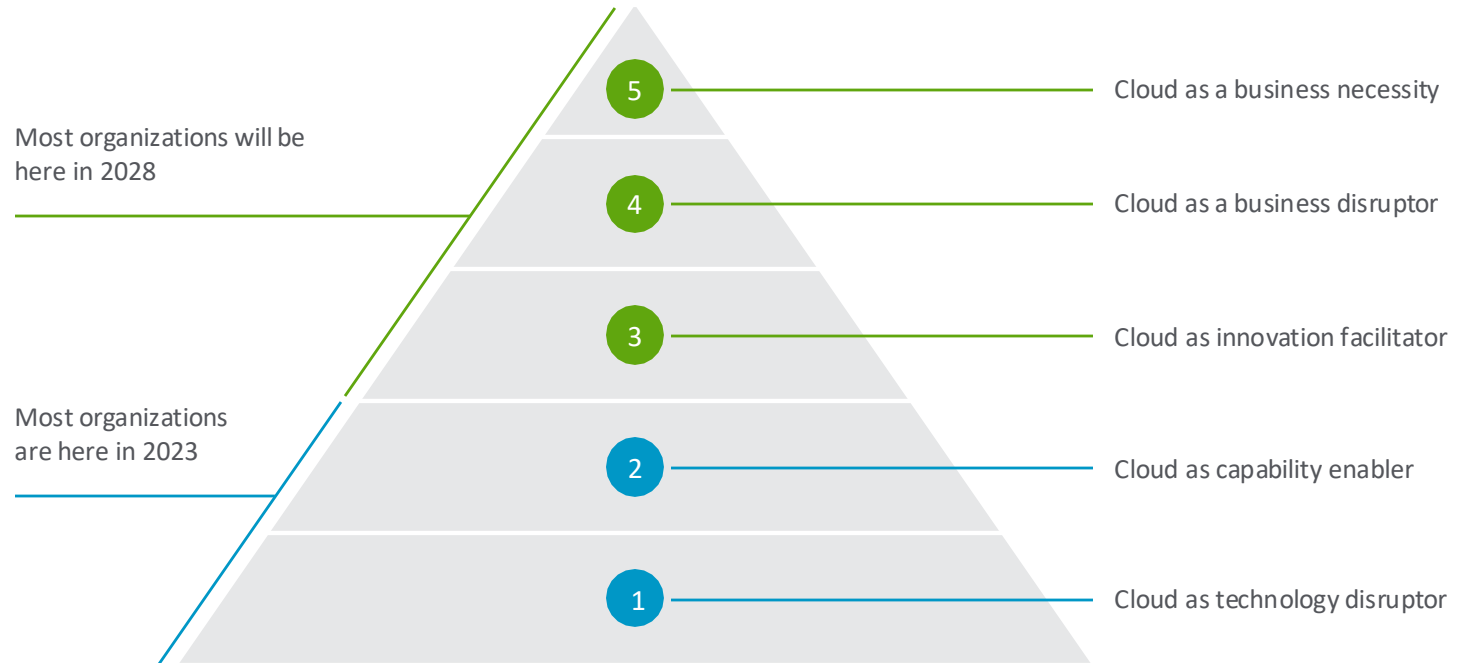# Migration as a Service

Cloud migration landscape

50%+ of enterprises will use industry cloud platforms by 2028 to accelerate their business initiatives[1]

In 2028, most organizations will be leveraging cloud as a business necessity[2]

The global cloud migration services industry size is estimated to reach USD 68.2 billion by 2030, growing at a CAGR of 22.68%[3]

Most organizations will be here in 2028

Most organizations are here in 2023

5 — Cloud as a business necessity

4 — Cloud as a business disruptor

3 — Cloud as innovation facilitator

2 — Cloud as capability enabler

1 — Cloud as technology disruptor

Source: Gartner (November 2023)

1. Gartner, Gartner Says 50% of Critical Enterprise Applications Will Reside Outside of Centralized Public Cloud Locations Through 2027, Oct 2023
2. Gartner, Gartner Says Cloud Will Become a Business Necessity by 2028, Nov 2023
3. Straits Research, Cloud Migration Service Market, Jan 2024

Reasons for cloud migration

50%

of critical enterprise applications will reside outside of centralized public cloud locations through 2027.

Gartner, 2023

Hybrid and multi-cloud adoption

Many organizations are opting for hybrid cloud strategies, leveraging the strength of different cloud providers for various workloads and applications. This approach offers flexibility and redundancy and avoids vendor lock-in.
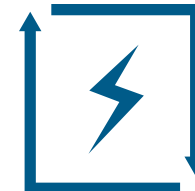
Disaster recovery and business continuity

Migrating to the cloud allows organizations to strengthen their resilience against potential disruptions and minimize downtime in the event of a disaster. Cloud platforms offer robust disaster recovery and business continuity solutions, including automated backups, data replication, and failover mechanisms.
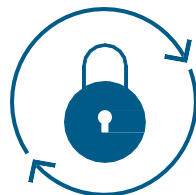
Focus on security and compliance

By migrating to the cloud, organizations can enhance their security posture and meet regulatory plus compliance requirements. Cloud providers invest heavily in security measures and regulatory and compliance certification, making the cloud a secure environment for data storage and processing.
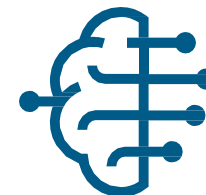
Artificial intelligence and machine learning

AI, ML, and cloud computing have created synergies that drive innovation and offer data processing excellence, cost-effectiveness, security enhancement, resource optimization, and leverage predictive analytics. Hence, AI and ML are responsible for the increased appetite for migrating to the cloud.

Reasons for cloud migration

15%

15% of on-premises production workloads will run in containers by 2026, up from less than 5% in 2022.

Gartner, 2023

Cost optimization

Physical servers may seem like a one-time investment, but they come with layers of cost involving purchase and installation, maintenance and upkeep, energy, and replacement. Cloud providers offer various pricing models, discounts, and cost management tools to help organizations optimize their cloud spending. Additionally, companies were implementing strategies like rightsizing instances, leveraging reserved instances, and monitoring usage patterns to control costs effectively.

Serverless computing

Serverless computing offers cost efficiency and scalability and simplifies development, as developers can focus on writing code without worrying about infrastructure management.

30%

35% of data center infrastructure will be managed from a cloud-based control plane by 2027, from less than 10% in 2022.

Gartner, 2023

Containerization and Kubernetes

Containerization technologies offer portability, scalability, and efficiency, enabling easier deployment and management of applications   across different cloud environments. Hence, Docker and orchestration platforms such as Kubernetes are gaining popularity for cloud migration.
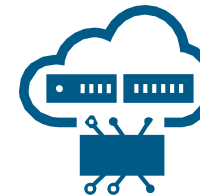
Edge computing

With the proliferation of IoT devices and the need for low-latency processing, edge computing is emerging as a significant trend. Edge computing involves processing data closer to the source, reducing latency and bandwidth usage. Cloud providers are offering edge computing services to support this trend.

Threats and risks

Workload migration and main risks
Migration to cloud is the process of moving resources such as virtual machines (VMs) or virtual applications (vApps) from one place (an on-premises or cloud site) to a cloud computing environment.
At first, the cloud migration journey may come across as a
straightforward process with a plethora of cloud modernization services and technology. In reality, it is typically very complex. Here are some of the main challenges and technical risks faced by the majority of organizations:

Re-platforming: Is the cloud environment compatible with the on-premises infrastructure? Are security, networking, and the data disk format the same? Our partners   will work with you to assess the migration readiness of your current infrastructure.

Right-sizing: Is the cloud offering flexible enough? Migration services from our partners can accommodate any size of workload and VM; you are not forced down a particular route.

Security: Is the migration process secure enough? Our partners will carry out an impact analysis to identify all the blind spots and security challenges.

Size: Are the migrating workloads too big, and will this slow down the process significantly? Our partners will go step by step through your strategy to ensure cloud adoption and migration is a phased process.

Stability: Is there a guarantee that the migration will be successful? What will   be the impact on people, processes, and technology? Our partners will strategize a plan to offer you peace of mind.

Downtime: How long can companies afford to have their critical applications powered off? Our partners have a proven track record in minimizing downtime and resource exhaustion.

Level of customization: Are there many dependencies between the different elements of the vApp? Our partners   will use every opportunity to automate and develop a bespoke cloud solution.

Data sovereignty: Will the new infrastructure adhere to the regulatory and compliance requirements? Our partner's will honor the regulatory and data sovereignty requirements (e.g., HIPAA, SOX, GDPR, PCI DSS, etc.)

7 Rs strategy

With our partner's VMware by Broadcom solutions, customers can reap the benefits of a ubiquitous, flexible, and integrated hybrid cloud infrastructure across cloud endpoints.
Our partners deliver the technology and services to implement a highly efficient cloud operating model that provides the scale and agility of the public cloud with the security and performance of the private cloud.

A cloud migration strategy constitutes an overarching plan outlining the transition of an organization's digital assets—which can include services, databases, IT resources, and applications—from on-premises or co-located infrastructures into a cloud-based environment.

The future trajectory of each application is typically influenced by the "7Rs Decision Tree" delineating transformation choices. Your selection hinges on business priorities, timeline, and available resources.
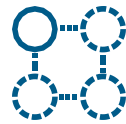
Rehost (lift and shift)

Lift and shift existing applications to the cloud without modification. Quick migration; minimal changes are required.

Replatform (lift, tinker, and shift)

Lift and shift existing applications to the cloud without modification. Quick migration; minimal changes are required.

Repurchase (drop and shop)

Replace existing software with cloud-based alternatives. This gives you access to modern features and reduced maintenance overhead.

Refactor/re-architect (rebuild)

Redesign applications to fully leverage cloud- native features. This improves agility, scalability, and cost optimization.

7 Rs strategy

To mitigate the risk of failure and ensure a successful cloud migration, businesses should invest in thorough planning, engage stakeholders early and often, prioritize security and compliance, conduct proper vendor evaluations, and provide adequate training and support for staff involved in the migration process. Additionally, organizations should be prepared to adapt and iterate their strategy as needed based on feedback and evolving business requirements.

Retain (stay and maintain)

Lift and shift existing applications to the cloud without modification. Quick migration; minimal changes are required.

Retire (drop)

Decommission obsolete applications or redundant functionalities. Retiring apps can reduce maintenance costs and complexity.

Risk mitigation

Identify and mitigate risks associated with migration to improve data security, compliance, and performance optimization.

71%

71% of organizations that use or plan to use third-party services to manage transitions have experienced greater organizational effectiveness.[1]

Many organizations could do better to 'move the needle' further and achieve far better results with cloud.[1]

• 30% said their cloud migrations failed to meet expectations

• 42% fear they may be behind in technology, and the market may leave them behind

• 37% feel they've missed out on business opportunities due to poor cloud execution or strategy, while 41% fear the competition will innovate first

1. Unisys, Moving the Needle on Your Cloud Success Barometer, 2019

Migration as a Service with VMware Cloud partners

Why VMware Cloud Foundation
Global leaders choose VMware by Broadcom

300K
Organizations
globally

85M
enterprise workloads
on VMware

5M
developers building
on VMware today

Supported by a global ecosystem of 30K partners

10 of top 10
largest global banks

9 of top 10
world's best hospitals

100%
of U.S. federal agencies

19 of top 20
global retailers

Delivers a hybrid cloud computing infrastructure powered by VMware Cloud Foundation (VCF) that is ubiquitous, compatible, integrated, and deployed on premises, by service providers, and across hyperscale clouds.

Faster time to market, increased innovation, 36% lower TCO,[1] and reduced carbon footprint

Advanced protection, prevention, and recovery using distributed network-based context-aware security

A hybrid-cloud IaaS software solution with integrated, enterprise-class compute, networking, storage, management, and security

Increased flexibility and choice through standardized building blocks and license portability (BYOL) across all validated cloud endpoints (private, public, edge, and CSP)

Cloud cost controls provide predictable cloud costs, TCO savings, and up to 171% ROI.[2]

1. <source needed>
2. Forrester, The Total Economic Impact™ Of VMware's VMware Cloud Foundation, Mar 2022

Hosted private   Managed public   Managed private

Migration as a Service with VMware partners

Unified and seamless approach to cloud migration

Our partner's Migration as a Service solution using VMware Cloud addresses different migration scenarios to ensure workloads and applications can be migrated and managed across VMware's hybrid cloud solutions for a more seamless transition. Start your migration journey by discovering and assessing on-premises resources and plan your move with guided expertise and resources. Migrate to your preferred cloud in phases and modernize for faster innovations and higher ROI.

Tailored migration strategies

Offers diverse migration approaches such as rehost, re-platform, and refactor to suit specific business requirements. Caters to various starting environments such as private hosted cloud, managed private cloud, and shared public cloud.

Optimized migration journey

Ensure the readiness of the ecosystem before the migration and guarantee optimum efficiency post-migration to prevent downtime and data loss.

Competitive onboarding capabilities

Delivers onboarding with advanced orchestration features, seamlessly moving workloads and data to the cloud faster.

Application mobility and automation

Minimize disruption by ensuring applications are continuously accessible and operational through the migration process. Enable infrastructure as a code to provision, monitor, and automate in an orderly fashion.

Hosted private   Managed public   Managed private

Partner's Migration as a Service

Benefits

Scalability

Scale resources up and down quickly and efficiently based on demand. Meet the changing workload requirements without the need for significant infrastructure investment or reconfiguration.

Flexibility

Flexibility in deployment options, allowing businesses to choose between hosted private cloud, managed private cloud, or managed public cloud.

Cost efficiency

Reduce capital expenditure on physical hardware and associated maintenance costs. Our partners can help you develop cost strategies that meet your affordability criteria.

Simplified management

Leverage centralized management tools and automation capabilities that streamline laborious tasks, reduce complexity, and improve operational efficiency.

High availability and disaster recovery

Built-in high availability and disaster recovery capabilities, including automated failover and recovery processes, ensure business continuity and minimize downtime during failures or natural disasters.

Enhanced security and compliance

Built-in security features, such as micro-segmentation, encryption, and compliance automation help enterprises protect their data and applications.

Use cases

Cloud model

Hosted private cloud

Complete control and autonomy with our partner delivered VMware Cloud Foundation infrastructure.

Cloud host-based consumption with simple and fast expansion.

Suitable for customers who want air- gapped, segregated cloud solutions for sovereign or security requirements.

Managed private cloud

Dedicated private cloud + managed services + common user access.

Suitable for customers who need workload isolation and security.

Intend to service cloud solutions to their lines of business using shared access for a simple cloud experience.

Managed public cloud

Public cloud with underlying VMware Cloud Foundation infrastructure.

Managed services available to assist with onboarding and ongoing operations.
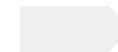
Control application workload placement to ensure performance, security, and licensing adherence.

Choose from secure, flexible resource pools or dedicated allocations, all backed with VMware Cloud Foundation infrastructure.
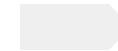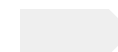
Migration type

Live migration

Warm migration

Cold migration OS assisted

Warm

Cold migration

Cold

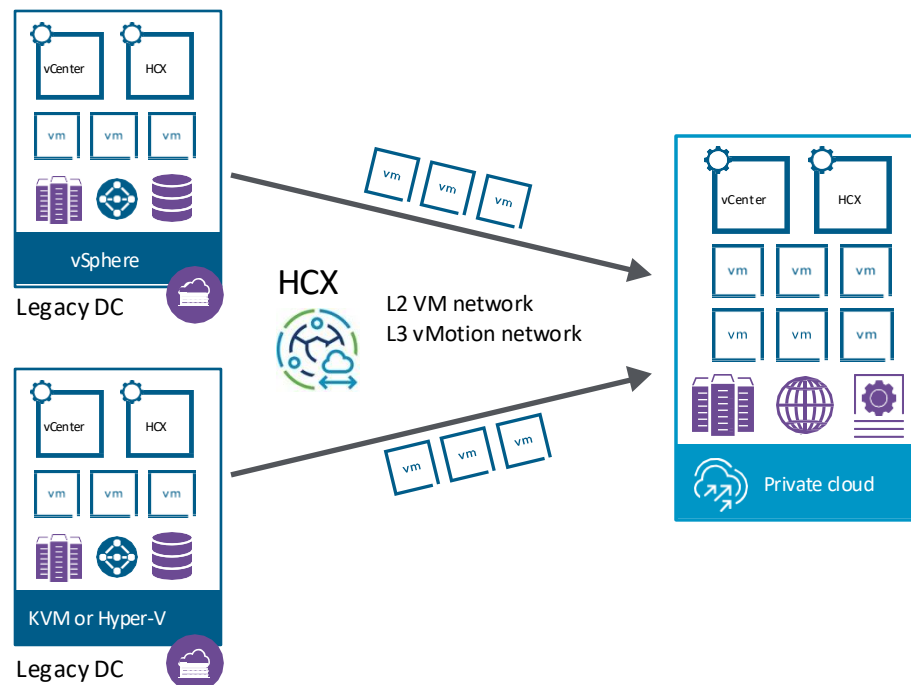Warm migration

Hosted private cloud Migration as a Service

Our partner's migration solution simplifies the process of migrating and extending on-premises environments to hosted private clouds. It facilitates workload mobility across different environments, whether it's between on-premises data centers and the cloud or between different cloud environments.

HCX

L2 VM network
L3 vMotion network

vCenter HCX

vm vm vm

Legacy DC

vCenter HCX

vm vm vm

KVM or Hyper-V

Legacy DC

vCenter HCX

vm vm vm

vm vm vm

Private cloud

Our partners offer a comprehensive solution for organizations seeking to leverage private cloud environments for improved control over their data, scalability, and resilience while simplifying the management and migration of workloads across infrastructures.

Supports: vSphere, non-vSphere workloads Use cases: Live l warm l cold migration

Sample customer scenario

- Building private cloud

- Transforming from legacy data
  centers to VCF

- Consolidating multiple
  data center regions
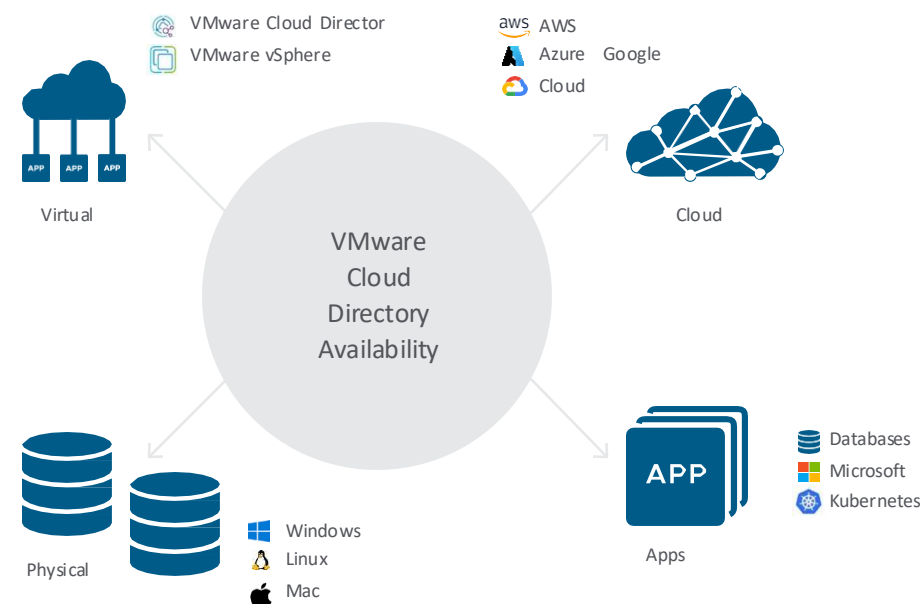
- VCF to VCF version upgrade

- vSphere upgrade

VMware HCX advantage

- Driving large-scale migration

- Automatic vSphere upgrade

- No business impact

- Migrate non-vSphere
  workloads

- Map legacy IPs and networks to
  new SDDC

- Accelerate transformation from
  months to weeks

- Self-service

Managed private

Managed private cloud Migration as a Service

Our partner's migration services provide customers with a clear pathway to fully manage, secure, and operate workload movement across a private cloud, which   helps customers avoid having to own direct capital investment in the applications and infrastructures required to manage migration within their own technology stacks by
switching the responsibility to a third party and paying for the service on an ongoing basis.

VMware Cloud Director
VMware vSphere

AWS
Azure   Google
Cloud

Virtual

Cloud

VMware Cloud Directory Availability

Databases
Microsoft
Kubernetes

APP

Apps

Physical

Windows
Linux
Mac

Our partners offer a comprehensive solution for organizations keen on managed cloud environments for improved agility, utilization of resources, and resilience while outsourcing the management and migration of workloads across infrastructures.

Supports: vSphere, non-vSphere workloads Use cases: Warm l cold migration

Sample customer scenario

- Requires assistance managing cloud infrastructure and reducing downtime and cost
- Transforming from legacy data centers to VCF
- Consolidating multiple data center regions
- VCF to VCF and vSphere version upgrade
- Need for predictable server and resource usage

VCDA advantage

- Competitive self-service migration
- Simple and faster onboarding
- Multi-tenancy
- Migrate non-vSphere/vSphere workloads
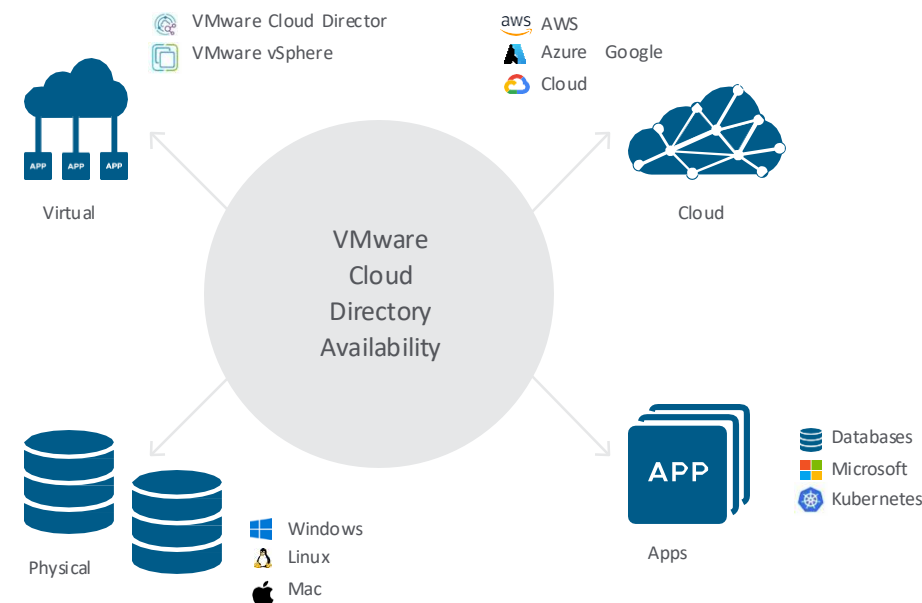- One-click migration
- Migration plan

Managed public cloud Migration as a Service

Our partner's migration services offer peace of mind to their customers by delivering managed public cloud services at the tip of their fingers. Outsource the core parts of your cloud operations—your environment, infrastructure, databases, and security setup—to avoid cloud management hassle and reduce cost and downtime with high-performance IT infrastructure.

VMware Cloud Director
VMware vSphere

aws AWS
Azure   Google
Cloud

Virtual

Cloud

VMware Cloud Directory Availability

Physical

Windows
Linux
Mac

APP

Apps

Databases
Microsoft
Kubernetes

Our partners offer an end-to-end cloud management service that serves as a foundation for innovation, not a technical burden. Enable agile, secure, and reliable cloud operations that empower your digital strategy and unlock new innovation possibilities.

Supports: vSphere, non-vSphere workloads Use cases: Warm l cold migration

Sample customer scenario

• Seeking co-managed cloud services

• Transforming from legacy data centers to VCF

• Need to reduce costly upgrades, maintenance, and downtime

• VCF to VCF and vSphere Version Upgrade

• Potential to optimize cloud infrastructure and accelerate app modernization

VCDA advantage

• Competitive self-service migration

• Simple and faster onboarding

• Multi-tenancy

• Migrate non-vSphere/vSphere workloads

• One-click migration

• Migration plans

• Scalable offering

Find a Cloud Service Provider

Find a cloud service provider here. They are experts with the latest VMware cloud technologies. This allows you to focus on your business not your infrastructure.