# Reduce MedTech deployment time by 50% while balancing quality for microservices team
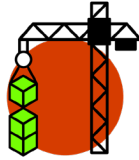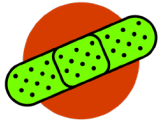
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## The Client

**Environment:** Healthcare
**Size:** Nearly 8,000 employees
**Location:** Nationwide
**Engagement:** Accelerate software delivery & DevOps

> " Time and time again Test Double Agents have shown **great natural leadership**, are **amazing to solve any problems with**, and are often the long pole in the tent for us.
>
> –Director of Application Development

> " Test Double has the **technical wherewithal as well as the ability to learn!** **They are our brothers and sisters!**
>
> –Senior Director of Software Engineering

> " Test Double is not isolated off in some corner from the rest of the team— they really **come alongside and work with them on a regular basis**.
>
> –Software Architect

## The Mission

**Tech:** Azure, Docker, Kafka, Kubernetes, Python, Terraform, ArgoCD, GitHub, Circle CI
**Impact Areas:** Architecture, deployment, mentoring

### Streamlining microservices at scale

A growth-minded MedTech needed to overhaul their software development process. Managing over 50 microservices and Azure functions, their lean team faced daily challenges: supporting 235,000 requests, shipping on tight release cycles, and spending excessive time coordinating meetings.

As feature demand grew, their cycle times were becoming a major bottleneck. It was time to sharpen the saw and become a more efficient organization by embedding agile practices, improving tooling, and reducing the labor required to ship and maintain high-quality software.

**Make the scary stuff boring** | **testdouble.com** | **hello@testdouble.com**

# Balance speed and quality for MedTech microservices team

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## The Fix

### Building a faster, more reliable software team
Test Double partnered with the company to drive improvements balancing speed and quality across three key areas:

**Improving visibility and accelerating delivery:**
We implemented advanced observability tools (including as a custom logging library, now adopted by all core applications) as well as providing expertise (via coaching and documentation) to elevate the team's use of Azure Monitor. This observability upgrade enhanced real-time monitoring for better decision-making, reduced the labor required to make discoveries when failures occur, and empowered business analytics across 68 projects.

Additionally, we worked with the team to institute architectural and ops changes to simplify delivery. This included shifting microservices behind an API gateway and creating an upgrade path across all applications. We also created a Copier template to quickly scale up new projects. Our architectural improvements enabled rapid delivery, with over 20 feature demos rolled out faster, delighting both users and stakeholders.

**Strengthening collaboration and continuous learning:**
We helped cultivate a culture of continuous learning and growth to drive long-term success. We did this by creating five targeted katas that honed specific technical skills, such as TDD or Python decorators, through structured practice.

We standardized the scripts used across all projects, making it much easier for developers to shift between microservices as business needs changed. We led the team in a book club exploring both technical and business concepts, creating a learning culture that directly impacted how projects were developed.

We chose the Pydantic library for adding more rigor to legacy data. With the enabling technology in place, we could then facilitate discussions about how to reorganize the data into clear business domains. With the right tools and mindset in place, the team began to self-organize more effectively, reducing dependencies and increasing autonomy.

**Optimizing team dynamics:**
By partnering with leadership, we improved the team's internal processes to enhance communication and reduce friction. We helped reorganize ceremonies to cut unnecessary meetings while improving alignment while also introducing  team member rotation across projects to reduce knowledge silos and foster shared ownership.
The result was a more agile, resilient, and empowered team.

Accelerate quality software

Build great software & great teams

# Balance speed and quality for MedTech microservices team

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## The Results

### Accelerating delivery and elevating team performance

At Test Double, we believe great software outcomes emerge when expert consultants work with your team—not just for them. By combining technical excellence with a people-first approach, we helped our client ship faster, reduce inefficiencies, and build a stronger engineering culture that will continue delivering value long after we are gone.

Our partnership with this organization led to lasting transformation, with measurable outcomes including:

### 50% faster deployment times
Reduced time to first deploy by half, thanks to optimized environment documentation and streamlined processes, enabling faster feature releases.

### 62% increased adoption of key tools
Developed custom logging library integrated across all core applications, leading to 62% increase in usage and richer, actionable dashboard metrics across 68 projects.

### Troubleshooting time decreased from days to minutes
Implemented structured logging via structlog library into Azure Monitor, reduced resolution times from several days to minutes, vastly improved operational efficiency.

### 2-week acceleration in project delivery
Improved cross-team collaboration enabled MedTech company to deliver a critical project 14 days ahead of schedule, a significant gain in their project timeline.

### Continuous team improvement
Mentored developers across 4 teams, empowering them to lead ongoing Kata Time sessions and fostering a culture of continuous learning and self-sufficiency.
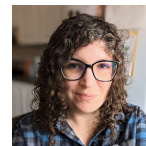
## The Team

**Chris Caraganis**
Agent 0066

**Gabriel Côté-Carrier**
Agent 00143

**Kyle Adams**
Agent 0033

**Pam-Marie Guzzo**
Agent 00109