

VMware Tanzu Standard on Google Cloud VMware Engine

Deploy, run and manage Kubernetes on Google Cloud VMware Engine

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- **Quick Kubernetes Deployment:** Tanzu Standard provides an enterprise-grade open-source aligned full Kubernetes runtime platform, powered by Tanzu Kubernetes Grid, that is easy to install and operate on top of Google Cloud VMware Engine, as well as on-premises on vSphere and VMware Cloud Foundation.
- **Simplified Kubernetes Operations and Management:** Tanzu Standard comes with a global control plane, powered by Tanzu Mission Control, that enables consistent and efficient management of Kubernetes clusters deployed across multiple environments.
- **Consistent infrastructure for both VM and container-based workloads on-premises and in Google Cloud:** Google Cloud VMware Engine is based on VMware Cloud Foundation, which provides consistent infrastructure both on-premises and in Google Cloud for VM-based workloads and modern containerized workloads.

As the speed of application modernization accelerates, enterprise IT organizations have seen an increasing need to support container-based applications. Kubernetes, the de facto container orchestrator today, is quickly becoming an essential part of your modern infrastructure that is designed to serve both your traditional and modern applications that run across different environments — in private or hybrid clouds, public clouds, and at the edge.

However, due to the fast-changing nature of cloud native technologies, the complexity of the Kubernetes ecosystem, as well as the scarcity of Kubernetes talent, it is often hard for enterprises to get started on Kubernetes and to maintain and manage the Kubernetes infrastructure with consistency and efficiency.

VMware Tanzu™ Standard edition on Google Cloud VMware® Engine helps simplify Kubernetes adoption and management in Google Cloud with industry-leading VMware Software-Defined Data Center (SDDC) technologies and Google Cloud high performance infrastructure and networking. With this solution, enterprises can accelerate application and infrastructure modernization by quickly adopting container and Kubernetes technologies on top of the hybrid cloud that provides flexible, scalable and resilient infrastructure that is optimal for running containerized modern workloads along with traditional VM-based workloads.

VMware Tanzu Standard

VMware Tanzu is a portfolio of technologies to support modern apps and infrastructure for delivering better software to production faster. VMware packages Tanzu technologies into solutions that address the most common enterprise modernization challenges. Among these packages is Tanzu Standard edition which targets customers that wish to simplify the deployment and operations of Kubernetes for multi-cloud environments.

Tanzu Standard offers a full enterprise-grade Kubernetes runtime that can be deployed across multiple environments, with a global control plane for consistent and efficient management of multiple Kubernetes clusters across teams and clouds.

Google Cloud VMware Engine at a glance

- Deploy an SDDC in under an hour
- On-demand capacity & flexible consumption
- Full operational consistency with on-premises Private Cloud
- Ever-expanding coverage of international security, privacy and compliance controls
- Global footprint in 14 regions
- Direct access to native Google Cloud services

Google Cloud VMware Engine

Google Cloud VMware Engine is a VMware-verified, native Google Cloud managed service that delivers a vSphere-based, dedicated private cloud in Google Cloud. VMware workloads run on bare metal infrastructure in Google Cloud data centers. Customers can instantly stand up a native VMware environment and quickly gain access to their VM resources without changes to applications, tools or processes and leverage adjacent Google Cloud services. Google operates and supports the environment and all the necessary networking, storage and management services.

Google Cloud VMware Engine provides rapid deployment, saves customers time, reduces costs and eliminates much of the complexity and risk of moving to the cloud. With 99.99% uptime, 100 Gbps east-west networking with no oversubscription of bandwidth, high-density node design with support for 64-node SDDCs and more, the service can meet the needs of demanding enterprise workloads. Bringing together the best of VMware and Google Cloud, the service provides customers an operationally consistent and familiar way to run, manage and modernize vSphere-based applications with access to a broad range of innovative Google Cloud services. Customers can continue to use familiar VMware tools to manage their Google Cloud VMware Engine environment while benefiting from the flexibility, resiliency, global reach and unique cloud services of Google Cloud.

Accelerate Kubernetes adoption on Google Cloud VMware Engine with VMware Tanzu Standard

VMware Tanzu Standard Edition on Google Cloud VMware Engine

Tanzu Kubernetes Grid with Tanzu Mission Control Standard

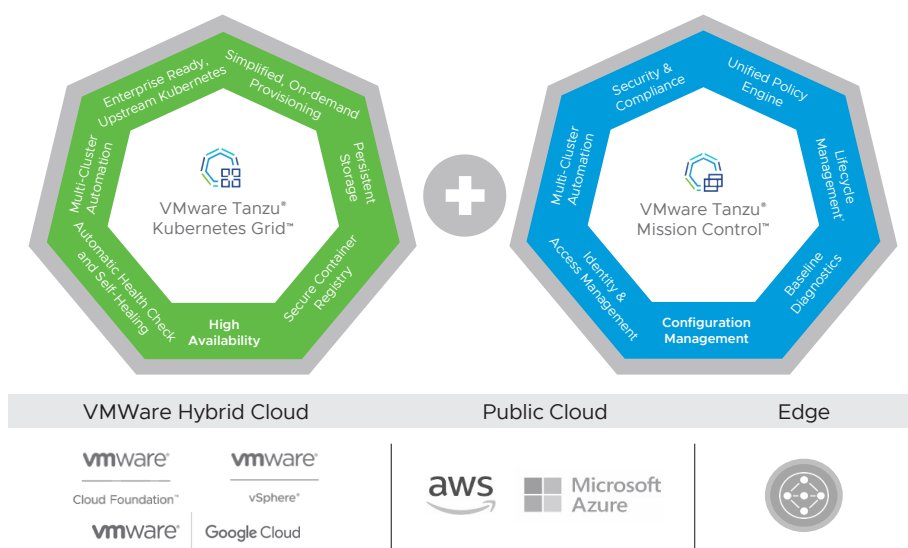


Figure 1: VMware Tanzu Standard includes Tanzu Kubernetes Grid and Tanzu Mission Control.

Jumpstart your Kubernetes adoption with the enterprise-grade Kubernetes runtime

Using Tanzu Standard, customers can easily deploy and operate a consistent enterprise-grade Kubernetes runtime platform, powered by Tanzu Kubernetes Grid, on Google Cloud VMware Engine, as well as on-premises on vSphere and VMware Cloud Foundation.

Tanzu Kubernetes Grid is designed and built on the leading open-source technologies of the Kubernetes ecosystem. For instance, it has upstream Kubernetes in the core and uses Cluster API for cluster lifecycle management, Harbor for container registry, Prometheus and Grafana for platform monitoring, Fluent Bit for logging, and Contour for ingress. These technologies are packaged and integrated into an easy-to-deploy, easy-to-operate, and VMware-supported full Kubernetes runtime platform for running the most mission-critical modern enterprise workloads.

Manage Kubernetes clusters consistently and securely with a global control plane

To enhance the operational efficiency and governance of your Kubernetes clusters, Tanzu Standard also provides a global control plane, powered by Tanzu Mission Control, for managing multiple Kubernetes clusters at scale across environments. Key capabilities offered by this global control plane include:

- Centralized lifecycle management — provisioning, upgrading, scaling and deleting of Tanzu Kubernetes clusters on Google Cloud VMware Engine, as well as on vSphere and VMware Cloud Foundation
- Attach any Cloud Native Computing Foundation conformant Kubernetes clusters for consistent policy management, including access management and applying security policies across clusters and clouds
- Baseline visibility of Kubernetes clusters and workloads across environments for quick identification of issues and troubleshooting
- Managing access and security by applying consistent policies to a fleet of clusters at scale
- Backup and restore clusters and namespaces with built-in Velero
- Inspecting clusters for conformance using built-in Sonobuoy
- Out-of-the-box integration with Tanzu Observability and Tanzu Service Mesh

Learn More

[VMware Tanzu](#)

[Google Cloud VMware Engine](#)

Benefits of running your Kubernetes workloads on Google Cloud VMware Engine with Tanzu Standard

Running Kubernetes on Google Cloud VMware Engine enables enterprises to take advantage of a consistent VMware SDDC on-premises and in Google Cloud to run both their traditional and modern workloads.

Run and manage Kubernetes consistently. Deploy a consistent Kubernetes distribution across environments — on-premises on vSphere and VMware Cloud Foundation and on Google Cloud VMware Engine — and manage all the clusters consistently via a single control plane.

Quickly migrate and modernize at your own pace. Migrate easily with speed, lower TCO and reduced risk, leveraging existing skills with familiar VMware tools. Enhance your apps and run both VMs and containers on Google Cloud VMware Engine, and get private, high-bandwidth, low-latency access to innovative Google Cloud services such as BigQuery and CloudAI to modernize and gain data driven insights.

Gain flexibility and control. With Tanzu Standard on Google Cloud VMware Engine, you have administrative control over the underlying VMware infrastructure on which your Kubernetes workloads are running. In addition, with a dedicated environment, you can better meet your security and compliance requirements.

Run your VMs and containers on the same infrastructure. Without creating another infrastructure type just for your container workloads, running Kubernetes with Tanzu on Google Cloud VMware Engine lets you have both your traditional VM workloads and container workloads on the same infrastructure where you can have a single point of governance.

Summary

VMware Tanzu Standard on Google Cloud VMware Engine helps enterprises accelerate application and infrastructure modernization. It enables you to quickly adopt Kubernetes through easy deployment and operation of an enterprise-grade Kubernetes runtime while ensuring consistency, security and governance of multiple Kubernetes clusters across environments leveraging the global control plane of Tanzu Standard.

As a leading hybrid cloud solution, Google Cloud VMware Engine provides a consistent platform for enterprises to run both their traditional VM-based workloads and containerized modern workloads on the same VMware infrastructure.