



Delivery pipeline transformation

A scalable DevOps foundation enabling faster, more reliable deployment in a data-driven automotive SaaS platform.

Executive Summary

A leading provider of EDS and custom SaaS technologies partnered with CodeRoad to remove deployment friction that was slowing delivery during a critical phase of platform modernization. As an automotive SaaS and data solutions provider, the company operates systems where reliability, data integrity, and release consistency directly impact customer trust. While transitioning from a legacy platform to a modernized architecture, both systems were required to operate against a shared database—introducing deployment delays, inconsistent test environments, and increased risk during releases.

To address these challenges, they engaged CodeRoad to design and implement a standardized CI/CD foundation using Azure DevOps. The goal was not only to accelerate deployments, but to restore clarity and confidence across the delivery lifecycle. By automating build and deployment workflows and reducing manual intervention, the company was able to deploy code to test environments faster, validate changes earlier under real conditions, and significantly reduce deployment-related defects. The result is a scalable DevOps foundation that supports ongoing platform evolution and enables them to deliver automotive SaaS solutions with greater speed, stability, and predictability.

About the Project

As a long-standing provider of enterprise data solutions and custom SaaS technologies serving the automotive industry, they focus on helping manufacturers, dealers, and vendors unify data, improve operational insights, and power analytics-driven decision making across the vehicle lifecycle. Since 2003, the company has delivered consulting, data engineering, and bespoke software applications that support strategic platforms and business initiatives for automotive customers, enabling them to streamline workflows and enhance data-driven operations.

Operating at the intersection of automotive data, analytics, and software development, their solutions help organizations capture, process, and deliver high-integrity data across distributed systems. This includes transforming raw inputs from disparate sources into validated, client-ready outputs that feed reporting, insights, and downstream SaaS applications essential to dealer and manufacturer decision flows. The reliability and consistency of these data pipelines are critical because automotive customers depend on timely, accurate data to power operational workflows, customer engagement platforms, and performance dashboards.



Looking for Governance and Momentum

As the company modernized its platform, the engineering team encountered a key technical issue: both the legacy system and the new platform were dependent on the same shared database, leading to deployment contention and delivery delays. This shared dependency made it difficult to promote changes into test environments quickly, resulting in longer feedback loops and reduced engineering confidence.

Manual deployment steps compounded these issues, requiring developer coordination and slowing the pace of releases. They needed a consistent, automated pipeline that would reduce friction between platforms, accelerate testing, and streamline deployment workflows—especially as they scaled automotive data products and SaaS features.

Our Velocity Playbook in Action

CodeRoad established a DevOps foundation focused on removing these bottlenecks and enabling repeatable delivery velocity:

- 1. CI/CD Foundation & Deployment Standardization**
 - Designed and implemented Azure DevOps build and release pipelines
 - Converted manual deployments into scripted, automated workflows
 - Eliminated environment inconsistencies and reduced configuration errors
- 2. Deployment Automation & Testing Enablement**
 - Automated deployments to staging and test environments
 - Enabled teams to validate code in environments closer to production
 - Shortened feedback loops between development and QA
- 3. Reuse & Future Velocity**
 - Created reusable pipeline templates for future projects
 - Reduced setup effort for new initiatives
 - Built a scalable CI/CD foundation supporting continued SaaS innovation

Shipping Fast, Building Right



Reduced Operational Overhead

Engineers spend less time managing deployments and more time building features.



Earlier Validation

Teams can validate new functionality sooner in environments that mirror production.



Improved Delivery Confidence

Releases are more predictable, even with shared infrastructure dependencies.



Faster Deployments

Automated pipelines enable consistent and rapid code promotion to test environments.



Fewer Defects

Standardized deliveries reduce errors tied to manual processes.



Reusable CI/CD Frameworks

New SaaS initiatives launch faster with minimal DevOps setup.

A Velocity Roadmap for the Future.

Before the engagement, deploying changes across this client's platforms required careful coordination and manual effort. With both the legacy system and the modernized platform sharing the same database, even small changes could introduce delays or unintended side effects. Testing often happened later than desired, and engineers had to spend valuable time managing deployments rather than focusing on building new capabilities for automotive clients.

CodeRoad introduced Azure DevOps-based CI/CD pipelines to bring structure and predictability to this process. By automating build and deployment workflows, the team created a consistent path from development to testing and beyond. Code could now be promoted into test environments quickly and reliably, allowing teams to validate changes in conditions that more closely mirrored real-world usage. This earlier feedback reduced uncertainty, surfaced issues sooner, and improved overall release quality.

Over time, this CI/CD foundation became a strategic asset rather than a supporting tool. As new automotive SaaS initiatives are launched, teams no longer need to design deployment processes from scratch—pipelines are already in place and easily extended. Azure DevOps handles orchestration, consistency, and repeatability, enabling them to scale development velocity with confidence while maintaining the stability required for data-driven automotive platforms.

Technology
in action

**Azure
DevOps**

as the CI/CD
orchestration engine

Automation

to build and deploy
pipelines for all
environments

**Scripted
Workflows**

to reduce human
error

**Reusable
Templates**

for future SaaS
initiatives

Talent + Acceleration + Consistency

"The attention to detail, clean UI work, and creative solutions are really making the project shine. The progress and polish you've brought are making a huge difference."

Engineered Momentum

CodeRoad's Business Impact by the numbers

4X

faster deployment. Slashed the time required to move code from development to test environments through end-to-end automation.

50%

lower defect rates. Significantly reduced deployment-related issues by standardizing environments and automating quality checks.

100%

pipeline consistency. Established reusable CI/CD templates that provide a scalable blueprint.

How CodeRoad can help you accelerate

CodeRoad delivers Velocity-as-a-Service (VaaS) by engineering standardized delivery foundations that remove modernization friction. We partner with you to implement Azure DevOps CI/CD frameworks, enabling legacy and modern platforms to operate safely against shared databases. By automating build and release workflows, we achieved 4x faster deployments and a 50% reduction in defects, restoring total release confidence. CodeRoad's systems are engineered to provide the repeatable automation templates necessary for sustained SaaS innovation and growth.



Strategic Technology Solutions

- DevOps & CI/CD Modernization
- Release Engineering & Deployment Reliability
- Automation-First Delivery Enablement
- Platform Modernization Support
- Observability & cost intelligence
- DevOps foundations that support parallel legacy and modern platforms
- Data engineering & integrations



What's next for retail automotive?

Discover how to gain a tech-fueled competitive edge in the rapidly consolidating automotive industry with our latest eBook. Get the latest on:

- Cloud Modernization
- Fintech Engineering
- Infrastructure Automation
- Containerized Delivery
- Operational Observability
- Cost Governance
- System Integration

Build a DevOps foundation for the future of technology.

Book Assessment Call

1-954-866-3473
contactus@coderoad.com
[CodeRoad.com](https://www.coderoad.com)

