

CASE STUDY:

Laying the Foundation for Scalable
Software Services

EXECUTIVE SUMMARY

This software development initiative was launched when the company was operating with a lean team and minimal resources, which played a critical role in building both revenue and reputation of the company.

The team delivered high-quality, scalable software services that not only met the urgent operational needs but also set a strong precedent for future technical excellence.

By setting up essential infrastructure from scratch, navigating technical challenges independently, and leveraging modern tools, this project showcased the company's ability to punch above its weight. Today, the long-term relationship and ongoing service maintenance underscore the lasting impact of this early effort.



PROJECT GOAL & VISION

At its core, the company was launched to fulfill one overarching objective: generate early revenue and build client trust.

These projects were the company's first steps into a competitive market, and the stakes were high—success meant proving their technical and operational capabilities.

They specifically demanded a deeper technical collaboration, requiring the team to build multiple services and systems from the ground up.

The broader vision was to establish a full-cycle software development capability that could cater to diverse needs, from complex backend systems to modern front-end interfaces, all while laying the foundation for long-term collaboration.

TEAM STRUCTURE

With a small team, everyone had to take on multiple roles. The team worked closely together, directly interacting with clients and taking full responsibility for their parts of each project.

At this company, collaborating directly with the CEO allowed for quick feedback, rapid iteration, and strong accountability. Beyond building services, the team also handled infrastructure tasks like CI/CD automation and system setup.

This approach promoted end-to-end ownership, where developers weren't limited to coding—they also acted as architects, operators, and direct points of contact with clients.

KEY FEATURES & CLIENT NEEDS

The solution for them centered around an existing e-commerce platform, with the goal of building essential services around it to improve daily operations and scalability. This included systems for product data management, parcel tracking, invoice parsing, and order automation—all designed to streamline workflows and enhance efficiency.

Centralized Product Management:

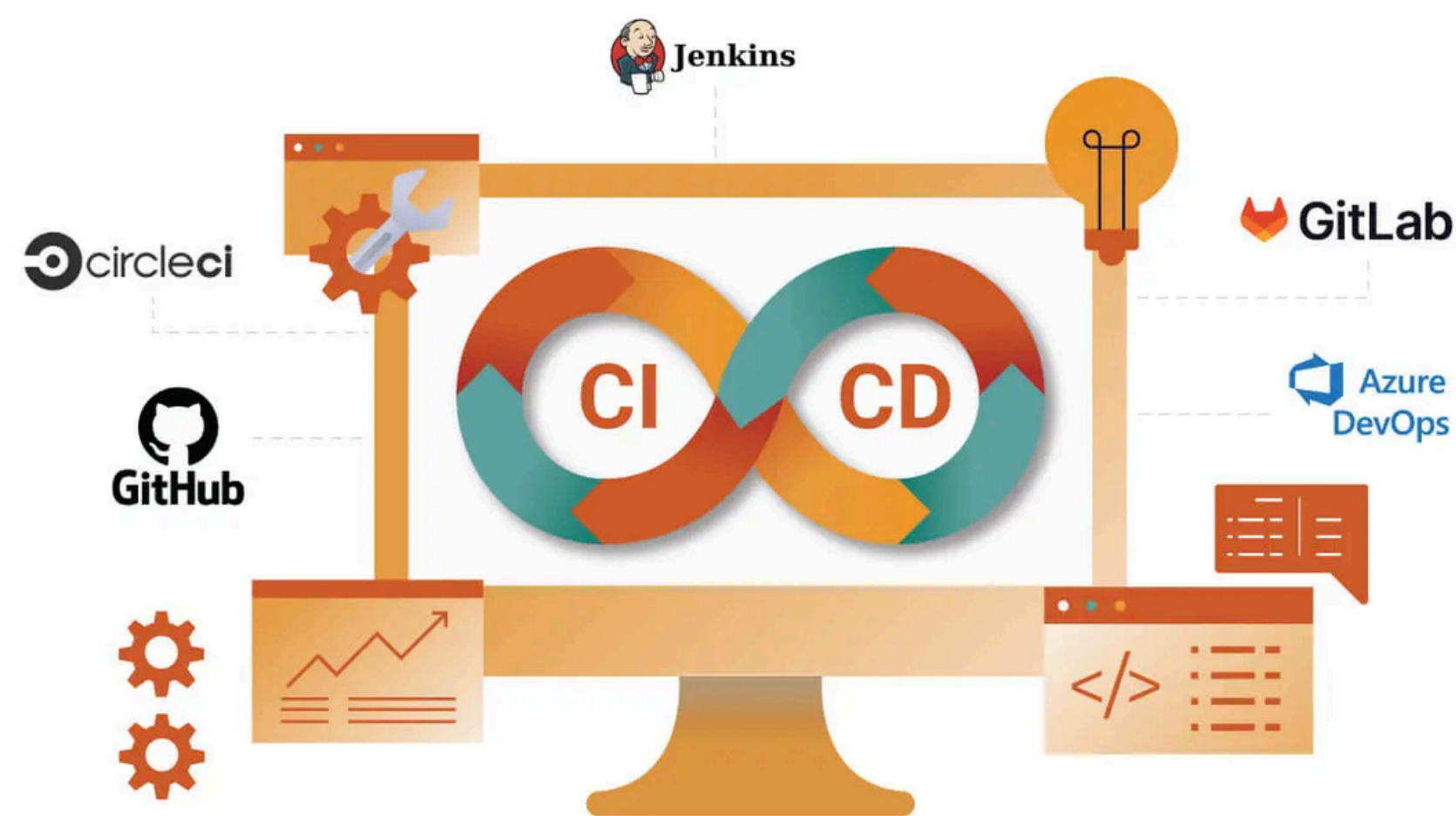
A unified platform to aggregate, normalize, and manage product data from multiple external sources.

Order Automation:

Automated order placement and tracking with external suppliers, reducing manual input and speeding up fulfillment.

Chatbot Integration:

Implemented a chatbot using Botpress to handle common customer inquiries, improving response time and reducing support workload.



OVERCOMING TECHNICAL CHALLENGES WITH RESILIENCE



The main challenge was staying agile, delivering fast, dependable solutions in a live e-commerce system where stability directly impacts real users.

Emphasis on Speed and Flexibility:

It wasn't just about building the right features, but also doing it quickly and ensuring the system could adapt to changing business demands. This involved rolling out key services on top of the existing e-commerce platform.

Collaborative Problem Solving:

Constant coordination with the technical team helped identify and fix issues early, keeping the project on schedule, flexible, and ready to scale as new requirements appeared.

TECHNOLOGIES USED

The team adopted a modern, pragmatic tech stack to balance performance, flexibility, and long-term maintainability:

Frontend & Backend:

JavaScript-based frameworks: Next.js, NestJS, Vue.js—used to build responsive frontends and scalable backend services.

Automation & DevOps:

Custom CI/CD pipelines built with Jenkins and ArgoCD, and deployed on Kubernetes to ensure fast, reliable releases and easy scaling.

Open Source Stack:

Leveraged and customized tools like Directus, Strapi, and Tolgee to reduce development time, cost, and technical overhead.

AI Tools:

Integrated Botpress for chatbot automation and Cursor for AI-assisted coding, speeding up development, debugging, and deployment.

Long-Term Maintenance:

All infrastructure and code were designed to be self-sustaining, allowing for smooth ongoing support with minimal resource requirements.



IMPACT & FUTURE DIRECTIONS

Impact:

- Ongoing positive feedback resulted in a long-term partnership, with some team members still supporting service maintenance today.
- The projects demonstrated the company's ability to solve complex technical problems with minimal supervision and set a high standard for future delivery.

Future Directions:

- Expand the integration of AI-assisted development in future projects to further optimize performance and maintainability.
- Package and standardize some of the successful service modules into reusable components for faster future deployment.

Continue strengthening long-term client relationships by offering scalable support and proactive system enhancements.

CONCLUSION

These foundational projects weren't just about building software, they were about proving a vision.

By delivering full-cycle services under pressure, solving critical infrastructure challenges, and adapting rapidly to client needs, the team helped transform an early-stage partnership into a sustainable success story.

It remains a proud example of how a small, capable team can create a big impact.

ABOUT US

8SENECA - Pure Play IT Extensions

At 8SENECA, we are a Pure Play B2B IT Outsourcing company, meaning we are singularly focused on delivering exceptional IT services for your business. Our unique strength lies in combining European management expertise with highly skilled Vietnamese talent, ensuring top-quality solutions that are both innovative and cost-effective.

What We Do

SOFTWARE DEVELOPMENT

CYBERSECURITY

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