



Leading Web Personalization and Monitoring Provider Stays in the Lead With the Help of the Microsoft .NET Framework and Visual Studio .NET



Published: June 2001

Solution Overview

Seeking more powerful integration and communications capabilities, CyberWatcher, the top European provider of Web-based tools for internal and external data mining and monitoring, is implementing a new release of its software using the Microsoft .NET Framework and Visual Studio.NET. As a result, the company has managed to double its developer productivity, integrate its solution with portals and other customers four times faster, and streamline debugging and low-level database access.

Profile

Leading developer of Web personalization services, business-intelligence monitoring, and enterprise knowledge management. Founded in 1999, 19 employees.

Business Need

More powerful integration and communications capabilities for trading data cleanly and efficiently with various portals and enterprises.

Benefits

Development productivity doubled, portal integration four times faster, streamlined debugging and low-level database access.

Microsoft Technologies/Products

Microsoft .NET Framework
— ADO.NET
— SQL Server™ Managed Provider
Microsoft Visual Studio.NET
Microsoft® Windows® 2000 Server
Microsoft SQL Server 7.0
Microsoft SQL Server 2000
Microsoft Biztalk® Server 2000

Scenario

B2B2C Web Services for portals and B2B knowledge management for enterprises.

Situation

Harald Jellum is keenly aware of the importance of staying on top of timely industry information. This is not only because he co-founded an Internet-focused company just as that industry started becoming fiercely competitive again, it's also because providing access to timely information is the focus of his company. CyberWatcher, based in Oslo, Norway, offers businesses, individuals, and online communities an easy and easily maintainable way to mine Web-based data and to efficiently manage large quantities of enterprise-based knowledge. With its initial solution, CyberWatcher has enjoyed remarkable success, generating a customer list including top European portals such as World Online and Spray along with respected mobile operators such as Netcom.

But that's not enough for Jellum and his colleagues. They want to offer their customers even more, by redesigning their solution as a set of XML Web services, and that's what they're doing with the help of the Microsoft .NET Framework and Microsoft Visual Studio.NET.

"Specifically, we wanted more powerful integration and communications capabilities for trading data cleanly and efficiently with various portals and enterprises," says Jellum, who besides being a co-founder of CyberWatcher is also its CTO. "We needed an environment that would enable us to implement such capabilities quickly."

In response, Jellum and Senior Developer Tore Lode began learning about the .NET Framework and Visual Studio.NET, and they liked what they learned. "What appealed to us initially was that the Microsoft .NET Framework seemed to offer such easy integration with XML Web services, a capability that's vital for our work with portals," Lode says. "Even more compelling was the full support in Visual Studio.NET for well-proven software-engineering techniques like object-oriented design and n-tier architectures, as well as the product's rich component library and framework informing developers where to place those components for the best design."

"Even controlling for factors such as experience and the fact that this is a rewrite rather than an original implementation, we were twice as productive [using the .NET Framework and Visual Studio.NET] as we were on the initial release of the solution."

Tore Lode
Senior Developer
CyberWatcher Inc.

Solution

Working for just a few weeks with the .NET Framework and Visual Studio.NET, Lode and his team of nine programmers released updated versions of CyberWatcher's three essential product modules:

- Web Robot, an interactive XML Web service that monitors selected content sources.
- A personalization engine that delivers content from selected sources to any user in an enterprise who matches a given profile.
- A distribution-preference engine, also an XML Web service, enabling users to select how they want to be notified of updated content: by e-mail, through a personal Web portal, or through an ordinary cell phone or WAP-enabled device.

A fourth module, now under development, will bring enhanced knowledge-management capabilities to CyberWatcher enterprise customers by dramatically expanding the content-delivery capabilities of the Web Robot.

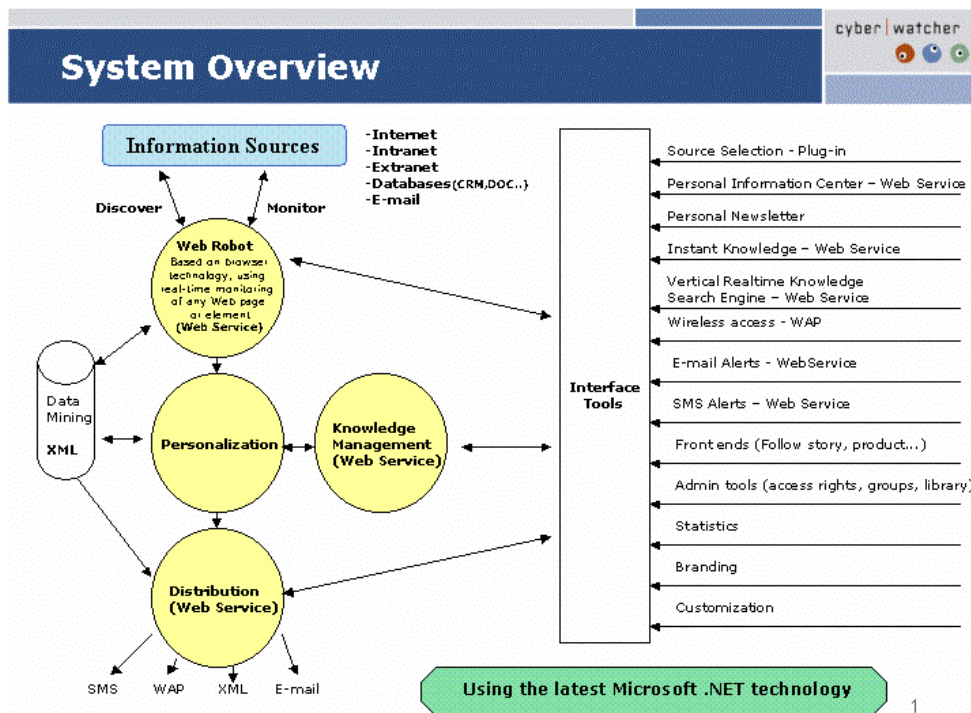


Figure 1 The CyberWatcher solution uses next-generation Internet search technology for monitoring both internal and external data sources.

Benefits

Reducing Time-to-Market

In keeping with his and Jellum's initial expectations, Lode reports that working with the .NET Framework and Visual Studio.NET has enabled his team to trim time-to-market significantly. "Even controlling for factors such as experience and the fact that this is a rewrite rather than an original implementation, we were twice as productive as we were on the initial release of the solution," Lode says.

Lode attributes this improvement in productivity to a number of .NET Framework capabilities, foremost among them the automatic exposure of XML Web services. "We don't have to worry about exposing components as XML Web services because all the classes and types in the .NET Framework can be transported through SOAP," he explains. "This makes it easier for us to inform portals and enterprises about how our code handles user data, security concerns, and integration with existing databases. Particularly handy are the automatically generated documentation and test Web pages, which enable our partners to integrate their systems with ours using minimal assistance."

The result, Lode adds, is that CyberWatcher developers are managing to integrate code into portals and enterprises in typically less than a week—in contrast to the two to four weeks that this task required in the past. "This not only helps our partners to launch our service more quickly, but also enables us to stay focused on design and development."

Integrated Debugging with "No Surprises"

With the Visual Studio.NET integrated debugger, Lode and his team test their code extensively on the development platform before moving it to the server. "Then we simply copy the components over and the .NET Framework exposes them as XML Web services, with no surprises," he points out. "Moreover, because the debugger is fully integrated with various layers of the code, we can easily and thoroughly debug everything, from the business logic to database stored procedures, in a single environment."

Another productivity-boosting tool is helping Lode's team to implement the new knowledge-management module. Specifically, SQL Server Managed Provider, a part of the .NET Framework, is streamlining the potentially time-consuming task of low-level database access. "SQL Server Managed Provider offers us a clean and down-to-business interface to SQL Server—and only to SQL Server—helping us to expose the low-level details of the database without having to worry about what might be going on behind the scenes," Lode says. "This considerably reduces the time we spend on writing these crucial code segments while simultaneously enhancing their performance."

Giving Customers the Best

For the initial release of the updated CyberWatcher product line, the database is Microsoft SQL Server 7.0, but the development team will upgrade it soon to SQL Server 2000. Shortly after that, the team will implement Microsoft BizTalk Server 2000 in a move to make the solution not only more functional but also more easily maintainable.

As Jellum explains, both upgrades are part of CyberWatcher's commitment to the Microsoft .NET Enterprise Servers, a commitment that itself is part of an overall philosophy that has certainly

"We are focused on being on the leading edge of technology so we can provide our customers the most advanced functionality in the market. That's why we're so pleased with the results we've seen from our use of the Microsoft .NET Framework and Visual Studio.NET."

Harald Jellum
Chief Technology Officer
CyberWatcher Inc.

served the company well. "We are focused on being on the leading edge of technology so we can provide our customers the most advanced functionality in the market," he says. "That's why we're so pleased with the results we've seen from our use of the Microsoft .NET Framework and Visual Studio.NET."

The Microsoft .NET Framework is a platform for building, deploying, and running XML Web services and applications. It provides a highly productive, standards-based, multi-language environment for integrating existing investments with next-generation applications and services as well as the agility to solve the challenges of deployment and operation of Internet-scale applications. The .NET Framework consists of two main parts: the common language runtime and a hierarchical set of unified class libraries that includes a componentized version of Active Server Pages called ASP.NET, a loosely coupled data access subsystem (ADO.NET), and an environment for building rich Windows applications (Windows Forms).

For More Information

For more information about Microsoft products and services, call the Microsoft Sales Information Center at (800) 426-9400. In Canada, call the Microsoft Resource Centre at (800) 563-9048. Outside the 50 United States and Canada, please contact your local Microsoft subsidiary. To access information using the World Wide Web, go to <http://www.microsoft.com/>. For more information on CyberWatcher, go to <http://www.cyberwatcher.com/>.

© 2001 Microsoft Corporation. All rights reserved.

This case study is for informational purposes only. MICROSOFT MAKES NO WARRANTIES, EXPRESS OR IMPLIED, IN THIS SUMMARY.

Microsoft, BizTalk, the .NET logo, Visual Studio, Windows and Windows NT are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. The names of actual companies and products mentioned herein may be the trademarks of their respective owners.