



## Software Innovator Chooses Microsoft over J2EE, Cuts Development Time by 80 Percent

### Overview

**Country or Region:** United States

**Industry:** Software

### Customer Profile

AttachmateWRQ Software, located in Seattle, creates software for accessing and integrating host applications and reusing legacy logic and data. AttachmateWRQ serves 40,000 customers worldwide.

### Business Situation

AttachmateWRQ wanted to improve security and overall user experience for its Web portals, as well as hold down related expenses.

### Solution

AttachmateWRQ standardized on Microsoft® technologies, migrated company Web sites to Microsoft ASP.NET, and used the Microsoft Visual Studio® .NET 2003 development system.

### Benefits

- Improved developer productivity
- Improved Web site function
- Improved quality control during development

**“We can do a lot more with the same amount of development effort using Microsoft technology than J2EE.”**

Xinguo Wei, Development Manager, Business Applications, AttachmateWRQ

AttachmateWRQ is the world's largest independent provider of access and integration software for legacy systems. The company's software came from multiple technology families, which hindered the efficient use of resources and resulted in high licensing and fee costs. AttachmateWRQ wanted to improve security and user access control for the existing, J2EE-based PartnerWeb portal. AttachmateWRQ standardized on Microsoft® technologies, rationalizing the company's fee structure. With Microsoft Certified Partner SoftSource Consulting, AttachmateWRQ used Microsoft the Visual C#® development tool and the Microsoft Visual Studio® .NET 2003 development system to migrate to the Microsoft Windows® operating system and the Microsoft .NET Framework. They completed the migration in just four weeks, cutting development time by 80 percent, compared with previous J2EE projects.

### Fast Facts

Number of developers	3
Total developer hours	480
Development environment	Microsoft Visual Studio .NET 2003
Increase in productivity	80 percent

## Situation

As the world's largest independent provider of access and integration software for legacy systems, AttachmateWRQ in Seattle, Washington, has more than 16 million users among 40,000 customers worldwide.

AttachmateWRQ provides information to partners, customers, and distributors over a Web site that comprises four portals, each of which contains several Web-based business applications. The PartnerWeb portal provides distributors of AttachmateWRQ software with pricing information, customer-order status, and marketing and product information from Siebel and Oracle databases. The Web portals ran in the Linux/Tomcat/Apache/Java 2 platform, Enterprise Edition (J2EE) environment. Several challenges came about from this configuration:

- **Inefficient use of resources.** Trying to focus on so many divergent technologies fragmented use of development and IT personnel. This fragmentation increased training costs and hindered the department's ability to focus resources on a given task as necessary. Physical resources were also used inefficiently, because servers were dedicated to a specific technology that was incompatible with others.
- **Insufficient security.** After logging on to the PartnerWeb portal, visitors could return to bookmarked pages directly without signing in. Anyone who discovered the PartnerWeb link could view confidential information without signing in. Further, the portal could not control the pages that individual partners could access according to their partnership level.
- **Unpredictable stability.** Web site visitors often had logon problems.

- **Increased expenses.** The multiple technologies used each had its own service, support, and maintenance contracts, and, because of this multiplicity, the company's maintenance and licensing costs were elevated.

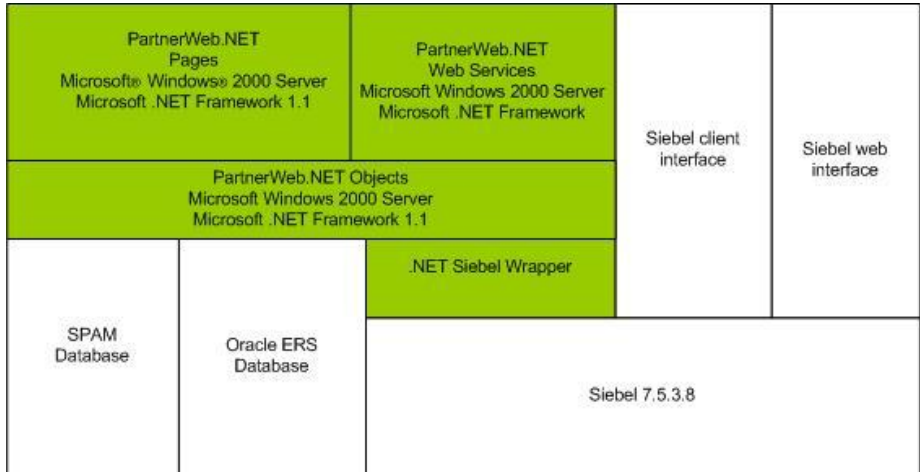
## Solution

AttachmateWRQ grasped the opportunity to surmount all these challenges by standardizing on a single family of technologies that would include a single development environment for the company's Web site software. The development department considered the Linux/Tomcat/Apache/J2EE environment, but chose Microsoft® ASP.NET, a set of technologies in the Microsoft .NET Framework for building Web applications and Web services. For development, they used the Microsoft Visual Studio® .NET 2003 Enterprise Architect Edition development system, and the Microsoft Visual C#® development tool. They chose Visual Studio .NET for several reasons:

- Lower initial and total cost of ownership (TCO)
- Superior ability to integrate with other Microsoft products, including the Microsoft Office System of productivity software and servers, programs, services, and solutions, and Microsoft-compatible shareware
- The level of support that Microsoft provides
- The availability of more economical licensing structures

AttachmateWRQ, in partnership with Microsoft Certified Partner SoftSource Consulting, initiated the consolidation of technologies and the .NET Framework programming by migrating PartnerWeb from J2EE to the Microsoft Windows® 2000 Server

Figure 1. PartnerWeb: Architecture (in green) of the Web site built on the .NET Framework.



“Just about all the Microsoft business applications and development tools are less expensive, easier to use, quicker to turn around projects than the tools in the Oracle/J2EE environment.”

Jim Boegl, CIO, AttachmateWRQ

operating system. They also migrated to the Microsoft .NET Framework, an integral component of Windows that provides a programming model and runtime for Web services, Web applications, and smart client applications. The development team would follow the first migration by migrating AttachmateWRQ’s three other major Web portals.

The development team included three SoftSource and AttachmateWRQ developers. SoftSource Consulting provided project leadership for the migration, training, and support for the AttachmateWRQ developers who would carry out future conversions to and development in the .NET Framework. The project took a total of 480 developer hours over the course of four weeks.

In Figure 1, the Partner Web areas in green are the components of the Web site that the development team created.

### Benefits

The benefits of standardizing on Microsoft technologies and migrating the Web sites to ASP.NET include aspects of TCO and

improved developer productivity. Jim Boegl, Chief Information Officer (CIO) of AttachmateWRQ, says, “Just about all the Microsoft business applications and development tools are less expensive, easier to use, quicker to turn around projects than the tools in the Oracle/J2EE environment.”

### Improved Developer Productivity

Using Visual Studio .NET 2003, SoftSource and AttachmateWRQ dramatically reduced development time through Visual Studio .NET development, testing, and build tools.

Because of the superior integration of Visual Studio .NET with other development and build tools, developers were able to automate adherence to style guidelines. Visual Studio integrated well with shareware, such as:

- NUnit (the .NET version of an open-source testing piece of shareware).
- Cruise Control (which automates builds).
- FxCop (which checks code against a number of style rules, including those that developers create and add).

Xinguo Wei, Development Manager, Business Applications, of AttachmateWRQ,

**“It would take a developer two days to touch 100 HTML files to make a change using J2EE. Making the same change in Visual Studio .NET takes 20 minutes to change the rules in the configuration file.”**

Xinguo Wei, Development Manager,  
AttachmateWRQ

says, “We can do a lot more with the same amount of development effort using Microsoft technology than J2EE. For example, our main developer for J2EE was a very senior developer, but he struggled with creating the user interface. But the WYSIWYG [page editor] environment of Visual Studio helps you to create that content very fast.”

According to Wei, on the configuration page, developers can change variable names universally rather than changing them on each server-side page individually. The development team also can now train other personnel to change the content themselves in the Web configuration file rather than requiring a developer to change it for them. Wei says, “It would take a developer two days to touch 100 HTML files to make a change using J2EE. Making the same change in Visual Studio .NET takes 20 minutes to change the rules in the configuration file.”

Dramatic reductions in the time required for successive AttachmateWRQ porting projects demonstrate the developer-productivity gains that come with Visual Studio .NET. When AttachmateWRQ had earlier migrated the PartnerWeb portal to J2EE, the process took three developers five to six months. By using Visual Studio .NET 2003, three developers migrated PartnerWeb from J2EE to ASP.NET in four weeks. Further, with this experience behind them, the next .NET application that AttachmateWRQ created—“edelivery,” a download tool—took one developer four weeks to complete.

#### **Improved Web Site Function**

While migrating the portal, the development team plugged the security hole, improved user access control, and cut the number of

support desk reports of unsuccessful logons down to zero. The rules-based architecture afforded improved user access control.

One of the development team’s goals was to make the migration seamless to the partners (the portal’s users)—the team wanted a successful migration with no redirects. According to Wei, “The HTTP Handler worked beautifully. After the migration, there were no missing files and no need to redirect any of the users.”

#### **Improved Quality During Development**

The development team relied on Visual Studio tools, such as IntelliSense® and the debugging tool, to improve quality and productivity throughout the project.

Laura Freeman, Lead Architect of SoftSource Consulting, says, “IntelliSense’s suggestions of completed statements enable developers to recognize and click, rather than manually write every line. We use it all the time, and it gets better and better and more usable with every release.” As for the time saved by the ability of the debugging tool to precisely locate errors, she adds, “You can’t even think of developing without it.”

## 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 Canada Information Centre at (877) 568-2495. Customers who are deaf or hard-of-hearing can reach Microsoft text telephone (TTY/TDD) services at (800) 892-5234 in the United States or (905) 568-9641 in Canada. Outside the 50 United States and Canada, please contact your local Microsoft subsidiary. To access information using the World Wide Web, go to:  
[www.microsoft.com](http://www.microsoft.com)

For more information about SoftSource Consulting products and services, visit the Web site at:  
[www.sftsrc.com](http://www.sftsrc.com)

For more information about AttachmateWRQ products and services, call (800) 872-2829 or visit the Web site at:  
[www.wrq.com](http://www.wrq.com)

## Microsoft Visual Studio .NET

Microsoft Visual Studio .NET is the rapid application development (RAD) tool for building next-generation Web applications and XML Web services. Visual Studio .NET empowers developers to rapidly design broad-reach Web applications for any device and any platform. In addition, Visual Studio .NET is fully integrated with the Microsoft .NET Framework, providing support for multiple programming languages and automatically handling many common programming tasks, freeing developers to rapidly create Web applications using their language of choice.

For more information about Visual Studio .NET, go to:  
[msdn.microsoft.com/vstudio](http://msdn.microsoft.com/vstudio)

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[msdn.microsoft.com/subscriptions](http://msdn.microsoft.com/subscriptions)

## Microsoft .NET Framework

The Microsoft .NET Framework is an integral Windows component for building and running the next generation of applications and XML Web services.

For more information about the Microsoft .NET Framework, go to:  
[msdn.microsoft.com/netframework](http://msdn.microsoft.com/netframework)

### Software and Services

- Microsoft Windows Server System™
  - Microsoft Windows 2000 Server
- Microsoft Visual C#
- Microsoft Visual Studio .NET 2003
- Technologies
  - Microsoft ASP.NET
  - Microsoft .NET Framework 1.1

### Partners

- SoftSource Consulting

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