Case Study: Philips Medical Systems

LIFE-SAVING HIGH-TECH: PHILIPS MEDICAL SYSTEMS
Collaborative development platform from CollabNet helps Philips Medical Systems deliver state-of-the-art imaging systems.

AT-A-GLANCE

In order to improve communication and collaboration across teams and to more efficiently manage projects, Philips adopted an Open Source approach to internal software development and deployed CollabNet Enterprise Edition as the enabling infrastructure of this transformation.

INTRODUCTION

Philips Medical Systems, a division of Royal Philips Electronics, is the leading supplier of medical imaging equipment and related healthcare services, with 2005 sales of $8 billion. The division is headquartered in Andover, Massachusetts and Best, the Netherlands and has approximately 31,000 employees located in more than 100 countries worldwide.

Philips Medical Systems operates in four main business groups: cardiac and monitoring systems, digital imaging systems, medical IT and ultrasound. The Imaging Systems business consists of X-ray machines, CT, MR, Ultrasound and nuclear medicine imaging equipment, used to create images of various parts of the body for radiologists and cardiologists. These systems have in common that they rely on high quality cameras that easily reach prices in the million Euro range per unit.

The Medical Imaging Platform (MIP) program is used to develop camera functionality shared by many of the division’s products, such as printing, storage, and rendering capabilities. "The underlying platform not only needs to be robust, but is in constant evolution in order to provide state-of-the-art solutions", explains Jan Broekhuizen, Program Manager of the Medical Imaging Platform at Philips Medical Systems. Philips Medical Systems products are increasingly built around the MIP, which serves as the technical base for many products.

Philips Medical Systems was faced with the challenge of managing globally distributed development resources for the MIP program. By using CollabNet’s collaborative development environment, Philips Medical Systems has been able to accelerate time-to-market, effectively manage distributed development resources, and substantially improve the quality of the software components being developed through increased visibility.

CHALLENGES

Up until 2002, the MIP team only provided already compiled binary releases of the common components to the product groups which, in turn, built their products on top of these binary releases.

With the different teams reporting into different business lines, they all had different priorities and schedules. The binary use-as-is model was too rigid to support the need for tighter collaboration across projects. As well, the various teams had different approaches to software development because of their cultural, organizational, and corporate heritage.

RESULTS

More than 25 software engineering groups in more than 10 business lines on 3 continents use CollabNet for communication, project management and version control.

By standardizing its software development infrastructure on CollabNet Enterprise Edition, Philips has increased development efficiencies, created synergy between end products, improved quality and reliability, and decreased time to market.

CHALLENGES

Collaboration and communication across multiple teams and reporting lines
Lack of flexibility in patching platform components on an as-needed basis
Lack of a common development platform

SOLUTION

CollabNet Enterprise Edition delivered as a managed service
Community management and support services
To address the above challenges, Philips Medical Systems launched an initiative to introduce open source principles into its internal software development efforts and selected CollabNet as the basis for its collaborative software development infrastructure. CollabNet was selected because it supported the transformation without disrupting established processes, such as committed product roadmaps, requirements management, escalation paths, and conflict resolution.

Adopting an open source approach internally was all about introducing flexibility in priorities and schedules while enabling efficient collaboration. The open approach relies on product teams having full read-only access to the platform's development information, such as source code and team communication. Increased transparency enabled the product teams to adapt to another team's approach and to leverage its software assets, while requiring a well-defined framework of distributed ownership and control over software assets.

Adopting open source principles for the development of MIP significantly altered the requirements for the development environment behind MIP. For example, it was necessary to allow easy, yet secure and gated access to development information across the wide area network. Philips Medical Systems evaluated the CollabNet Enterprise Edition managed service offering against the Gforge-based do-it-yourself solution and strongly preferred what CollabNet had to offer.

"Software plays an increasingly important role at Philips Medical Systems, product development and, therefore, security and availability are critical. CollabNet's managed service provides better security and availability than Philips' internal engineering support groups can at the same cost level," said Jan Broekhuizen, Program Manager of the Medical Imaging Platform at Philips Medical Systems.

Philips Medical Systems started to roll-out CollabNet Enterprise Edition to its platform team after a thorough review of the level of security and the managed services provided by CollabNet. Initially, CollabNet was used to 'publish' source code to the internal customers of the Philips Medical Systems platform group. Development efforts started to leverage the Subversion repository that is embedded in CollabNet Enterprise Edition, while the platform group made massive use of the mailing lists capabilities provided by CollabNet, especially for providing internal customers support on the platform.

Today, after 3 years, more than 25 software engineering groups in more than 10 business lines on 3 continents rely on Subversion for version control and use the CollabNet platform to share software assets, collaborate, and manage projects. By using its development platform on CollabNet, Philips Medical Systems increased development efficiency, increased similarity of the end products (such as user interface, concepts, and ergonomics) while improving product quality and reliability, and decreasing time to market.

CollabNet is the most widely used on-demand collaborative development environment in the world, with over 900,000 users. The company transforms the way software is being developed by enabling organizations to leverage global development talents to deliver better products and innovate faster.

More than 100 companies use CollabNet today as the foundation for their collaborative development, off-shoring, open source, and partner co-development efforts. Founded upon open source principles, CollabNet is the primary sponsor of the Subversion open source project, the next-generation version control system.

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