

MODERNISING LEGACY SYSTEMS: HOW INFONETICA CAPTURED NEW MARKETS



infonetica

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KEY HIGHLIGHTS



Reduced Production Incidents by 75%

Automated testing and CI/CD pipelines dramatically improved platform stability and reliability.



90% Fewer Bugs

Transitioning from TFS to GitHub Actions, alongside robust testing, slashed bug occurrences, enhancing user experience.



Accelerated Release Cadence

Continuous delivery practices enabled faster, more reliable releases, empowering Infonetica to respond swiftly to market demands.

“Working with Build Circle transformed our technology and team. They quickly tackled weaknesses in our systems and processes, improving code quality and release stability through automation and testing. Their hands-on coaching empowered our developers with new skills, creating a culture of collaboration and quality. Thanks to their expertise, our release cadence improved, and we gained the confidence to scale. Build Circle’s approach has been invaluable in setting us up for long-term success.”

Raja Prasanna - CEO, Infonetica.

The Challenge

Infonetica, a long-standing provider of specialised software solutions, faced a significant challenge with its legacy platform. As a cloud-based research management solution for universities and research institutions their system, over 12 years old, had become outdated and inefficient, hindering the company's ability to innovate and respond to market demands.

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The Solution_

To address these challenges, our team implemented a comprehensive solution that involved modernising the existing platform and laying the groundwork for the new V2 system.

Improving the Legacy System (V1)

- Automation and Testing - We focused on improving the quality of the existing platform by introducing automated tests. This included wrapping the monolithic architecture in automated testing protocols to ensure more consistent and reliable performance.
- Codebase Transition - The team transitioned the codebase from TFS to GitHub Actions, facilitating better version control and integration with modern development tools. We also utilised Bicep for infrastructure-as-code, streamlining the deployment and management of infrastructure.

Developing the V2 Prototype

- Requirements Gathering - In the initial three months, we conducted thorough requirements gathering, engaging closely with the Head of Product and other stakeholders to understand the domain deeply. This phase was crucial for identifying the core functionalities and user needs that the new platform needed to address.
- Prototype Development - We built a new MVP prototype that demonstrated a modern approach to software development, incorporating advanced technologies and methodologies. This included a modern release process with continuous delivery and automation within the pipelines.

Cultural Transformation

- Embedding a Culture of Quality - We introduced a culture of automation and quality assurance within the teams. This involved regular coaching sessions, interactive mobbing on TDD practices, and pairing sessions to foster a collaborative and quality-focused work environment.
- Training and Development - Our team led workshops on test-driven development (TDD), integration testing, and other best practices. This not only improved the technical skills of the existing team but also established a standard for future hires.

Technical Innovations

- Continuous Delivery and Automation - By implementing continuous delivery, we enabled a more frequent and reliable release process. The use of modern CI/CD pipelines ensured that new features and updates could be deployed swiftly and safely.
- Infra-as-Code - Leveraging Bicep for infrastructure management allowed us to maintain a consistent and replicable infrastructure setup, reducing errors and improving deployment efficiency.

Outcomes_

- **Enhanced Stability and Reliability**
The introduction of automated tests and a robust CI/CD pipeline led to a dramatic reduction in production incidents, decreasing by 75%. This improvement significantly increased the reliability and user trust in the platform.
- **Increased Test Coverage**
The legacy system saw an increase in test coverage from 0% to 13%, intending to reach 35% within six months. The new V2 system achieved full test coverage, ensuring that all parts of the codebase were tested and verified.
- **Dedicated Leadership Hire**
Advised and assisted in hiring a full-time CTO with extensive experience in managing large-scale technical transformations - dedicated leadership to drive technical initiatives and support the success of complex projects.
- **Reduced Bug Incidence**
The switch from TFS to GitHub, along with automated testing, reduced the occurrence of bugs by 90%. This not only improved the user experience but also reduced the time spent on debugging and maintenance.
- **Improved Business Agility**
The adoption of continuous delivery practices allowed for more frequent releases, improving the platform's responsiveness to market needs and customer feedback.

Tackling legacy systems isn't just about upgrading technology, it's about reigniting what your business is capable of. Infonetica's journey shows that with the right approach, even the most complex challenges can become opportunities for growth and innovation.

