

Itaú leverages automation to optimize the release process for its Íon investment platform



Client profile

Itaú Unibanco is the largest bank in Latin America and one of the largest financial institutions in the world. It offers a wide range of financial services to individuals and businesses, including checking accounts, credit cards, loans and insurance.

As part of its digital strategy, Itaú launched Íon, a personalized platform that integrates all investments in one place. It was designed to provide a smooth, intuitive and educational experience for both current and potential Itaú customers.

The platform offers products and services such as stocks, investment funds, fixed-income securities and private pension plans. It also includes tools to help investors make informed, data-driven decisions.

Facing growing demands for faster, higher-quality software releases, Itaú worked with NTT DATA to transform how changes to its Íon investment platform are delivered. Through the Inception initiative, automation, improved engineering practices and better visibility helped reduce release times, improve quality and increase team productivity without compromising security.



NTT DATA stood out for its ability to offer a complete automation solution, combining its technical expertise in DevOps and AI with our teams' knowledge of these technologies. With a focus on rapid and sustainable results, we formed a partnership that delivered significant operational efficiency gains, with positive impact on the end-customer experience.”

Vinicius Junio de Oliveira, Investment Solutions Engineering Manager, Itaú

80%

reduction in release lead time means digital services are delivered to customers sooner

24%

reduction in development lead time, increasing productivity

70%

reduction in validation times, driven by automated testing

Business need

Optimize internal processes

Itaú has a strong track record of innovation in the financial sector and continually looks for ways to improve the digital experiences offered to customers. This approach also applies to Íon Itaú, the bank's investment platform. To further enhance the experiences delivered through Íon, the bank sought to make their software development process and delivery infrastructure more efficient.

Greater agility in releases, fewer bugs and higher quality

Itaú set out to fast-track release lead times, improve quality and increase team productivity, without affecting system security and reliability.

The bank needed a solution aligned to software engineering best practices that would allow improvements and corrections to be implemented faster while reducing the number of errors and raising the level of quality perceived by users.

Simplifying processes and increasing efficiency

At the beginning of the project, Itaú and NTT DATA uncovered opportunities to improve the release process. Our initial assessment identified steps that could be optimized, complex workflows and activities that would benefit from automation, and areas where we could simplify processes and improve efficiency — all while preserving security, stability and delivery quality. Based on these insights, our teams worked together to determine how best to implement these improvements in line with the needs of the business.

Improving visibility and performance management

Itaú also needed to make release management more transparent, agile and data-driven. The teams found ways to improve visibility of data and key indicators (KPIs) across the release process. By consolidating information in a centralized environment and automating reporting, they could support strategic decision-making and improve the delivery of new features.

Solution

Automation, AI and system integration

To achieve their objectives, Itaú and NTT DATA partnered to implement a set of solutions to modernize and streamline the software development flow of the Íon platform.

The project, named "Inception" began with implementing a robust automation pipeline for building, testing and deployment, using GitHub Actions within the Angular framework. This pipeline made it possible to run tests automatically and deploy new versions of software faster, more securely and more consistently, strengthening engineering practices and ensuring making the delivery cycle more efficient.

"StackSpot can learn from the context of projects to provide really useful insights," says Cledson Camargo, Software Engineer at NTT DATA. "The maturity of the pipeline was essential to avoid automated regressions, maintaining the quality and security of rollouts."

Strategic use of AI

StackSpot, a multiagent GenAI platform for software development — created through a partnership between Itaú and their technology partner, Zup — was integrated into the development workflow to improve code quality and speed up reviews. An automated code review system makes it possible to identify critical issues before the testing phase.

In addition, StackSpot was used to automatically generate release notes, which helps speed up the process documenting and communicating new versions. Automated dashboards — also developed with StackSpot — improved visibility across processes.

These updates enabled data-driven decisions such as prioritizing corrections, reallocating teams and setting more realistic goals, while also providing clearer insights into gaps within teams.

Integrating new development processes

Another key element of the solution was code modularization and the introduction of a dependency map with rollback by dependency. This approach makes it possible to visualize relationships between modules and see the effect of quick fixes without affecting the entire system. As a result, the team can launch weekly releases without compromising application stability.

"We structured the model using an architecture based on micro frontends, and backend for frontends (BFFs), with each module monitored individually," explains Camargo. "GitHub Actions automated the testing of each module, and GenAI assisted in continuous review."

Outcomes

Greater agility and quality in every delivery

The impact of the solution was significant and directly improved the performance of the Íon platform. An 80% reduction in release lead time means new software versions can be delivered to the bank's full customer base more rapidly than before. Delivery quality also improved considerably, while the defect escape rate dropped, demonstrating the effectiveness of automation in code review and testing.

Improved productivity

The development team's lead time decreased by 24%, supporting more frequent and consistent deliveries. Automated testing also reduced approval time by 70%, speeding up releases without compromising security.

Direct impact on app usability

By combining automation, GenAI and system integration, Itaú — in partnership with NTT DATA — modernized the Íon release process, delivering greater agility, quality and efficiency for Itaú and its customers, who now benefit from a smoother and more reliable user experience.

"Beyond the quantitative results, the Inception project increased stakeholders' confidence in releases and improved communication with customers while providing clear data on release statuses," says Vinicius Junio de Oliveira, Investment Solutions Engineering Manager, Itaú.



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