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IBM's xSeries Modular Architecture Provides Increased Flexibility

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With the announcement of the new IBM eServer x440, IBM has raised the stakes for Intel-based servers and created an offering that all serious Microsoft users should consider, as they continue to invest in server infrastructure. The new x440 not only takes the technology to the next level, it is also a clear demonstration of the company's commitment to make it easier for customers to do business with IBM.

The problem is a familiar one: Wintel servers beget more Wintel servers as IT managers scale the number of users, transactions, and applications running on those systems. The number and size of servers continues to expand, but the physical space allocated and the amount of resource dedicated to them grows more slowly. Managers want systems that scale as they need them to, in the ways they need them to: by processor, disk, or I/O. They want industry-standard components, and they want the best availability and security, assuming that it fits in the smallest space possible for the lowest price.

The IBM x440 designers have taken this challenge to heart and created a truly modular system equipped with the latest technology from IBM's vast R&D labs and delivered in a form-factor designed for standard 19-inch racks. The system uses Intel Xeon processors on an SMP Expansion Module that hosts up to four processors. A second module can be added to create an eight-way system within the same 4U chassis. Using a scalability port, another 440 can be added to use up to sixteen processors in the system. This is the first system in its class to focus on system modularity, adding modules to grow the system.

To scale I/O, customers can add an IBM RXE-100 remote expansion enclosure to provide up to twelve additional Active PCI-X slots. Additional storage can also be added. Not only is it easier for customers to add the components they need, but it also ensures that as technology evolves, it does not require the entire server be overhauled: only the relevant parts change. Finally, IBM has included advanced availability features such as Active Memory, which includes memory mirroring; Chipkill memory; and Memory ProteXion; as well as remote management capabilities through the Remote Supervisor Adapter.

IBM offers the ability to both cluster and partition these systems to create larger or smaller virtual systems when necessary. Advanced software for management and control makes it easier to administer and maintain these systems.

- For customers looking to consolidate, this system should be given serious consideration. The clustering and partitioning technologies allow customers to create appropriate-sized workloads within a larger system, allowing flexibility without sacrificing capabilities.
- For customers with new applications, particularly in an ebusiness environment, these modular systems offer the freedom to grow these systems according to workload demands.
- For customers worried about investment protection, these systems are based on industry-standard components and run shrink-wrapped operating systems without requiring modification by IBM to take advantage of various system features.

IBM is demonstrating their commitment to the eServer business, and the new xSeries servers are an integral part of that business, not merely stepchildren to their larger brethren.

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