PTC®

PTC MKS Toolkit® Enables the Power of UNIX on Windows

BowBridge Software Ltd.

BowBridge Software Ltd. selects PTC MKS Toolkit for Enterprise over Microsoft Subsystems and Cygwin to port robust, mission-critical security solutions to Windows®.

BowBridge has provided content-security solutions for SAP installations for several years, and its solutions are the global de-facto standard for virus protection.

The BowBridge AntiVirus Bridge, for example, is a content security add-on for the SAP Net Weaver application server platform. The solution mitigates a broad spectrum of content-based attacks, such as the uploading of malware-infected files, cross-site-scripting, directory traversal attacks, and malicious chameleon files. By protecting the mission critical applications, BowBridge enables its customers to streamline their business processes and enable their mobile workforce through Internet-accessible applications without compromising on security. Fortune 500 companies, such as General Motors, Roche, Allianz Insurances, Petronas, and 3M, rely on BowBridge to secure their environments from content-based threats.

Challenge

BowBridge's primary development platform has standardly been UNIX-based due to typical market requirements. The problem now, however, is that an increasing number of customers are deploying applications on the Windows Server platforms and are demanding the same level of protection as on the various UNIX platforms. In order to remain competitive, Bowbridge evaluated two approaches when designing their most recent solution, "AntiVirus Bridge 3.0":

1. **Rewrite the software for the Windows platform.** While this option was the least costly upfront, it held significantly higher post-integration maintenance and testing costs. Taking this route would require that there be two different unintegrated code bases—one for UNIX and one for Windows. This would be more complex to manage because any changes made to one platform would have to be custom written on the other platform and tested, doubling the amount of

work to both produce and support the product. Many customers who have both platforms expect the same functionality on both, which ultimately produces the manual work of linking the two code bases in order to offer the functionality customers expect.

2. **Port the UNIX code to work on Windows.** There were two great advantages to taking this course of action. First, the UNIX code would already be written and integrated with Windows. Second, since the code base is the same on both UNIX and Windows, once the updates were done on one platform it would be simple to make the same changes on the other platform. Not only would these advantages decrease both the time and cost to manage, but they would maintain the same user experience customers are most familiar with in functionality.

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Results

The BowBridge technical team did some extensive market research and considered several options, such as Cygwin and Microsoft Subsystem for UNIX-based applications, but found that they had serious disadvantages including lack of support and license issues.

When they looked at [PTC MKS Toolkit for Enterprise Developer](), the support and license security needs were all met along with the advanced porting capabilities. With a tool like PTC MKS Toolkit for Enterprise, BowBridge found that it has helped them improve time to market tremendously. "We continue to benefit from the decision to use PTC MKS Toolkit on a regular basis when updating and improving our product. Internal product maintenance effort has been reduced by at least 30 percent compared to previous releases, where we had separate code-bases for UNIX and Windows" says Joerg Schneider-Simon, Co-Founder and Chief Technology Officer at BowBridge.

PTC's reputation has been to move and test applications with over 20 million lines of code in fewer than 4 months, and customers were able to continue using the same code base on both platforms. Moving UNIX code to Windows with PTC MKS Toolkit for Enterprise is no more complex than moving an application from one flavor of UNIX to another. In BowBridge's evaluation of PTC MKS Toolkit for Enterprise, a great match was found for their need in porting robust, mission-critical security solutions from UNIX/Linux to Windows.

BowBridge started their evaluation in December 2012 and were delivering product to some customers in the first quarter of 2013. BowBridge continues to distribute the product ported with PTC MKS Toolkit for Enterprise to their Windows customers and see a growth of over 20 percent per year.

"We are very pleased with the results we got from our cooperation with PTC and our integration of the PTC MKS Toolkit," says Schneider-Simon. "Virtually

eliminating the complexity from maintaining our solutions on UNIX and Windows with a unified codebase enables the BowBridge R&D team to focus on advancing the product more rapidly. As the global demand for security solutions on the Windows Server platform has seen significant growth of over 20% in the past 12 months, PTC MKS toolkit has become a key element in enabling us to satisfy this market requirement without having to spend extra development and porting cycles."

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