

# Modernize Monolithic Apps with VMware Tanzu Labs



## Proven practices for rearchitecting complex systems

Modern software and cloud native practices provide a unique opportunity for organizations to shape new experiences and quickly adapt to evolving customer needs. According to the 2021 Gartner® Software Engineering Leaders Survey, many application teams have already begun employing—either pervasively or in a wide variety of cases—a variety of modern architecture and design practices.\*

# 64%

use architecture refactoring and modernization\*

# 69%

use microservices architecture\*

# 75%

use cloud native application architecture\*

# 80%

use API-centric application architecture\*

\*Gartner, Inc. "Predicts 2022: Modernizing Software Development is Key to Digital Transformation." Manjunath Bhat, Arun Chandrasekaran, Padraig Byrne, Mark Horvath, Mark O'Neill, Gregg Siegfried. December 3, 2021.

For many organizations, significant barriers arise when starting from a complex heritage system. The culprit is often a business-critical, monolithic application, or system of systems, that's expensive to maintain and even more difficult to innovate.

## 6 signs it's time to modernize

- 1 Decades of technical debt
- 2 Complex application dependencies
- 3 Slow, manual processes to deploy code
- 4 Siloed teams
- 5 Powered by old technology
- 6 Long development cycles

## Lean on our expertise

VMware Tanzu Labs™ experts will pair with your team through each stage of our Swift Methodology to break down and modernize complex systems, ensuring our knowledge and skills transfer to your team along the way.

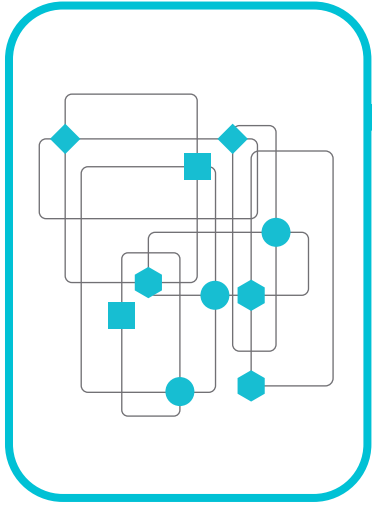
We'll help you rethink your app from the ground up, start coding, and have new services in production within weeks.

Read on for more details.



# The Swift Methodology

A series of proven practices that jump-start application modernization in days, not months



## 1 Define objectives and key results 1-2 hours



Agree on objectives and determine the key results to measure using an objectives and key results (OKR) framework.

### Benefit

Ensure desired business outcomes always guide modernization practices.

## 2 Event storm the system 1-2 days



Make sense of the complexity by discovering and visualizing business events that cover key features of the system.

### Benefit

Quickly create a common understanding between business experts and IT on the provided functionalities of the modernized system.

## 3 Select one thin slice of functionalities 2 hours



Identify meaningful modernization starting points by selecting one thin slice of functionalities from the system.

### Benefit

Avoid analysis paralysis by having one meaningful, well-defined business narrative jump-start modernization.



Model relationships between business capabilities the system will support to draft the desired notional architecture.

### Benefit

Determine how the system wants to be designed and avoid pitfalls such as premature solutioning.



Capture user stories, required APIs, data, and connections for each business capability of the system.

### Benefit

Identify and prioritize a backlog of work to balance business value, technical risk, and effort.



Make low-level design decisions, apply technical patterns, and implement capabilities within a time-bounded set of 1-week iterations.

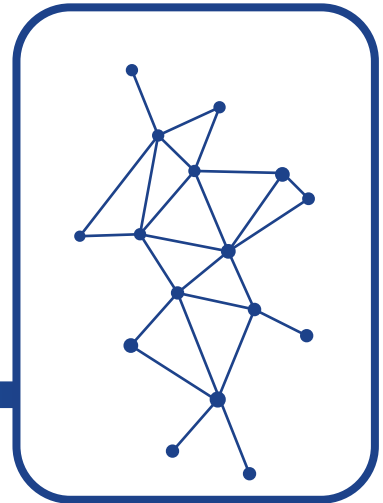
### Benefit

Enable your team by pairing with Tanzu Labs engineers on a backlog. Then progressively transfer traffic from the existing system without disrupting business.

## 4 Conduct a Boris exercise 2-4 days

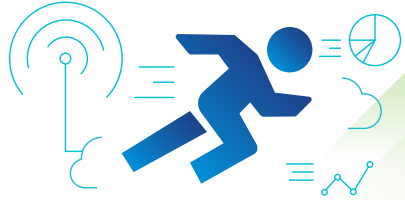
## 5 Fill the backlog 1-2 days

## 6 Produce tested and working code Approx. 3 weeks



# The Outcome

Flexible and cloud native application architecture



## Speed

- Accelerate release cycles and deliver more with less
- Boost developer productivity
- Gain an edge over the competition
- Save time using automation
- Roll out updates without downtime
- Escape the analysis paralysis modernization trap
- Automate the path to production



## Security

- Leverage automation and modern DevSecOps practices
- Keep knowledge in house by reskilling your talents
- Nurture a safe working environment
- Achieve determinism and consistency through automation
- Adopt cloud native practices, making reliability and security first-class citizens



## Scale

- Enable teams on modern, cloud native practices
- Start small—at low risk—to scale fast
- Scale knowledge through pairing and cookbooks
- Get rid of expensive middleware

## Trusted Impact

### Discover Financial

Discover Financial partnered with Tanzu Labs to transform an expensive, monolithic mainframe system that was causing slow release cycles and high error rates.

#### Results

- Created ability to deliver new features 4x faster
- Produced 60% fewer errors
- Shortened deployment from week/days to days/hours
- Eliminated late-night code installs

### DICK'S Sporting Goods

DICK'S Sporting Goods partnered with Tanzu Labs to modernize monolithic apps that were creating lengthy development cycles and were difficult to deploy.

#### Results

- 60% reduction in incidents
- 12x improvement to bug and issue response time
- 175x improvement in processing events