



Market Insight Report Reprint

VMware Tanzu editions take shape as cloud-native roadmap leans in on transformation

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Introduction

More than a year after launch, VMware's Tanzu portfolio is evolving to support three transition phases: adapting infrastructure to allow consistent operations with Kubernetes; adjusting workflows to enable faster deployment and better-quality code; and shifting development thinking to focus on APIs, serverless and the long-term benefits cloud native can bring. Along with the launch of VMware Cloud and VMware Cloud Universal, recent announcements indicate VMware's clear move toward subscription and SaaS as a prominent revenue driver.

THE 451 TAKE

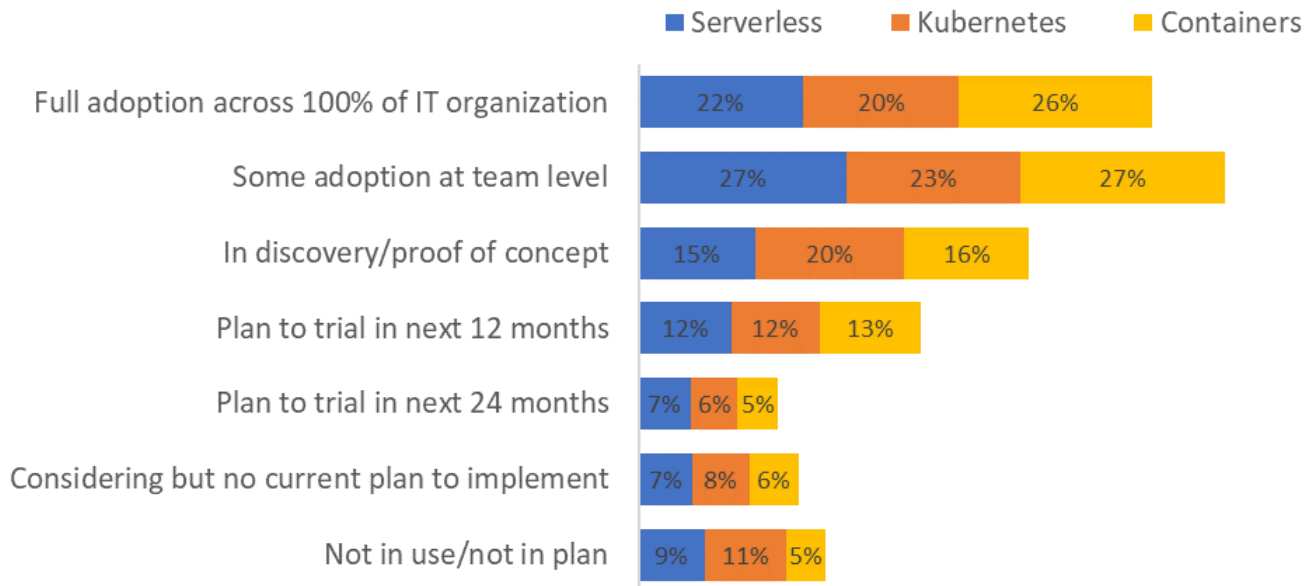
VMware has a unique position in a market increasingly turning to third parties to host and manage IT infrastructure. Its substantial installed base and customers' comfort with its operational controls give it a strong ground game in legacy deployments, but being able to plug into public cloud is necessary to remain incumbent as enterprises answer the siren song of pay-as-you-go processing for more demanding and less predictable workloads. With VMware Cloud Foundation and an army of partners (foremost among them AWS) providing the basis for moving into SaaS, the company acquired a handful of cloud-native software pioneers (most notably Pivotal) to create a launching pad for modernizing applications in a way that's compatible with the organizational structures that have grown up around its virtualization platform. Using Kubernetes as a foundation, VMware is targeting the same opportunity as the hyperscalers – the majority of enterprises destined to run their IT estates in heterogeneous on- and off-premises environments for years to come – but from the opposite direction, beaming its on-prem influence into the cloud instead of the other way around.

Context

Key to VMware's transition from a single-platform virtualization vendor to a multicloud/hybrid platform provider is bringing developers into its orbit, and the Tanzu portfolio is being positioned as a place where developers and operations can both get their needs satisfied. For developers, that means self-service access to resources; for ops teams, it means having a control plane that ensures security and control across diverse infrastructure stacks. Ultimately, VMware Cloud is being designed to provide a governance layer that fills the gaps between public, private and edge deployments.

VMware is tapping a rich vein of opportunity with these ventures – 451 Research's most recent Voice of the Enterprise: DevOps, Organizational Dynamics 2020 survey shows a clear trajectory of increasing adoption of containers, Kubernetes and serverless applications (see figure).

Adoption Status for Select Cloud-Native Technologies



Source: 451 Research's Voice of the Enterprise: DevOps, Organizational Dynamics 2020

Product and business model

Since announcing its plans for Tanzu editions last year, the company has made significant progress in rolling out the services to various personas within the enterprise and with different levels of cloud maturity. At the infrastructure level, Tanzu Basic makes it possible to provision clusters as well as VMs directly from vSphere, so customers can 'turn on' Kubernetes in a trusted environment where they already have good skills. Tanzu Standard is the next step up, making it possible to run and manage multiple Kubernetes clusters with security and policy controls, whether those clusters are running as part of vSphere or not. Tanzu Standard also introduces VMware users to Tanzu Mission Control, a platform for managing clusters across multiple clouds and vSphere; the goal is to ease vSphere customers into adopting Tanzu Mission Control as a hybrid/multicloud management plane and start the transition from VMs to containers as a unit of deployment. As part of the VMware Cloud launch announced on March 31, Tanzu Standard edition is included with VMware Cloud Universal. In addition, Tanzu Application Service, a rebrand of Pivotal Cloud Foundry for a deployable application platform, is now supported on VMware Cloud Foundation (for on-prem deployments) and VMware Cloud on AWS.

Tanzu Advanced became generally available in December 2020, and this is the implementation underlying the second transformation phase: bringing container lifecycle management and DevSecOps into the mix. Tanzu Advanced is squarely aimed at developers – it aims to address the inherent complexity of building modern apps, making use of the Spring framework to give access to open source components with the Tanzu Application Catalog, a commercialized offering of Bitnami's catalog of hardened open source images that can be customized or published on multiple public clouds. VMware says this transformation is all about increasing developer productivity using containers and Kubernetes while maintaining a secure software supply chain. Given the ephemeral nature of container deployments, observability is a necessary management component; Tanzu Observability (formerly known as Wavefront) achieves this as part of the Tanzu Advanced bundle. In its March 31 announcement, VMware highlighted support of Kubernetes operators for data systems (specifically RabbitMQ, PostgreSQL and GemFire) as a centerpiece.

Beyond infrastructure (adopting containers) and DevSecOps (managing app lifecycles) lies cloud-native application transformation, the most difficult but potentially most valuable shift. The Spring framework and community is a big part of the value proposition here: VMware sees a lot of affinity between Spring and Kubernetes, and it recently released VMware Spring Cloud Gateway for Kubernetes to update API management for the Kubernetes era. Securing the software supply chain is an important part of this transition, and authentication and identification must be wired in to new or refactored applications from the get-go. Among the March 31 announcements for this phase were several public beta releases, all of which can add value to VMware Cloud but are also fully compatible with any conformant Kubernetes distribution:

- Spring Native allows developers to compile Spring code into a GraalVM rather than a JVM, enabling scale-to-zero, which is necessary for event-driven architectures.
- Cloud Native Runtimes for Tanzu, based on the open source Knative project, can be used alone or in combination with other Tanzu capabilities to address serverless use cases without first having to master the Kubernetes API.
- For Tanzu Advanced customers, a set of developer features in Tanzu Mission Control allows provisioning and managing of Kubernetes clusters across clouds.
- An API portal, which goes hand in hand with Spring Cloud Gateway, aims to ease API-first development for distributed applications.

Although the final Tanzu edition, Tanzu Enterprise, has yet to be released, it will work at a higher level of abstraction, delivering a Kubernetes dial tone but via an integrated delivery platform. This selling motion is very different from what VMware has done traditionally, but without its own cloud at the infrastructure level, it is destined to compete in the battle for the hybrid/multicloud control plane. Partners will be key to attracting and retaining end customers here.

Competition

The primary near-term competition for VMware's Tanzu portfolio is Red Hat OpenShift, which takes a similar approach to supporting VMs alongside Kubernetes clusters, has a strong on-premises footprint and has forged partnerships with multiple public clouds. HPE has also introduced a Kubernetes-based container platform and software portfolio (Ezmeral) with a comparable emphasis on securing the software supply chain. At different points of the stack Tanzu will vie with Kubernetes-as-a-service vendors including Mirantis, SUSE (with Rancher) and Canonical.

Longer term, VMware Tanzu will be battling it out with public cloud providers and others determined to become the uber-management plane for heterogeneous IT environments. In this respect, it competes with 'cloud-around' offerings that extend cloud operations into the datacenter and out to the edge, including AWS ECS and EKS Anywhere, Google Anthos, Microsoft Arc, and IBM Satellite.

SWOT Analysis

STRENGTHS

VMware has the market reach and cloud-native talent to serve as a trusted partner as customers seek to modernize their infrastructure, development processes and applications. Its move to support serverless architectures validates its intention to embrace new deployment modes where appropriate.

WEAKNESSES

Supporting both installable and cloud-based software can be a drain and may lead to inertia among the company's installed base. VMware has to thread the needle to encourage meaningful transformation as its traditional revenue streams come under pressure.

OPPORTUNITIES

Telco partnerships would go a long way to increase VMware's credibility in the increasingly important edge segment. Although private cloud is VMware's bread and butter, it needs to establish bona fides beyond the corporate datacenter.

THREATS

The company is pursuing a rich opportunity in competition with cloud providers, systems vendors and software suppliers – many of which, like VMware, have a large base of existing customers to keep happy, but some of which don't.

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