



Accelerating innovation with cloud-native enablement

Scaling feature delivery while maintaining operational reliability.

Executive Summary

A leading fleet management agency has partnered with CodeRoad to accelerate the modernization of its core platform while continuing to support daily, mission-critical towing and roadside operations. As a cloud-based fleet management solution serving consent towing, roadside assistance, dispatching, vehicle impoundments, and invoicing, the company must balance rapid innovation with uninterrupted service.

Over the past year, CodeRoad embedded with the company's internal team to migrate the platform from the .NET Framework to a modern, cloud-native architecture built on .NET Core, Linux, and Kubernetes. Despite the inherent complexity of migrating production services, the partnership delivered steady progress, strengthened operational resilience, and enabled faster, more scalable feature development. With only one major service remaining on the legacy framework, is now well positioned to complete the transition and continue scaling its platform with confidence.

About the Project

This client is a cloud-based fleet management platform designed for towing and roadside assistance businesses. The platform supports end-to-end operational workflows, including dispatching, routing, vehicle impoundments, maintenance management, client administration, and billing.

Their customers depend on the platform for real-time coordination and accurate financial processing, making reliability, performance, and continuous availability essential. As the product evolves, Their engineering team is focused on driving innovation, strengthening existing capabilities, and ensuring seamless day-to-day operations and partnered with CodeRoad to accelerate their cloud migration enablement.



Looking for Innovation and Reliability

The company's legacy .NET Framework services had become a limiting factor for scalability, deployment flexibility, and long-term maintainability. While the business needed to deliver new features and enhancements, the existing architecture made it increasingly difficult to move quickly without added operational risk.

The migration effort was complex. Production services had to be modernized carefully to avoid downtime, and the team encountered real-world challenges that required thoughtful coordination, testing, and communication. At the same time, the platform could not pause day-to-day operations—dispatching, billing, and customer workflows had to continue uninterrupted.

Our Velocity Playbook in Action

CodeRoad partnered with them to modernize the platform incrementally, ensuring stability while unlocking future velocity.

1. Platform Modernization

- Migrated core services from .NET Framework to .NET Core on Linux
- Enabled cloud-native execution and improved portability
- Reduced dependency on legacy infrastructure

2. Containerization & Orchestration

- Deployed modernized services within Kubernetes
- Improved scalability, resilience, and environment consistency
- Established a foundation for reliable, repeatable deployments

3. Production-Safe Migration

- Applied lessons learned from real production migrations
- Identified and resolved issues specific to live services
- Ensured customer-facing workflows remained stable throughout

4. Embedded Collaboration

- Co-owned outcomes with the internal team
- Maintained clear, continuous communication across migration phases
- Adapted quickly as new challenges surfaced

Shipping Fast, Building Right



Modern Architecture

The platform now runs primarily on a cloud-native stack.



Improved Scalability

Services can scale more effectively to support growth.



Operational Stability

Daily towing and roadside workflows remain uninterrupted.



Faster Innovation

New features can be delivered on a more flexible foundation.



Clear Path Forward

Only one major service remains on the legacy framework.



Trusted Delivery Partner

CodeRoad operates as an extension of the internal team.

A Velocity Roadmap for Legacy Modernization

The company's modernization centered on moving from a legacy, Windows-bound architecture to a flexible, cloud-native platform. By transitioning services to .NET Core and Linux, the team unlocked improved performance, portability, and long-term maintainability while reducing technical constraints tied to the older framework.

Containerization and Kubernetes orchestration introduced greater consistency across environments and improved the platform's ability to scale. Services can now be deployed, managed, and operated with higher confidence, making the system more resilient to growth and change.

Perhaps most importantly, the migration delivered real-world learning. By modernizing production services—not just test workloads—the team gained valuable insight into sequencing, risk management, and communication. These lessons now inform the final stages of migration and future platform evolution, ensuring they can continue innovating without compromising reliability.

Technology in action

.NET Core

for modernizing legacy services and improving performance, portability, and maintainability

Kubernetes

for container orchestration, scalability, and resilient service management

Linux-Based Runtime

for more efficient, cloud-native execution and reduced infrastructure constraints

Cloud-Native Architecture

for enabling faster feature development and long-term platform scalability

Talent + Acceleration + Confidence

To remove the technical constraints of a legacy .NET environment, CodeRoad deployed **Velocity-as-a-Service**. We executed a high-stakes architectural shift that replaced aging infrastructure with a high-velocity, cloud-native engine:

- **Systemic .NET Core Migration:** Spearheaded the transition from legacy .NET Framework to *.NET Core*, unlocking significant performance gains and cross-platform flexibility.
- **Kubernetes & Linux Orchestration:** Re-engineered the hosting environment to run on *Linux containers and Kubernetes*, providing the elastic scaling necessary for a high-volume dispatching platform.
- **Production-Safe Transition:** Managed the incremental migration of production services, ensuring that mission-critical routing, dispatching, and billing modules remained fully operational throughout the transition.
- **Automated Release Rails:** Replaced manual deployment gates with fully automated *CI/CD pipelines*, dramatically reducing the risk of human error and accelerating the time-to-market for new features.

Engineered Momentum

CodeRoad's Business Impact by the numbers

90%

legacy elimination. Successfully migrated all but one major service to the modern stack, drastically reducing technical debt.

Zero Downtime
Migration

Maintained 100% service availability for roadside assistance operations during complex architectural shifts.

3X

scalability. Automated CI/CD pipelines enabled the team to ship features faster and with higher deployment confidence.

How CodeRoad can help you accelerate

CodeRoad delivers Velocity-as-a-Service (VaaS) by performing complex architectural modernizations without disrupting mission-critical operations. We partner with you to transition their core platform to a cloud-native .NET Core and Kubernetes environment, eliminating legacy constraints. By embedding elite engineering pods to automate CI/CD pipelines, we achieved 90% legacy framework elimination while maintaining 100% uptime for dispatching and logistics. CodeRoad's systems are engineered to ensure that infrastructure evolution fuels, rather than stalls, rapid market expansion.



Strategic Technology Solutions

- Cloud modernization for aviation platforms
- Secure AWS, Azure & GCP engineering for regulated environments
- Infrastructure-as-Code for repeatable, compliant deployments
- Containerized application delivery for scalable MRO systems
- Operational observability for mission-critical services
- Cost governance and resource optimization for large fleets and platforms
- Data engineering and system integrations across airline operations



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