VMware Tanzu Platform

The AI-Ready, Private Platform-as-a-Service Accelerating idea to code; code to production

> "The most outstanding KPI we achieve is time to market. We can innovate faster, going from an idea to an application in production, with all the necessary tests and security checks, within one or two business days."
>
> Jürgen Sußner
> Principal Cloud Platform Engineer
> **DATEV eG**

In today's fast-paced business environment, organizations must swiftly respond to market demands by delivering new products and engaging customer experiences. However, many organizations struggle to keep pace, hindered by manual tasks. Application development teams are pressured to deliver new products or features quickly but often lack the automation needed to innovate and iterate rapidly. Additionally, IT teams support multiple application runtimes and landing zones based on application types or team preferences, leading to variability in the path to production. This complexity fosters ad hoc problem-solving and increases manual errors as teams adapt to changing business needs. Without clear standards, human error complicates root cause analysis across various tools, applications, infrastructure, and platforms.

Tanzu Platform is a solution that allows organizations to develop modern and intelligent applications more quickly and securely through a curated and integrated set of capabilities. It is an AI-ready Platform-as-a-Service (PaaS) that enables developers to create and deliver software faster by automating the deployment of application code to an elastic and scalable cloud environment. Tanzu Platform streamlines processes and improves consistency for application, platform, and data teams.

Single command push to prod	**Secure by Design**	**Self-service marketplace**	**No downtime updates**
Instrumented with middleware and infrastructure services	Automated container builds, SBOM validation and CVE identification	Simply bind apps to built-in and 3rd party curated services	Scale from zero to infinity with start, stop, update app operations

Golden commands for expedited app delivery

Tanzu Platform helps teams manage various application types efficiently without sacrificing speed. It offers simple commands like push, bind, and scale that streamline development and delivery. These commands allow app teams to quickly create secure containers, push code to production, bind to sservices, and manage scaling and updates in a production environment.

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Tanzu Platform Benefits

Simple for Developers, Powerful for business - Simplify building and deploying software across various infrastructures with simple operations: build and deploy, bind and scale. Developers can focus on coding without the hassle of packaging or security.

Supercharged for Spring Apps Tanzu Platform is designed to elevate the resilience, security, and performance of Spring application development and deployment. Java developers using Spring on Tanzu Platform can benefit from enhanced uptime and seamless integration with advanced analytics tools.

These commands enhance the developer experience, speeding up application delivery while minimizing onboarding needs. With Tanzu Platform, teams can easily create, test, and deploy applications without worrying about infrastructure setup or IT tickets. The platform simplifies application management across environments by providing a unified interface and a complete set of tools.

Reduce risk and increase security while accelerating app delivery

Tanzu Platform helps protect your apps and infrastructure with continuous, automated lifecycle management of the platform and applications. Tanzu Platform extends cloud native security and governance practices through the application lifecycle with what we call the **Three R's**:

- Ability to **Repave** every server and application in the environment regularly and with no downtime, re-creating the infrastructure over time from all known-good elements, thus reducing potential attack surface and avoiding configuration drift.

- Actively **Repair** running applications by surfacing and updating code dependencies based on common vulnerabilities and exposures (CVEs).

- Finally, Tanzu Platform automatically **Rotates** credentials and microservice certificates to reduce leaked API tokens, encryption keys, and passwords that often break through bottom-up configuration automation.
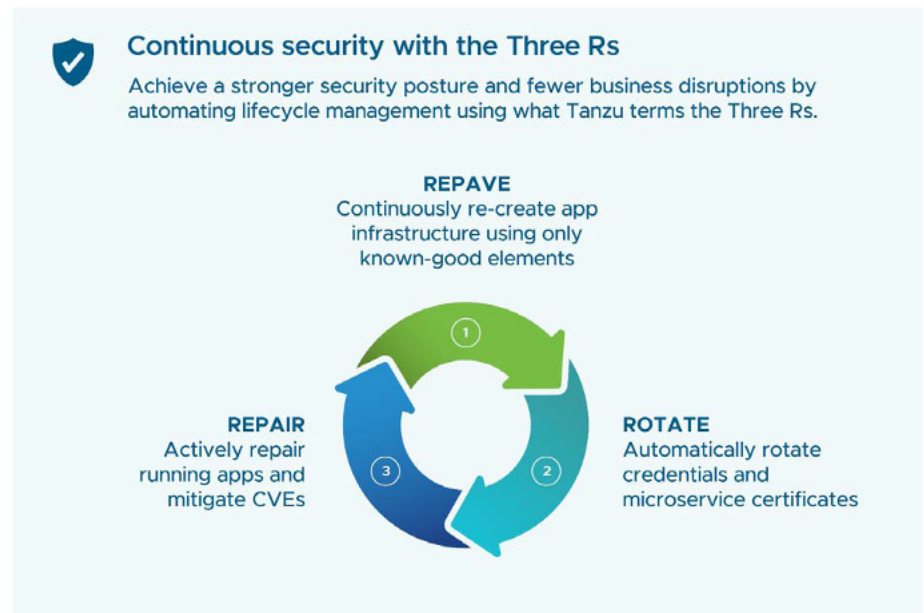
Multi-foundation observability

Tanzu Platform offers a unified control plane and data model for applications, enabling end-to-end observability. It allows platform teams to monitor the entire application lifecycle, from code commits to production, with comprehensive insights into performance, errors, and resource usage. All foundations are visible in one interface, simplifying troubleshooting and embedding health checks across numerous foundations.

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Delivering expedited AI-driven apps

Enable your developers to deliver agentic and GenAI applications while remaining secure and compliant. Developers can now add AI to their apps by using GenAI for Tanzu Platform to safely deliver AI apps.

With Tanzu Platform, developers do not have to worry about underlying infrastructure or model selection. Tanzu Platform enables the publication of curated AI models with built-in guardrails, framework accelerators, and organizational best practices—empowering developers to safely deliver AI applications, while giving platform engineering the tools to optimize those applications.

Learn more about Tanzu Platform AI at **www.vmware.com/solutions/app-platform/ai**

| Application Performance | Infrastructure Visibility | Security and Governance | Logs and Metrics |

Tanzu Platform's dashboard provides an overview of metrics across all foundations, including the number of applications and services. This visibility helps quickly identify and resolve issues, improving troubleshooting efficiency. Developers and platform engineers can access detailed metrics and logs, minimizing downtime and enhancing user experience.

Tanzu Platform offers quick views of container runtime capacity by foundation, enabling efficient resource management and preventing bottlenecks. It includes analytics for anomaly detection and percentile calculations, enhancing data analysis. Log analytics help users easily navigate large data sets and identify changes effectively.
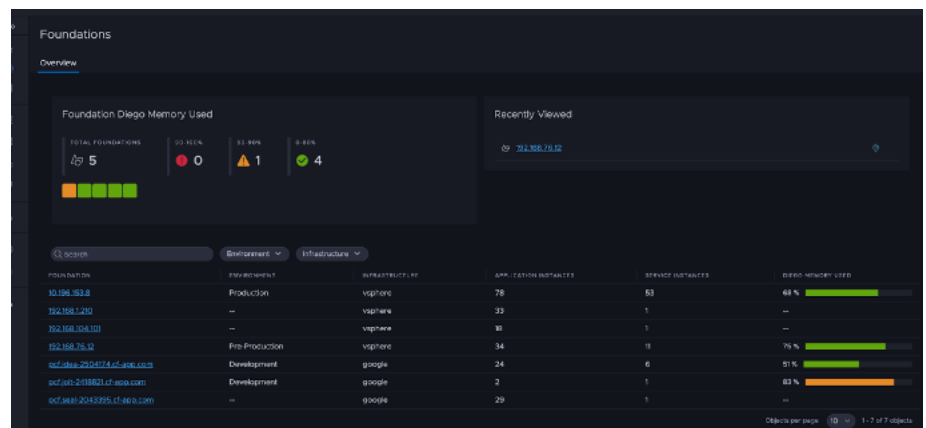

Figure 1: Multi-foundation view

Secure, self-provisioned services: data, brokered third-party services, curated AI models

Tanzu Platform includes built-in, self-provisioned application services and content that further speeds developer velocity. With Tanzu Platform, developers gain self-service to the components and open source libraries they need, while platform teams can seamlessly enforce compliance, security, and customer-specific requirements. Tanzu Platform offers ticketless, self-provisioned, on-demand services and components for secure, rapid development.

• **Store, process, and query data quickly and at scale** – Capture data sets of all types, make them available to every workload, and ensure they're immediately available for use for a seamless developer experience. Tanzu Platform includes entitlements for relational databases, messaging, and caching with VMware Tanzu for Postgres, VMware Tanzu for MySQL, VMware Tanzu RabbitMQ, and VMware Tanzu for Valkey.

- **Leverage a robust ecosystem of brokered services** – Teams deploying applications to Tanzu Platform have access to a rich collection of third-party brokered services across the software vendor landscape. Leverage your favorite tools across OSS and commercial vendors with service brokers for Amazon Web Services, Google Cloud Platform, and Microsoft Azure. Easily access partner services like GitLab, Apigee, New Relic, and many more.

- **Seamless AI model access, governance and observability** – To avoid shadow AI and help developers to continue to innovate without having to become AI model experts, it is important to provide self-service access to approved and fit-for-purpose AI models. Platform and Data teams can privately host models on VMware Private AI foundation, as well as provide safe access through AI middleware to popular open-source and commercially available models, including OpenAI, Gemma, Claude, Ollama, and more. Tanzu Platform includes built-in AI model access control as well as single command model binding and application-specific token rate limiting to help simplify compliance. This enables developers to build, deploy, and scale AI applications and agents more quickly.

Leverage popular application and developer frameworks

Tanzu Platform offers an enhanced development and deployment experience for Java applications built with **Spring**. Gain built-in visibility of Spring app topology and dependencies, making it easier to keep your Spring apps up-to-date. Automated configuration of company-specific Java/Spring policies helps keep Spring apps compliant. Improve Spring app resiliency with robust observability features, thanks to Spring-specific instrumentation and automatic validation of industry compliance standards.

Regardless of whether the application code is written in Java, .NET, or nearly any other language, Tanzu Platform provides an opinionated application runtime with streamlined workflows, automation, self-service capabilities, access to third-party service brokers and ensures high availability for microservice-based architectures.

Summary

To respond to market needs, it is essential for organizations to accelerate application delivery. However, without a unified set of capabilities and codified patterns, rapid app delivery can, at best, be cumbersome and, at worst, introduce risk and technical debt.

Tanzu Platform offers a best-in-class **developer experience**, a **simple set of developer commands**, and shared **visibility from app to data to infrastructure** so enterprises can increase agility and speed up the delivery of apps to market.

For more information on Tanzu Platform, please visit www.vmware.com/ products/app-platform/tanzu or contact us.

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