

Lattix Creates Technical Wealth for Siemens Healthineers

Challenge

Siemens Healthineers has undergone a huge process of digitization, which has meant a significant expansion in the amount of software that has been written and included in the products. This expansion in software has created distributed teams and growing software complexity. In response to these issues, Siemens created an initiative to increase software reuse and accumulate technical assets, or technical wealth.

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“Creating technical wealth got everyone excited because we were talking about the creation of something positive. We found that software architecture management was one of those topics that moved the discussion from the management of technical debt to the creation of technical wealth.”

-Neil Langmead, Code Clinic Lead, Siemens Healthineers

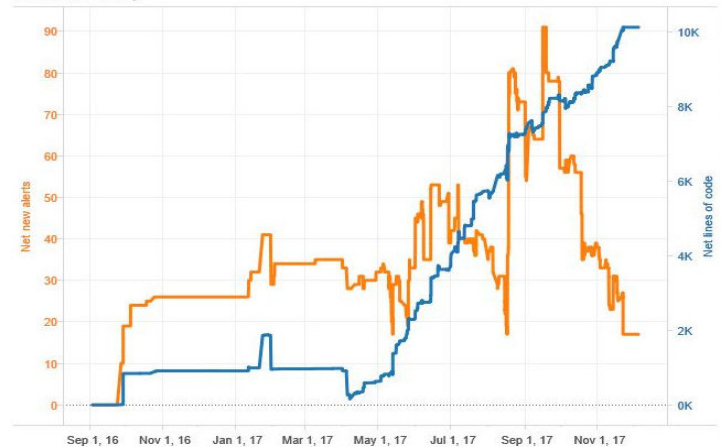
Solution

To create technical wealth, Siemens needed a way to figure out which parts of the software were common and therefore candidates for reuse. These assets needed to be of the highest quality and needed to maintain their modularity. With the Lattix solution, Siemens was able to understand their software architecture, refactor it to create reusable modules, and manage the module dependencies to enforce the architecture. Siemens used Lattix’s open API and command line capabilities to include Lattix in their DevOps pipeline to give their team continuous feedback.

Results

- ❑ Broken builds were reduced by 60%
- ❑ One architectural defect found early in development saved \$100K
- ❑ Build times reduced 70% from 20 minutes to 6 minutes
- ❑ Release forecasting became more accurate
- ❑ Number of quality and architectural issues dropped 90%

Commit history



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“It is the holy grail, really. Time has gone down, quality has gone up, costs have gone down. People usually say you can only have two of those things: time, cost, or quality. But in this case, we have achieved all three.”

-Neil Langmead

Background

Siemens Healthineers is the separately managed healthcare business of Siemens AG. They enable healthcare providers worldwide to meet current challenges and to excel in their respective environments.

A leader in medical technology, Siemens Healthineers is constantly innovating its portfolio of products and services in the core areas of diagnostic and therapeutic imaging, laboratory diagnostics, and molecular medicine. Siemens Healthineers is actively developing digital health services and enterprise services.

To help customers succeed in today's dynamic healthcare marketplace, Siemens Healthineers is championing new business models that maximize opportunity and minimize risk for healthcare providers.

fail. Enterprises need the reliable, automated solution of Lattix to enforce an architecture that delivers efficiency and stability of business-critical applications.

- Quickly identify potential critical defects due to architecture misuse
- Protect design patterns from degradation
- Provide automated, continuous architectural compliance and verification
- Prevent erosion of system robustness, security, and design

“Complexity creates cost.”

-Neil Langmead

Requirements

- Deliver best of breed solutions using market leading tools
- Use automation and DevOps to standardize and streamline development
- Improve quality
- Reduce testing and development costs
- Provide greater visibility into the delivery and development process

Understand, Define, and Control Software Architecture

Lattix Architect

Lattix gives enterprises a fast and visual way to understand, define, and control an application's architecture. This provides real insight into how the software layers communicate and can identify potential undesirable communication in the code.

Analyzing the architectural integrity of complex, multi-tier, multi-technology applications is a monstrous task yet crucial to ensure systems don't

About Lattix

Lattix is a leading innovator of software architecture management solutions that deliver higher software quality, accelerate development timeframes, reduce costs, and lower risk throughout the application lifecycle. Lattix solutions have also been applied to a wide variety of complex systems that include software, hardware, activities/processes, and organizations. More information about Lattix can be found at <http://www.lattix.com>.