VMware Tanzu®

A Guide to Turning Developer Experience into a Competitive Edge

Get Started

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Overview: Developer experience is business critical

At a time when rapid innovation has ascended to a strategic business imperative, application development—*and developer experience*—have become essentials for business success.

Good developer experience is an essential part of meeting the demands of dynamic business environments and overall business success. When developers are shipping software efficiently, they are impacting how businesses can meet customers' shifting demands and accelerate time-to-market to support business growth. Development is expensive and when developers have to stitch together services and components, it directly impacts business costs and margins. In fact, a McKinsey study found that companies with a higher developer velocity index (DVI) grew revenue 4 to 5 times faster than those with a lower DVI. Organizations with high DVI also had better operating margins and more innovative cultures.

But organizations face many challenges in delivering higher DVIs. These challenges generally fall into three categories—onboarding, infrastructure issues and supply chain complexities.

When looking for a competitive edge, companies that can address developer experience challenges and increase DVI stand to benefit from significantly better business outcomes.

Companies with a higher Developer Velocity Index (DVI) compared to those with lower DVI see

4–5x

faster revenue growth.

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1. Source: Developer Velocity: How software excellence fuels business performance

Developer challenges

Developer challenges consistently fall into three categories:

Onboarding

Long ramp-up time

Developers often will take a tremendous amount of time in making sure the dependencies for each project are in place. They must educate themselves on all services, components and critical elements of the project. And often, these don't carry forward to a new project. This requires a long ramp-up on a project-by-project basis.

Infrastructure

Kubernetes, YAML

The capabilities of the deployment infrastructure and tools are critical. Today, this usually means knowing Kubernetes, which has become the de facto API for deployment. But Kubernetes allows for many variations and a huge amount of YAML is created even to run a simple application. This complexity can mean hundreds or even hundreds of thousands of lines of YAML.
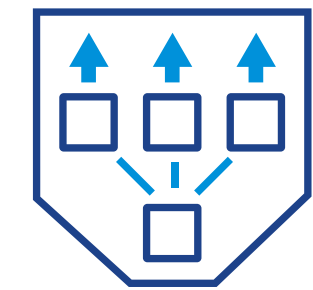
Supply chain

Coordination/communication

The complexity of the end-to-end process—from concept to app deployment—can pose many challenges. Today's enterprises often have hundreds or even thousands of applications and employ hundreds of developer teams to manage them. Negotiating this type of scale can surface a host of communication and coordination issues, making app delivery hugely complex and inefficient.

Onboarding: Easing the learning curve

Onboarding a new team member can take valuable time away from developing software. At the same time, the onboarding process often can be stressful and a time of low productivity, producing frustration for new team members. Filling this knowledge gap can take time and often requires learning multiple products and processes on your own.

3 out of 4 software engineering teams experience onboarding friction, thereby lowering productivity and increasing frustration.
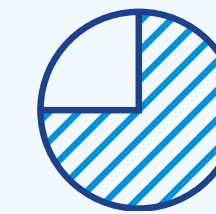
Solution

One end-to-end platform

- Standardized tooling
- Flexibility to use known systems

A learning center and repository of assets

- Sample code
- Templates
- Best practices

Benefits

- Reduced frustration with initial learning
- Faster hand-offs across teams
- Less friction with communication and coordination
- Greater overall efficiencies and lower costs

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Infrastructure: Overcoming complexity

Kubernetes is a complex system with cumbersome inspections, configurations, and a lack of standardized tooling; and cloud native code cycles are long. There is also a lack of cloud native diagnostic tools and no real-time feedback available, making it difficult to troubleshoot.

Solution

- An app-aware platform designed to skip the wall of YAML for faster development and deployment

- Cloud native, platform-aware tooling with greater process automation

- Standardized diagnostic tools and real-time feedback for faster troubleshooting

Benefits

- Reduced complexity, faster development, and deployment with a more automated platform

- Greater consistency in all app builds and app configurations with standardized tooling

- Faster diagnoses, troubleshooting, and fixes with better diagnostic tools and live feedback

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Supply chain: Eliminating uncertainty

Due to security and compliance requirements, there is no consistent way to build and containers from source code.

- No way to ensure best practices are being followed for container images
- Its common to have a custom deployment pipeline created for every application, leading to pipeline complexity and sprawl

Solution

- One standardized solution with pre-configured components to build and deploy code quickly and securely
- Create a "Golden Path" that provides a centrally managed supply chain for multiple apps

Benefits

- Free developers from pipeline management with Golden Path for multiple apps
- Eliminate risk and uncertainty with pre-configured components
- Boost deployment cadence with reduced complexity

Maintain a secure software supply chain by deploying one standardized app platform solution.
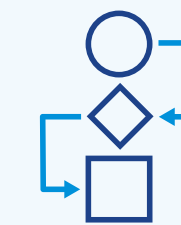
Create a "Golden Path" with a centrally managed supply chain to free developers from pipeline management and sprawl.

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Additional ways to address developer experience challenges

Within the three challenge categories, there are added complexities in that operations, security and developer teams face distinct tasks and need the right tools to deliver services faster, reduce friction and efficiently coordinate and communicate. Here are the top seven ways to address these challenges in order to create a higher DVI.

1. Use an application-aware platform.

2. Use cloud native, platform-aware developer tooling.

3. Use a platform that supports the easy diagnosis of applications that are running.

4. Ease the learning curve and reduce ramp-up time.

5. Standardize a one-platform solution that can build and deploy your code quickly and securely.

6. Automate the application deployment process for a more secure software supply chain.

7. Use platforms that leverage existing experience and investments but still provide modularity.

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Empower your organization with the VMware Tanzu Application Platform

Why has developer experience become so essential to business success? In today's dynamic business environment, meeting customers' shifting demands and accelerating time to market is vital to growth. Organizations need developers to spend time delivering business value and shipping software quickly.

In addition, development is expensive. When developers have to stitch together services and components, they aren't shipping software, which directly impacts (and increases) your business costs.

Organizations can leverage the benefits of the VMware Tanzu Application Platform to address all seven areas for business success. The VMware Tanzu Application Platform is a modular, cloud native application platform that delivers a developer experience designed to turbocharge productivity and innovation across multiple clouds.

Discover how the VMware Tanzu Application Platform empowers developers to build and deploy more software quickly and securely, while turning developer experience into your competitive edge. Start your journey to a superior developer experience on Kubernetes today.

To learn more about VMware Tanzu Application Platform, visit tanzu.vmware.com/application-platform.

You also can reach out to your VMware account team or contact us using the link on the page above.

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Turbocharge developer productivity and innovation with [Tanzu Application Platform](#)

VMware Tanzu Application Platform

The VMware Tanzu® Application Platform™ is an end-to-end cloud native platform that enables companies to build and deploy software—more quickly and securely—through a rich set of developer tooling and pre-paved, customizable "Golden Paths" to production on any public cloud or on-premises Kubernetes cluster.

- Modular and composable architecture

- Ability to set guardrails based on needs

- Option to substitute individual components

- Options and flexibility for operators

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