

# VMware HCX for Application Migration

## Large-scale, automated VM migration

### AT A GLANCE

VMware HCX®, an application mobility platform, simplifies application migration, rebalances workloads and optimizes disaster recovery across data centers and clouds. 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.

HCX automates the creation of an optimized network interconnect and extension, and facilitates interoperability across KVM, Hyper-V and vSphere 5.0+ to current vSphere versions. This delivers live and bulk migration capabilities without redesigning the application or re-architecting networks.

The maturity of public and private cloud offerings has created new opportunities for organizations to improve agility, lower TCO, and accelerate innovation through leveraging scalable infrastructure, automation and development tools previously unavailable. To realize those benefits, teams are challenged to migrate business-critical applications to the optimal environment to meet security, compliance, performance, availability and financial needs.

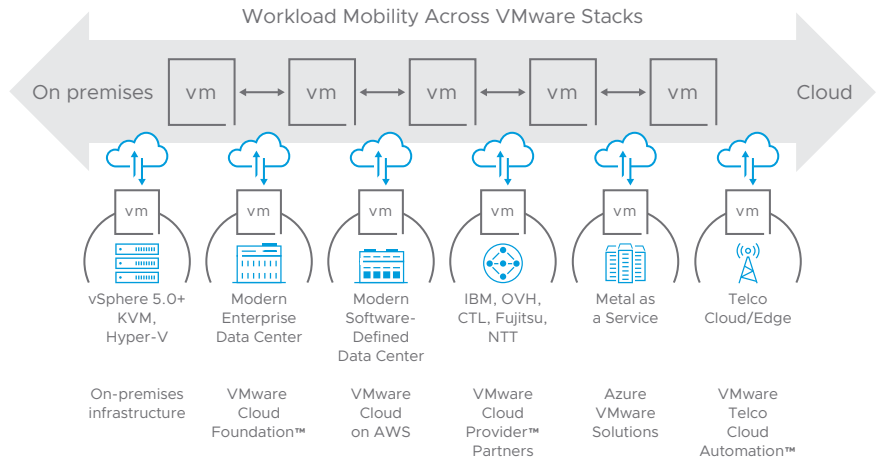
As businesses consolidate data centers, extend data centers to the cloud or replace on-premises infrastructure, they must consider application migration challenges from infrastructure incompatibilities and network complexity to moving workloads without disrupting application dependencies. Some common workload migration challenges include:

- Mission-critical apps require migration without downtime.
- The identification of applications and dependencies can be difficult.
- Migrated apps can suffer from performance degradation.
- WAN and LAN traffic impacts require a maintenance window with reduced usage of infrastructure.
- Migration windows can span multiple months due to size, distance and network latency/loss.
- A new IP platform needs to be re-architected for smooth switchovers, which requires purchasing additional hardware or software.
- Application rollback can be complex.

The VMware HCX platform automates the creation of a hybrid interconnect to enable IT administrators to easily and securely migrate workloads to the cloud while maintaining IT best practices, operations and business continuity. Leveraging HCX for application mobility accelerates data center transformation and hybrid cloud adoption with seamless migration of VMware vSphere and non-vSphere workloads on premises and in the cloud without upgrading vSphere versions on premises. Enabling secure, large-scale, zero-downtime live migrations can accelerate time to value for new software-defined data center (SDDC) stacks and cloud environments while driving down operational costs to update, migrate and maintain disparate systems.

**RESOURCES**

- [Take the HCX Hands-on Lab](#)
- [Visit the VMware HCX product page](#)
- [Watch informative demos, overview videos and more](#)
- [Read our latest HCX blogs](#)
- [Follow @VMwareHCX on Twitter and give us a shout with #VMwareHCX](#)
- [Read VMware HCX documentation](#)
- [Read our Enterprise Guide to Migrating to the Cloud](#)



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

**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 (5.0+) – Eliminate the need to invest in bringing both sites up to parity, enabling you to modernize your data centers with the full 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.
- Work across the WAN and LAN – This enables 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.