

# Oracle JD Edwards EnterpriseOne, IBM System x, and IBM BladeCenter

## *Winning Combinations for Growing Businesses*

Lee Kroon, Senior Industry Analyst

December 2006

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700 West Johnson Avenue  
Cheshire, CT 06410  
203-271-1300  
[www.andrewscg.com](http://www.andrewscg.com)

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## Introduction

After enduring years of uncertainty about their future, JD Edwards applications are back! While they were never truly gone, there were times when JD Edwards users were concerned that their applications would eventually be phased out in favor of Oracle's next-generation Fusion Applications. Earlier this year, however, Oracle made it clear that it will enhance and support JD Edwards EnterpriseOne indefinitely. The product line will coexist with Fusion Applications and remain strategic to Oracle for years to come.

Now that EnterpriseOne is once again a viable and strategic solution, it makes sense for organizations to put it back on their short lists for evaluation. It also makes sense to consider running all of the application suite's components on IBM System x™ and BladeCenter® servers. While it is possible to host EnterpriseOne on a variety of servers, System x and BladeCenter have unique advantages as platforms for the product. These advantages complement and extend the value of the solution.

The following paper describes how JD Edwards applications have made a come back and what makes them a viable option for many companies. It also examines the reasons why System x and BladeCenter are robust platforms for EnterpriseOne.

## Executive Summary

At the end of 2004, JD Edwards software users had reasons to be concerned about the future of their applications. Oracle Corporation had just completed its takeover of PeopleSoft, which owned JD Edwards applications at the time. During the prolonged battle for control, PeopleSoft told its customers that an Oracle acquisition would lead to the rapid demise of JD Edwards applications.

Two years later, exactly the opposite has happened—JD Edwards applications are enjoying a renaissance.

In a series of surprising moves, Oracle has:

- Retained virtually all of the original JD Edwards development and support staff
- Delivered major upgrades to both the EnterpriseOne and World product lines
- Announced a Lifetime Support policy under which it will support the applications for as long as customers continue to use them
- Committed itself to enhancing the solutions for many years to come
- Reinstated Quest as the official user group for JD Edwards customers
- Launched a campaign to stimulate new sales
- Forged close ties with IBM to ensure that JD Edwards customers are supported on the System x, BladeCenter, and other IBM products

Oracle's remarkable embrace of JD Edwards applications culminated in April 2006 when the company announced Applications Unlimited, its pledge to support and enhance its JD Edwards, E-Business Suite, PeopleSoft Enterprise, and Siebel product lines as long as customers use them. As part of the announcement, Oracle stressed that it will support and enhance JD Edwards applications on IBM's servers as well as on its DB2 and WebSphere products.

Taken together, Oracle's actions have enormous implications for both existing and prospective JD Edwards customers. Because of these actions:

- Fusion Applications will not replace EnterpriseOne or World, nor will there be any forced upgrades or migrations to Fusion Applications
- Oracle will not require JD Edwards users to switch to its middleware or database products
- Upgrading to the latest JD Edwards releases once again makes sense
- JD Edwards applications will remain an important force in the enterprise application market for years to come

One reason that EnterpriseOne will remain viable is because Oracle plans to enhance it with many of the same technologies it is putting into its Fusion Applications. Many of these enhancements will enable EnterpriseOne to support service-oriented architectures (SOAs). The SOA computing paradigm has the potential to help companies make their business processes more flexible and responsive. By supporting SOAs, EnterpriseOne will remain competitive with next-generation applications that feature service orientation as a central benefit.

There are many reasons why companies should once again consider long-term investments in EnterpriseOne. The solution has the following attributes that make it an excellent fit for the requirements of many organizations:

- While the solution has robust capabilities, its functions are integrated in ways that make them easier to use than other packages
- EnterpriseOne is designed to meet the unique requirements of companies in the manufacturing, distribution, and asset-intensive sectors as well as the construction and property management fields
- The application is easy to deploy and manage compared to competitive offerings, so it requires fewer IT resources over time
- Because of its integration and ease of use, EnterpriseOne has one of the lowest costs of ownership of any solutions in its class

- As Oracle enhances EnterpriseOne over the next several years, it will gain the ability to support SOAs with considerably less risk than the next-generation products that many software vendors are developing
- Should EnterpriseOne users wish to do so, they will be able to upgrade to Oracle's Fusion Applications at no extra charge
- Both Oracle and IBM are working together not only to support EnterpriseOne, but also to enhance it indefinitely on IBM's servers and software

### **Why Run EnterpriseOne on System x and BladeCenter?**

Many companies mistakenly believe that there are no significant differences between Intel processor-based servers. In reality, such servers vary widely in their reliability, scalability, manageability, and quality of support services. These differences can have a dramatic impact on the cost of running mission-critical applications such as EnterpriseOne and the complexity associated with managing the software.

Realizing this, IBM has engineered its System x and BladeCenter servers to address many of the issues that make Intel processor-based servers costly and complicated to manage. To achieve this objective, the company has taken sophisticated technologies from its mainframes and incorporated them into the servers. Some of these technologies enable the servers to support EnterpriseOne with higher levels of availability and scalability than competitive products.

Others allow the servers to consume less power and generate less heat. IBM also does more than other vendors to "future proof" System x and BladeCenter by designing them so that they can take advantage of upcoming technological changes. This extends the useful life of the servers and reduces the need for costly wholesale replacements. IBM makes all of these enhancements to its servers while still adhering to industry standards for x86 systems. As such, System x and BladeCenter support the same hardware, operating systems, and applications as other commodity servers.

In addition, IBM dedicates substantial resources to supporting EnterpriseOne on its servers. As part of its broad collaborative relationship with Oracle, IBM conducts extensive tests of EnterpriseOne running on System x and BladeCenter. The information from these tests is made available to customers via detailed system sizing, configuration, and tuning guidelines. As a result, companies that choose the servers encounter fewer problems when installing EnterpriseOne, enjoy optimal performance, and get timely resolutions to support issues.

As an organization that helps companies to install JD Edwards applications, Andrews Consulting Group has worked with servers from many vendors. In our experience, System x and BladeCenter do superior jobs of reducing the overall cost and complexity of deploying and supporting EnterpriseOne. This is why we recommend that companies put the servers at the top of their lists for evaluation as EnterpriseOne platforms.

## The Rebirth of JD Edwards Applications

On April 24 of this year, Oracle told the world that JD Edwards applications are here to stay. The company announced Applications Unlimited, its policy to support and enhance the JD Edwards, E-Business Suite, Enterprise, and Siebel product lines as long as customers use them. Oracle also stressed that it will support and enhance JD Edwards applications on IBM's servers as well as on third-party software products from IBM, Microsoft, and other vendors.

The essence of Oracle's new policy is simple. It will never force JD Edwards users to upgrade or migrate off their applications. EnterpriseOne and World will remain strategic products with their own development and support teams just like Oracle's Fusion Applications. Moreover, Oracle will develop and ship new JD Edwards releases that include many of the advanced technologies being developed by the Fusion Applications team.

Oracle's announcement stunned many industry observers because they had been expecting the vendor to merge its multiple product lines into Fusion Applications. Despite their surprise, Applications Unlimited is not an abrupt change in direction, nor is it a policy that Oracle is likely to reverse. To understand why this is the case, it is necessary to look at the decisions Oracle made about JD Edwards before it made its announcement.

### A Remarkable Renaissance

When Oracle took control of JD Edwards in January 2005 as part of its acquisition of PeopleSoft, it inherited a software vendor with an illustrious history that was laboring under a cloud of uncertainty and doubt. For almost 30 years, JD Edwards had excelled at creating enterprise resource planning (ERP) applications that were robust enough to support enterprises with sophisticated requirements, yet simple enough for almost any organization to use. This won

the Denver-based company the loyalty of thousands of small and medium-sized companies who were more interested in running their businesses than managing their IT systems.

In 2003, JD Edwards decided to merge with PeopleSoft, a software vendor whose Enterprise product line was widely used by large companies. While the merger initially appeared to be a positive development for JD Edwards, the hoped-for benefits vanished soon after Oracle launched its bid to acquire PeopleSoft. As it struggled to fend off Oracle, PeopleSoft took several actions that gave its JD Edwards users cause for concern. It rebranded EnterpriseOne and World as its own applications despite the strength of the JD Edwards brand. It refused to work with Quest, the international user group that had represented JD Edwards customers for years. It also told JD Edwards users that if Oracle succeeded in its takeover bid, it would force them to migrate to Oracle's own applications and middleware. Naturally, these actions left users wondering about the future of their applications.

Throughout this period, the JD Edwards development teams in Denver continued to turn out new releases of their products with features that kept them competitive. For instance, the EnterpriseOne team incorporated web services and Java-based development tools into their applications. This enabled EnterpriseOne to integrate more easily with the IT systems of customers and partners via the Internet. It also allowed users to access EnterpriseOne applications via web browser clients that were less costly and easier to support than Microsoft Windows® clients. In addition, JD Edwards acquired and developed new software modules that expanded EnterpriseOne's functionality in areas such as customer and supplier relationship management, transportation and logistics, and warehouse management. The new modules gave EnterpriseOne the ability to meet a much broader array of business requirements.

These facts were not lost on Oracle when it considered what it should do with the products and customers it had acquired. When the vendor announced its strategy for the PeopleSoft and JD Edwards product lines in January 2005, many customers were surprised at the favorable treatment that their new vendor extended to them. Instead of halting enhancements to JD Edwards applications and pushing users to adopt its own products, Oracle took the following actions.

- **Retained the JD Edwards development and support teams.** Within days of the acquisition, Oracle made job offers to over 90% of all development and support employees. The vendor also pledged to maintain the two groups as independent teams to ensure continuity of service to JD Edwards users.
- **Restored the JD Edwards brand.** Oracle immediately recognized that PeopleSoft had erred in dropping the JD Edwards name. Thousands of companies around the world had come to associate the brand with applications that deliver business value without incurring the high costs of many software packages.
- **Pledged to support and enhance JD Edwards applications.** At its first meeting with JD Edwards users, Oracle committed itself to supporting EnterpriseOne and World through at least 2013. It also pledged to support current versions of third-party products on which the applications run—such as IBM’s DB2 and Microsoft’s SQL Server—for the same period. The company also pledged to ship new releases of EnterpriseOne and World during 2005 and 2006. Now that Oracle has announced its Applications Unlimited policy, the company has entirely removed any end dates for JD Edwards applications. Both EnterpriseOne and World will be supported and enhanced indefinitely.

After Oracle made these announcements, it took further steps to reach out to the JD Edwards community. It quickly reinstated Quest as the official JD Edwards user group and welcomed the feedback it

provided. It established JD Edwards customer councils and invited users to sit on existing councils as well. The vendor also decided to actively sell EnterpriseOne to new prospects alongside its E-Business Suite applications. To do so, it engaged Avnet Technology Solutions, a technology distributor that sells thousands of IBM servers annually, to help it sell EnterpriseOne. Avnet works closely with IBM to create preconfigured EnterpriseOne packages on System x and BladeCenter servers. Oracle also helps IBM and IBM Business Partners to resell JD Edwards applications in regions where Avnet does not have a presence.

## Ready for the Future

In the months since Oracle acquired JD Edwards, it has delivered on its pledges to enhance the applications. When Oracle announced Applications Unlimited in April 2006, it also unveiled EnterpriseOne 8.12. The new release includes extensive enhancements to the applications that manage supply chains, customer relationships, and human capital. The supply chain applications, for instance, include new modules for the operational sourcing of commodities and the management of growers that supply food and beverage manufacturers.

In addition, Oracle is creating “dashboards” that provide EnterpriseOne users with real-time information about the status of their operations. The company recently shipped a Plant Manager’s Dashboard; additional dashboards are in development.

Just as importantly, Oracle has continued efforts to incorporate web services and other Internet technologies into EnterpriseOne. The vendor has certified that EnterpriseOne web services can interoperate with services from Oracle’s E-Business Suite and Enterprise products. This allows organizations to take functions from all three of these application suites and integrate them with each other in the support of business processes. Users can orchestrate how web services from all three products work

together using Business Process Execution Language (BPEL) middleware from both IBM and Oracle.

Oracle plans to continue enhancing EnterpriseOne well into the future. A new version of the product, EnterpriseOne 9.0, is in planning for shipment in 2008. While the vendor is still determining the enhancements that EnterpriseOne 9.0 will contain, it is clear that the new version will include more extensive use of web services. These services will likely be able to integrate not only with current versions of Oracle's E-Business Suite and Enterprise applications, but also with other applications such as those that Oracle gained when it acquired Demantra and G-Log. In addition, EnterpriseOne 9.0 will likely be able to integrate with the first generation of Fusion Applications. This will enable EnterpriseOne 9.0 and subsequent releases to act as platforms for service-oriented architectures.

While Oracle is not yet discussing new releases beyond EnterpriseOne 9.0, it has made it clear that it plans to enhance the product for years to come. As such, users can expect Oracle to ship new releases side by side with Fusion Applications well into the next decade.

### **The Strategic Role of IBM**

As Oracle has formulated its JD Edwards application strategy, it has done so in close collaboration with IBM. This makes sense because many EnterpriseOne users run their applications on IBM servers such as the System x and BladeCenter. Many users also rely on IBM WebSphere middleware to Internet-enable their applications.

Realizing this, Oracle and IBM have taken action to establish a deeper partnership. Within days after Oracle closed its PeopleSoft acquisition, the two vendors began a senior executive dialogue about how to work better together. Cooperation levels have since risen to an all-time high. IBM and Oracle executives

now regularly speak at each other's events for customers and partners. IBM has named Oracle an Integrated Partner, the highest level of partnership available, and Oracle made IBM Global Services its Systems Integrator Partner of the Year in 2005. The two companies work together to deliver joint solutions at six of IBM's Solution Centers, and a number of IBM employees work at the JD Edwards campus in Denver. IBM has also increased the staff that it dedicates to the Oracle partnership from fewer than 50 employees to more than 200 people worldwide.

As part of their improved relationship, IBM and Oracle are even cooperating in the area where they compete the most: database and middleware products. As part of that cooperation, the two vendors have agreed to certify both EnterpriseOne and Fusion Applications on their respective middleware suites: IBM's WebSphere and Oracle's Fusion Middleware. As a result, EnterpriseOne customers can expect that their middleware investments will be protected whether they stay on their existing software or upgrade to Fusion Applications in the future.

In addition, IBM and Oracle cooperate closely on the tuning and configuration of EnterpriseOne for IBM products. More details about this collaboration will be provided later in this report. For now, suffice it to say that the relationship between the two vendors gives System x and BladeCenter unique advantages as EnterpriseOne platforms.

### **What Oracle's Actions Mean for JD Edwards Customers**

As the previous pages demonstrate, Oracle's Applications Unlimited announcement was not some sudden change of direction for the vendor. It was a logical extension of decisions the vendor had already made that were favorable towards JD Edwards applications. Taken together, Oracle's actions show that it has embraced the following lines of thinking.

- JD Edwards applications occupy a special place in the market that no other solutions can easily fill. Their combination of robust functionality, affordability, and ease of use particularly suit them for medium-sized companies that would otherwise take less interest in Oracle's applications.
- The vast majority of JD Edwards customers are happy with their applications and not inclined to move to Fusion Applications or any other competitive software.
- Fusion Applications will not become replacements for EnterpriseOne. Instead, they will be offered to users as an optional alternative to upgrading to newer versions of their existing applications.
- Oracle will enhance EnterpriseOne with many of the technologies found in its Fusion Applications. This will make it easier for users to make the transition to Fusion Applications if they so choose. Ironically, such modernization will make it even less likely that they will do so, as users will gain many of the benefits of Fusion Applications without having to deploy them.

We expect that Oracle will stick to these strategies because it is the only practical way for the company to maintain the loyalty of JD Edwards users and convince them to stay on support contracts. Besides, Oracle has a history of supporting and enhancing the products that it acquires. To this day, for instance, Oracle continues to support the Rdb database that it acquired from Digital Equipment Corporation in 1994.

Taken together, Oracle's actions add up to one simple fact: JD Edwards applications have truly experienced a rebirth. Moreover, they now occupy strategic positions in Oracle's product portfolio. Both existing and prospective customers can expect a steady stream of enhancements to the applications for years to come. This makes it safe for existing users to deploy upgrades and add new modules. It also makes it safe for prospective customers to put

the applications back on their short lists for evaluation. The cloud that once loomed over JD Edwards applications and their customers is now gone.

### Why Companies Should Consider EnterpriseOne Today

While JD Edwards applications are once again viable solutions, individual companies still must determine if the offerings are good fits for their needs. After helping dozens of companies to select and deploy ERP applications, Andrews Consulting Group has found that EnterpriseOne has unique attributes that make it an ideal match for certain types of companies. Organizations that value the following attributes often find that EnterpriseOne is the best solution for them.

- **Integration and breadth of capability.** The modules within EnterpriseOne are integrated in ways that make it easier to understand and use than other comparable packages. This combination of deep functionality and simplicity may be the most important reason for the product's long-term success.
- **Industry focus.** The most successful enterprise software always majors in meeting the unique needs of specific industries. As Figure 1 (page 8) shows, EnterpriseOne has the strongest vertical industry functionality in the manufacturing, distribution, and asset-intensive sectors as well as in the construction and property management fields. Companies in these industries often find that EnterpriseOne provides superior support for their unique business processes.
- **Ease of deployment.** While EnterpriseOne provides robust support for industry business processes, it does so in ways that make it easier to deploy than many comparable applications. In the industries that JD Edwards applications serve, many companies find that the applications can be

Figure 1: Vertical industries supported by EnterpriseOne

Aerospace & Defense	Life Sciences
Automotive	Media & Entertainment
Chemicals & Lubricants	Natural Resources
Communications	Oil & Gas
Construction & Engineering	Professional Services
Consumer Products	Public Sector
Financial Services	Retail & Wholesale Distribution
High Technology	Travel & Transportation
Industrial Manufacturing	Utilities

deployed “as is” with limited need for customization. In addition, Oracle has done much to streamline the deployment process. For instance, the company offers seven EnterpriseOne Rapid Start packages that simplify deployments by providing preconfigured applications, pretested hardware configurations, integrated middleware, and installation and training services. Oracle also provides its partners with tools that let them create their own Rapid Start configurations to meet the needs of specific industries and countries.

- **Ease of management.** Once EnterpriseOne is deployed, it frequently costs less to manage than competitive alternatives. One reason for this advantage is the product’s architecture, which enables users to access all applications via web browsers instead of Windows clients. Unlike traditional Windows clients, browsers do not need to be updated when the applications that they access are changed. Compared to Windows clients, browsers are also easier for most employees to use with minimal assistance. This reduces costs for PC administration, help desk support, and user training.
- **Low overall cost of ownership.** Because of its ease of deployment and use, EnterpriseOne often enables companies to support their business processes at a lower cost than competitive products.

For instance, our experience with clients indicates that SAP applications take considerably longer to install and require more staff to deploy than EnterpriseOne does. One of our clients—a chemical manufacturer in the eastern United States—deployed EnterpriseOne shortly before a European firm acquired it. Since the parent company used SAP, our client had to deploy the applications as well. Though the two applications were functionally equivalent, it took our client twice as long to implement SAP as it took to deploy EnterpriseOne.

- **Supports SOAs with less risk.** Over the next several years, applications that are based on service-oriented architectures have the potential to help companies become more responsive and flexible while reducing the cost of their IT systems. As this report has already discussed, current releases of EnterpriseOne already have many SOA capabilities. Moreover, Oracle intends to incorporate SOA technologies from its Fusion Applications into EnterpriseOne. However, Oracle is not rearchitecting EnterpriseOne to support SOAs; instead, it is modifying it “at the margins” in a gradual and incremental fashion. This could be an advantage for users, as deploying SOAs on an established product will likely be less risky than doing so on the next-generation applications that many vendors are developing.
- **Provides an optional upgrade path to Fusion Applications.** While most JD Edwards customers will stay on their applications for years to come, Oracle will give them the option to upgrade to Fusion Applications should they have business reasons to do so. The company has already pledged to provide direct upgrade paths to Fusion Applications from EnterpriseOne 8.11 and above. JD Edwards customers will be able to replace their existing modules with comparable Fusion modules at no charge under a “like for like” exchange policy. To simplify the process, Oracle intends to provide upgrade scripts that retain important customizations and configuration

settings. IBM, for its part, will support Fusion Applications with the same WebSphere products that many JD Edwards customers use with their existing applications.

- **Supported by both Oracle and IBM.** The two vendors have agreed that the JD Edwards community is critical to sales of their respective products. As such, they are working together not only to support JD Edwards applications, but also to enhance them indefinitely. This puts two of the world's largest software vendors behind EnterpriseOne.

As the above paragraphs make clear, EnterpriseOne not only has a proven track record, but also has a promising future ahead of it. For companies in the industries that it serves, it combines robust functionality with a low cost of ownership and the assurance that it will be supported and enhanced for years to come. This is why we recommend EnterpriseOne to our clients as a sound investment that they should carefully consider.

## What System x and BladeCenter Bring to EnterpriseOne

While most companies spend thousands of hours to select the right enterprise applications, they often treat the decision of which servers to run them on as little more than an afterthought. They do so because of the widely held belief that Intel processor-based servers are virtually identical regardless of the vendor that makes them. The reality, however, is that such servers vary widely in their reliability, scalability, manageability, and quality of support services. These differences have a definite impact on the cost of running applications. Moreover, these cost differences are magnified when the servers are running mission-critical workloads such as EnterpriseOne. While a one-hour outage on a file/print server is an inconvenience, the same outage on a corporate order entry system can cost thousands of dollars in lost business. Such costs can quickly dwarf the initial acquisition expense for the servers. This is why companies that are deploying mission-critical applications need to pay more attention to the real differences between the servers they are evaluating and less attention to their price tags.

As we have helped dozens of EnterpriseOne users to evaluate their server options, we have found that IBM's Intel processor-based servers—System x and

BladeCenter—do a superior job of supporting EnterpriseOne at the lowest operational cost and with the least management complexity. IBM has taken decades of experience in supporting mission-critical workloads on mainframes and incorporated it into System x and BladeCenter. At the same time, the company offers these servers at highly competitive prices.

### Built to be Different

On the surface, System x and BladeCenter bear many of the characteristics of competitive servers. The System x product line includes traditional tower systems and rack-optimized models, while BladeCenter servers are packaged as blades that fit in several chassis. Under the covers, however, both product lines incorporate mainframe-class technologies for supporting mission-critical workloads that are rarely found on servers in their class. The following paragraphs describe some of these technologies.

- **Reliability, availability, and serviceability (RAS) technologies.** Besides offering the RAS features found on competitive servers, System x

and BladeCenter incorporate additional technologies. One of these, Predictive Failure Analysis<sup>®</sup>, monitors the health of key components and generates alerts up to 48 hours before failures actually occur. When technicians respond to the alerts, light path diagnostics quickly guide them to the failing component. By enabling companies to repair their servers before they fail, such technologies can dramatically reduce unscheduled downtime for mission-critical applications.

- **Performance and scalability technologies.** Among commodity server vendors, IBM distinguishes itself by its groundbreaking work to improve performance and scalability. The company has worked closely with Intel to develop Enterprise X-Architecture<sup>®</sup>, a collection of technologies that enables x86/x64-based systems to scale up to 32 processors and 64 processor cores to deliver significantly greater performance than comparable systems. For instance, a four-processor, dual-core System x3950 recently delivered a record-setting performance result of 314,468 tpmC on the TPC-C transaction processing benchmark. By contrast, tpmC ratings for comparable servers are roughly 15 to 35 percent less than that of the System x3950.
- **Power and heat management.** IBM has also developed technologies that reduce power consumption and heat on its servers. One of them, Power Executive<sup>™</sup>, monitors heat levels and speeds up or slows down fans and blowers in response. Another innovation, Calibrated Vectored Cooling<sup>™</sup>, optimizes the paths over which cool air flows through BladeCenter systems. Besides protecting the server blades, these technologies help to reduce electrical consumption. Indeed, an IBM study found that the BladeCenter HS21 consumes 26% less power than the Hewlett-Packard BL460c.
- **Ability to integrate with IBM System i.** While a growing number of companies are running all EnterpriseOne tiers on Intel processor-based servers, some firms run their tiers on a combination of

commodity servers and the IBM System i<sup>™</sup>. In such mixed environments, System x and BladeCenter have a unique advantage over competitive servers. They can be tightly integrated with EnterpriseOne tiers running on the System i via Internet SCSI (iSCSI) adapters. Through the iSCSI links, System x and BladeCenter servers use the powerful network and storage resources of the System i as if they were their own. This can improve the overall reliability, availability, and performance of EnterpriseOne when running in such a mixed environment.

### **IBM's Relationships with Oracle and Microsoft — An Added Advantage**

While System x and BladeCenter have technological advantages over their peers, they also benefit from the deep collaborative relationships that IBM has forged with Oracle and Microsoft. As part of its partnership with Oracle, IBM maintains a dedicated staff to test and optimize EnterpriseOne running on its servers. The information from these efforts is shared with an IBM-Oracle team that works together to support customers both before and after they deploy EnterpriseOne. The team also helps many IBM and Oracle business partners to support their EnterpriseOne customers.

Since many EnterpriseOne customers host their applications on Microsoft's Windows Server<sup>®</sup> operating system and SQL Server database, IBM works closely with Microsoft to optimize both products on System x and BladeCenter. Much of the collaboration takes place at the IBM Center for Microsoft Technologies, a facility located near Microsoft's world headquarters that is home to 130 IBM technicians. One area where IBM and Microsoft collaborate extensively is on maximizing the performance of the 64-bit version of SQL Server for Intel x64 processors. This work has enabled System x models running on x64 processors to set performance records on SQL Server benchmarks.

IBM's testing of EnterpriseOne extends beyond Windows Server to include Linux. Indeed, the company has designed System x and BladeCenter configurations that support more than 4,000 concurrent EnterpriseOne users when running Linux. Because of such testing, IBM can provide reliable sizing and configuration guidelines for supporting EnterpriseOne tiers on Linux distributions from Novell and Red Hat.

IBM's partnerships with Oracle, Microsoft, and Linux vendors yield significant benefits for EnterpriseOne users who choose System x and BladeCenter. Such companies can expect minimal problems when installing EnterpriseOne, enjoy optimal performance, and get timely resolutions to support issues.

### Benefits for EnterpriseOne Users

Taken together, the unique qualities of System x and BladeCenter give them an edge over competitive servers when running mission-critical applications such as EnterpriseOne. In our work with clients, Andrews Consulting Group has found that IBM's servers do a superior job of reducing the overall cost and complexity of deploying and supporting EnterpriseOne. They do so by addressing the causes of cost and complexity at multiple points, including the following ones.

- **Presales and postsales support.** The best place to reduce EnterpriseOne operational costs is before the applications are installed. In this time frame, IBM excels compared to other vendors. In our evaluations of competitive proposals for EnterpriseOne servers, we have found that IBM regularly provides the most detailed and accurate information on system sizing and configuration. This information is often accompanied by superior technical support not only from IBM, but also from Oracle and Microsoft. Such support helps customers to avoid installation and configuration mistakes that are very costly to fix.

IBM's strong partnerships with Oracle and Microsoft also come into play after an EnterpriseOne installation is complete. Our clients often find that they receive more prompt and accurate support from IBM and its business partners than from other vendors. This attests to the depth of the resources that IBM has dedicated to EnterpriseOne.

- **Scalability and flexibility.** Because they are designed for superior scalability, System x and BladeCenter can frequently support more EnterpriseOne users than comparably priced systems from other vendors. In a recent test, for example, IBM successfully supported over 1,000 concurrent EnterpriseOne 8.12 users at subsecond response times with just two System x servers.

In addition, the robust expansion capabilities of System x often allow EnterpriseOne users to meet growing demand levels by upgrading their existing servers rather than replacing them at greater cost. One of those servers, the System x3950, can scale from 2 to 32 Intel dual-core Xeon™ processors and support up to 512GB of memory. This allows it to host growing EnterpriseOne databases without the need for partitioning. By contrast, users of other servers often have to partition their databases, a practice that increases management complexity and expense.

When EnterpriseOne users need to scale out rather than up, BladeCenter offers them superior expansion options. A single BladeCenter chassis can house 14 full height blades, significantly more than many rival chassis. In addition, BladeCenter supports the industry's largest portfolio of blade products, including blades that run on Intel, AMD, and IBM POWER processors. By providing BladeCenter specifications on an open basis to the IT industry, IBM has created a robust ecosystem of vendors that develop connectivity options for the server. This makes it easier for customers to expand within their existing chassis. It also makes

it easier to “single source” all systems from IBM, thereby simplifying system administration and reducing management costs.

- **Reliability, availability, and serviceability (RAS).** Because they are engineered for greater RAS, System x and BladeCenter can significantly reduce both planned and unplanned outages. When such outages hit EnterpriseOne servers, they can cost thousands of dollars per hour in reduced employee productivity, lost customer orders, and IT staff time. While these losses are rarely documented, they impose real costs on EnterpriseOne users.
- **Ongoing operational costs.** With their sophisticated power and cooling technologies, System x and BladeCenter often consume less energy and produce less heat than comparable servers. In addition, both product families include robust tools for creating and managing multiple virtual servers on each physical system. These tools enable companies to maximize utilization levels for system resources, thereby reducing the number of physical servers needed. Because of these technologies, IBM’s servers frequently offer greater savings on electricity and floor space than alternative solutions.
- **Investment protection.** Compared to other vendors, IBM does more to “future proof” its servers by designing them with technology changes in mind. For instance, because IBM designed its original BladeCenter chassis to support next-

generation processors, customers can still run today’s blades on the original chassis that shipped over four years ago. As for the System x, many models include eXtended I/O™ slots that support PCI, PCI Express, and Infiniband adapters. In addition, several System x and BladeCenter models that originally ran dual-core chips may now be ordered with Intel’s quad-core processors. Through such innovations, IBM extends the useful life of its servers and reduces the need for wholesale replacements.

### The Clear Conclusion

In short, there are substantial differences between commodity servers that dramatically affect their operational costs. Moreover, the cost and complexity burdens that these differences place on organizations are magnified when servers are hosting mission-critical workloads. As the vendor with the most experience supporting such workloads, IBM designs System x and BladeCenter to deliver mainframe-class capabilities without the mainframe pricing. In addition, the company devotes greater resources to collaborating with Oracle and supporting EnterpriseOne than other server vendors do. It is for these reasons that we regularly encourage our clients to put System x and BladeCenter at the top of their lists for evaluation as EnterpriseOne platforms. The benefits that these servers bring to EnterpriseOne make them excellent matches for the software. ♦

## Andrews Consulting Group

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Andrews Consulting Group (ACG) has been helping organizations make effective use of information technology since 1984. Few IT service businesses have achieved as high a level of client satisfaction over an extended period of time as ACG. This success is the result of ACG's commitment to their clients' success coupled with an experienced staff of consultants who possess real-world experience as well as multidisciplinary technical skills.

ACG employs a unique approach to projects called the RITE Approach. ACG founder David Andrews is the author of a highly acclaimed book called *Revolutionizing IT: The Art of Managing Information Technology Effectively* (John Wiley and Sons, October 2002). The RITE Approach is explained in detail in the book.

JD Edwards software has been an important area of focus for ACG for over ten years. More than one hundred organizations have used ACG over the years to get additional value out of their JD Edwards systems. ACG is a past multiple winner of JD Edwards Partner of the Year.

One of the most effective ways in which ACG has helped its clients, especially those who are JD Edwards customers, is in the creation of business intelligence solutions. Numerous JD Edwards customers have business intelligence solutions designed and installed by ACG. This experience allows ACG to implement sophisticated, but cost-effective BI solutions for new customers in as few as five days, far faster than is possible using any other approach.

The ACG Technology Services practice provides experienced architects, designers, developers, and technical support personnel to offer a complete IT solution to our clients. ACG has successfully provided numerous Web-based solutions that integrate with JD Edwards EnterpriseOne and World.

Andrews Consulting Group has been publishing white papers since 1987 when we were the first ones to accurately describe IBM's plans for introduction of the AS/400 (known by the code name Silverlake at the time). Since then, ACG has published over 50 industry reports with a total circulation of over a million copies.

**Lee Kroon** has been a Senior Industry Analyst for Andrews Consulting Group since joining the firm in 1998. He has over 30 years of experience in the IT industry and has been studying mid-sized companies, IBM, and the ERP market since 1986. Lee's name will be familiar to many in the JD Edwards user community as the author of more than 1,000 articles for professional journals and industry publications. His regular columns for *MC Press Online* are very popular among those interested in the IBM System i and the software packages, such as JD Edwards, that run on it. He welcomes your comments at [lkroon@andrewscg.com](mailto:lkroon@andrewscg.com).

Additional information can be obtained by visiting the company's websites, [www.andrewscg.com](http://www.andrewscg.com) and [www.rapiddecision.net](http://www.rapiddecision.net) or calling (800) 775-4261.

XSL03004-USEN-00