

VMware HCX

Application migration and mobility platform

AT A GLANCE

VMware HCX abstracts on-premises and cloud resources based on VMware vSphere and presents them to applications as one continuous resource. An encrypted, high-throughput, WAN-optimized, load-balanced, traffic-engineered hybrid interconnect automates the creation of a network extension. This allows support for hybrid services, such as application migration, workload rebalancing, and optimized disaster recovery. With a VMware HCX hybrid interconnect in place, applications can reside anywhere, independent of the hardware and software underneath.

What is VMware HCX?

VMware HCX®, an application mobility platform, simplifies application migration, workload rebalancing, and business continuity across data centers and clouds. VMware HCX enables high-performance, large-scale app mobility across VMware vSphere® and non-vSphere cloud and on-premises environments to accelerate data center modernization and cloud transformation.

VMware HCX automates the creation of an optimized network interconnect and extension, and facilitates interoperability across KVM, Hyper-V and vSphere 6.0+ to current vSphere versions. This delivers live and bulk migration capabilities without redesigning the application or re-architecting networks

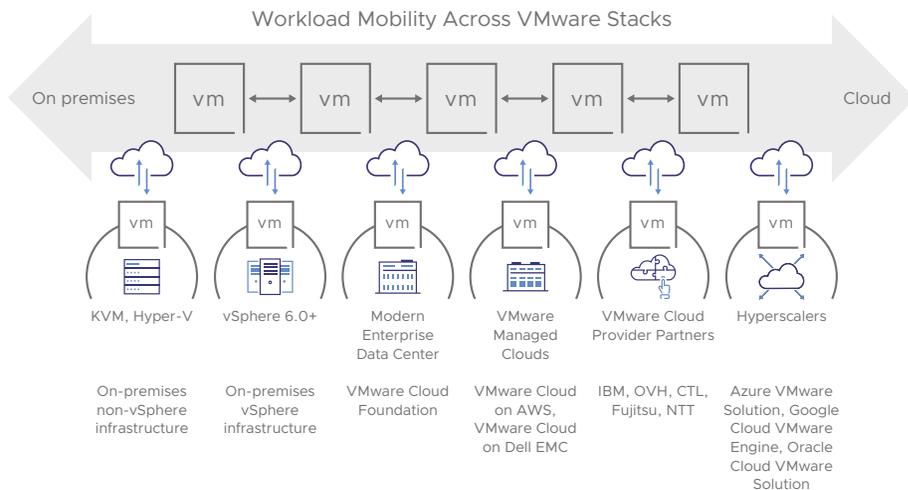


FIGURE 1: Move VMs to and from on-premises and cloud data centers enabled with VMware HCX.

Why VMware HCX?

As organizations adopt hybrid and multi-cloud architectures leveraging VMware infrastructure, they stand up new environments locally and in the cloud to simplify operations and increase business agility. However, the promise of a modern data center or hybrid cloud can't be realized until applications and workloads exist in these new environments. VMware HCX enables data center and cloud transformations by simplifying the process of populating and continually optimizing application placement on modern VMware infrastructure.

VMware HCX unlocks the potential of new environments based on vSphere by building an abstraction layer that links on-premises data centers and clouds. This hybrid interconnect tethers sites so networks can automatically stretch securely across sites, enabling seamless mobility of virtual machines (VMs). VMware HCX enables hybrid capabilities in VMware vCenter® to allow for application migration to populate newly available infrastructure, workload rebalancing for ongoing optimization of cloud and local resources, and simplified disaster recovery by eliminating the need for network provisioning and configuration.

Use cases

Application migration

Accelerate data center modernization with VMware HCX. Automatically create a hybrid interconnect to easily migrate thousands of vSphere and non-vSphere VMs within and across data centers and clouds without requiring reboot. Once migrated, swing networks without any retrofit/redesign.

Workload rebalancing

Move workloads at any time to meet scale, cost management, compliance, and vendor neutrality goals. Actively rebalance your cloud and on-premises application footprint with VMware HCX as an always-on, secure, high-throughput, WAN-optimized, hybrid interconnect that tethers cloud to on-premises estates for on-demand migration, data center extension, and cloud bursting.

Business continuity and disaster protection

Leverage the VMware HCX hybrid interconnect and rapid migration capabilities to protect workloads by replicating data across common VMware infrastructure in two or more places. Back up critical workloads on demand, or schedule for disaster recovery planning seamlessly and securely with no reconfiguration of IPs. VMware HCX now integrates with VMware Site Recovery Manager™ for advanced use cases.

Key capabilities

Perform a bulk migration of live VMs – Simply schedule the movement of hundreds of VMs in parallel.

Utilize simple migration planning tools – Easily identify application and workload relationships, and logically group VMs for efficient migration.

Enable mobility across data centers and clouds – Move VMs within your data center—from your local data center to the cloud, or across cloud regions or providers—to optimize resource utilization.

Migrate with zero downtime – Don't worry about IP re-architecting.

Migrate across any vSphere versions (6.0+) – Eliminate the need to invest in bringing both sites up to parity, enabling you to modernize your data centers with the full software-defined data center (SDDC)/VMware Cloud Foundation™ stack, managed service, or infrastructure as a service (IaaS).

Migrate non-vSphere workloads – Migrate KVM and Hyper-V workloads to current vSphere versions compatible with full VMware Cloud™, VMware Cloud Foundation, VMware Cloud Provider™ Program, and IaaS offerings.

FOR MORE INFORMATION OR TO PURCHASE VMWARE PRODUCTS

Call 877-4-VMWARE (outside North America, +1-650-427-5000) or visit vmware.com/products/hcx.

HOW TO BUY

VMware HCX Advanced is included or available in many of the VMware SDDC bundles, including VMware Cloud Foundation and Azure VMware Solution; through VMware Cloud Provider offerings; as well as in VMware NSX® Enterprise Plus. VMware HCX Enterprise functionality is available as an add-on license. Consult your VMware sales professional or partner for details.

RESOURCES

[Take the VMware HCX Hands-on Lab](#)

[Visit the VMware HCX product page](#)

[Watch informative demos, overview videos and more](#)

[Read our latest VMware HCX blogs](#)

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[Read VMware HCX documentation](#)

[Read our Enterprise Guide to Migrating to the Cloud](#)

[Learn more about VMware HCX partners](#)

Work across the WAN and LAN – Enable a unique model of infrastructure with a mix of private, public and hybrid clouds, based on workload requirements.

Seamlessly extend your network and IP space – Extensively reduce complexity and ensure your IP addressing policies, security policies and administrative boundaries are not broken.

	HCX ADVANCED	HCX ENTERPRISE
VMware HCX hybrid interconnect	•	
WAN optimization	•	
Bulk migration	•	
vMotion® live migration	•	
Cloud-to-cloud migration	•	
Disaster protection	•	
vSphere-to-vSphere migration	•	
Non-vSphere-to-vSphere migration (HCX OS Assisted Migration)		•
Large-scale live migration (VMware HCX Replication Assisted vMotion)		•
Site Recovery Manager readiness		•
Mobility groups		•
Traffic engineering		•
Mobility-optimized networking		•

FIGURE 2: VMware HCX feature matrix.