

VMware Tanzu™ Advanced

Build and deliver compliant containers continuously

AT A GLANCE

VMware Tanzu Advanced simplifies and secures the container lifecycle to speed the delivery of modern apps at scale. With Tanzu Advanced, you can stand up a platform that will:

- Automatically build a stream of compliant containers.
- Secure your software supply chain end-to-end.
- Manage containers and clusters across clouds.

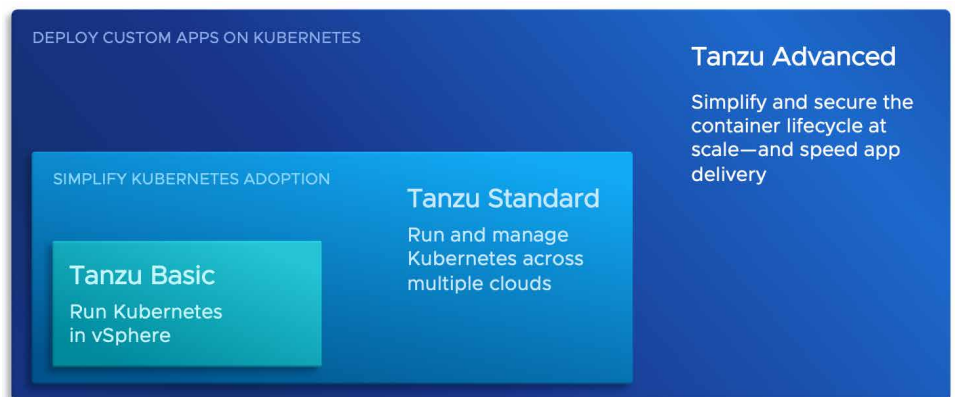
Your Challenge

Your organization is committed to modernizing applications and that requires full adoption of containers. Gartner predicts that, by 2025, more than 85% of global organizations will be running containerized applications in production, which is a significant increase from fewer than 35% in 2019¹.

To manage the container lifecycle, from code to customer, you need to bring together a number of component technologies and operate across clouds. Despite the potential complexity, this is your chance to build a DevSecOps practice that can deliver better software to customers faster, and continuously.

VMware Tanzu Editions

VMware Tanzu editions package capabilities of the Tanzu portfolio into clearly defined solutions targeted at the most common enterprise challenges. Each Tanzu edition is a superset of the one below it along a spectrum, giving you a clear path to add capabilities over time as needed. VMware Tanzu Advanced builds on Tanzu Standard to enable you to deploy and manage custom applications on Kubernetes.



Three reasons to trust VMware Tanzu editions for your application modernization journey:

1. VMware is a top contributor to the open source Kubernetes project, and leads multiple open source efforts.
2. Tanzu Standard enables you to deploy Kubernetes across multi-cloud infrastructure, but also as part of an integrated VMware Cloud Foundation stack to immediately bring new capabilities to existing workloads.
3. You can journey from Tanzu Standard to Tanzu Advanced for an expanded set of modular capabilities that enable you to build a developer-centric platform for modern apps that works for *your* organization.

DELIVER RESULTS FASTER

To deliver great business outcomes at scale, you need to do more than just get Kubernetes up and running—you need to build and deploy containerized workloads to that environment, continuously. This can be a daunting task, but you don't have to go it alone.

VMware Tanzu Labs™ is a team of expert Kubernetes and software development practitioners who have completed thousands of engagements. The Tanzu Labs team considers both your application and infrastructure needs to design, implement and configure the right Kubernetes platform for your organization. Plus, they can introduce you to the cloud native patterns and practices that enable DevSecOps.

Consider these Tanzu Labs' engagements to boost your Kubernetes adoption, and get your apps into production stat:

App Navigator is a short and focused engagement to determine the fastest and most reliable path to modernizing your app portfolio. This engagement is designed to identify which modernization strategy is best for each app, validate the approach through hands-on work, and develop a plan to get results quickly. Start migrating and modernizing apps in just weeks, not months or years.

Platform Development helps you design and build a developer-centric, Kubernetes-based platform that drives meaningful business outcomes. Our Kubernetes experts work with your app and infrastructure teams to create a custom app platform using Tanzu Advanced components. We'll help you establish developer onboarding, address Day 2 operations' needs, and adopt new practices to continuously evolve your platform to meet business and developer requirements.

Introducing Tanzu Advanced

Tanzu Advanced edition makes it possible to operationalize containers and DevSecOps practices through capabilities anchored on three pillars:

Speed development and delivery of containerized workloads

Tanzu Advanced includes core elements a development team needs to build better apps. That starts with Spring—a framework used by millions of developers to make best use of microservices, data pipelines and distributed systems. You can also discover and manage your APIs across the enterprise from a consistent portal. Any custom apps you build are automatically packaged with dependencies, containerized and maintained. And when you need base runtimes or preset components, developers can self-serve from a curated catalog. Automatically build a stream of images to ignite a continuous delivery system.

Secure the container lifecycle

Tanzu Advanced makes security an integrated part of an end-to-end software supply chain. Your curated catalog of base runtimes and preset components is always up to date. The provenance of source code in your applications is tracked and governance policies are automatically applied through a declarative build process. All container images are stored in a private registry, encrypted and continuously delivered to your Kubernetes clusters across clouds. And across the entire lifecycle, your service mesh enables resilient and secure connectivity.

Simplify operation of containers and clusters across clouds

Tanzu Advanced streamlines management of Kubernetes at scale. As your container count and Kubernetes footprint grow, you can manage it all from one, central control plane. Apply consistent policies to Kubernetes clusters—including groups of clusters spanning clouds. Unify management, policy control, and visibility into service connectivity between containerized workloads and VMs. Get visibility into the health and performance of clusters across clouds and use advanced analytics to make informed decisions and troubleshoot faster.

Outcomes with Tanzu Advanced

Tanzu Advanced helps teams align in a shared effort to modernize applications by addressing needs across the container lifecycle.

Developer velocity. Tanzu Advanced enables developers to spend more time coding. Custom code is automatically containerized, and ready-made images and runtimes are always available in a curated, private repository. Shorter development cycles drive more innovation to market.

Security from code to customer. Tanzu Advanced provides source code provenance, so you can track and audit. It allows for consistent policy across all your Kubernetes clusters. And Tanzu Advanced offers the container networking and service mesh needed for consistent, secure connectivity between services.

Operator efficiency. Tanzu Advanced makes it simple for operators to manage hundreds of Kubernetes clusters across teams and clouds from a global control plane. Manage policy across your Kubernetes estate. Control networking resources from a single control point. Get actionable insights into the health and performance of clusters across clouds.

Tanzu Advanced helps your organization realize the potential of DevSecOps.

Tanzu Advanced Components

See the list of VMware Tanzu Advanced modular capabilities below:

PLATFORM CAPABILITY	TANZU ADVANCED COMPONENTS
Developer frameworks	VMware Spring Runtime® framework, including: <ul style="list-style-type: none"> • Spring Cloud API Gateway • Spring Cloud Data Flow • API portal
Data services	VMware Tanzu SQL (Kubernetes operators for Postgres and MySQL)
Curated app catalog	VMware Tanzu Application Catalog™
Container build	VMware Tanzu Build Service™
Container registry	Harbor™
Observability / monitoring	VMware Tanzu Observability™ by Wavefront Grafana and High Availability Prometheus
Global policy management	VMware Tanzu Mission Control™
Service mesh	VMware Tanzu Service Mesh™
Kubernetes ingress services	VMware NSX® Advanced Load Balancer™ (Avi Enterprise), Contour
Container networking	VMware Container Networking™ with Antrea™, Calico
Lifecycle management	Cluster API
Kubernetes runtime	VMware Tanzu Kubernetes Grid™
Operating system	Photon OS, Ubuntu*, and Bring-your-own node image
VMware vSphere® 7 - specific capabilities	vSphere Pod Service**, Storage Service, Network Service, and Registry Service*

* Requires deploy your own management cluster

** Require NSX

¹Gartner, Best Practices for Running Containers and Kubernetes in Production, 4 August 2020 - ID G00730344



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