

5 Considerations for Hosting VMs and Containers on a Single Platform



Businesses across all industries are adopting automated DevOps processes to accelerate how new features are deployed and new services are brought to market. But the path to this future state is far from smooth.

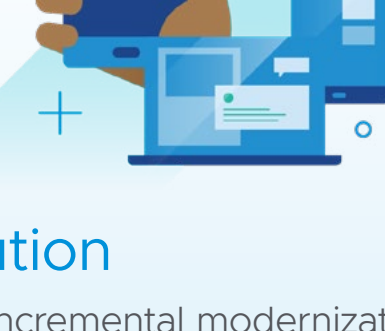
Application modernization efforts involve different paths (retain, rehost, replatform, refactor and retire) and often maintain a mix of VM and container application architectures.

NEARLY 3 OUT OF 4

ORGANIZATIONS PLAN TO CONTAINERIZE EXISTING APPLICATIONS AS PART OF THEIR MODERNIZATION EFFORTS.¹

IT leaders and teams should consider the benefits of a single platform approach in **five key areas.**

1 Acceleration of Application Modernization Schedule



Challenges

Digital demands are often met one project at a time. Organizations need to execute multiple transformation projects in parallel to meet business goals.

Solution

- An incremental modernization strategy eliminates the long delay between modernization project inception and when apps are ready for deployment.
- Organizations need to focus decisions based on the modernization strategy which produces the highest value on a per-application basis, rather than choosing a one size approach for the entire application portfolio.

How

VMware Cloud™ enables a single platform for infrastructure, operations, teams and processes. For teams, this provides flexibility for workloads that scale on demand to cloud. Accelerate growth in new applications, operate through outages, and provision cloud resources for unexpected spikes in activity.

2 Requirements for Distributed Kubernetes



Challenges

Enterprise Kubernetes installation and operations can be complex and challenging, often involving a steep learning curve.

Solution

Integrating Kubernetes with existing VM platforms, provides developers and DevOps teams access to the Kubernetes API for programmatic consumption of infrastructure services, simplifying how applications are built, run, and then managed by Kubernetes.

How

VMware Cloud™ gives IT an industry-leading integrated solution to deploy and manage pre-configured Kubernetes clusters that include integrated storage, network, and monitoring and automation. For multi-cloud Kubernetes management, VMware enables controls across major cloud providers and new Kubernetes Operators released by different vendors, delivering databases, messaging systems, and much more functionality to developer teams.

3 Reduced Risk for Platform Teams



Challenges

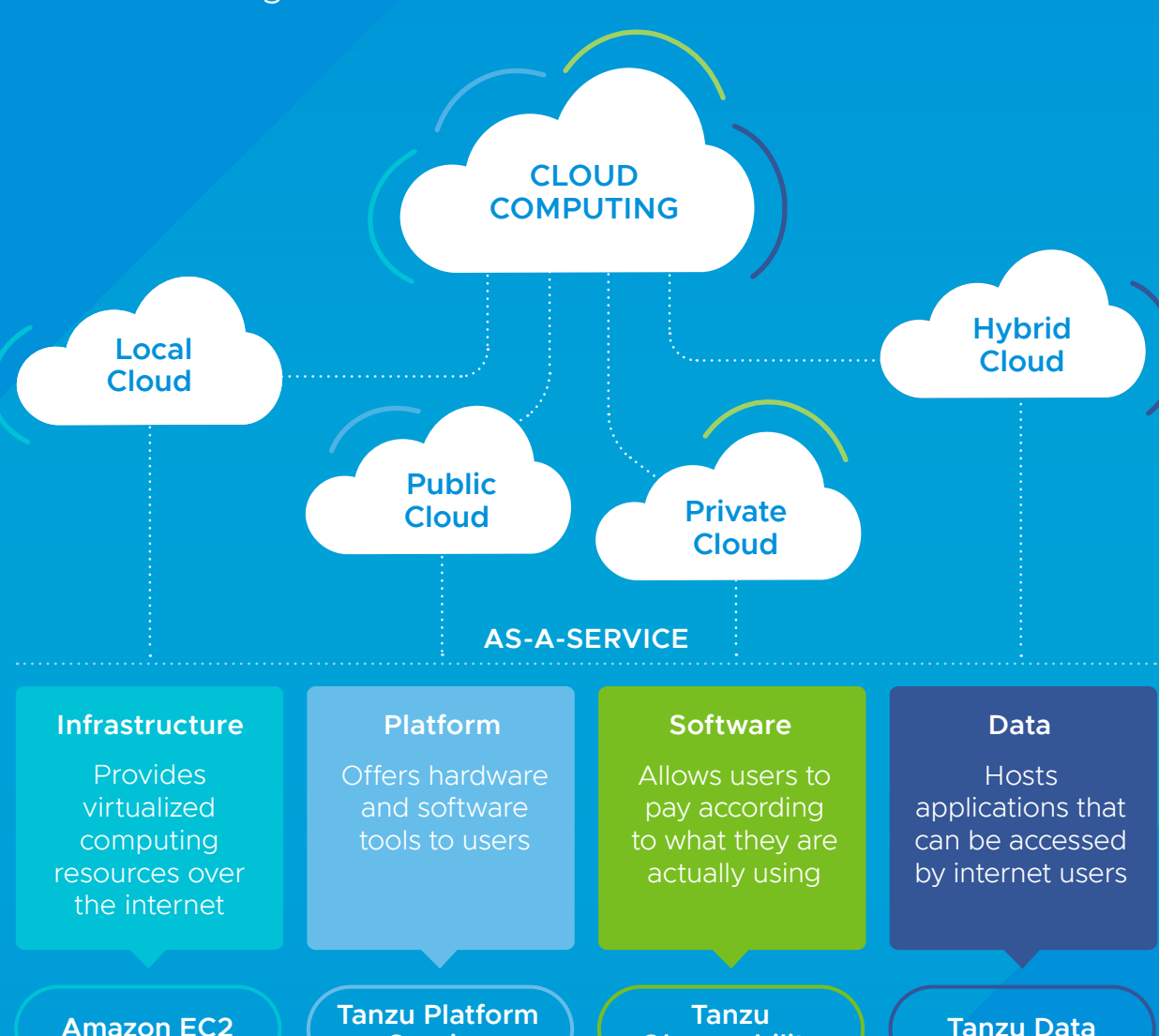
Using multiple platforms to manage diverse application types across a variety of infrastructure environments can significantly increase complexity, and thereby create operational risk.

Solution

A platform that enables a single approach to deploying, monitoring and troubleshooting applications, while optimizing capacity and utilization, reduces management complexity.

How

Use VMware Cloud™ to unify and operate consistently: Eliminate the need for separate platform teams, tools and processes for VMs and containers. Leverage existing skills and knowledge of existing teams to manage infrastructure and enable service delivery for both VMs and Kubernetes. Streamline automation with a single set of service definitions and tools to simplify infrastructure service delivery. Simplify monitoring and troubleshooting.



4 DevOps Toolchain Integration



Challenges

Aligning your DevOps and IT teams is critical to the success of modern application development, bring efficiency, scale and security to Kubernetes deployments. However, DevOps and IT have traditionally operated at a divide.

Solution

Combine containers on platform with your VM workloads. Developers and DevOps teams get all the benefits of a new platform while the IT operations teams can leverage their existing tooling.

The result: a unified, consistent, optimized foundation for your development pipeline.

How

VMware Cloud™ enables a combination of containers on platform with your VM workloads. Leverage all the tooling, training and skillsets you have developed for VM workloads and extend them to Kubernetes.

5 Security and Compliance



Challenges

Multiple infrastructure platforms create security and compliance risk. You can develop a simple, powerful policy but if it is not implemented consistently, across all infrastructure and cloud platforms it will not be effective.

Solution

A common platform, along with intrinsic security that ties policies to workloads instead of infrastructure, enables organizations to reduce security risk through centralized management as well as predictable policy enforcement for security, regulatory compliance and governance.

How

VMware Cloud™ provides a single platform to build an intrinsic security platform integrated down to the hardware layer. Teams adopt intrinsic enterprise security, network isolation, and load-balancing across a diverse application and multi-cloud environment, helping to establish comprehensive protection for container- and VM-based services at scale.

Explore a unified cloud operating platform with VMware

Learn how VMware powers value for business and technology teams.

START YOUR JOURNEY

1. VMware, Inc. "App Modernization in a Multi-Cloud World." March 20, 2020.