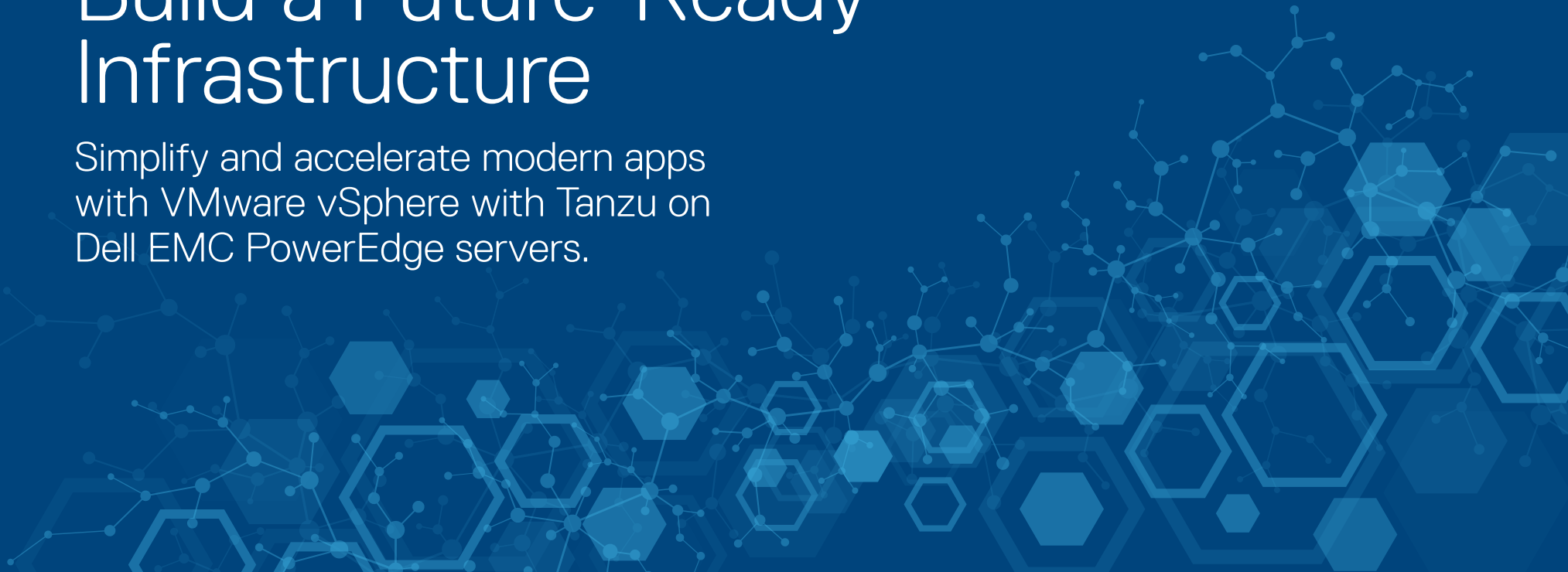


Build a Future-Ready Infrastructure

Simplify and accelerate modern apps
with VMware vSphere with Tanzu on
Dell EMC PowerEdge servers.



As you drive your business forward and look to maintain your competitive edge, modernization — in every aspect — becomes essential.

It's likely that modernizing applications is high on your to-do list, but with so many moving pieces and issues to consider — including massive amounts of information, multiple operating models, infrastructure silos and increasing container usage — it can be difficult for IT to keep up.

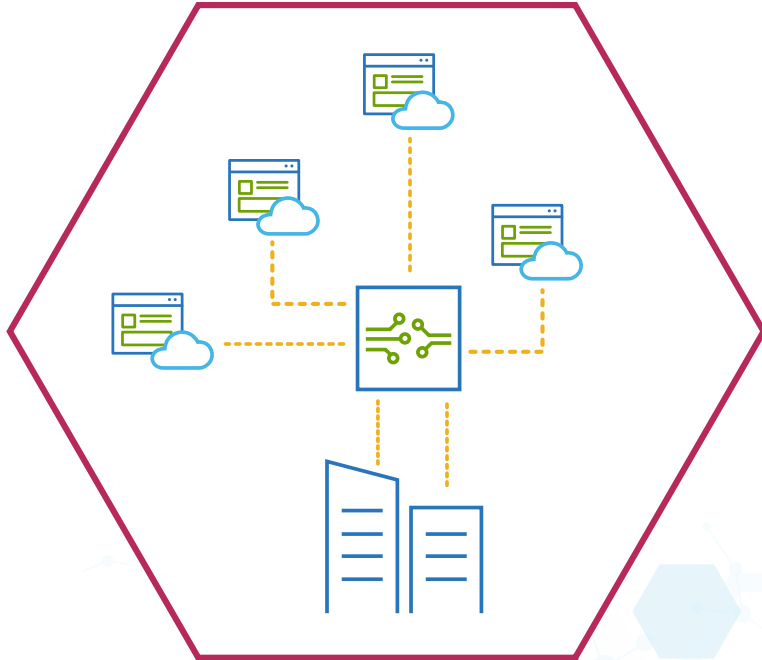
The good news is that the latest release of VMware® vSphere® 7 includes **vSphere with Tanzu**, which marks a significant step forward on the path to application modernization — and easy access to container usage with VMware. Mainly, it brings Kubernetes®, the primary container orchestrator, to the fingertips of millions of IT administrators using VMware vCenter® across the globe.

Of course, your infrastructure foundation is equally important. You need a foundation that is primed and optimized to run vSphere. And this is why partnership and integration between VMware and Dell Technologies are so important. Dell EMC PowerEdge servers are designed for the modern, evolving data center. They are integral to making your transition to modernized apps easier and faster than ever before.

VMware® vSphere® 7
offers
vSphere with Tanzu.¹

¹ vSphere with Tanzu requires vSphere 7U1 Enterprise Plus or above, and is offered as a separate subscription-based term license.

Application modernization — it's time



Modern apps and container usage are on the rise. That's why the time to focus on, and act on, workflow and infrastructure modernization is right now.

More apps than ever before

Over the next five years, enterprises will build 500 million logical apps using cloud native tools and methods. To put this into perspective, that's equal to the total number of apps built over the last 40 years.²

² IDC Futurescape 2018.

Accelerate modern apps with containers — and Kubernetes orchestration.

More businesses are using containers and Kubernetes orchestration to deliver apps quickly and reliably.

Run containers alongside virtual machines. Containers are particularly suited for app modernization because they:

1

Encapsulate apps, making them easier to move around

2

Are **lightweight**, using fewer resources

3

Are **easier and faster** to spin up or down



95%

of new apps use containers.³

³ 451 Research, a part of S&P. "Cloud Native for Speed, Agility and Scale" (Webinar), William Fellows. 2020.

Accelerate modern apps with containers — and Kubernetes orchestration.

Likewise, Kubernetes has become the de facto container orchestrator. It runs across many different environments, scales automatically to meet demand, self-heals, is extensible and is fast. Kubernetes significantly speeds up many processes that have traditionally caused delays for IT and developers.

97% of businesses running containers use Kubernetes.⁴



Time from commitment to deployment to production:

86% faster

(7 days to daily)⁵



Time from request to provision resources:

450X faster

(14 days to 10-15 minutes)⁵

⁴ IDC, "Container Infrastructure Software Market Assessment: End-User Survey Results," April 2020.

⁵ VMware, "Kubernetes for Executives."

VMware vSphere with Tanzu on Dell EMC PowerEdge servers — the fastest way to get started with Kubernetes workloads

VMware vSphere with Tanzu simplifies the operation of Kubernetes on premises, putting cloud native constructs at the vSphere infrastructure (VI) administrator's fingertips as part of vSphere 7 on premises.

Accelerate performance and reduce latency across edge, core and cloud deployments with PowerEdge.

Speed your path to containerization with VMware on Dell EMC PowerEdge servers:

- **Simplify.** PowerEdge servers are preinstalled and pre-activated with VMware vSphere.
- **Seamlessly scale your infrastructure.** PowerEdge Scalable Business Architecture supports maximum performance across the widest range of applications.
- **Reduce latency.** Increase responsiveness for **vMotion**[®] with up to 73% lower latency⁶ on PowerEdge MX.

Simplify.
Seamlessly
scale.
Reduce
latency.

⁶ Principled Technologies report commissioned by Dell Technologies, "[Migrate VMs faster with a new Dell EMC PowerEdge MX solution.](#)" September 2018.

Benefits of vSphere with Tanzu



Benefits of vSphere with Tanzu



Developer self-service

Give developers self-service access to resources while still maintaining policy and security controls.



Familiar management

Use tools you're already familiar with — VMware vCenter — to implement policy and allocate capacity.



Open-source alignment

Gain access to the full innovation and energy of the Kubernetes community and greater influence over project direction.

How to get started

vSphere with Tanzu is available with the latest release of vSphere Enterprise Plus edition.

Simplify and scale with other vSphere 7 enhancements.

While vSphere with Tanzu is the centerpiece of this release, other exciting new features include:

vSphere Lifecycle Manager (vLCM)

Brings together firmware and software updates for simplified lifecycle management — scheduled within VMware vCenter.



Monster VMs

Scale up to 24TB memory and support up to 768 vCPUs.



Cluster scale enhancements

Expands the number of hosts to 96 per cluster — a 50% increase compared to the previous release.



vSphere Bitfusion

Leverages accelerators for artificial intelligence (AI) and machine learning (ML) workloads in VMs or containers. Disaggregate and attach or detach GPU resources on any VM, based on workload demand.

Simplify and scale with other vSphere 7 enhancements.

Two Dell EMC PowerEdge servers are certified to run Bitfusion:



Dell EMC PowerEdge R740xd



Dell EMC PowerEdge C4140



vSphere Bitfusion

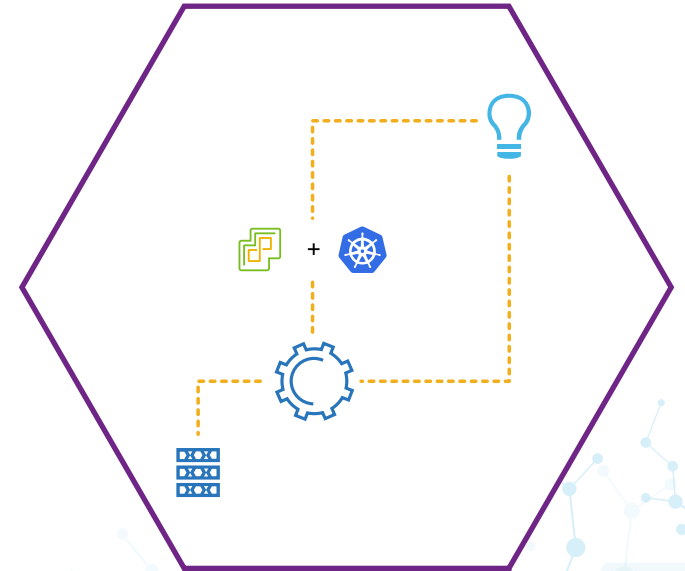
Extend virtualization from compute, storage and networking to GPU resources through pooled resources.

Application modernization begins and ends with your foundation.

Dell EMC PowerEdge servers provide a solid foundation on which to run VMware software and take advantage of its latest and greatest features, including vSphere with Tanzu.

Our joint innovation and integration serves you in a variety of ways:

- **Reduce risk.** Dell EMC hardware is pre-tested, pre-validated and optimized to work with VMware technology.
- **Integrated solutions deliver benefits.** OMIVV is a vCenter plug-in from Dell that provides monitoring, updates and management of PowerEdge servers via the vCenter administration domain. Working with vLCM, OMIVV enables you to complete software and firmware updates 68X faster.⁵
- **Getting the support you need is simple.** Make one call for all hardware and software issues.



⁵ A Principled Technologies report commissioned by Dell EMC, "[New VMware vSphere 7.0 features reduced the time and complexity of routine update and hardware compliance tasks](#)" August 2020.

Achieve multi-layer security across physical and virtual machines and containers.

Fortify operations with enterprise-grade data security from chip to server to VM to cloud native applications.

- Every PowerEdge server comes with a **cyber-resilient architecture** that extends across firmware, data, operating system, peripheral devices and management operations.
- PowerEdge securely boots with **TPM 2.0 security**, while vSphere adds support for TPM 2.0 hardware and virtual TPM 2.0 for VMs.
- Get intrinsic security and control with remote verification using **vSphere Trust Authority and Identity Federation**.



Establish a future-ready foundation with Dell Technologies and VMware.

Together, Dell EMC PowerEdge servers and VMware software simplify and accelerate your hybrid cloud journey. As leaders in the industry, we deliver a scalable, flexible architecture, intelligent automation and management, and multi-layer security from the core to cloud to edge. You can rest assured that your business is in good hands with proven technologies and a modern, agile foundation that can help you tackle application modernization and take your business to the next level.

A diagram consisting of two overlapping blue hexagons. The bottom-left hexagon is labeled "Dell Technologies" and the top-right hexagon is labeled "VMware". The background of the slide features a network of light blue lines and dots, with several larger blue hexagons scattered throughout.

Dell Technologies

VMware

Scalable, flexible architecture, intelligent automation and management, and multi-layer security

Get started.

Begin the process of modernizing your applications today with help from Dell Technologies and VMware.

Learn More: DellTechnologies.com/PowerEdge-VMware.

Watch: [Dell EMC PowerEdge and VMware vSphere video](#).

Copyright © 2020 Dell Inc. or its subsidiaries. All Rights Reserved. Dell, EMC, and other trademarks are trademarks of Dell Inc. or its subsidiaries. Other trademarks may be the property of their respective owners. Published in the USA 11/20 PE-VSPHERE-TANZU-INFOBK-101.

VMware® products are covered by one or more patents listed at <http://www.vmware.com/go/patents>. VMware® is a registered trademark or trademark of VMware, Inc. in the United States and/or other jurisdictions. Kubernetes® is a registered trademark of The Linux Foundation.

Dell Technologies believes the information in this document is accurate as of its publication date. The information is subject to change without notice.

DELLTechnologies

vmware®