Customer Story

Accelerating Trust in Digital Health Services:

ANS Safeguards Code Management with SonarQube Server

About ANS, Agence du Numérique en Santé

ANS, a key player in France's digital health landscape, is responsible for providing reliable and secure digital health services to French citizens. With the increasing complexity of modern software development, ANS recognized the critical need for a robust solution to manage code quality and security across its various projects. They turned to SonarQube to centralize coding standards, improve developer productivity, and ensure the delivery of high-quality, secure software.

The Challenge

ANS faced several challenges in maintaining code quality and security. Their previous approach, based on SVN and manual code reviews, proved time-consuming and inconsistent. They were unable to obtain a clear picture of the overall health of their codebase. Identifying bugs and security flaws late in the software development cycle led to increased technical debt, higher costs to find and fix, and a high risk of deploying vulnerable code. A lack of consistent code coverage also contributed to production issues.

The Solution

ANS implemented SonarQube Server to address these challenges. SonarQube's comprehensive feature set, ease of integration with Git and GitLab in their CI/CD pipeline, automated code review capabilities, and focus on both code quality and security made it the ideal choice.

Company

L'Agence du numérique en santé (ANS)

Company size

Small business

Industry

Healthcare

Key Results

- 100% increase in project-wide test coverage
- Increase in developer productivity & happiness
- Reduced technical debt
- Significant reduction in post-deployment issues and release delays
- Organization-wide code quality & code security standardization

Integrating SonarQube with the ANS Developer Workflow

ANS seamlessly integrated SonarQube into their development workflow, using GitLab for source code management and Jenkins for continuous integration. Each code commit and merge request automatically triggers both the Jenkins build orchestration and a SonarQube code analysis. The analysis results are then viewed in SonarQube Server for centralized reporting and monitoring.

To further streamline the software development process, their teams leveraged the analysis results SonarQube displays as comments within the GitLab merge request interface. Viewing SonarQube's results directly in GitLab provided developers with immediate feedback on the quality and security of their code changes and clear guidance on how to resolve issues early, without having to leave the comfort of their exiting tooling.

The Results:

SonarQube has delivered significant improvements for ANS:

- **Improved Code Quality:** Developers are now more aware of potential issues and proactively address them.
- **Reduced Technical Debt:** SonarQube enables more effective identification and management of cod smells leading to technical debt.
- **Enhanced Security:** Not only were finding and fixing known security vulnerabilities a benefit, but the security hotspots feature has been invaluable in identifying and mitigating potential security vulnerabilities.
- **Increased Team Awareness:** Real-time feedback on each branch and merge request ensures quality control and prevents the introduction of new issues. Developers see the impact of their code in their feature branch, fostering a sense of ownership.
- **Improved Test Coverage:** ANS now enforces the creation of unit test scripts as developers write code with a target of maintaining a minimum of 80% code coverage for new code. This has led to a significant project-wide increase in test coverage from a low of 30% up to a respectable 60%, with newer stacks consistently achieving a minimum of 80% and legacy projects showing marked improvement from 0-5% to 15-20%.
- **Reduction in Production Bugs:** SonarQube has significantly contributed to fewer post-deployment issues and reduced release delays.
- **Decreased Code Smells and Vulnerabilities:** ANS tracks these metrics monthly, observing a positive trend in code quality improvement.

Conclusion:

SonarQube Server has been instrumental in transforming ANS's approach to software development. By adopting a philosophy of resolving all issues in new code and leveraging SonarQube's powerful features, ANS has achieved higher code quality, enhanced security, and improved developer productivity. This has resulted in more reliable and secure digital health services for the citizens of France.