TheBEAST.com

Microsoft Web Solution Platform Drives Innovative Financial Applications, Helps to Cut Development Costs by $15 Million

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With the help of the Microsoft® Web solution platform, an energetic Wall Street startup known as TheBEAST.com has enhanced a suite of powerful tools providing customizable solutions to financial institutions worldwide. Moreover, the productivity provided by the Microsoft Web solution platform has helped TheBEAST.com to save $15 million in development costs and keep time-to-market to a minimum.

Situation

Not long ago, Carl Carrie and his colleagues at TheBEAST.com introduced Wall Street to the first distributed server-side solution providing real-time market data and running in the Microsoft Windows® 2000 environment. This solution represents just one segment of the company's overall suite of tools and services for analysts, traders, brokers, and others in the worldwide financial services community. But it also represents the aggressive attitude that's set this three-year old enterprise—where Carrie serves as president—on the fast track to becoming a leading Application Service Provider in that community.

With roughly 50 people on staff and just over $10 million in 1999 sales, TheBEAST.com has used the Microsoft Web solution platform to create a framework of integrated tools and technology enabling businesses to develop, deploy, and distribute interactive content across diverse hardware platforms and networks. This framework runs natively on a Microsoft Windows platform or in a browser environment, and it can scale to support thousands of users. Moreover, in contrast to the prevalent "broadcast" model used by most other Application Service Providers in the financial community, the framework follows a unique "on demand" model. This means that no matter what kind of application customers might create—a stock option strategy analysis, a five-year swap calculator, a customized index, for example—the application can access virtually whatever market data is needed and in real time.

What the framework does best, says Carrie, is to enable customers of TheBEAST.com to bring highly specialized applications to market quickly. "Right now, every bank, every corporation, and every other type of financial institution is trying to woo customers with a Web presence, so

Solution Overview

Customer Profile
TheBEAST.com is an ASP enabler that delivers real-time, interactive applications to the global financial-services community. The company has 50+ employees and had just over $10 million in annual sales in 1999.

Business Situation
TheBEAST.com wanted to enhance a successful Web-based solution with additional functionality, a dramatic increase in scalability, and ultimately a migration to the Windows® 2000 environment.

Solution
Benefits
TheBEAST.com offers Web-based solutions providing analytics and live market data, subscriber-based services in the global-derivatives arena, and a framework architecture. These reliable, robust, and highly scalable solutions were developed rapidly and at a savings of $15 million as compared with another development environment.

Software and services

Microsoft® Site Server, Commerce Edition

Microsoft SNA Server

Microsoft SQL Server(tm) 7.0

Microsoft Visual C++®

Microsoft Visual Studio®

Microsoft Windows 2000 with

   Active Directory™

   Internet Information Services

   Message Queue Service

   Microsoft Transaction Service

Microsoft Windows NT® Server 4.0, Enterprise Edition

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being there first is more important than ever," he points out. "We're in a position to help our customers do just that, and it's largely because of the software technology we've chosen in the Microsoft Web solution platform."

Solution

TheBEAST.com developers launched their Application Solution Provider framework on top of a solution that was initially released in 1995 and running successfully on the Microsoft BackOffice® platform. Starting in 1997, the developers began an enhancement to that solution that would add significant functionality and ultimately migrate the solution to a Microsoft Windows 2000 environment. As Carrie explains, developers wanted a way to support the "front office" (where traders and brokers obtain their market data) and the "middle office" (where proposed transactions are analyzed and approved) as well as the "back office" (where transactions are executed, settled, and cleared). They found it, he adds, in the Microsoft Web solution platform. "We saw right away that the Microsoft Web solution platform could build on the functionality of Microsoft BackOffice by offering us a fully comprehensive set of tools in a single environment—a complete solution for the entire office."

To accomplish the enhancement and migration of the framework, Carrie estimates his company has invested about 1,000 person-months in development. Chief among the tools used are Windows NT® Server 4.0, Enterprise Edition with Internet Information Server;; Site Server, Commerce Edition; SQL Server™ 7.0; and Visual C++® and the Visual Studio® toolkit. They also are using COM objects, for interprocess communication (IPC); Windows NT Server's Microsoft Transaction Server, for isolating transaction business logic; XML, for platform-independent I/O; certificates, encrypted cookies, and Secure Sockets Layer, for security; SNA Server, for communications with a mainframe-based data warehouse; Microsoft Management Console, for administration; and the Windows NT Server Message Queue Server (MSMQ), for the asynchronous communications required to support wireless client devices.

Better Never Than Late

Carrie says his team and his company are realizing significant benefits of using "a 100 percent Microsoft solution" for the framework. "We've got a reliable, robust, and highly functional

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Carl Carrie
President
TheBEAST.com

"All said, there's no doubt in my mind that the Microsoft Web solution platform in general— and Visual C++ in particular— provides one of best development environments around."
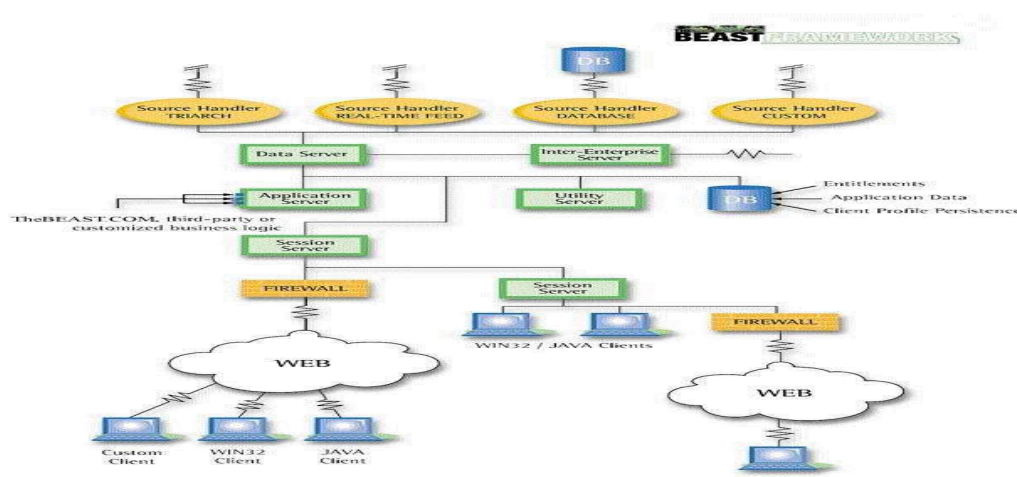
Carl Carrie
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Figure 1: The application logic of the framework resides inside components that can be developed using Visual C++, Visual Basic®, or a combination of Java with Java Native Interface or J-ActiveX® (for accessing or converting COM objects so they are accessible to Java code). This development—which can be executed by TheBEAST.com, by its customers, or in a joint effort—takes place on top of the framework.

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solution with all the benefits that entails in terms of competitive advantage, cost savings, and, perhaps foremost among them, time-to-market," he says. What makes this last benefit so important, he adds, is the hard reality of the environment inhabited by Carrie, his colleagues, and their customers. "Things move so fast in the financial world that 80 percent of applications developed for this community never see the light of day," he says. "As a result, we place a high value on developer productivity and ease of implementation. And that's what we have with the Microsoft Web solution platform thanks to the access it gives us to a huge talent pool among developers experienced with Visual C++, Visual InterDev®, and the rest of the Visual Studio toolset."

Not only is it easy to find developers already knowledgeable about the Visual Studio toolset, it is also easy to make development progress quickly. "That's one of things we like best about Microsoft Visual Studio in general and Microsoft Visual C++ in particular," Carrie says. "These tools are great for supporting rapid and efficient development."

The central benefit of developer productivity is revealed in the costs TheBEAST.com has saved in terms of developer time—roughly 60 percent, or $15 million, of what it might have spent using an alternative development environment. "What this means is our bottom line directly reflects the quality of the technology, the ease of implementation, and the broad knowledge base available because we chose the technology we did," he says. "All said, there's no doubt in my mind that the Microsoft Web solution platform in general—and Visual C++ in particular—provides one of best development environments around."

Database Clustering Supports Serious Scalability

Of course, providing a pioneering Application Solution Provider framework over the Internet means a lot of companies and people will want to use it. To maintain the framework's reliability, stability, and split-second response time that users have come to expect, Carrie and his colleagues must be prepared to scale the solution to unprecedented levels. To do this they will distribute server-side processes with the help of the IPCs they created using the Microsoft COM objects and through the support for database clustering available in Windows NT Server 4.0 and SQL Server 7.0. Vice President of Operations and Support Ashok Mittal explains: "Clustering technologies enable us to build in clustering at the framework architecture level, enabling us to move data quickly between distributed processes and freeing us to increase capacity by simply adding more servers." Mittal also speaks highly of the enhanced performance of SQL Server 7.0. "Any time you're adding more servers, more users, more transactions, more load in general, database performance becomes that much more essential," he says. "So we welcome the performance improvements in SQL Server 7.0."

Looking Ahead

For Mittal, Carrie, and their colleagues, keeping up-to-date also means looking at the role that Microsoft Windows 2000 and other products in the Microsoft Web solution platform will play in the next release of the framework and other offerings from TheBEAST.com. In one development effort, the team is using Windows 2000 technologies such as MSMQ, along with the Active Directory™ service, Internet Information Services, and COM+ to enable customers to deploy framework applications through a conventional Web portal. The team also is working on a full-fledged migration of the framework to the Windows 2000 environment. This will include an

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Ashok Mittal
Vice President of Operations and Support
TheBEAST.com

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implementation of the Simple Object Access Protocol (SOAP), designed to provide customers simple and secure access to remote COM+ objects for easier customization. As Carrie points out, "That's the central objective of our work as an Application Service Provider for the financial services community—to provide our customers the functionality they want in a package they can customize quickly, securely, and easily. Thanks to our Microsoft Web solution platform, we're able to meet that objective time and time again."

The Microsoft Web solution platform enables building and deploying integrated web solutions that get to market quickly- from high-traffic e-commerce Web sites to corporate intranets to enterprise supply chain integration. It provides the fastest, easiest way to develop Web applications that integrate and interoperate with existing applications, suppliers, customers and future applications and devices. The Microsoft Web solution platform consists of a set of complementary products that provide unmatched enhancement and adaptability of Web applications today and in the future. The core is Windows 2000, an operating system and application server with built-in Internet services that enables developers to focus on adding business value to their applications. Building blocks include Visual Studio, SQL Server, Site Server 3.0, Site Server 3.0 Commerce Edition, SNA Server and the COM+ component and programming model. All are best-of-breed products and technologies leveraging the skill and knowledge of more developers worldwide than any others.

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