

# JACK WHITE & COMPANY

## Solution Overview

### Industry

Discount Brokerage

### Products Used

Windows NT Server  
 Microsoft Internet Information Server  
 Microsoft Cluster Server  
 Microsoft Proxy Server  
 Microsoft Transaction Server  
 Microsoft Active Server Pages  
 Microsoft SQL Server  
 Microsoft SNA Server  
 Microsoft Access  
 Microsoft Visual C/C++®  
 Microsoft Visual Basic  
 Microsoft Visual InterDev™

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***“We wanted a solution that would provide the highest probability for success - simply put, it had to be fast, reliable, and extensible. We didn't want to program ourselves into a hole. One reason we chose Microsoft is that their philosophy is consistent with our objectives. No other software company understands the financial business like Microsoft.”***  
***- Mitch Porche - VP, Information Systems***

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Providing customers with a wide range of discount services, such as low transaction fees, no annual fee retirement accounts, and Web-based trading, Jack White & Company has strived to be the best since opening its doors in 1973. In fact, for three consecutive years, 1994 through 1996, Jack White & Company was recognized for its efforts by being named the nation's #1 discount brokerage firm for overall service by *SmartMoney*, the Wall Street Journal Magazine of Personal Business, based on comprehensive surveys of the nation's largest discount brokerage firms. Until a year ago, Jack White & Company offered Web-based brokerage services to its customers through an outsourced Web site. But with the introduction of some powerful new technologies by Microsoft, they decided that it was time to bring their Web site in-house. Working with Yuri Software, Inc., Jack White & Company used Microsoft® Internet Information Server 4.0 (IIS), Microsoft Transaction Server (MTS), Microsoft SQL Server™, and a host of other Microsoft software, to quickly create a powerful new Web site that has improved customer service and lowered administrative costs.

### ***A tradition of excellence***

The first discount brokerage firm on the West Coast, Jack White & Company is celebrating its 25th year in business. Over the years, the company has grown rapidly, expanding its services whenever possible. In 1984, Jack White & Company became the first discount broker to offer a no-load mutual fund transaction service in brokerage accounts. Through innovative and valuable services such as this, Jack White & Company has been able to consistently win over new customers. Today, the company conducts a nationwide business handling billions of dollars in transactions every year for hundreds of thousands of clients. Their Mutual Fund Network offers clients access to more than 6,600 funds, including over 1,250 funds without transactions fees, offered through their NoFee Network. In addition to personalized service offered by representatives at Jack White & Company's Trading Desk 24 hours a day, 7 days a week, customers can use their Web site to securely place trades, review their accounts, get stock quotes, and do research.

In the past, the outsourced Web site was more than adequate for Jack White & Company's needs. But with more and more customers taking advantage of the convenience of this service, it became clear that an in-house Web site would be required. Toward this end, Jack White & Company set themselves the challenge of developing a large-scale, mission-critical brokerage trading application in six months or less. Their criteria for selecting a development environment was that it had to support rapid development, be easily maintained, based on open standards, and well integrated with their existing brokerage systems. In addition, they wanted to leverage

**Microsoft®**

*"Ease of integration with our existing implementation of the BackOffice® Suite, as well as the ability to utilize common management and monitoring applications made IIS a logical choice for our enterprise."*

Bill Holt Sr.  
Network Manager  
Information Systems

the experience that their development team had invested in the Microsoft Development environment.

### ***The IIS, MTS, and SQL Solution***

Last February, Jack White & Company enlisted the services of Yuri Software, Inc. to help them develop the new Web site. Yuri Software understood Jack White & Company's requirements for this project and, using Microsoft products, set out to meet them. "One of the major benefits of Microsoft products in our view is a consistent, high-quality development environment," says Yuri Diomin, President of Yuri Software. "Microsoft's Distributed Networking Architecture makes component-based software development a reality. No other vendor in the industry can match the breadth, quality, and integration of Microsoft development tools. Microsoft platforms and Microsoft middleware supply a highly consistent environment for software deployment, greatly reducing the time and cost of the development process and increasing the quality of the information system solutions."

Meeting the deadline, the beta for the new site was up and running in September. Now past the beta stage, Jack White Online is deployed on the public Internet and is the site customers use. The new site uses IIS 4.0, MTS, SQL Server and a number of other Microsoft tools to deliver critical services in five basic areas of functionality:

- User account information management
- Trading
- Real-time quote delivery
- Mutual Fund research
- Administration of user accounts

Jack White & Company clients can use any Web browser to log on and display their account information. Client browsers interact with a cluster of Internet Information Servers, which run Active Server Pages scripting engines and generate HTML output based on users' requests. All user information is stored on SQL servers, and, here, IIS simply acts as the interface for customers. COM components, which were implemented using a number of Microsoft development tools, encapsulate the business logic of the process and are deployed within several Microsoft Transaction servers to provide security and other functions.

The stock-trading process begins when a customer enters a trade. IIS takes this request, and a complex process of verification is launched to ensure that the trade can take place. This process is implemented as a set of COM components, which consults market data feeds for stock price information and SQL databases to verify user information. The process is responsible for verifying hundreds of factors for a given trade, such as whether there are sufficient funds for the trade and whether the customer is authorized to make the trade. From the customer's point of view, the entire process takes a few seconds. When the process completes, the customer confirms the order, and the trade is sent to the clearinghouse's mainframe via Microsoft SNA Server, from which the order is actually executed.

For real-time quotes, IIS works as the front end to a set of COM components that interface with real-time data feeds from the stock exchanges. The combination of Internet Information Server, SQL Server, Transaction Server, and COM components ensures that only authorized customers can access account information, place trades, and use real-time quotes. Anyone, however, can use Jack White & Company's mutual fund research tools. For this functionality, IIS acts as a straight interface to multiple SQL servers, where mutual fund information resides.

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Yuri Diomin  
President  
Yuri Software, Inc.

### For More Information

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In addition to these customer services, Jack White Online provides company personnel with a number of administrative tools that enable them to manage the site and open, close, and manage user accounts. Some of these tools are implemented as Web-based applications on the Jack White intranet, and some as Microsoft Visual Basic® development system and Microsoft Access applications.

### **Responding to financial business needs**

Jack White Online now provides all of the brokerage's Web-based investment services to about 10,000 users. For a variety of reasons, including security and ease of administration, the five areas of functionality described above are kept logically distinct. The elegant simplicity of the common environment of Microsoft tools, however, has given Jack White & Company a single solution to these distinct needs. Internet Information Server, Microsoft Transaction Server, SQL Server, COM components and other tools work together give Jack White & Company a high level of control over their site while maintaining the security and fast performance customers demand. According to Mitch Porche, "no other software company understands the financial business like Microsoft." For Jack White & Company, Microsoft's answer to their business needs has resulted in lower administrative costs, a more efficient site, and a better overall customer experience.