

IBM Customer Reference



Agilent Technologies

Synopsis: *IBM Rational ClearCase and Linux provide dramatic improvements in worldwide parallel development for a major technology company*

Location: Edinburgh
United Kingdom

Industry: Electronics
Telecommunications

Focus Area: Wireless, Small & Medium Business

URL: <http://www.agilent.com>

Customer Background:

Agilent delivers technologies, solutions and services to a wide range of customers in communications, electronics, life sciences and chemical analysis. Agilent's offerings encompass the entire product life cycle from research and development (R&D) to manufacturing to installation and management. With customers in more than 110 countries, more than half of Agilent's revenue is generated from outside of the United States.

Agilent's core business is focused in three areas:

- Test and Measurement solutions are used in the design, development, manufacture, installation, deployment and operation of electronic equipment and systems and communications networks and services.
- Automated Test solutions speed and improve the manufacture of semiconductor devices and printed-circuit assemblies.
- Semiconductor Products include components, modules and assemblies for high-performance communications systems.

Business Need:

Agilent was facing difficulties in its product lifecycle. Inconsistencies in manual processes used for management of development assets (code) were causing time to market delays, ultimately corroding the company's competitive edge.

Agilent needed a way to manage code efficiently and deploy it to multiple sites across Europe and around the world. The previous solution involved manual merging of code and the use of a sub-par configuration management tool. With parallel development efforts being managed manually, the organization could not grow to its full potential.

The overall goal of this solution was to embed a robust configuration management (CM) tool into the company's software development infrastructure, allowing efficient management of code across the organization and facilitating future growth. The tool would need to be easy to use for new developers and able to scale to a worldwide network of parallel development efforts. In short, Agilent needed a solution which would ensure code configurations were right the first time. The risk of errors across multiple configurations had to be reduced.

Solution:

Agilent now uses IBM Rational ClearCase to manage the configuration of the development lifecycle, enabling it to design, develop and test its software across four geographically distributed sites in China, India, America and Scotland. The solution has assisted the company's development team by managing the parallel development problems they were facing in the wireless and wireline product ranges. The team is spread around the globe and often dealt with conflicts concerning the continuous change of code by multiple individuals. With the worldwide deployment of Rational ClearCase, these issues have evaporated; there is now no overlap as code is created or re-engineered.

The solution is running on numerous platforms, including HP -UX, Microsoft Windows NT and XP, and Red Hat Linux 8.0. It is critical that Rational ClearCase be able to operate efficiently across these heterogeneous and distributed platforms.

Agilent chose to embrace open standards in its development environment, turning to Linux for its performance, stability and cost-effectiveness. Linux is far less costly than UNIX, while still maintaining POSIX compliance. Open standards proved to provide additional benefits for Agilent, as the team realized that existing skills could be more effectively utilized; with an open development environment, the need to further train skilled personnel is reduced or eliminated.

Benefits of the Solution:

The primary business benefit of using Rational ClearCase is a reduction in Agilent's time to market. This places Agilent in a solid competitive position in the marketplace. From a process perspective, the reduction of manual processes has reduced costs ten fold.

Technical product requirements are now met more closely. Agilent can be sure that the code being released has followed the proper supply chain process, because this requirement is built into the new system. With the improved management system, the company can now have developers around the world work in perfect concert. Under the previous infrastructure, this would have been impossible.

Rational ClearCase running on Linux has solved a problem that Agilent had found difficult to overcome in the past. The capability of Rational ClearCase to smoothly transfer code among differing platforms has eliminated the manual processes previously required in using Linux for development of software to be deployed on other platforms. With this combination, there is now a stable and reliable platform that can be positioned as the standard for the organization.