IT Infrastructure Management

Case Study

For a large US-based software corporation, Elinext teams have been developing complex infrastructure management and network monitoring solutions. It is a huge project with a history of more than 10 years and thousands of telecom companies as end-customers from all over the world.

Customer: A large US software corporation

Project: Infrastructure management and network monitoring software

Type: Software development, web development, software testing, sustaining engineering, UI development

Requirements: As a part of a huge international project with worldwide distributed teams, Elinext Group's specialists have been developing complex and sophisticated network monitoring and infrastructure management software. Elinext developers and QAs have been involved in serious rework and refactoring of UI approaches, implementing integration with about 15 third-party products, adopting serious quality control processes and standards, developing and improving a great number of complicated algorithms and applications.

Challenge: The project has been connected with a number of challenges:

- Huge scope of the project covering a large number of international teams of developers, testers, UI designers; a wide range of technologies; various subject domains;
- Active communication with teams in other countries and the customer: different time zones, different languages, different styles of communication;
- Quick learning of the long history of the project and of huge amount of source code that had been created before, aggravated by the lack of developer documentation;
- Complicated technologies, various forms of clusters;
- Development of software for very expensive and rare equipment at big data centers of telecom providers;
- Cross-platform support;
- Serious UI remodeling;
- Software architecture refactoring;
- Processing vast amount of data (requiring more space than that available on regular HDDs) with diagnostics optimization, implementation of special filters for diagnostics, creating own diagnostics tools.

Solution: Elinext Group inherited the product with already a long history. To best cope with the

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project's challenges, it was decided to create several independent teams. Within years, the number of Elinext teams allocated for this project increased to 5. All of them are working in close cooperation with more teams both on the side of the customer and other ones in different locations around the globe. Online meetings with foreign colleagues and end-customers are conducted in the overlapping time, sometimes also with onsite end-customer support.

Elinext Group's specialists have had a lot of internal and external training, and have put strenuous efforts into comprehension of various subject domains, technologies and customer-specific requirements. In addition, they have been involved in keeping up to date the internal development portal and developer documentation.

The project's core team has been engaged in development of the program's core, as well as of storage, transformation, analysis, parallel processing and data convolution algorithms.

To reduce costs for purchasing very expensive equipment of the Internet and wireless communication providers, a lot of simulation and lab testing has been conducted.

For optimization of work with data through the embedded language of data processing there has been created an API that realizes data logic, operations on data and optimizes work with databases.

Results: The outcome of the project is a robust software system that helps thousands of end-customers around the world effectively maintain complex IT infrastructure and respond quickly to changing operational needs.

The created software provides real-time information about IT infrastructure objects, collects performance statistics about hardware and allows to take control of their functioning.

Region: Worldwide

Industry: Infrastructure management, telecommunications

Engagement model: Dedicated team model (5 teams)

Technologies: C++, Java, Oracle, Perl, PHP, Motif, MFC, InstallShield, InstallAnywhere, IPC, Java Web Start, JMS, AJAX

Duration: 10 years; ongoing project

Staff: 70 developers, 19 QA specialists

Platforms: Windows, Linux, Solaris, HPUX

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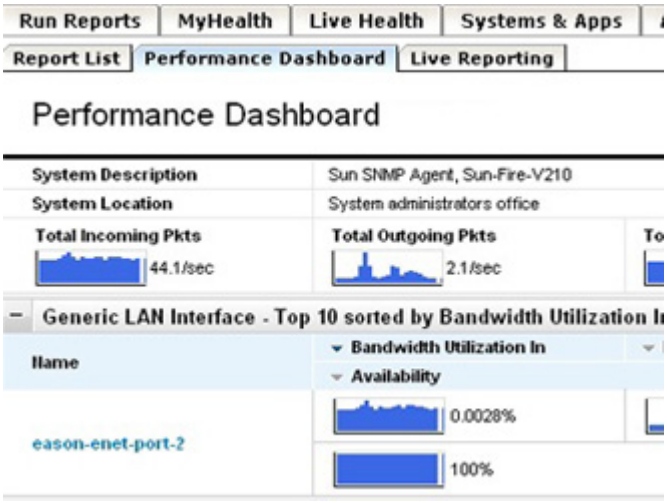

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