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A P E X

SOLUTION BRIEF

Support modern applications with APEX Private Cloud and APEX Hybrid Cloud

Build, deploy, and manage modern applications with a consistent experience across physical, virtual, and containerized infrastructure.

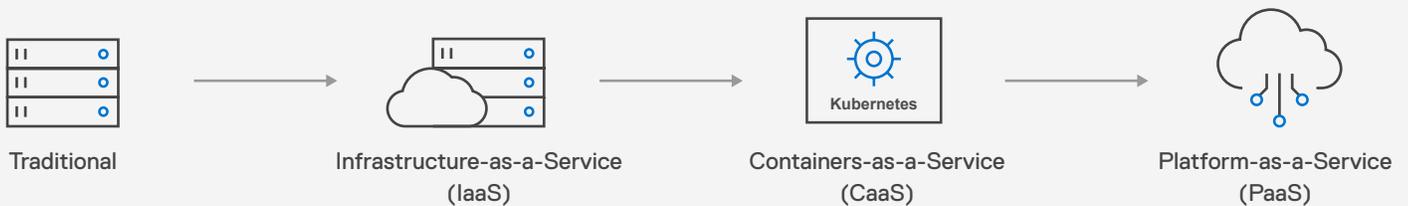## The next evolution of application architectures

Applications are the lifeblood of the modern enterprise. Organizations need the flexibility to run their applications in the manner that best aligns with their business requirements. Virtualization fundamentally shifted the way that this flexibility was achieved, and virtualized infrastructure quickly became a standard feature of enterprise data centers. Now, we are witnessing the next evolution in application architectures as organizations embrace cloud-native architectures and containerized workloads orchestrated by Kubernetes.

The monolithic architecture typical of most enterprise applications is built under the assumption that change is the enemy and

infrastructure will rarely fail. A cloud-native approach results in an environment that is designed to be rapidly updated and is more resilient to component failure.

As IT leaders embrace this new paradigm, it's important for them to chart out a strategy that provides an orderly transition to this new model that enables the preservation of existing application investments while adopting new technologies in an incremental fashion. Modern applications will rely on a co-existence of virtualized and containerized applications. Below are a few considerations for a successful IT strategy for adoption of modern applications.

The evolution of IT architectures

Traditional → Infrastructure-as-a-Service (IaaS) → Containers-as-a-Service (CaaS) [Kubernetes] → Platform-as-a-Service (PaaS)

Key requirements for organizations deploying or developing modern applications

Run both traditional and cloud-native applications

Embrace open-source Kubernetes container orchestration leveraging the same infrastructure and tools you already use. Your VMware administrator can now provision and manage Kubernetes clusters.

Automate, persist, protect

A consistent hybrid cloud reduces manual tasks by automating stand-up and lifecycle management of virtualized and containerized infrastructure. The importance of modern applications requires enterprise-grade storage and data protection.
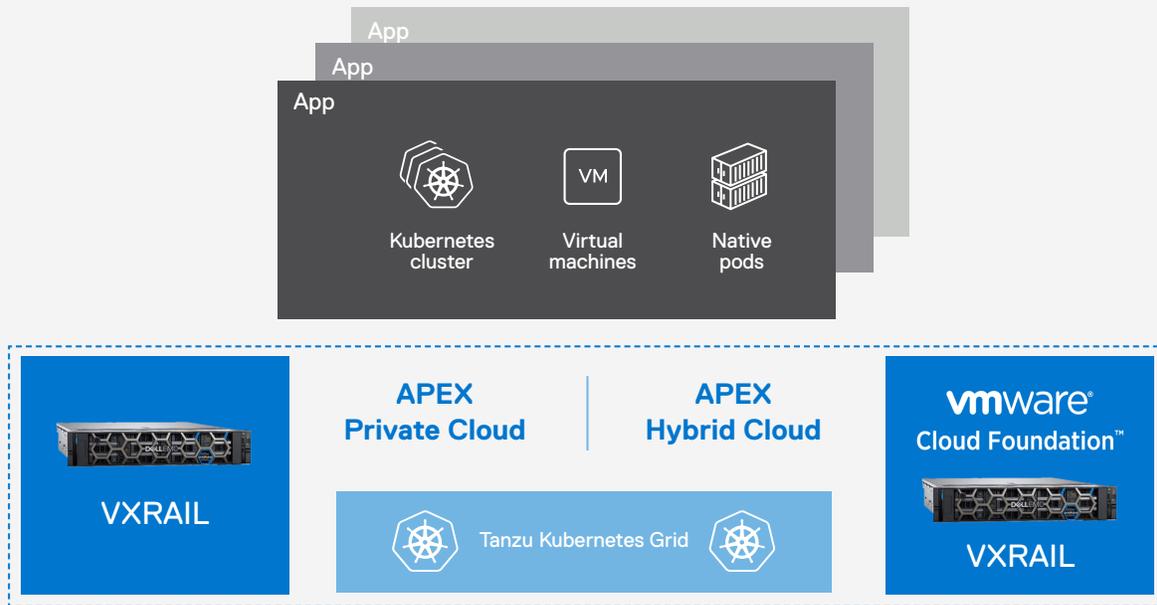
Public and private cloud need to work together

Application requirements should drive workload placement. You need to have consistent infrastructure and consistent operations across private and public cloud so that the same VM or container can be deployed in the right cloud with a common set of tools.

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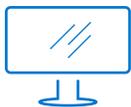
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Implement VMware Tanzu on your own terms

APEX Private Cloud and APEX Hybrid Cloud deliver options to automate the deployment of modern application infrastructure with Tanzu to provide a production-ready Kubernetes environment. This enables you to leverage a consistent infrastructure operational model across your Kubernetes deployments, so you can accelerate time to cloud-native application development. With support for both traditional and cloud-native applications on the same infrastructure, you can now capitalize on the next evolution in enterprise applications.

Choose the best cloud infrastructure to fit your operating model and level of Kubernetes expertise

	APEX Private Cloud vSphere with Tanzu on VxRail	APEX Hybrid Cloud VMware Cloud Foundation with Tanzu on VxRail
Cloud native with Tanzu (optional add-on)	Add Tanzu Basic Edition for the fastest way to get started with Kubernetes workloads.	Add Tanzu Standard Edition for the best way to run Kubernetes workloads at scale.
Scale	Projects with small- to medium-scale deployments of Tanzu Kubernetes clusters.	Projects with medium to large deployments of Tanzu Kubernetes clusters.
Deployment	Deploy enterprise-grade Kubernetes rapidly into an existing vSphere environment in less than one hour.	Automatic deployment and configuration of the entire SDDC infrastructure stack (VMware vSphere™, vSAN™, and NSX™) using SDDC Manager.

Learn more about modern applications and Dell Technologies Tanzu Advantage

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