ISSUE 1, JULY 1999

# e-business EDGE

Leverage New Business Opportunities with the RS/6000

**TAKE ON TECHNOLOGY**
WebSphere
Performance Pack

**INDUSTRY INSIGHT**
Giga Information Group

**PARTNER PROFILES**
Candle
Oracle
Hyperion

**CUTTING EDGE**
**Michael Sanchez and *e*-Profile Give You Solutions to Bank On**

**Also:**
- **Sideware Systems, Inc.**
- **ESRI, Inc.**

IBM

e-business EDGE

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**Notes: "Performance Under Pressure," p. 16**
APB-1 Disclosure for April 2, 1999:
Analytical Query Time 1135 seconds
Analytical Queries per Minute 0.01891 seconds
Data Density 5%
Number of Products 10,000
Hardware Components:
IBM RS/6000 H70 with 4 64-bit PowerPC™ RS64-11 (340 MHz) processors and 8 GB of RAM
10 BaseT Ethernet network connect to a 3Com® SuperStack II Switch 10000
8 Windows NT Workstations (with 25 users each)
5 Compaq® Professional Workstations SP 700 with Pentium II Processor (2 with single processor 450 MHz, 3 with dual processor 450 MHz) and 256 MB RAM
3 Compaq Professional Workstations 6000 with Pentium™ II Processor (1 with dual 266 MHz, 1 with dual 300 MHz, 1 with single 300 MHz) and 192 MB RAM

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# letter from the EDITORS

The IBM® RS/6000® Partners in Development (PID) group is delighted to bring you the premiere issue of *e-business edge*.

We founded this informative magazine about the RS/6000 Partners in Development Program and RS/6000 technology initiative successes because we believe it will be instrumental in helping us:

- Broaden your business opportunities
- Speed your time to market
- Lower your cost of doing business

In every issue, we'll focus on some of the solutions and technologies leveraging the power of the RS/6000 around the world. Regular segments like *Cutting Edge* highlight the diverse e-business innovations of IBM Solution Developers using the RS/6000. This issue's cover story ("Solutions to Bank On," p. 4) is a perfect example; it offers an inside look at how Sanchez Computer Associates is commandeering the online financial services industry. We also report on Sideware™ Systems' Internet-based customer service application, Dr. Bean, as well as the integration between ESRI's ArcIMS solution and the IBM WebSphere™ Application Server.

Additionally, every issue will offer *Partner Profiles* that discuss our ongoing strategic partnerships and the ways in which their activities help add an edge to your e-business endeavors. This issue, for example, provides interesting updates on Candle® Corporation, Oracle®, and Hyperion®. Other regular segments include *Executive Viewpoint* (featured in this issue are IBM executives Rod Adkins, p. 7, Jan Beauchamp, p. 13, and Rajiv Samant, p. 17), as well as *Industry Insight*, an analyst's expert perspective on how RS/6000 technologies stack up in the competitive marketplace—and how we can improve them. We're pleased to kick off this segment with Brad Day of the Giga Information Group™ in a two-part interview beginning in this issue (see p. 19) and concluding in the fall 1999 issue.

In *Take on Technology*, another regular feature, RS/6000 e-business technologist Andrew Taylor explains the load-balancing capabilities of the IBM WebSphere Performance Pack. And finally, *First Look* gives you a quick peek at exciting, global Solution Developer applications (such as RockPort Trade Systems' RockBlocks™ and FE-Design's MSC/CONSTRUCT on p. 18).

Future issues of *e-business edge* will continue to offer a real-world perspective on today's technology while demonstrating IBM's commitment to advancing your company's e-business objectives with the RS/6000.

Please complete and return the business reply card in this issue to qualify for a subscription to the magazine. We're dedicated to making our publication as valuable as possible, so we welcome your comments or suggestions. Just send e-mail to the magazine staff at *rspid@austin.ibm.com.*

Sincerely,

**Steve Sibley**
Program Director, RS/6000 Partners in Development

**Casey Cannon**
Project Director, RS/6000 Partners in Development

cutting EDGE

# Solutions to Bank On

## Sanchez and IBM Put Money Where Your Mouse Is

Few industries have felt the impact of the Internet's rising popularity as much as the financial services industry. With e-commerce interest peaking and tech-nological capabilities advancing to match that interest, financial institutions and service providers race to corner the markets and minds of those who now use the Internet to conduct business around the clock. Critical to enabling the 24x7 online processing functionality afforded by e-commerce are software and applications developers like Sanchez Computer Associates, Inc.

Leveraging almost two decades of experience providing core processing solutions to financial services companies for processing functionality, Sanchez has a unique foothold in the e-business arena. The organization's solid understanding of financial industry requirements, coupled with its aggressive approach to software development, is the driving force behind its new e-business service utility, *e*-PROFILE™. *e*-PROFILE, along with the entire PROFILE® software suite, takes advantage of Sanchez's IBM alliance and proven compatibility to ensure the performance and availability that e-business customers demand.

### Sanchez Offers a Winning PROFILE

Founded in 1980, Sanchez Computer Associates is a leading provider of innovative, customer-centric, core-processing software solutions for the global financial industry. The company's principle product, PROFILE/Anyware™, is a multilanguage, multicurrency, multibank core-processing production solution for large financial service institutions. Currently used in over 375 financial institutions in 14 countries, PROFILE's adaptability is due not only to its capacity to scale for millions of accounts, but also to its open architecture, which allows the software to run on a range of server platforms, including the IBM RS/6000. Its unique design uses an electronic manufacturing model that enables financial institutions to dynamically assemble banking instruments and services from an extensive inventory of modular business components.

The *e*-PROFILE service was announced in February 1999 following Sanchez's acquisition of ArTech Financial Services, Inc. Powered by PROFILE/Anyware, *e*-PROFILE enables financial institutions to outsource the end-to-end critical technology and systems management required to start a direct bank. By outsourcing, financial institutions cut both the capital requirements of purchasing and managing their own financial systems, as well as the time spent on installation and deployment. And as outsourcing employs a utility-based pricing model, up-front capital risk is significantly reduced. Hence, financial institutions can provide services more rapidly and at a lower expense to customers.

### *e*-PROFILE Meets Dynamic Financial Industry Requirements

"There is a definite value shift happening among users in the financial services industry," says Michael Sanchez, co-chairman of Sanchez and CEO of *e*-PROFILE. "People are no longer choosing a financial institution just because it's close to where they live. They're demanding better products and services at a lower cost and in a more timely fashion, and they're doing a lot more comparison shopping."

In addition, notes Pete Hart, chairman of *e*-PROFILE, financial service providers have been converging over the last several years, blurring the lines between market segments and creating a demand for a more ubiquitous e-business application. "Banks are starting to offer insurance- and brokerage-related services, and brokers and insurance agencies are starting to offer bank-related functionality,"

he says. "With this convergence in mind, *e*-PROFILE provides preconfigured, best-in-class components from technology and service partners to enable complete banking capabilities for all financial service providers, not just banks. The only thing *e*-PROFILE clients have to do is brand and market their end-to-end services and products. Sanchez can get them up and running in 90 days. And the result for end-users is a comprehensive set of fast, flexible, financial service components from a broad base of providers that *e*-PROFILE manages for them."

**Sanchez Leverages IBM Alliance to Address Customer Demands**

Part of accommodating the convergence in the financial services industry is ensuring application compatibility with high-performance hardware platforms. In addition, strong relationships with market leaders are required to continuously enhance solutions with new technology capabilities. Sanchez is able to tackle both challenges through its strategic alliance with IBM.

A front runner in the e-business arena, IBM affords Sanchez the ability to offer customers advanced technology supported by scalable, high-availability hardware. The two companies have been closely aligned for several years, and in late 1998, furthered their alliance by signing a global partnership agreement to initiate cooperative sales and marketing efforts. More recently, Sanchez was elevated to advanced membership in the IBM Solution Developer Program.

**IBM RS/6000 Platform Propels PROFILE Performance**

As a Solution Developer, Sanchez collaborates with IBM to optimize the performance of PROFILE on IBM platforms and to conduct joint promotional activities. In addition, Sanchez takes advantage of the IBM Solution Partnership Center (SPC) in Waltham, Massachusetts, to participate in application testing and to measure the performance of PROFILE on IBM servers.

Recent benchmarking results from the SPC demonstrate in particular the RS/6000 platform's ability to enhance mission-critical performance and availability. Running PROFILE/Anyware Version 5.3 with a single 20 million account database on an RS/6000 S70 SMP, Sanchez was able to complete more than 250 transactions per second. The average day-end accrual showed the PROFILE system updating over 3,200 accounts per second. For Sanchez

*"People are no longer choosing a financial institution just because it's close to where they live. They're demanding better products and services at a lower cost and in a more timely fashion…"*

***Michael Sanchez***
*Co-Chairman of Sanchez and CEO of* e-*PROFILE*

customers, these results demonstrate the combined power of PROFILE and the IBM RS/6000 to meet the increasing processing demands of a 24x7 e-business environment.

Sanchez is currently testing on the RS/6000 H70 model and will be involved in IBM's Project Monterey to migrate to the IA-64 Intel® architecture.

**Sanchez Builds on IBM e-business Framework**

IBM has created a set of e-business framework criteria to showcase advanced solutions development among its strategic alliances. Sanchez, in its efforts to continuously enhance its PROFILE software, is diligently meeting these e-business standards. In May 1999, the company announced its use of IBM's VisualAge® for Java™ development tools to speed its development process. Additionally, Sanchez is generating IBM MQSeries® application programming interfaces (APIs) to facilitate availability-oriented communications between multiple computer systems that safeguard critical queued messages in the event of system failure. "Our work with IBM's e-business technology helps us extend the reliability and full tolerance of our message transport system and increase the range of networking options available for our client/server applications," says Phil Chenard, director of Platforms and Technology Integration for Sanchez.

**IBM Aids Sanchez's Ability to Meet Industry Growth Potential**

Sanchez is currently negotiating with key technology providers for its *e*-PROFILE service. Among the first to be included is Edify®, a global leader in consumer and business banking solutions. Sanchez intends to partner with top-tier financial applications developers to ensure the most robust, comprehensive services for financial industry customers seeking a rapid, easily deployable entry into an Internet-based banking marketplace. Bolstered by its IBM relationship and successful performance results, Sanchez is certain to expand its already extensive worldwide customer base with the addition of *e*-PROFILE to its solutions roster. "We're dedicated to e-business," says Michael Sanchez. "We see a tremendously high growth potential in the market, and in conjunction with IBM and other strong technology relationships, we offer the integration of best-in-class components to meet the solutions and services demands of the financial industry as a whole."

For more information on Sanchez Computer Associates, visit *www.sanchez.com.*

# executive VIEWPOINT

**Rod Adkins**

*Now general manager of the RS/6000 product line, Rod Adkins joined the Server Group six months ago from IBM's Personal Systems Group. Below, he offers his insight on RS/6000 trends and directions.*

**ebe:** What are the strengths of the current RS/6000 product line?

**RA:** With RS/6000, we offer robust solutions that meet critical customer requirements for high availability and enterprise-wide systems management. In addition, we are strong in the areas of e-business and Web-serving. We recently announced the H70, which is the fastest 2-way and 4-way Web server for its price class configuration based on the industry standard, SpecWeb®96.

**ebe:** Where is IBM headed with the RS/6000 technology plan?

**RA:** If you look at what we delivered in 1998 and where we're going, we have a very strong product line today supported by a strong technology roadmap. In 1998, we introduced 64-bit processing technology in our workstations and enterprise servers. Earlier this year, we completed the transition across the entire product line, including the SP™. In addition, this year we will introduce Copper Technology, an IBM innovation to enhance product performance. In 2000, we will launch another IBM innovation technology called Silicon on Insulator, or SOI. And in 2001, we will introduce POWER4, our next-generation giga-processor that will run in excess of 1,000 MHz.

**ebe:** Where does the RS/6000 fit among other IBM servers?

**RA:** The IBM Server Group has four strong server platforms—S/390®, AS/400®, Netfinity®, and RS/6000—that serve very specific market needs and can map against any customer requirement. Also, we package these servers to interoperate with one another to cater to particular customer needs. For instance, a large e-business customer might install an S/390 as a back-end database and attach an RS/6000 SP as the front-end application server. With this type of configuration, we are able to customize server solutions to meet the unique business requirements of our customers.

**ebe:** What plans are in place to crush the competition?

**RA:** One area in particular that sets us apart in the UNIX® market is our SP product line. Most of our competitors provide workstations, entry servers, and enterprise servers, but our SP line allows our commercial customers to easily expand their environments and run new workloads by adding additional nodes in a concise, controlled way. Our scientific and technical customers like the Department of Energy can run a large SP complex because they require the SP's parallel capabilities to carry out computations and simulations. Looking at the bigger picture, not only do we have the products, but we can augment them with the capabilities of our financing organization, IBM Global Financing, and the professional service capabilities of IBM Global Services. We are positioned to provide the total solution—hardware, middleware, applications software, financing, and services. We take a total value proposition to the customer, and that's how we will continue to win.

**ebe:** You've been on the job now six months. Any comments for our readers?

**RA:** I can tell you, the UNIX industry is fascinating. We have a very competitive product line, and with our technology roadmap, our story continues to get better over time. I'm having fun, and that's probably the best way to describe it. The outlook for RS/6000 is extremely bright!

# WebSphere Performance Pack

*by Andrew Taylor*

The good news is your new e-business Web site traffic is growing like crazy. The bad news is projections show your current e-business back-end infrastructure running out of gas in two months.

If this describes your situation, consider using IBM's WebSphere Performance Pack on your IBM RS/6000s. The WebSphere Performance Pack contains a powerful software solution called SecureWay™ Network Dispatcher, designed specifically to enhance the scalability and reliability of your e-business solutions.

**Manageable Load Balancing for Improved Scalability**

SecureWay Network Dispatcher provides robust, customizable, low-overhead dispatching and load balancing of incoming TCP/IP traffic to a cluster of Web or application servers. Now you can horizontally scale your e-business solution to incrementally enhance your capacity. SecureWay Network Dispatcher also offers improved reliability by constantly monitoring the server pool and only delivering requests to healthy servers. And, unlike many competitive solutions, SecureWay Network Dispatcher gives you complete control over load-balancing decisions via a patented series of weights and metrics—so you don't have to wonder how a particular solution opts to enable load balancing, and whether or not the decision is appropriate for your operations.

For simple situations, you can use the default load-balancing setup, which bases decisions on current response times from servers in your pool. To suit more advanced situations, you can augment or even replace the default setup with custom weights and metrics to fine-tune your load-balancing needs. This configuration is easily accomplished through the SecureWay Network Dispatcher configuration GUI.

For ultimate control, you can create custom "advisors," or small Java classes that are dynamically loaded into the SecureWay Network Dispatcher JVM to provide maximum flexibility in tuning custom load-balancing algorithms.

**Reliability Ramps Up with Advanced Failover Technology**

In addition to state-of-the-art load-balancing services, SecureWay Network Dispatcher also significantly enhances the overall reliability of your e-business solution. Assume, for example, that your e-business architecture uses a cluster of four application servers (RS/6000s with WebSphere), and that load balancing is handled by SecureWay Network Dispatcher. If one of your servers fails for any reason, or if the network connection to that server fails—or even if someone trips over the power cord—SecureWay Network Dispatcher will remove that server from the "available" list and dynamically route all future requests to the remaining three servers. This feature can also be used in a maintenance mode. To perform system maintenance or upgrades on one of the servers, SecureWay Network Dispatcher will allow you to execute these tasks without stopping the e-business solution as a whole. SecureWay Network Dispatcher technology can also be used to achieve IBM ClusterProven certification on RS/6000.

Of course, the final key question is, "What if the dispatcher goes down?" SecureWay Network Dispatcher can easily be configured to automatically fail over to a hot standby, thereby providing uninterrupted service to your e-business clients.

SecureWay Network Dispatcher is an excellent software solution for enhancing your e-business solution's ability to scale to support larger workloads, and to gracefully handle server failures while providing uninterrupted service.

SecureWay Network Dispatcher can be downloaded for evaluation and testing from *http://www.software.ibm.com/network/dispatcher/downloads/* and is available for IBM AIX®, Sun® Solaris®, and Windows NT® platforms.

*Andrew Taylor has worked as a consultant for IBM since 1990, specializing in RS/6000 e-business technology.*

partner PROFILE

# Measuring Up

## Oracle Set to Release Benchmark Standard for Oracle 11i Applications

Tools for standard application measurement have been historically difficult to ascertain. This is because of the multitude of components—including hardware, software, and middleware—that can play a significant role in application performance.

Hardware vendors in particular have often lacked the benchmarks required to provide users with statistics that demonstrate how specific platforms elevate performance levels. Thus, application users are frequently at a loss when attempting to determine how well their systems are configured, and whether or not they are functioning optimally. The resulting confusion can prove harmful to businesses that rely on application performance to ensure maximum service and solutions benefits to their customers.

Oracle Corporation, a leading supplier of information management software in more than 145 countries around the world, is tackling the challenge of application performance measurement through an innovative new benchmark standard designed to accurately test application results across a range of hardware platforms. The standard, scheduled for release at the same time as Oracle 11i in the fall of 1999, will enable hardware providers to compare the performance of Oracle's enterprise resource planning (ERP) applications from one vendor platform to another, within a common and measurable framework.

### Oracle Leverages IBM Partnership in Standard Development

An essential part in the development of Oracle's benchmark standard has been one-on-one involvement with leading hardware vendors, such as IBM. An Oracle partner and a market leader in highly available, scalable, and reliable server platforms, IBM is eager to see the standard unveiled; the company has been involved in prototype testing for the past year and has thus far witnessed favorable results—particularly on the RS/6000 S70.

"Our first prototype," says Tim Harris, manager of Oracle Applications Section, Data Server Performance, "was based on the Oracle 10.7 applications release. The second was based on Oracle 11. IBM has performed well with both prototypes, on both UNIX and Windows NT platforms."

When the official standard is released, it will also accommodate important auditing procedures. "Auditing is a process by which hardware vendors can validate their results," explains Harris, "and that validation is critical. Before naming the winners in any competition, you want to make sure the results are valid."

Oracle Applications Director Richard Sarwal explains how the company will ensure conformance to test specifications. "Oracle will provide detailed processes across the entire hardware and software stack for verifying that vendors have completed the tests as specified, regardless of platform. That's the only way a standard like this can be truly beneficial," he says. "And IBM has been a great help in continually driving this project toward the benefits."

Oracle is limiting the initial scope of its benchmark standard to ensure resources as well as vendors remain dedicated to running performance tests correctly. "The standard will be focused first on online transaction processing (OLTP) in the areas of financial and supply chain management, with a light batch component," Harris says. "Over time, we plan to extend our scope to a benchmark that reflects additional components of both the front- and back-office systems."

For more information on Oracle Corporation, visit *www.oracle.com.*

# The Customer Service Cure

## Sideware's Dr. Bean Brings Live CSR Functionality to e-business

When Sideware Corporation—a wholly owned subsidiary of Sideware Systems—began developing the Internet-based customer service software application Dr. Bean less than two years ago, CEO Owen Jones had a clear vision of which e-business markets the application could serve. All of them.

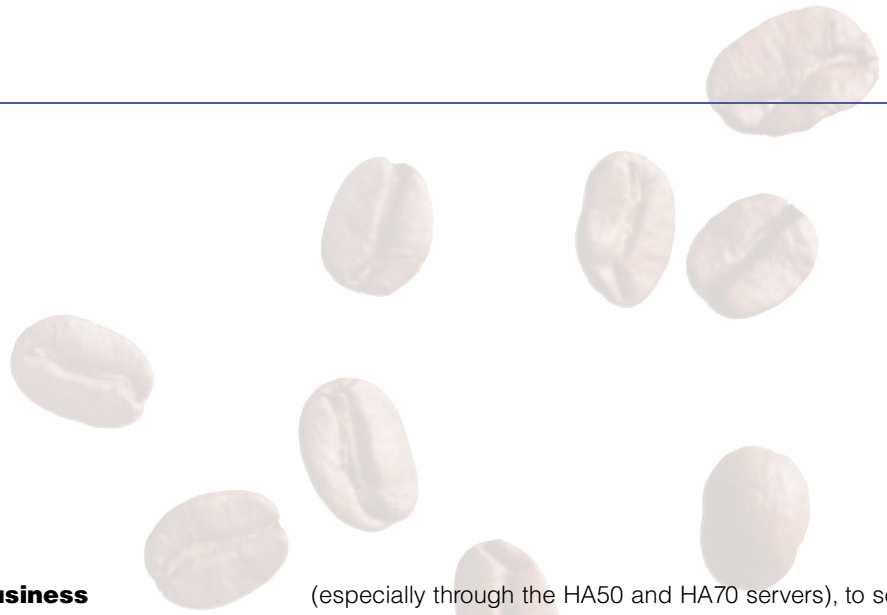
Jones' prediction is proving to be right on target. Why? To begin with, Dr. Bean is 100 percent engineered in Java, the universally respected "write once, run anywhere" programming language. Second, the application is now compatible with every IBM server platform available. Third, Sideware is highly focused on integrating Dr. Bean with IBM e-business products. And finally, the entire e-business market is clamoring for a complete commerce solution—one that includes the 24x7 customer service capabilities provided by Dr. Bean that have long been missing from the Internet's round-the-clock environment. For Sideware Corporation, based in Herndon, Virginia, these ingredients add up to one conclusion: The Doctor is definitely in.

**Any User, Any IBM Platform, Anytime**

Though the Internet is largely thought to offer a user-oriented atmosphere, most commercial Web sites seem to be lacking the one aspect of e-business—or any business, for that matter—that is most user-driven: customer service. In that sense, Dr. Bean is an innovative yet practical tool. Online organizations can use the application to deliver live, personalized customer service over the Internet, so users can ask knowledgeable personnel about products, sales specials, alternate shipping, and more. In addition, Dr. Bean allows customer service representatives (CSRs) to actually take control of customers' browsers and lead them through Web pages on guided virtual tours—or even follow them to assess their purchasing interests.

Dr. Bean is comprised of several components, including an HTML-based or Java applet-based customer interface that can provide either non-persistent or persistent Internet connectivity—even across firewalls. Additionally, Dr. Bean features a set of CSR-side applications to allow management and administration of the software, as well as integration with an organization's existing middleware and hardware.

As a member of the IBM Solution Developer Program, Sideware recently completed porting Dr. Bean to the S/390, AS/400, Netfinity, and RS/6000 platforms at the Solution Partnership Center (SPC) in San Mateo, California. The application was also tested on, and can now be easily integrated with, IBM middleware products—like DB2® Universal Database, Net.Commerce, and WebSphere Application Server—to help companies create more comprehensive e-business solutions without necessitating extensive, costly changes to legacy systems.



**Dr. Bean Completes 24x7 e-business Functionality for Online Companies**

As organizations migrate to the Internet from nine-to-five physical business environments, they are faced with a number of relocation issues. One of the most important is time: The Internet never closes. How do businesses translate traditional customer service to a nonstop environment? And how do they integrate that customer service so it is part of the online experience? According to Jones, these are the questions that are leading customers of all shapes and sizes—including paging and wireless communications giant Metrocall® and the Science Applications International Corporation (SAIC)—to install Dr. Bean.

At the SAIC's e-commerce laboratory in McLean, Virginia, Dr. Bean is currently being demonstrated to all visiting representatives of government agencies. "It's incredibly valuable exposure for us," comments Jim Speros, president of Sideware, "given the applicability of Dr. Bean to the government market."

"But any company with a Web presence can benefit from using Dr. Bean," reiterates Jones, "from small businesses looking to provide information on services, to big-name retail customers that want to boost sales with proactive customer service, to large organizations like the government that offer internal help desk applications, to procurement or supply chain companies. Any entity that has migrated its information to be presented through a browser can profit from using Dr. Bean."

**IBM and Sideware Share an e-business Vision**

Part of what enables Sideware's application to achieve the required performance, scalability, and availability levels demanded by e-business customers is its ability to run on the IBM RS/6000 platform. The RS/6000 server is known for its tremendous capacity to attain maximum uptime (especially through the HA50 and HA70 servers), to scale to suit even the largest of enterprises (through the SP), and to offer the performance required to run complex e-commerce exchanges and transactions at phenomenal rates (thanks to new POWER3 technology).

"We knew from the start that IBM had a real grasp on e-business," Jones comments, "because we saw the types of products and services they were providing. So we became an IBM business partner and joined the Solution Developer Program. We then trained our engineers and had them certified in a suite of IBM products, built a complete storefront with IBM products behind it, and finally built Dr. Bean on top of that to understand how it would have to fit in with all of those products. It was the right path for us to take. IBM is clearly the leader in the e-business space.

"We're very pleased with the Solution Developer Program," Jones summarizes. "Cross-marketing will let millions of people know we're associated with IBM. And at the same time, we're tightly coupling our application with IBM's products to round out its already powerful e-business product suite. Our product is available through IBM distributors and is part of solution packages for all of IBM's business partners. The relationship is proving to be full of opportunities for both our companies."

As the e-business marketplace matures, so will Dr. Bean. Future versions of the application will include intelligent engines that help predict and analyze customers' needs. In addition, Sideware plans to integrate technologies for voice-over and video IP. Also in the works is an outsourcing solution, whereby organizations can "rent" Dr. Bean software—and even live CSRs—to add the value of 24x7 customer service to their Internet presence.

For more information on Sideware Corporation, visit *www.sideware.com.*

# executive VIEWPOINT

**Jan Beauchamp**

*Ms. Beauchamp recently moved from her position as vice president of Sales, Manufacturing Industries, North America, to vice president of Business Development for the Server Group. Here, she shares some of her thoughts on IBM's Solution Developer Program.*

**ebe:** How dedicated is IBM to its Solution Developers?

**JB:** Extremely dedicated. We offer tremendous resources through the umbrella of the IBM Solution Developer Program, which is building relationships and recruiting developers on a daily basis. In addition, each of the three groups within IBM—Software, Server, and Personal Systems—has a Partners in Development organization that provides the technical enablement for our Solution Developers.

**ebe:** In what other ways does IBM invest in Solution Developers?

**JB:** Annually, we invest over $500 million in our Solution Developers. In the Server Group, we are focusing those funds on platform vitality—that is, providing the equipment and technical support that developers need in order to understand our server positioning, to port their applications, and to carry out native development on our platforms. Additionally, for demand generation, we allocate business development funds to promote Solution Developer and IBM co-marketing activities.

We've also announced the new e-partner program, a marketing communications initiative that will highlight Solution Developers' e-business applications. Solution Developers who utilize IBM's application framework to develop applications can display IBM's e-business trademark and will be featured in IBM's advertising campaigns.

**ebe:** Why should software developers align themselves with IBM's objectives?

**JB:** Overall, our Solution Developer Program is focused on investing in our partners. In 1998 alone, IBM Solution Developers received more than $50 million in incentives and discounts on IBM hardware and software, and almost 65,000 leads from our direct marketing campaigns.

Through our Partners in Development Program, we provide critical technical capabilities and access to technical knowledge. We offer resources, education, services, tools, and a scalable, reliable, highly available server family. So we have a strong value proposition.

**ebe:** What are the new market opportunities for IBM and its Solution Developers?

**JB:** Right now, we're concentrating on applications and growth initiatives in enterprise resource planning (ERP)/supply chain management and customer relationship management. Our customers are also asking for business intelligence and e-commerce solutions. And we're very focused on two emerging markets: ISPs and application service providers (ASPs). Both markets are evolving, so we're testing the waters, seeing who the players will be. We see our developers looking for partners and capitalizing on these evolving markets.

**ebe:** After six months in the Server Group, is there anything you would like to share with our readers?

**JB:** I'm excited about working with our Solution Developers. They're so enthusiastic about what they do, and they provide incredible value to IBM customers. My objective is to give them reasons to be even more enthusiastic, so that together, we can grow our server business faster than the industry.

partner
PROFILE

# *Enriching Application Availability*

## Candle Becomes First IBM Advanced ClusterProven Program Enabler

After 23 years of delivering leading-edge systems management software and services, Candle Corporation is an expert at pinpointing the requirements of successful e-business initiatives—and at building the solutions and partnerships to meet those requirements. One of the more significant demands Candle sees arising from today's Internet economy is availability.

To Candle, a company that counts on its impressive customer roster some 90 percent of the world's Fortune 500 companies, availability is a multifaceted necessity that spans across all of the components in a system, including hardware, databases, and applications. To ensure its customers can achieve robust availability throughout all of these components, Candle is now furthering its historical partnership with IBM to become an enabler to IBM's Advanced ClusterProven Program.

IBM's ClusterProven Program extends across all IBM server groups in both Basic and Advanced levels to engage software developers in the process of fulfilling availability requirements. In particular, the Advanced level on RS/6000 is earned by applications that meet a stringent set of application and operating system availability and recovery criteria.

As an Advanced ClusterProven enabler, Candle will leverage the capabilities of its own software solutions to verify that its customers' e-business applications and databases meet these availability requirements. Candle's past partnership endeavors with IBM have included third-party testing and development on IBM's High Availability Cluster MultiProcessing (HACMP) software, a crucial ingredient in the latest high-availability RS/6000 server offerings (such as the HA50 and HA70).

### Candle Helps Address Mission-Critical Availability Demands

Joining the Advanced ClusterProven Program initiative made sense to Candle. "We have an across-the-board IBM server focus—our products span the Netfinity line with Windows NT, the AS/400, the RS/6000, and the S/390—so we're able to provide availability across those four platforms," says Joe Burns, alliances manager at Candle. "Recently, we have concentrated on the RS/6000 platform because of the HACMP offering. We want our customers to bank on the fact that these servers have been pre-tested, not just with IBM code but with third-party code as well.

"Our work with IBM is certainly addressing today's business-critical applications climate," continues Burns. "Vendors and customers alike are realizing that application availability is key, because the application functionality and the data are the knowledge-rich sources in a system. They are the real reasons an e-business system exists. Our objective as a ClusterProven enabler is to use our tools to help effect the same 99.999 percent software-based availability level that IBM is achieving with its hardware."

### IBM Partnership Aids Candle in Strengthening Customers' e-business Systems

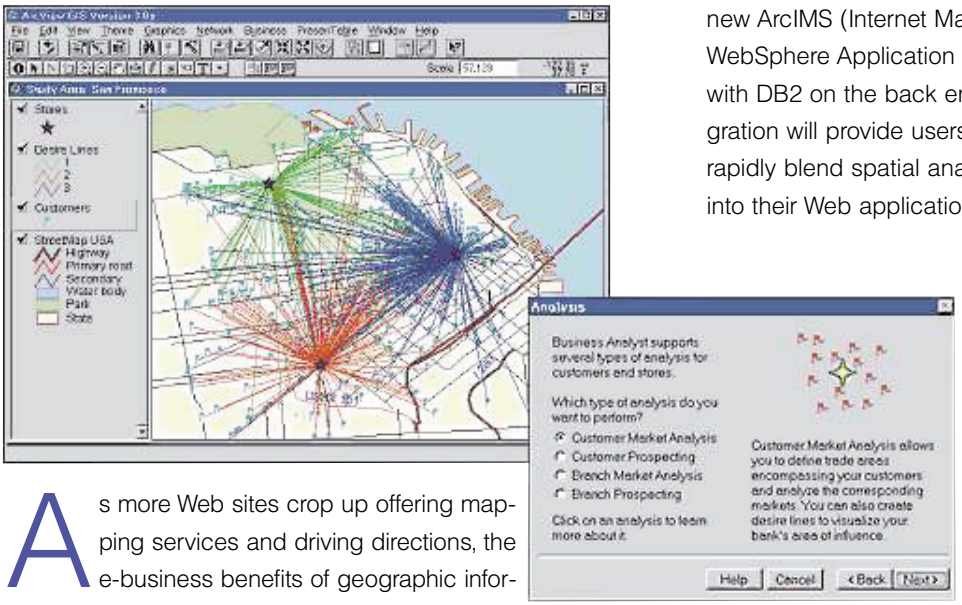
Candle's initial involvement as an Advanced ClusterProven enabler will be with database vendors. The company is considering extending its certification procedures to additional application vendors in order to increase the robustness of high-availability system configurations.

"This new partnership with IBM allows us to enhance the technical relationship between our two organizations," adds Burns. "We've spent a lot of time building an infrastructure that can support this type of activity. I think it's a perfect marriage."

For more information on Candle Corporation, visit *www.candle.com.* For more information on the Advanced ClusterProven Program, visit *www.ibm.com/servers/clusters.*

# Location, Location, Location

## ESRI and IBM Extend e-business with New ArcIMS/WebSphere Integration




As more Web sites crop up offering mapping services and driving directions, the e-business benefits of geographic information systems (GIS) are piquing public interest. Many people don't realize, however, that GIS technology has been in use for over three decades. Environmental Systems Research Institute, Inc. (ESRI®), the dominant market leader in GIS software solutions, has been providing organizations with the ability to analyze and make decisions based on location and proximity since 1969.

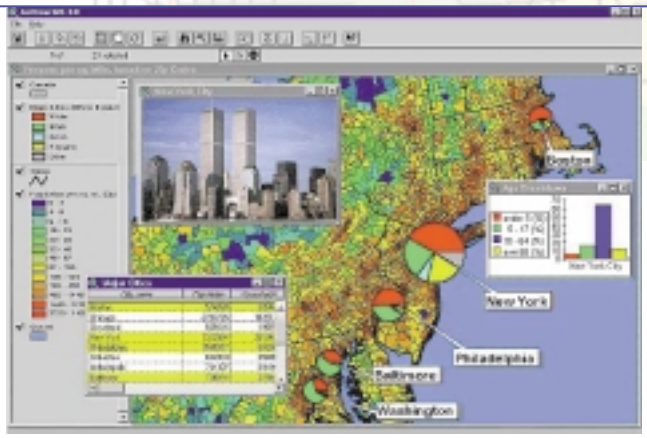
Today, ESRI develops and markets its products worldwide to more than 220,000 customers in both private industry and government agencies, ranging in size from one-person businesses to global enterprises. To satisfy this wide customer diversity, as well as the requirements of its high-graphics software, ESRI joined the IBM Solution Developer Program and ported its ArcInfo® application to the IBM RS/6000. Thanks largely to the flexibility of the RS/6000 to execute even the most sophisticated graphic engineering applications, ESRI is able to deploy the type of scalable, performance-oriented solutions its customers demand.

As an IBM Solution Developer actively enabling new e-business technologies, ESRI is now integrating its new ArcIMS (Internet Map Server) Version 3.0 with the IBM WebSphere Application Server. Running on the RS/6000 with DB2 on the back end, this Enterprise Java-based integration will provide users of WebSphere with the ability to rapidly blend spatial analysis and visualization capabilities into their Web applications.

### IBM RS/6000 Adds Hardware Performance and Scalability

When asked to name ESRI's target market, Kevin Daugherty, strategic accounts manager with ESRI, gives an unorthodox answer: "Which one?" Because GIS software has such universal value, claims Daugherty, ESRI has stratified across at least 27 different vertical markets for its solutions. Businesses, governments, utilities, educators, and thousands of GIS professionals across the globe rely on ESRI products to improve operational efficiency, increase profitability, and tap into the true potential of their databases for better decision-making abilities.

ArcInfo, ESRI's professional geographic information system with advanced modeling and analysis capabilities, is widely used throughout the federal, state, and local government, as well as by many private organizations. Since its inception, ArcInfo has run on IBM RS/6000 products. In its work as an IBM Solution Developer, ESRI has repeatedly found that the RS/6000 platform helps extend application benefits to customers through its performance-driven architecture. RS/6000 workstations such as the 43P-260, in particular, offer a choice of available 2-D and 3-D graphics accelerators, in addition to leveraging the advanced capabilities of the AIX operating system to achieve excellent scalability.




**ArcIMS and WebSphere Put e-business on the Map**

With ArcIMS Version 3.0, ESRI now extends its solid product roster to include leading-edge e-business capabilities. Any spatial data stored in ESRI-compatible image types and data formats—such as shapefiles, coverages, and Spatial Database Engine (SDE™) databases—is supported by ArcIMS to enable Internet-based delivery of services like map rendering, geocoding, data conversion, and even feature streaming. In other words, online companies and their Web-surfing customers can leverage ArcIMS functionality to obtain easy, prompt Internet access to critical geographic information.

By combining this type of technology with IBM WebSphere, ESRI is ensuring the portability of its products to the Internet commerce arena. WebSphere offers a unique, robust deployment environment for e-business applications through a portable, Java-based platform. This platform is focused on supporting and executing Java servlets, JavaBeans™, Java Server Pages, and Enterprise JavaBeans, while interacting with enterprise databases, transaction processing systems, and other applications for dynamic Web content.

Need to determine a restaurant or store location? Want to pinpoint the nearest ATM? No problem. "With ArcIMS Version 3.0," says Daugherty, "we're distributing GIS capability via the Internet to make data more accessible to the public in an easy-to-use format, which is extremely cost-effective for our online customers to implement." Those customers will include major government agencies as well as top-name public sector companies. ESRI already counts among its current ArcInfo customers such heavyweights as the Environmental Protection Agency, the U.S. Forest Service, and the U.S. Geological Survey, as well as Sears®, Federal Express®, and McDonald's®.

"Integrated with the robustness and portability of WebSphere," adds Daugherty, "ArcIMS will offer businesses the ability to map intelligently and specifically on the Internet. Users will get what they're looking for. And when you couple a solution like this with a scalable, reliable platform like the RS/6000, that's e-business."

**Bringing Global Visualization to a Global Community**

As an IBM Solution Developer, ESRI is helping to build software solutions that offer real-world application benefits to e-business customers. For example, city planning departments can now be made geographically available to entire communities. If builders or homeowners want to remodel, they can now go online, file plans with the appropriate government departments using ESRI applications to display spatial contexts and location, pay fees by credit card, and then receive permits.

In addition, ESRI applications are finding explosive growth opportunities for new e-business solutions in the private sector. Real estate is a particular hot button: For an industry that has made "location, location, location" its slogan, ESRI's software is the natural choice. Using ESRI solutions online, real estate developers are able to incorporate a map base into their overall functionality. And with more and more prospective homeowners heading to the Web to shop for homes, ESRI is likely to be the primary provider behind the GIS technology that shows users where their potential homes are located.

According to Daugherty, the IBM Solution Developer Program has been instrumental in ensuring the successful adaptability of its products to customers' platforms. In particular, ESRI has found the IBM Solution Partnership Center (SPC) in San Mateo, California, to be advantageous. "We've leveraged the technical and marketing expertise of the SPC staff throughout the ArcIMS/WebSphere integration process, both in San Mateo and from our Redlands office. I can't tell you how convenient and easy it's been to work with the SPC remotely," he notes, "and how well the knowledge of the SPC staff complements our abilities. We've worked with IBM for years on large and small projects around the world, and we're a perfect fit."

For more information on ESRI, visit *www.esri.com*.

partner PROFILE

# *Performance Under Pressure*

## Hyperion Announces Record OLAP Benchmarking under New Industry Standard

Silicon Valley-based Hyperion Solutions recently conducted the first audited tests of the Analytical Processing Benchmark-1 Revision 2 (APB-1 R2), using its Hyperion Essbase™ OLAP Server 5.0.2 on the new IBM RS/6000 H70. APB-1 R2 is the only industry-standard benchmark for online analytical processing (OLAP) software. Hyperion is a leading global provider of analytic solutions that help companies understand and optimize their businesses using OLAP technologies. Findings indicate the Hyperion/IBM combination achieves instantaneous query response times for thousands of users.

More importantly, the results prove the Essbase/H70 combination is ideal for attaining the high performance and scalability demanded by companies deploying enterprise-wide and Web-based analytic applications. With faster processing response times, organizations are better able to analyze large quantities of critical data and make key, time-sensitive business decisions at the speed of thought. The bottom line is that aggressively scalable OLAP applications—such as those provided by Hyperion and IBM—translate into increased business intelligence, high levels of user satisfaction, and competitive advantage.

**The Proof is in the Processing**

In the audited APB-1 R2 benchmark, the Essbase/H70 configuration executed 500,000 complex OLAP queries in only 157 minutes (See Notes, p. 2). Average query response times were 0.01892 seconds, demonstrating speed-of-thought response. The benchmark also proved that the Essbase/H70 configuration is extremely scalable, since the 200 no-think-time query streams generated a server load equal to thousands of real-world users.

"With these record-setting results," says Donald MacTavish, director of Product Marketing for Hyperion, "we can assure customers that they have invested in the fastest, most scalable OLAP server available."

**Complementary Product Architectures Help Bolster Business Intelligence**

OLAP software performance can be optimized by increased memory and disk performance. The Essbase data store is configured to run on file systems, so it leverages AIX's ability to cache files in memory. Increased memory can improve load calculation and query performance, as well as reduce disk I/O to both paging and file access, thereby accelerating response time and throughput. The RS/6000, specifically the H70, complements the architecture of Essbase to keep memory levels high and disk performance stable.

"IBM designed the H70 to handle the needs of multi-user, enterprise-wide decision-support system environments," says Joe Labriola, Business Intelligence brand manager, IBM RS/6000. "The RS/6000 H70, combined with Hyperion Essbase OLAP Server, provides the type of robust platform our customers demand for highly interactive analytic applications." Those types of applications include manufacturing mix, product profitability and planning, consolidations, sales and marketing analysis, forecasting, budgeting, and Executive Information Systems (EIS)—all of which store a wealth of information that can be extrapolated for better decision-making processes.

Hyperion Essbase can be integrated with more than 50 popular front-end tools, data warehouses, and packaged applications. The product is built with an open architecture, and—in addition to RS/6000—supports IBM AS/400 and Netfinity platforms for a truly comprehensive solutions environment. Hyperion Essbase technology is leveraged in the DB2 OLAP product which combines the Essbase engine with a relational data store in DB2.

For more information on Hyperion, visit *www.hyperion.com.*

# executive VIEWPOINT

**Rajiv Samant**

*As General Manager, AIX, Rajiv Samant is closely involved in Project Monterey—a code name for the partnership between IBM, Intel, SCO®, and Sequent® that will deliver a single UNIX product line based on IBM's POWER and Intel's IA-32 and IA-64 architectures. Here, Samant shares thoughts on the project with readers.*

**ebe:** How is Project Monterey making an impact on the UNIX market?

**RS:** Through Project Monterey, we're addressing and capitalizing on the structural discontinuities occurring between Intel- and RISC-based architectures in the UNIX marketplace. Project Monterey will centralize the strengths of UNIX by developing a flavor of IBM's AIX operating system for the Intel IA-64 architecture. We're calling this new UNIX operating system Monterey/64.

**ebe:** What about Linux?

**RS:** Linux does not have the flexibility or the mission-critical enterprise-class capabilities of AIX and Monterey/64. While Linux operates only on a PC-class server machine, AIX and Monterey/64 operate on servers that scale to meet the needs of the entire enterprise.

**ebe:** Why is Monterey/64 important to Solution Developers?

**RS:** Solution Developers will probably see two or three primary operating systems in the 64-bit environment over the next three to four years, and Monterey/64 will certainly be among the leaders. This is because Solution Developers will be able to maintain a single application source code for both the RISC and IA-64 platforms that will require only a recompile to cross from platform to platform. Definitely, to gain a significant competitive edge, Solution Developers should focus on Monterey/64 as one of the top-tier platforms to leverage the 64-bit opportunity.

**ebe:** Is the UNIX Developer's Guide (UDG) also useful to Solution Developers?

**RS:** Of course. Today, every flavor of UNIX is slightly different. UDG is a set of specifications we created for Solution Developers to help reduce the costs and complexity involved in supporting a UNIX operating system by standardizing binary and programming interfaces. The Project Monterey family will conform to the UNIX Developer's Guide-Programming Interfaces (UDG-PI) specifications.

**ebe:** Could you explain what benefits each partner brings to Project Monterey?

**RS:** Contributions vary by partner, but all play a role in making the project successful. Sequent contributes its operating system technology. SCO has OEM and channel relationships that can be leveraged. And we now have eight OEMs supporting us—with more being recruited. Soon, we'll be instituting an OEM council.

**ebe:** How are interest levels in the initiative? Any project updates?

**RS:** This is a critical initiative for IBM's UNIX market presence. We are changing the downstream competitive paradigm and are clearly adding value for customers, Solution Developers, and OEMs. We're seeing a lot of interest that proves that value is visible.

As far as updates go, we're very much on schedule—and in some cases, ahead of schedule. After less than five months of development, we already have our prototype up and running, and initial tests are being conducted. We are on track and looking forward to the next steps.

For more information on Project Monterey, visit *www.ibm.com/servers/monterey.*

# first LOOK

## FE-Design

STUTTGART, GERMANY—Cars and space shuttles may have more in common than you think. Both the automotive and aerospace industries frequently use an application called MSC/CONSTRUCT—from German company FE-Design—to configure product design through shape and topology optimization technology. Shape optimization allows the boundary surfaces of a design to change shape without altering the original geometric features. Topology optimization removes material from the defined geometric space envelope, often creating new geometric features or topology. The result is a representation of the major geometric features in the optimum design, with respect to the production requirements.

The recent MSC/CONSTRUCT 3.0 version has now been ported to all available IBM AIX platforms. Says Uwe Brandt, porting manager for FE-Design, "This includes RS/6000 workstations under AIX 4.1.5, the F50 server under AIX 4.3, and the SP2® under AIX 4.2. Our intention is to leverage the scalability of RS/6000 to have one version of MSC/CONSTRUCT running under all versions of AIX." FE-Design is a member of the IBM Solution Developer Program and used the Solution Partnership Center (SPC) in Stuttgart to conduct its extended testing.

"Design decisions made during the early phases of product development affect both manufacturing costs and product performance," explains Brandt. "And those decisions are often made under severe time pressure. The combination of MSC/CONSTRUCT with the RS/6000 platform running AIX offers customers rapid, enhanced performance and flexibility."

For a more detailed explanation of MSC/CONSTRUCT in action, visit *www.fe-design.de* and read, "Usage of Optimization Tools in the Design Process at BMW," for example. This paper and others are also available on the Web site of MacNeal Schwendler, worldwide distributor of MSC/CONSTRUCT, at *www.macsch.com.*

## RockPort Trade Systems

WALTHAM, MASS.—How do Home Depot® and UPS build supply chains worldwide? With RockBlocks™, the global sourcing and supply software from IBM Solution Developer RockPort Trade Systems™. RockBlocks allows manufacturers, resellers, and service providers to source goods from any country worldwide and then manage the purchase and flow of products to any destination throughout the world.

Rather than burden customers with multiple systems that depend on the direction goods move, RockBlocks offers a centralized solution that now leverages IBM DB2 relational database to incorporate import, export, and domestic functionality. By integrating RockBlocks with IBM's database management system and ensuring compatibility with the RS/6000 server platform, RockPort delivers a scalable, reliable solution for rapid decision-making between domestic and overseas sources. Customers enjoy maximum cost-efficiency, as well as the ability to execute real-time reporting at any point in the supply chain. With DB2 on the back end, RockBlocks can monitor the entire pipeline through every detail, supporting event-tracking and decision-making for purchasing, vendor profiling, transportation management, inventory management, order management, capacity planning, materials planning, and even pricing.

According to Susan Welch, CEO and founder of RockPort, the IBM name gives customers confidence. "They are already running their operations on RS/6000 servers," she says. "Naturally, they feel comfortable using RockBlocks on RS/6000, too. Adding IBM functionality with DB2 on the back end significantly enhances that comfort level."

For more information on RockPort, based in Gloucester, Massachusetts, visit *www.rockport-trade-systems.com.*

# The Giga Information Group

**Interview with Brad Day** Vice President, Senior Analyst, Computing Infrastructure Focus

*Sarah C. Fry, managing editor of* e-business edge*, recently spoke with Brad Day about the strengths of the RS/6000 platform as it relates to IBM Solution Developers. This is Part One of a two-part series.*

*How do you define the Solution Developer market?*
I think it includes companies offering both software and services. That combination can be applied to horizontal application infrastructures—like Web enablement, e-business, ERP, and business intelligence—or to vertically biased markets. The RS/6000 has, and will continue to have, more of a direct value proposition for the horizontal applications part of computing infrastructure deployments.

*Why are Solution Developers critical to hardware vendors?*
If you look at the highest end of IT organizational structures, you'll find the CIO, who is responsible for making the overall buy decisions for technology solutions that can impact the company's business architecture. Vendors were engaging the CIO as separate suppliers for the system, system software, application software, and media and professional services. Today, however, we're moving into a situation where one larger vendor is expected to raise its hand as the prime consultant. CIOs don't have the time to work with multiple vendors. They want one vendor who can go from "silicon through professional services."

*If the buying criteria is to work with a prime consultant, how does that relate to a Solution Developer's alliance with a hardware vendor?*
Many SDs—particularly those in small- and medium-sized businesses—do not have the financial wherewithal to go it alone, even if they have a tremendous technology or service offering. Within this prime consultancy trend, the platform vendor—such as IBM—has to create this "silicon through professional services" scenario by creating very optimized bundling of key Solution Developers' software and services, and then by acting as a prime consulting front-end for the actual contract engagement, and possibly for fulfillment as well in complicated deployments.

*Who's driving this trend? Solution Developers?*
Yes. They want to work with larger prime consultants, to pre-test their software and benefit from joint marketing and selling programs. IBM knows this. Look at where IBM is focusing its Solution Developer dollars. In 1999 alone, IBM made a tremendous investment—over $500 million—in business development funds and Solution Developer marketing campaigns.

*So Solution Developers are significant to sales.*
Absolutely. Systems, application servers, and services today must not only have best-of-breed applications scalability, but also best-of-breed availability to those applications and to critical data. And I think IBM has been really successful in identifying best-of-breed Solution Developers to jointly optimize and develop a lower cost bundled solution to meet scalability and availability requirements.

*How do RS/6000 programs respond to those requirements?*
Let's look at the ClusterProven Program. IBM is now working with Solution Developers to enable real uptime guarantees for actual application services. While ClusterProven certification is involved across all IBM server brands, it is a critical competitive component for the RS/6000 in particular. ClusterProven offers guarantees on, application performance in cluster configurations, specific to both the unplanned and planned downtime associated with the computing architecture. That's a very compelling proposition for Solution Developers who are offering bulletproof mission-critical applications and services.

Additionally, the company offers what few full-service vendors today can: two-year performance protection

guarantees around critical Solution Developer environments. If for any reason there are performance or scalability limitations and/or issues during that two-year period that do not meet the specific performance guarantees outlined in the contract, IBM will engage software experts and/or give free upgrades in terms of hardware optimization.

Many larger companies need these guarantees because they've made serious investments in their systems. They want to get full-service bundles, specific to critical application server deployments, that in turn will make their business architectures more competitive. Consequently, IBM's RS/6000 performance protection offerings aid in addressing that need, as does the ClusterProven Program.

*Who benefits from this high-availability performance?*
The customers who have always been attracted to the RS/6000 are the traditional part of the online transaction processing (OLTP) sector—mostly because of the platform's robustness and its incredibly balanced architectural approach. We're also seeing a much greater acceptance of some of these advanced cluster configurations—like the HA50 and the HA70—by the small- and medium-sized businesses. That's what we're starting to call the "enterprise workgroup" part of the UNIX space, those customers who demand software bundles and performance scalability at a more commodity-based price point.

*How does the platform stack up against the competition?*
IBM's strongest competitors are Hewlett-Packard® and Sun Microsystems. Sun has always had a purist approach. It is one of the few large vendors with an all-UNIX proposition. And Hewlett-Packard competes with IBM much more in the high-end part of the OLTP market.

But when you start to connect the dots, you see that only IBM brings together the platform, the system software, the middleware, and the high-availability clustering technologies, within a strong services wrapper. So IBM truly has a proposition that stretches "silicon through professional services." This is what makes it a fierce competitor in the courtship of the Solutions Developer.

Read Part Two of the interview in the fall 1999 issue of *e-business edge*.

# EVENTS

**Solutions '99—The Technical Developer Conference presented by IBM, Lotus®, and Tivoli®**
July 19-22, 1999
Las Vegas, Nevada USA

**SHARE Summer 1999 Technical Conference**
August 22-27, 1999
Chicago, Illinois USA

**LinuxWorld Conference and Expo**
August 23-27, 1999
San Jose, California USA

**RS/6000 Technical University**
September 13-17, 1999
Atlanta, Georgia USA

**COMMON's Fall '99 Conference and Expo**
October 3-7, 1999
San Antonio, Texas USA

**Internet World Fall '99**
October 4-8, 1999
New York, New York USA

**Gartner IT Expo**
October 12-16, 1999
Orlando, Florida USA

**IBM UNIX Solutions Technical Conference**
November 15-18, 1999
Innsbruck, Austria