VMware vSphere® with Tanzu™

The fastest way to **get started with Kubernetes** workloads

Innovate Fearlessly Using vSphere with Tanzu

For CIOs in enterprises today, the pressure is on to help grow revenue and maintain a competitive advantage. Line of Business leaders are clamoring for the type of modern applications that deliver better user experiences and increase market share, and they want these applications in production faster than ever before. But modern applications pose their own set of challenges. More complex than traditional applications, they are often made up of multiple VMs, containers, and services and run across heterogeneous architectures.

Modern apps are like distributed systems

Kubernetes Cluster

My Application

Control Plane

| Node | GPU Node | Node |

Serverless

| Function 1 | Function 2 |

APP

| vm | vGPU |

DATABASE

| vm | vm |

APP
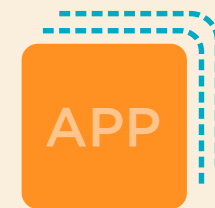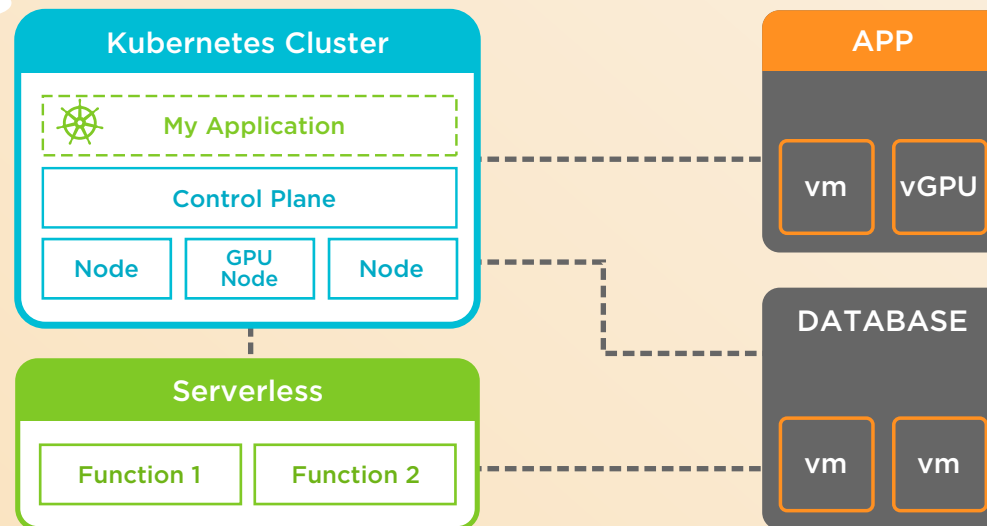
Between 2019 and 2024, enterprises will build 500 million apps using cloud native tools and methods.[1]

1. IDC. "500 Million New Logical Applications: More Background." Doc # US45622019. Al Gillen, Gary Chen, and Frank Gens. November 1, 2019.

Challenges Introduced by Modern Applications

1. **Unsustainable costs of public cloud services and modern infrastructure platforms** — Line of Business (LOB) and DevOps teams are consuming expensive cloud services or investing in dedicated Kubernetes platforms for building modern applications to take advantage of modern developer tools.

2. **Infrastructure silos and multiple operating models** — IT teams deal with infrastructure silos and struggle to enforce security isolation. IT is unable to deliver infrastructure for modern applications at the desired pace of DevOps teams or LOB, due to lack of knowledge or skillsets necessary for a cloud operating model.

3. **Increasing time to market for new applications** — Developer teams spend a significant amount of time on infrastructure operations related to networking and storage for Kubernetes deployments, which takes away time from development, slowing down the speed to production.

By 2025, more than 80% of ISVs will offer their application software in container format, up from less than 10% today.[2]

97%
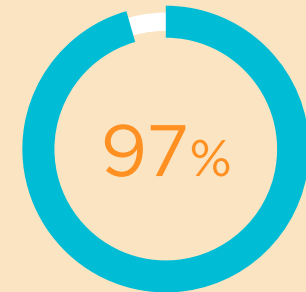
According to a survey conducted by IDC on container infrastructure software, 97% of respondents are using a Kubernetes-based platform.[3]

2. Gartner, Inc. "CTO's Guide to Containers and Kubernetes: 10 Frequently Asked Questions." July 2020.

3. IDC. "Container Infrastructure Software Market Assessment: End-User Survey Results." Doc # US46185520. Gary Chen. April 1, 2020.

How vSphere with Tanzu Helps Enterprises Succeed

vSphere with Tanzu helps customers modernize the 70M+ workloads running on vSphere. VMware now delivers Kubernetes to the fingertips of millions of IT admins across the globe for rapid application development on existing IT infrastructure. This solution is the fastest way to get started with Kubernetes workloads on developer-ready infrastructure.

Deliver
Developer Ready
Infrastructure

Align
DevOps and
IT Teams

Simplify
Cloud Operations

VMware vSphere with Tanzu opens the floodgates to Kubernetes workloads.

VMware vSphere

Kubernetes
API

Tanzu Kubernetes
Grid Service

Network
Service

Storage

vCenter
Server

**Intrinsic Security &
Lifecycle Management**

Developer
(Apps Team)

IT Admin
(Infrastructure Team)
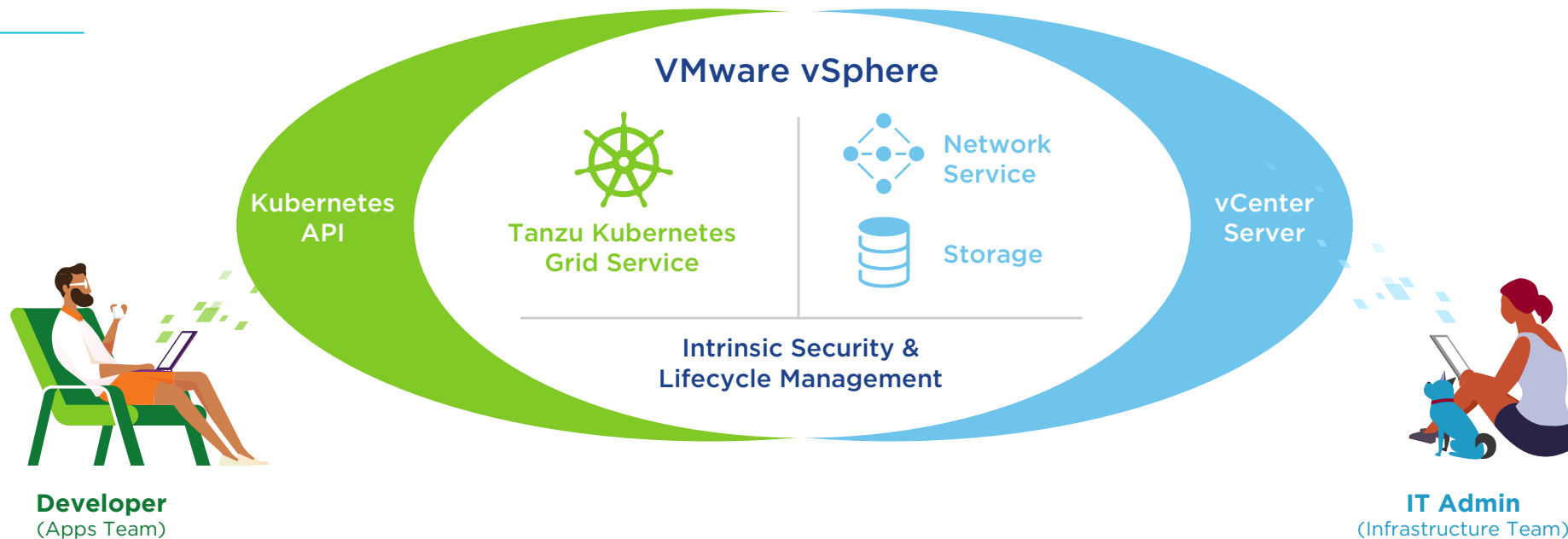
Deliver Developer-Ready Infrastructure

What if your IT operations teams could use their existing vSphere environment to deliver Kubernetes clusters to the developer teams at a rapid pace? And what if they could do this while enabling enterprise-class governance, reliability and security?

Businesses rely on developers to rapidly develop and deploy applications to accelerate digital transformation, however developers cannot be successful on infrastructure that slows them down. On the other hand, IT teams are challenged to deliver modern infrastructure that supports modern container-based application development, including the services and tools to build new applications. Kubernetes helps with container orchestration, but as a technology it is still maturing and currently complex. Public cloud-based services are an alternative, but they often become unsustainable due to cost or compliance reasons.

Configure enterprise-grade Kubernetes infrastructure with existing networking and storage within one hour.*

Tanzu Kubernetes Grid Service

Manage consistent, compliant and conformant Kubernetes clusters

Storage Service

Manage persistent disks for use with containers, Kubernetes clusters, and virtual machines

Network Service

Manage virtual routers, load balancers, and firewall rules

* Based on internal VMware testing and expectations for a production environment, where appropriate networking settings are preconfigured for consumption.

Align DevOps and IT Teams

What if your IT admins could use vSphere tools to deliver modern developer services to developer teams on existing vSphere infrastructure and manage multiple Kubernetes clusters alongside virtual machines through vCenter?

Platform Operators (or SREs) and IT admins are often not on the same page when it comes to priorities, skillsets, KPIs, preference for infrastructure platforms, and operating models. Aligning these DevOps teams and IT teams is critical to the success of modern application development—especially to bring efficiency, scale and security to Kubernetes deployments. VMware vSphere with Tanzu enables these teams to operate with their existing skillsets and provide self-service access to infrastructure for the DevOps teams, while also delivering observability and troubleshooting for Kubernetes workloads to IT teams.

Simple, fast, self-service provisioning of Tanzu Kubernetes clusters within a few minutes.*

* Based on internal VMware testing and expectations for a production environment, where appropriate networking settings are preconfigured for consumption.

Simplify Cloud Operations

The role of the IT Admin (VI Admin) has been evolving into the role of the Cloud Admin or SRE, because every organization is building software applications using a cloud operating model. VMware vSphere with Tanzu brings agile cloud operations to the IT Admin to enable this evolution by delivering agility in day-to-day IT operations with Kubernetes infrastructure.

APP

Evolving the role of your IT Admin into the Cloud Admin or the SRE, using new capabilities of vCenter Server and other vSphere tools.

Learn More About
VMware vSphere with Tanzu

Modern applications are often complex combinations of many different technologies—traditional in-house applications, databases, modern applications in containers, and potentially even modern applications in functions. Managing these applications across that heterogeneity is a complex task for both developers and operators.

VMware brings the simplest implementation of Kubernetes to the fingertips of millions of IT admins.

NEW

vSphere with Tanzu

The **fastest** way to get started with Kubernetes workloads

For more information, check out VMware vSphere with Tanzu online

VISIT WEBSITE

VMware Cloud Foundation with Tanzu

The **best** way to run Kubernetes workloads **at scale**

Read the comparison infographic to learn more about vSphere with Tanzu and VMware Cloud Foundation™ with Tanzu.

DOWNLOAD

THE PRESIDIO & VMWARE PARTNERSHIP

Presidio and VMware collaborate to accelerate our shared customers' digital transformation journeys. Presidio combines its strategic consulting and lifecycle services with VMware's innovative technology platforms, to design, implement and manage agile, secure, multi-cloud solutions optimized for each customer's unique requirements. Together, Presidio and VMware help our customers realize better business outcomes in a dynamic and competitive marketplace.

Learn more about Digital Transformation at presidio.com/bigcloud