

Case Study:



Company Profile

Verizon Wireless is the nation's leading provider of wireless communication and has the largest nationwide wireless voice and data network. Headquartered in Bedminster, NJ, Verizon Wireless is a joint venture of Verizon Communications and Vodafone.

Verizon Wireless has more than 33.3 Million wireless phone customers, 40,000 employees and annual revenue in excess of \$19 Billion.

Challenges

One of Verizon Wireless's main concerns is the accuracy and reliability of its mission-critical billing systems as a means of retaining and gaining customers through enhanced features, thus increasing revenue. Verizon Wireless determined that a high level of accuracy is more achievable when new IT projects are able to reuse code and share that information across teams. Further, the establishment of repeatable processes for software development leads to faster time-to-market; predictable on-time delivery and improved development productivity.

In the past two years, Verizon Wireless has moved significant portions of the 10-year-old VISION billing system to Java and Enterprise JavaBeans running WebSphere on IBM's AIX operating system. To this point, they have been using MKS's desktop SCM and change management solutions, Source Integrity Standard and Track Integrity, to manage their non-mainframe software development. And while the move to mainframe/app server interoperability was generally successful, there

were some obstacles that made interoperability difficult.

Some of these obstacles included:

- Existing desktop SCM and change management solution was not robust enough for enterprise software development; did not integrate SCM and change management functions; did not support geographically distributed development
- Difficulty managing software change in a mixed mainframe, application server environment
- Difficulty separating overall code base into individual projects because certain projects were integrated and related to one another
- Unreliable labeling model was poorly suited to managing projects that shared elements with other projects; created uncertainty about the integrity of software builds; was inaccurate and difficult to apply consistently, negatively affecting application quality and delivery times
- Developers could change files, even after they had been approved for promotion, thereby subverting processes, creating secrets and affecting builds
- Production outages caused by defects that occurred early in the development lifecycle
- Delays and reduced productivity because only one developer at a time could check out and edit a file
- Difficulty implementing a single project management methodology because different teams used different models and workflows

"Our aim was to surface issues early and deal with them in order to increase the integrity of our software development."

– SCM Manager, Verizon Wireless

Solution

An MKS consultant worked with members of Verizon Wireless' VISION billing system group, to analyze their existing change and configuration management processes. They developed a plan by which their software change processes would be reflected and enforced in MKS Integrity Manager[®], the process and workflow management portion of the MKS Integrity Solution[®]. They also looked at ways of improving the organization of their 90,000 software items within MKS Source Integrity[®] Enterprise, the SCM portion of the MKS Integrity Solution, for easier project management. The final plan featured the following elements and priorities:

- Smooth and painless data migration, by an MKS consultant, from old tools (MKS Source Integrity Standard and Track Integrity) to new, enterprise MKS Integrity Solution
- Training of 120 developers and 30 managers in 6 days using a lunch-and-learn approach with follow-up sessions with each development team
- Use of built-in features for automation plus new, custom scripts to give even greater level of automation
- Integration of MKS Integrity Manager with Microsoft Project to provide a single methodology for project management across all teams
- Implementation of an approval

model using the custom fields functionality within MKS Integrity Manager

After finalizing priorities and mapping out the plan, Verizon Wireless implemented the MKS Integrity Solution, consisting of Source Integrity Enterprise and Integrity Manager. Since then, they have realized several improvements in their software development processes and environment, including:

- An automated, repeatable and enforceable method for guiding developers through the change process
- An audit trail and list of software items for a particular build because developers are required to associate an issue or task with its affected source code in a 'change package'
- Elimination of the need for a resource-draining, in-house application designed for keeping track of labels
- A more tightly controlled promotion model that allows developers and managers to know that software builds and deployments are accurate and complete
- 'Sandboxes' that permit multiple developers to edit same file simultaneously
- A high degree of process flexibility, which allows managers to rigorously enforce processes or take

a more relaxed approach depending on team, project and other variables

- Integration of MS Project and MKS Integrity Manager, allowing development managers to negotiate project commitments based on a better understanding of their available resources

"We're very happy with the MKS Integrity Solution. By helping us bring control, repeatability and integrity to our software development processes we expect to produce better quality software in less time."

– SCM Manager, Verizon Wireless

Value

By implementing the MKS Integrity Solution, Verizon Wireless is realizing the following value and benefits:

- On time delivery of updates and fixes to production applications resulting in greater end user satisfaction
- Improved quality and reliability of applications as a result of automating and enforcing development processes
- Money and time savings by preventing defects from entering the development lifecycle early on
- Creation of an atmosphere and opportunity for developers and managers to "think differently" about software quality and defect prevention

- Increased productivity by allowing multiple developers to check out and work on a single file, or software item, simultaneously in their Sandbox

- Improved communication between developers and their managers, including development and testing phases, because of process visibility and integrity

- Increased developer productivity by automating mundane development tasks and taking responsibility for promotions out of their hands

- Lower total cost of ownership compared to other enterprise SCM and change management solutions

- Improved resource allocation using MS Project and MKS Integrity Manager saves time and money through better planning

"I'm a firm believer that every mistake you make early in the development cycle costs a lot more to fix in the long run than if you did it right the first time - exponentially more. If your goal is to do projects for the business, you had better not be wasting valuable resources fixing problems late in the process. Resources that are fixing problems are not available for the next project."

– SCM Manager, Verizon Wireless

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