

If you are using the Service Offering functionality as part of the VMware Cloud on AWS offering or as part of the NSX Data Center Enterprise Plus offering, you will be subject to the payment terms applicable to those offerings.

3.3   Suspension and Re-Enablement

During the time a SID is suspended, we will restrict access to all SIDs and block all traffic across the Service Offering and to the Service Offering UI and API. We will retain SIDs with configurations and data intact until the issue is resolved or the Service Offering subscription expires or is terminated. SID re-enablement will be initiated promptly upon resolution of the account issue that led to suspension; access to the Service Offering(s) and traffic across IP addresses will be restored.

3.4   Termination

If a SID is out of support or disconnected from the Service Offering for greater than 90 days, it will be terminated. Termination of a SID will result in permanent loss of access to the environments, discontinuation of services, and a deletion of such environments, configurations, and data according to applicable VMware policies. We do retain hashed, anonymized data in our systems. Customer data related to metered usage will be stored in the VMware analytics cloud and may be kept longer than 90 days.