VMware Cloud on AWS

Top 5 Challenges of Modernizing Applications in the Cloud

START

Digital Transformation is Reshaping Information Technology

At the heart of these transformations are modern applications that deliver improved digital experiences to win, serve and retain customers. These modern applications are driven by business outcomes such as increased business agility, innovation, growth and market differentiation while balancing costs, security, reliability and control.

The cloud has played an important role in helping businesses to not only deliver new applications but also to provide an avenue for modernizing existing enterprise applications. Forrester's 2019 developer survey revealed that enterprise developers are using cloud to not only improve customer-facing apps like mobile and eCommerce platforms but also to develop and deploy apps for core operations, and even core record keeping, at nearly equivalent rates.

However, adopting the cloud for modernizing existing applications has its own challenges. Customers face some issues around lack of necessary skillsets to modernize the applications and inflexible application and infrastructure architecture and these challenges increase the cost, risk, complexity and time of the modernization project. So, if you are considering modernizing your existing applications, first understand the key challenges and choose the right cloud solution that fits your needs.

40%

of the survey participants cited infrastructure modernization as their top digital transformation spending driver.

"2020 IT Priorities Survey," TechTarget (proprietary research), December 2019

The Solution: VMware Cloud on AWS

VMware Cloud™ on AWS delivers a seamlessly integrated hybrid cloud solution that extends on-premises VMware vSphere® environments to a VMware SDDC running on Amazon Elastic Compute Cloud (Amazon EC2) elastic, bare-metal infrastructure that is fully integrated as part of AWS.

VMware Cloud on AWS provides an infrastructure platform option for customers to modernize their existing enterprise applications on and enables them to run their enterprise workloads of today and tomorrow.

With this hybrid cloud service, organizations can alleviate their challenges in modernizing their existing applications while ensuring they are future proofing their investments for new application development.

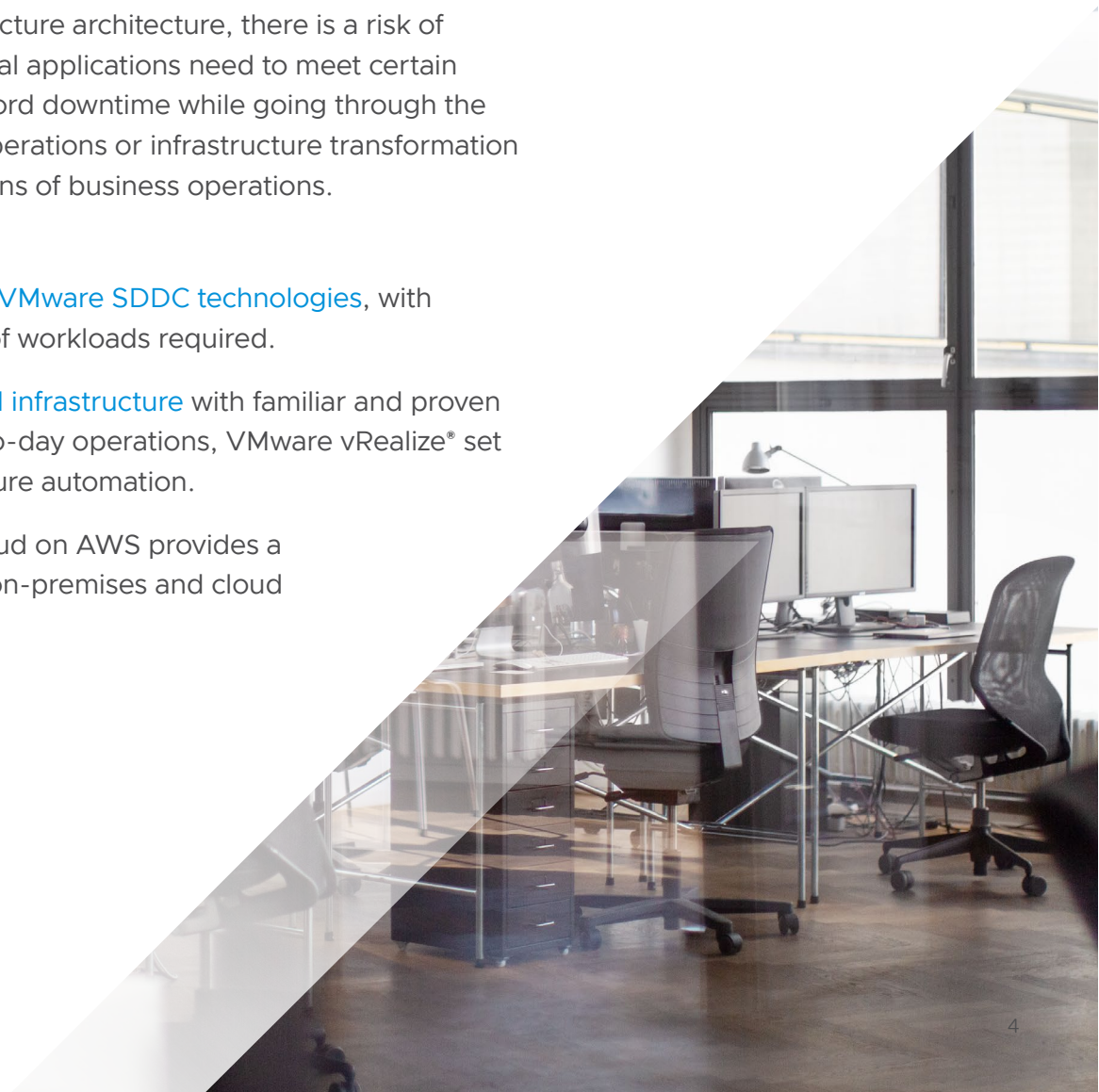
Explore how VMware Cloud on AWS addresses common application modernization challenges

Challenge #1: Disruption to Existing Business Processes and Operations

Due to inflexible and inconsistent application and infrastructure architecture, there is a risk of application downtime during modernization. Mission critical applications need to meet certain performance and availability requirements and cannot afford downtime while going through the modernization exercise. Automation of IT infrastructure operations or infrastructure transformation with modern frameworks like containers leads to disruptions of business operations.

The solution: VMware Cloud on AWS

- VMware Cloud on AWS is cloud service built on trusted VMware SDDC technologies, with vSphere at its core – no conversions or re-architecture of workloads required.
- It provides consistent operations across the hybrid cloud infrastructure with familiar and proven technologies such as VMware vCenter Server® for day-to-day operations, VMware vRealize® set of technologies for advanced operations and infrastructure automation.
- Support for Tanzu Kubernetes Grid Plus on VMware Cloud on AWS provides a consistent Kubernetes experience for operators across on-premises and cloud environments without any downtime.

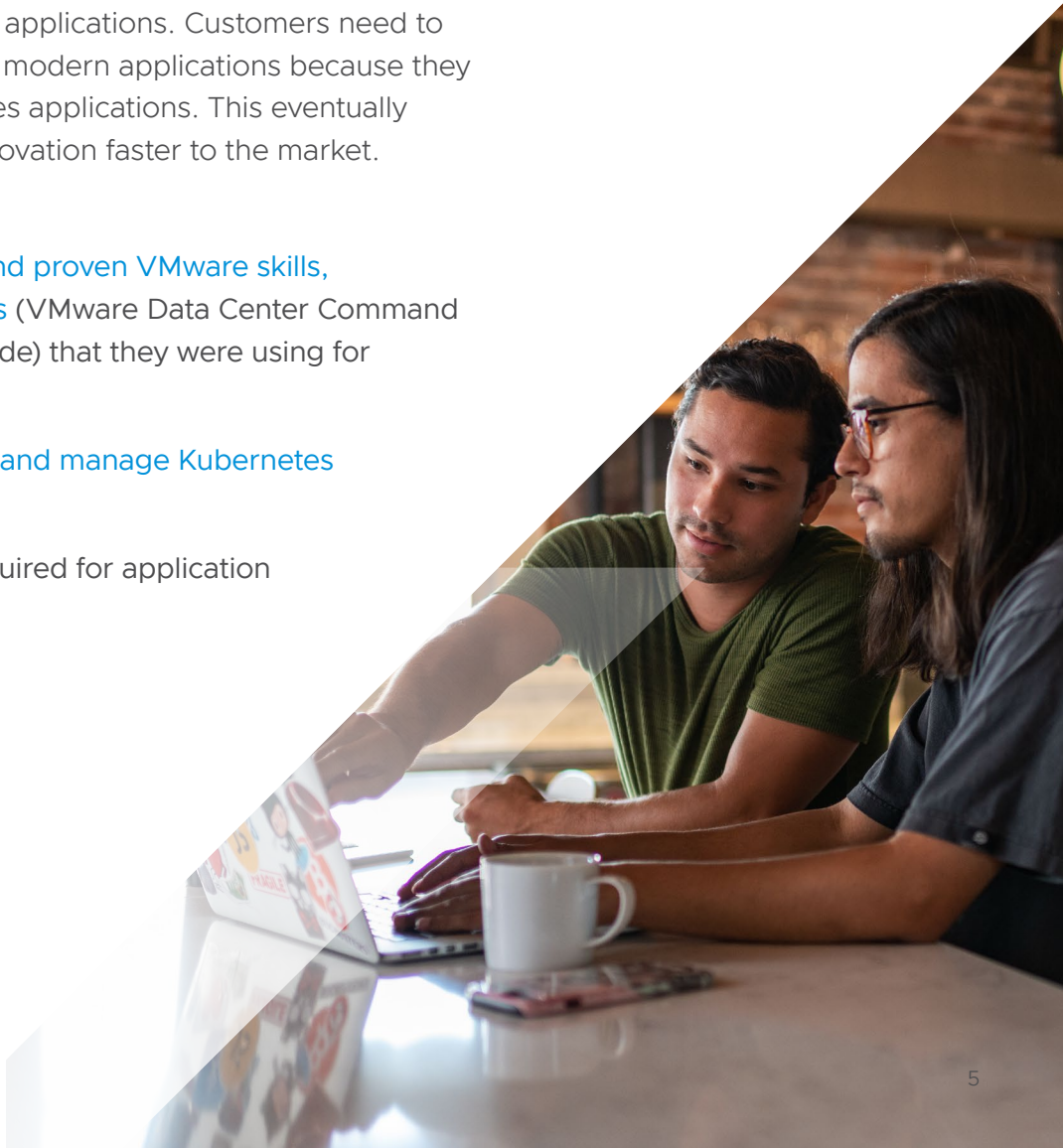


Challenge #2: Skill Shortage in Modern Application Development and Delivery

Organizations lack necessary skillsets in order to modernize their applications. Customers need to retrain their existing staff or hire new staff to develop and deliver modern applications because they cannot re-use the same skills that they were using for on-premises applications. This eventually delays the modernization projects and businesses can't bring innovation faster to the market.

The solution: VMware Cloud on AWS

- With VMware Cloud on AWS, customers can use the familiar and proven VMware skills, developer tools (SDK, APIs, and Samples) and automation tools (VMware Data Center Command Line Interface™ (DCLI), VMware Power CLI, Infrastructure as Code) that they were using for on-premises applications.
- Developers can use same tools and workflows to deploy, scale and manage Kubernetes clusters across on-premises and cloud environments.
- This increases developer productivity and reduces the time required for application and infrastructure modernization.

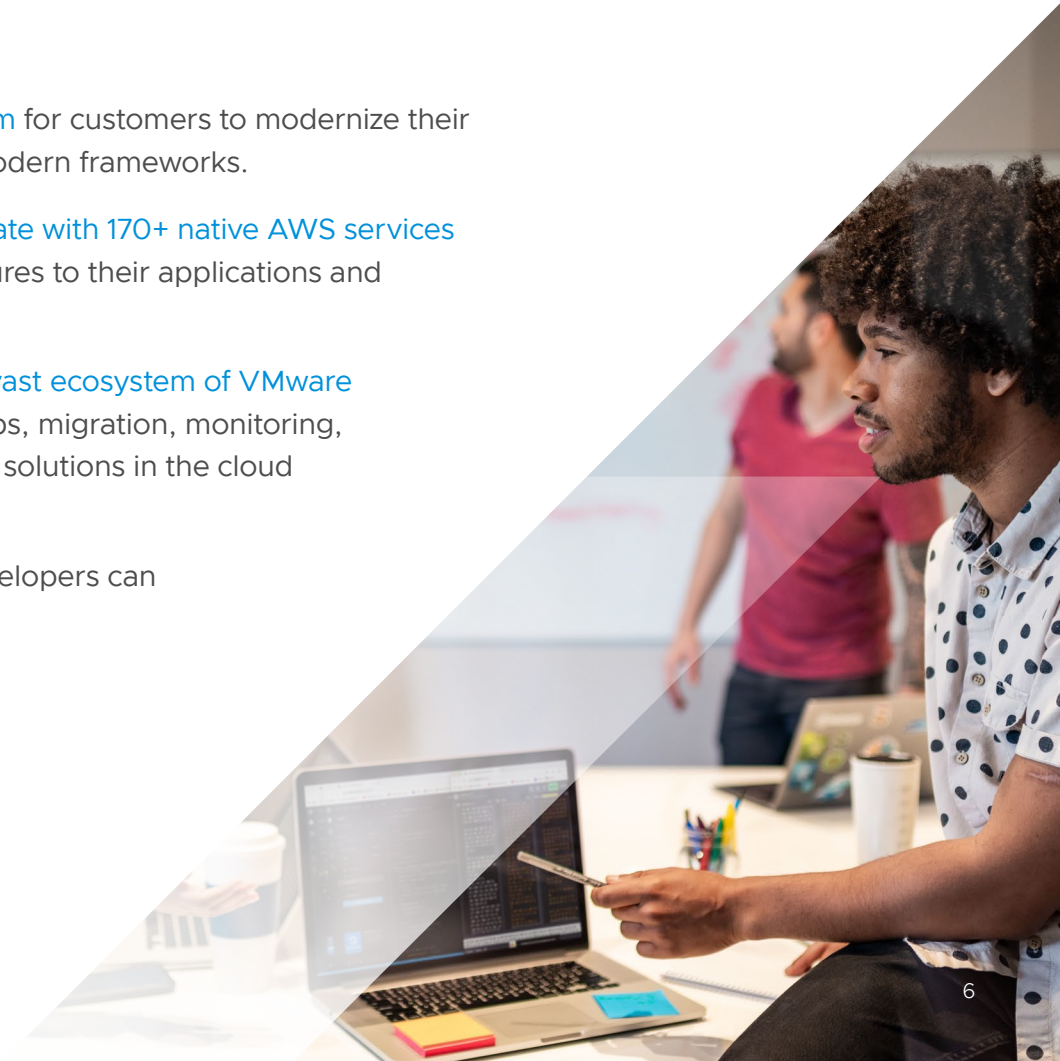


Challenge #3: Lack of Integration Abilities

Due to a fragmented technology ecosystem, organizations are unable to easily and seamlessly leverage CI/CD methodologies, application catalogs and native cloud services to enrich enterprise applications. This hinders the ability to rapidly innovate and it adds costs, risk and complexity to application and infrastructure modernization.

The solution: VMware Cloud on AWS

- VMware Cloud on AWS provides a unified infrastructure platform for customers to modernize their existing applications as well as to build new applications with modern frameworks.
- With VMware Cloud on AWS, developers can seamlessly integrate with 170+ native AWS services over high bandwidth, low latency connection and add new features to their applications and enhance the end use experience.
- Customers can leverage the VMware Cloud Marketplace™ for a vast ecosystem of VMware Cloud ready solutions across different categories such as DevOps, migration, monitoring, security, analytics etc. so that they can use the same ecosystem solutions in the cloud that they were using on-premises.
- With seamless integration with Tanzu Kubernetes Grid Plus, developers can create and scale Kubernetes clusters as per their needs.

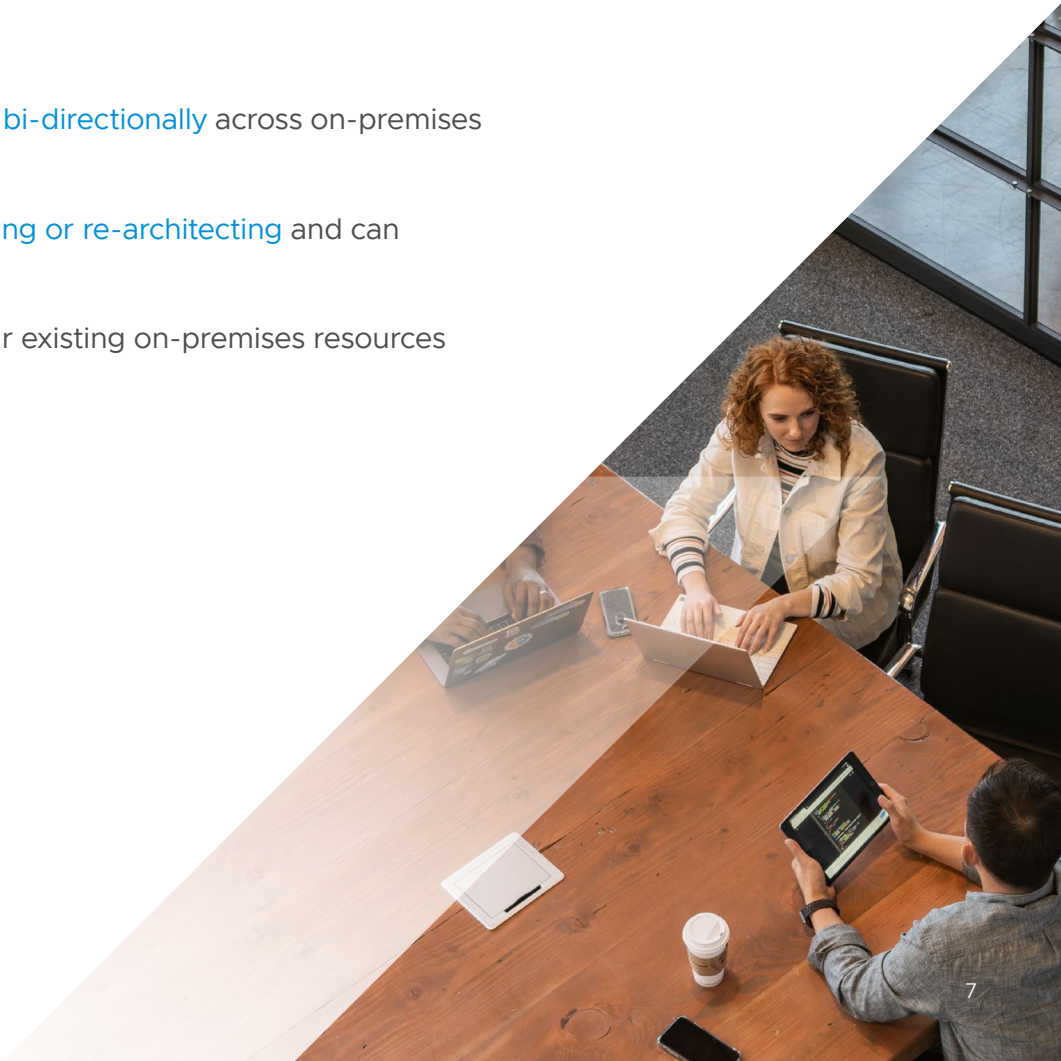


Challenge #4: Increased Costs

Due to lack of application portability and interoperability across hybrid environment, customers are unable to move applications bi-directionally across on-premises and cloud environment as per their needs. Customers waste their current IT investments while modernizing existing applications as they need to re-factor or rework on their existing applications.

The solution: VMware Cloud on AWS

- With VMware Cloud on AWS, customers can move applications bi-directionally across on-premises and cloud environments as per their requirements.
- Customers can modernize existing applications without refactoring or re-architecting and can reuse their existing investments.
- Customers can build modern hybrid applications leveraging their existing on-premises resources as well.



Challenge #5: Disparate Tools, Operating Models and Security Controls

Disparate tools and security controls to manage on-premises and public cloud environments. Multiple operating models, processes and lack of self-service automation to manage complex and diverse environments consistently. The differences between on-premises and public cloud infrastructure limits the reuse of established security and governance procedures

The solution: VMware Cloud on AWS

- VMware Cloud on AWS enables you to re-use and extend existing on-premises enterprise security, governance and operational policies to the cloud.
- With VMware Cloud on AWS, customers can centralize and streamline operations with unified visibility and management across the cloud infrastructure.

Further Resources

Application migration and modernization poses many challenges for the customers in terms of increased costs, risks and time. But with VMware Cloud on AWS, customers can rapidly migrate their applications to the cloud without downtime. Once in the cloud, they can start transforming these applications by leveraging modern frameworks such as Kubernetes, enriching them with native cloud services and automating the underlying infrastructure operations with DevOps tooling.

Learn more

- Learn more about VMware Cloud on AWS at the VMware Cloud on AWS Website
- Or by viewing VMware Cloud on AWS Overview Video
- Try VMware Cloud on AWS Hands-on-Lab for a first-hand immersive experience
- Get started now with VMWare Cloud on AWS
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- Solution brief: Application modernization with VMware Cloud on AWS

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