



VMware Tanzu



Modernize your infrastructure
and accelerate your move to
cloud native apps

Power  ON
to Cloud
Cloud Native Transformation

Innovate



Optimize



Scale





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The Business Case for Modern Apps



Business realities

The strength of your organization's application portfolio has a direct impact on both your [customer experience](#) and your revenues. Therefore, it's important to be able to develop and deploy modern apps at speed, at scale, and with robust security. Ideally, you want a portfolio of cloud-ready, cloud native apps that are easy to adapt in line with changing customer needs.

However, many enterprises still rely on apps that were created using outdated architectural patterns, methodologies, and infrastructure. Updating them can be a drawn-out, risk-laden process of redeploying, retesting, and securing the entire codebase. As a result, software releases are infrequent, and customer needs are left unmet.

Three fundamentals for success

Organizations seek the following outcomes by investing in a move

- **A modern application architecture:** cloud-ready and cloud native apps need to be built in a container-based environment that breaks the app into its component services.
- **A modern release methodology:** shared tools, processes, and a vocabulary that makes it easy for software development (Dev) and IT operations (Ops) teams to collaborate.
- **A modern platform and infrastructure:** fast and frequent app updates rely on an underlying infrastructure that is scalable and supports automation.

Advantages of modern apps

Moving to a modern, flexible, modular application architecture will allow you to deploy and update your apps more easily, so you can experiment with new ideas. You also benefit from improved uptime, resilience, and compliance, besides being able to:

- **Capture new revenue**, by rapidly meeting changing customer demands and expectations.
- **Compete more effectively**, by bringing new features and apps to market quicker.
- **Lower technical debt**, risk, and costs, by radically improving the productivity of your developers, your operational efficiency, and your ability to scale..





Modern Apps – FAQs Explained



What is a cloud native app?

Cloud native apps are modern, autonomous and scalable services that are created and updated quickly in public, private, or [hybrid-cloud environments](#)

Do they replace my existing apps?

It is possible to modernize and re-platform your existing enterprise apps, so they run as cloud-native services. This will bring you a level of speed and agility that was previously unattainable.

How do modern apps talk to each other?

APIs and event choreography enables modern apps to connect and share capabilities with each other. They are the core building blocks that allow internal and external users to access the app's functionality and leverage powerful features like [AI](#).

Why is 'containerization' so important?

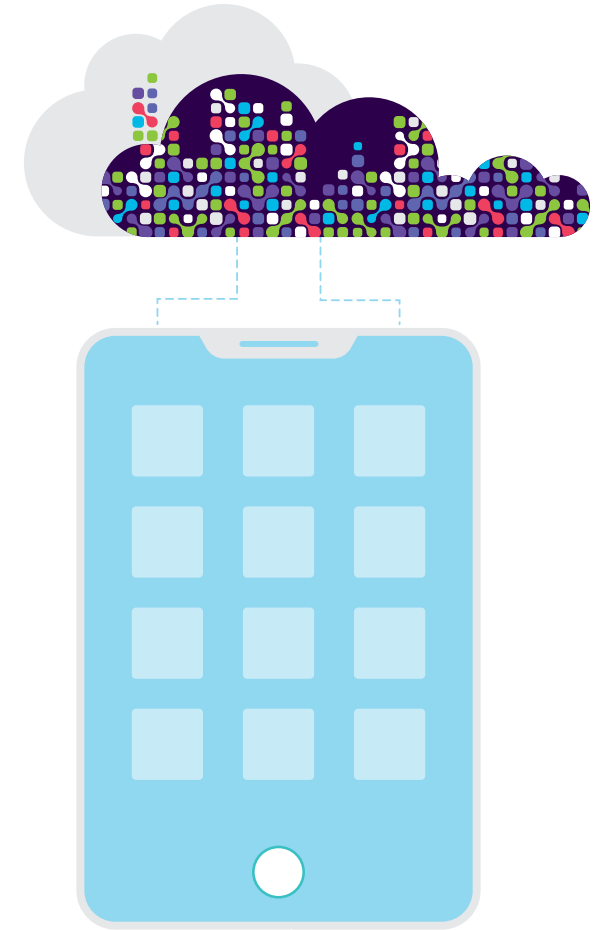
Cloud-ready and cloud native apps are distributed systems. They are packaged as containers and run in environments that break them into their component services, each running in a separate container.

Container-based solutions are growing in popularity. Over 100 million hosts (physical and virtual) and nearly two billion container instances are expected to be installed by 2023.¹ This is because they bring multiple benefits:

- They are a portable, flexible, and predictable way of packaging, distributing, modifying, testing, and running apps.
- Containers are abstracted from the underlying infrastructure, and multiple containers can share a single operating instance.
- Containers can be moved easily from one computing environment to another, meaning they're incredibly adaptable and allow for simple, shared control between developers and IT operations teams (DevSecOps).

Will all these containers be difficult to manage?

Managing and orchestrating containers at scale is certainly a challenge. However, the Kubernetes platform has evolved to become the de facto standard for this, providing methods and interfaces that offer predictability, scalability, and high availability.



1. IDC Container Infrastructure Software Market Assessment: Forecast 2018-2023



Supporting Your Journey



In a recent study by VMware, 78% of CIOs said that digital transformation was one of their top priorities. Yet for almost half of these CIOs, progress in this area has been limited.

[Capgemini](#) and [VMware](#) can accelerate your digital transformation, while staying focused on business outcomes, by:

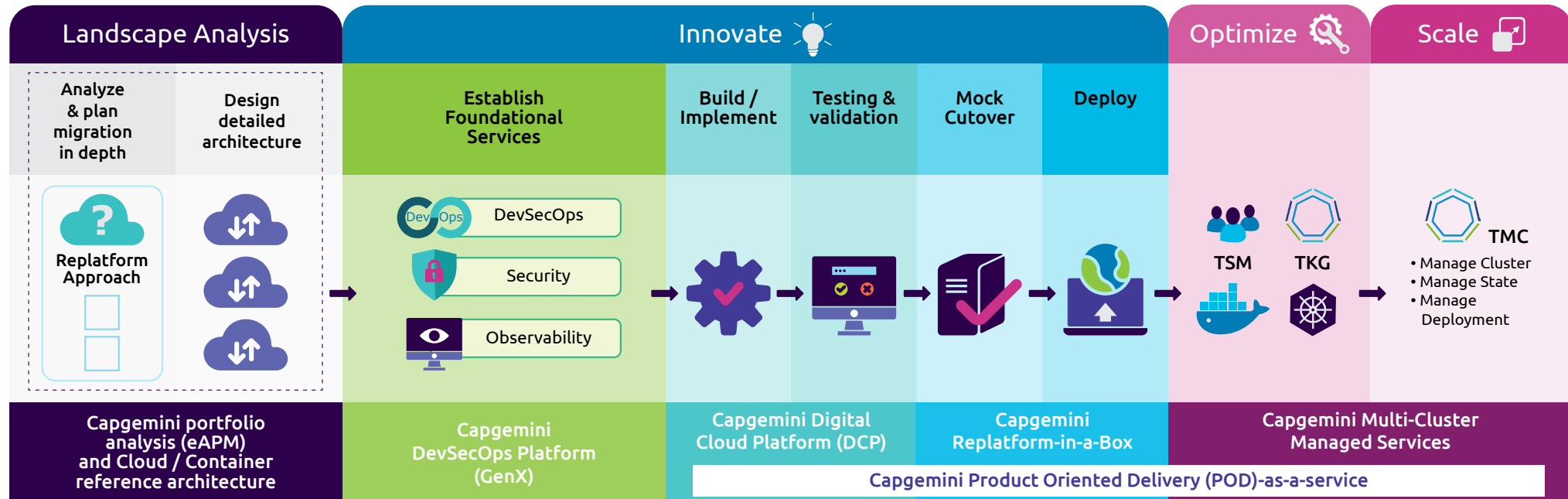
- Developing apps more quickly
- Enhancing your security posture

- Improving observability and application visibility
- Automating day-two operations and driving up efficiency

Moving to a modern application architecture begins with understanding the existing application estate and prioritizing applications based on business impact. A readiness assessment highlights gaps in the current state versus the future state, how success is measured, and the current

maturity of DevSecOps with identification of the tools and technologies required to create a fully automated [cloud native](#) ecosystem.

Our phased engagement approach spans an initial analysis of your app portfolio through to a managed service for keeping your new [cloud native solutions](#) running at optimum efficiency.





The starting point: **Landscape Analysis**



To kickstart your move to cloud native services, we'll analyze your existing applications for their cloud readiness. This includes assessing current tech-debts against cloud native principles and identifying gaps in your current architecture versus the desired state.

We'll score the current maturity of your DevSecOps and recommend which tools and technologies are required to create a fully automated, cloud native delivery pipeline.

This process will define the vision, decision framework and notional architecture to reach your desired future state, while prioritizing your ongoing business strategy. The output will be an actionable plan to achieve your container strategy, including key initiatives, high-level timelines and major dependencies.





INNOVATE



Establishing your foundational technologies and platforms

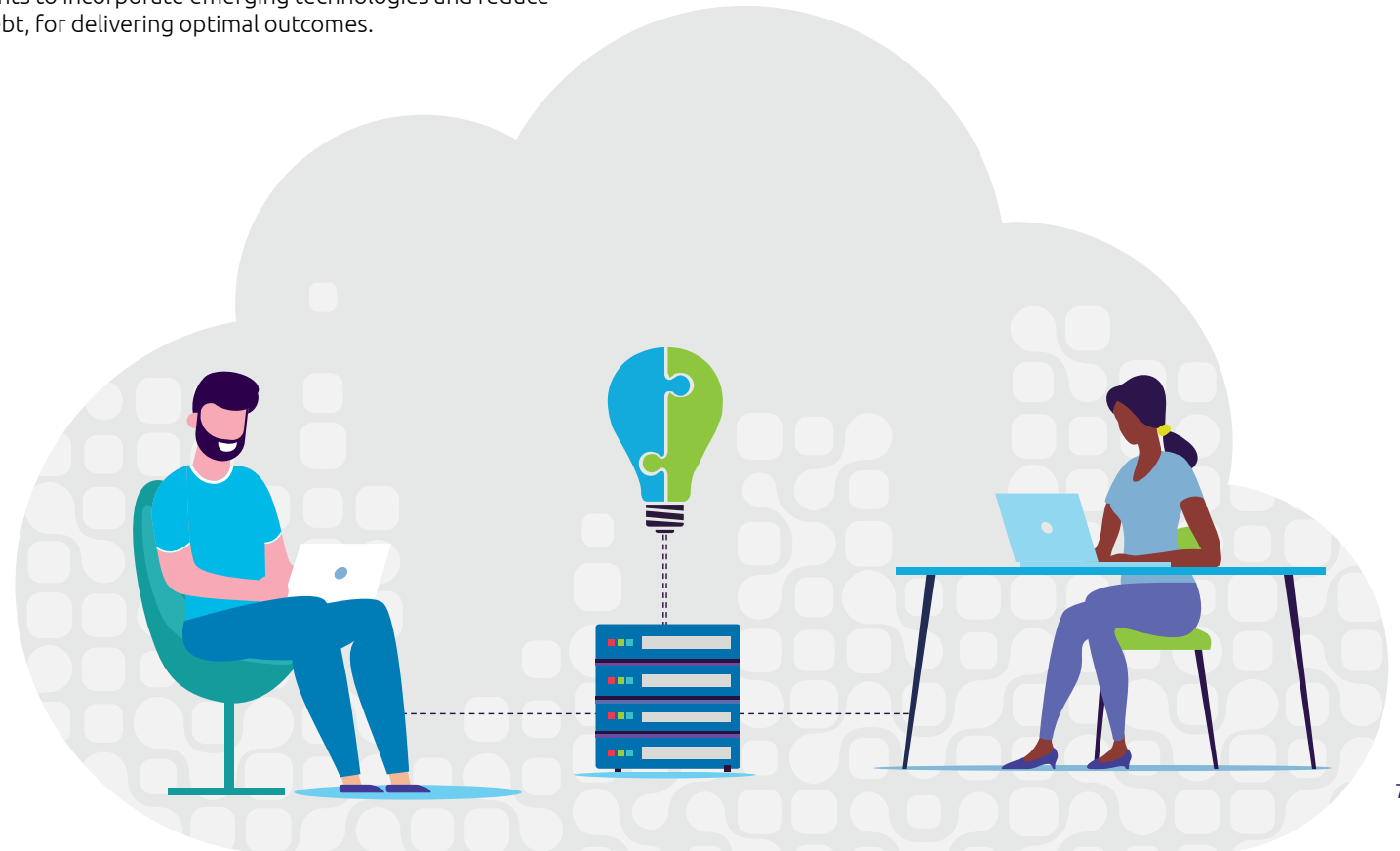
A strategic vision and roadmap define the actions needed to establish the foundational technologies and platforms to drive continuous innovation across multiple cloud infrastructures. This will include Continuous Integration (CI), Continuous Delivery (CD) and Continuous Testing (CT) pipelines, security controls and an observability framework.

Using Business Driven Design, we can re-platform existing monolithic applications and their functional capabilities into autonomous microservices using best practices for how to containerize an application.

These independent workloads are delivered through DevSecOps automation and utilize Product Oriented Delivery (POD) operating models where a single cross-functional POD team works together in an agile, DevOps model to develop and maintain applications while making enhancements to incorporate emerging technologies and reduce technical debt, for delivering optimal outcomes.



More insights here on the advantages of Innovate





OPTIMIZE



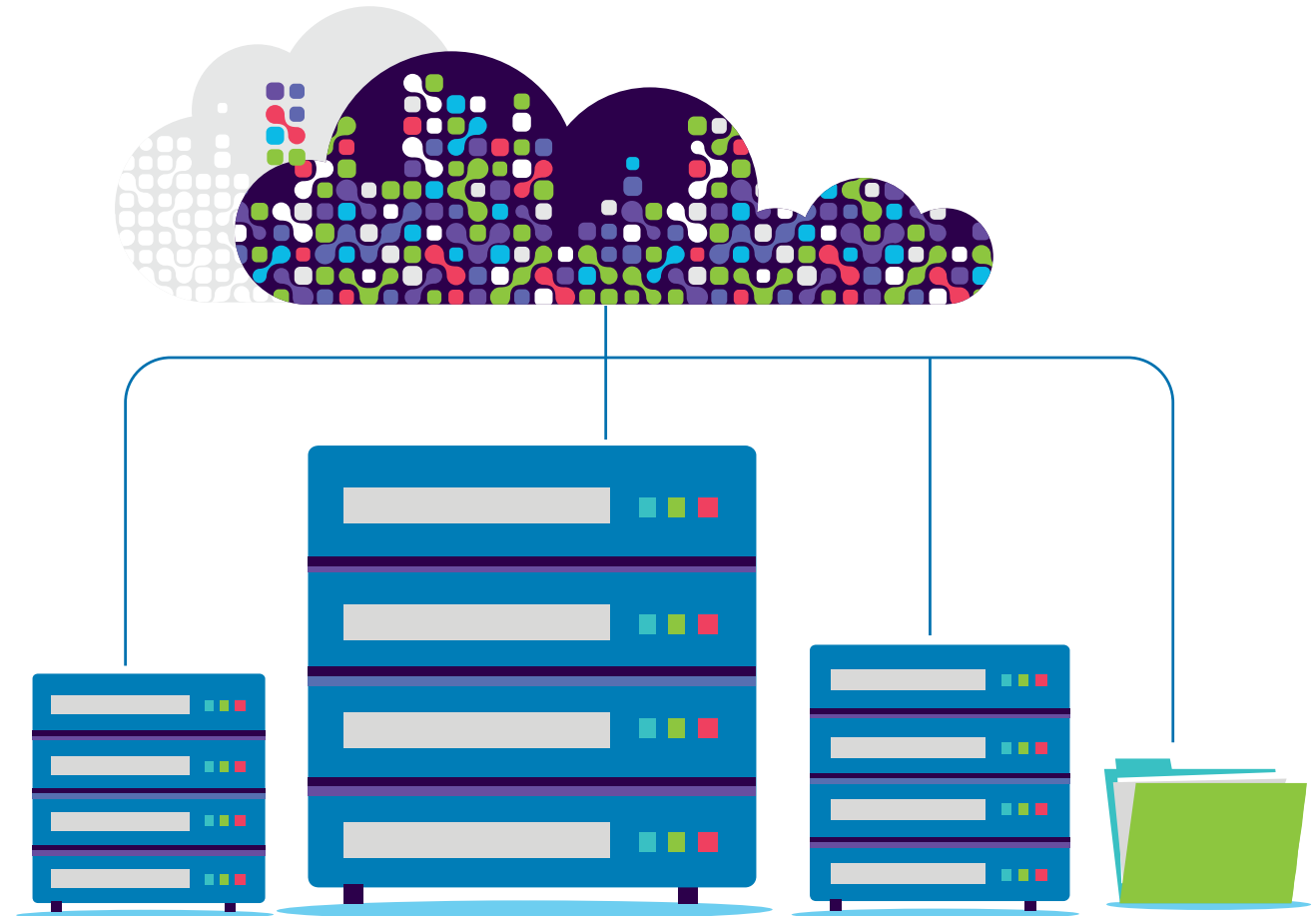
Running containers across your business

[Capgemini and VMware](#) use the Kubernetes cluster management platform to orchestrate the networking, storage, security, image registry, and general computing of your containerized workloads.

We can extend Kubernetes into your existing data centers, public clouds, and edge environments and we use our bespoke Kubernetes and Kubernetes native tools to optimize deployments at scale, supported by a continuous measurement and optimization framework.

VMware Tanzu Kubernetes Grid has been designed to simplify both - the installation and ongoing operation of Kubernetes across your enterprise. It is also integrated with VMware's vSphere virtualization platform, giving you one consistent Kubernetes runtime for all your public cloud, private cloud, and edge computing environments.

By automating repetitive tasks using DevOps microservices and Infrastructure-As-Code principles, we enable you to reduce the burden of managing containers and also facilitate faster feedback loops which result in standalone and incremental development and deployment of innovative services.



More insights here on the advantages of Optimize



SCALE



Managing many Kubernetes clusters across many teams

Capgemini provides the opportunity to scale and operate applications agnostic of prevailing infrastructure, additionally enabling complete monitoring, measurement, and control of your containers. Our end to end multi-cloud managed service includes turnkey solution and extremely convenient pricing models.

Capgemini can deploy and configure Tanzu Mission Control, and provide managed services to bring in best practices, templates, and standard operating procedures. This will deliver further optimization, create greater efficiencies, and help reduce your costs.

VMware Tanzu Observability by Wavefront allows to predict problem areas and provides opportunities to optimize performance via full stack observability.

VMware Tanzu Mission Control allows centralized Kubernetes cluster management, providing real-time views into version control and compliances of clusters.



More insights here on the advantages of Scale



Capgemini and VMware: A Robust Partnership



Our combined end-to-end cloud computing capabilities extend across apps and infrastructure. We share fundamental values and expertise that enable us to deliver specific use cases for your business.

Capgemini



VMware

Focus on business outcomes: We help our clients to move away from product-centric delivery, by introducing them to delivery models where business and IT can collaborate in an agile way and focus on outcomes. We work with our clients to develop their product and business strategies, and align them with IT.

Cutting-edge knowhow: We're leaders in app modernization, infrastructure, and cloud computing. It's not just our technical skills that make us stand out. We know the industries we work with, and our clients' core systems, inside out. This knowledge helps us solve specific challenges and accelerate the rationalization or extension of our clients' app portfolios.

Customized DevOps model: App modernization can't happen without changing DevOps. We help our clients to operate their apps in a much leaner, more comprehensive way through newer delivery structures and DevOps microservices.

Managed services expertise: We use our managed services heritage to utilize best practices, templates, and standard operating procedures.

Collaborative structures and methodologies: While others adopt an instructive, top-down mentality, we're known for our proven collaborative methodology, that focuses on our clients' business issues and outcomes.

VMware Principal partner: We have extensive VMware experience and expertise in infrastructure virtualization, including vSphere, vSAN, NSX and VMware's Tanzu Portfolio for app modernization.

Successful outcomes: Our cloud native technologies and modern practices have sparked major improvements in how companies design, develop, deliver, and operate software.

Trusted partners: We've helped Global 2000 companies virtualize their data centers. Now, we're supporting them through the next stage of their transformation into software-driven enterprises.

Happy teams: VMware Pivotal Labs instills a culture of test-driven development, pair programming, user-centric design, and cloud native operations that attracts and retains the top software talent.

Embedded security and automation: Our products are highly automated and easy to use, allowing companies to update components without downtime, constantly rotate credentials, rebuild base infrastructure, and patch apps securely.

Cloud neutrality: We provide a reliable and consistent operational experience to run and scale modern apps, whatever cloud architecture you choose.

Open-source expertise: We embed mature open-source software into trusted commercial products, including Spring, VMware Tanzu RabbitMQ, Kubernetes, Cluster API, Velero, and Cloud Foundry.



To leverage benefits for your business, connect with:

For more insights, access our on-demand materials here:

Jay Dowling

Vice President
Global Strategic Initiatives & Partners
jay.dowling@capgemini.com



POV: Apps
Modernization



POV: Product-driven
Development Approach

About Capgemini

Capgemini is a global leader in consulting, digital transformation, technology and engineering services. The Group is at the forefront of innovation to address the entire breadth of clients' opportunities in the evolving world of cloud, digital and platforms. Building on its strong 50-year+ heritage and deep industry-specific expertise, Capgemini enables organizations to realize their business ambitions through an array of services from strategy to operations. Capgemini is driven by the conviction that the business value of technology comes from and through people. Today, it is a multicultural company of 270,000 team members in almost 50 countries. With Altran, the Group reported 2019 combined revenues of €17billion.

Visit us at

www.capgemini.com

About VMware

VMware software powers the world's complex digital infrastructure. The company's compute, cloud, mobility, networking, and security offerings provide a dynamic and efficient digital foundation to over 500,000 customers globally, aided by an ecosystem of 75,000 partners. Headquartered in Palo Alto, California, this year VMware celebrates twenty years of breakthrough innovation benefiting business and society. VMware Tanzu is a family of products and services for building, running and managing modern apps on any cloud—and continuously delivering value to customers.

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