



## Snapshot

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# IBM's new eServer i5: Defining POWER as the 21st Century IT Platform

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*IBM's announcement of its new eServer i5 systems offers a number of "firsts" that are well positioned to significantly impact IT customers and the market at large. The eServer i5 is the first commercially available product based on IBM's new POWER5 processor, the latest iteration of the company's venerable POWER architecture. However, the new capabilities of the POWER5 are just one element of the eServer i5, and provide a stylish bow around this well considered, thoroughly integrated, and highly scalable business-computing package. Whether the customer is a small, medium, or larger enterprise, the eServer i5 provides a breadth and depth of computing agility in a cost-effective compact package that until recently was simply not available in the marketplace.*

### **POWER5 to the People**

Based on the latest IBM microprocessor technologies, the POWER5 provides new levels of 64-bit performance to eServer i5 solutions that will satisfy traditional eServer iSeries customers while offering considerable food for thought to potential new customers. POWER5 delivers 276 million transistors per processor based on IBM's 0.13-micron copper wiring and silicon-on-insulator technologies, which according to IBM will enhance communications acceleration and chip multiprocessing. In addition, POWER5 offers simultaneous multithreading features that effectively allow a single processor core to be seen by operating systems and applications as two logical processors. By leveraging these two logical processors, each chip can run as many as four application threads at the same time, potentially reducing the time required to complete complex computational tasks. The question of performance is moot: POWER5 is a state of the art business computing POWERhouse.

### **Simplification Begins at Home**

Previously, the eServer iSeries 8xx product family was available in five basic configurations designed to fit most any user need or pocketbook. But with the advent of eServer i5, IBM has taken a considerably different tack delivering instead 1- and 2-processor eServer i5 model 520 rack and tower solutions aimed at SMBs, and the 1- to 4-way eServer i5 model 570 for medium to large enterprises. Up to four 4-way building blocks can be integrated into a single model 570 rack (for a total of sixteen POWER5 processors), providing the levels of flexible and scalability necessary to meet a wide variety of customer requirements.

### **Virtually Yours**

The IBM Virtualization Engine (VE) allows customers to simplify their IT infrastructures while leveraging underutilized assets to reach new levels of IT ROI. The VE enhances the value of the eServer i5 through its ability to seamlessly access IT resources available on the local network while consolidating multiple servers and integrating multiple operating systems environments into a single management facility. Advanced "micro-partitioning" technology allows customers to run as many as ten virtual servers per POWER5 processor, and the VE extends the eServer i5's ability to run multiple operating systems simultaneously. Customers can reduce ongoing maintenance and operational costs by managing all of their Linux and Windows servers centrally with integrated storage, security, and backup, all courtesy of the eServer i5.

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### **Life in the i5 Express Lane**

All eServer i5s are pre-loaded and tested with i5/OS, an integrated operating system that provides the base software most businesses need, including IBM's DB2. IBM WebSphere-Express, a scalable transaction engine for ebusiness applications, is also included in i5/OS. Additionally, resellers and Business Partners are the conduit by which many SMBs ultimately receive their IT solutions. IBM did not overlook this reality as witnessed by the eServer i5 520 Express Edition, a qualified IBM Express solution tailored for SMBs and available through IBM Business Partners priced at \$11,500 for a fully configured system.

### **Pick an OS or Use All Four**

In many businesses, the availability of key applications is dictated by which servers and operating environments an organization ultimately purchases. This leads to a plethora of discrete, disconnected, often diabolically integrated servers, tasking the patience and capability of most any IT staff member. Previous eServer iSeries solutions allowed businesses considerably more latitude than this limited world view, but the eServer i5's new support for AIX 5L pushes the envelope even more. Businesses can now integrate formerly discrete UNIX solutions onto the eServer i5 alongside their existing OS/400 and Linux applications running on the POWER5 CPU, and Windows applications executing on an x86-based integrated eServer xSeries. In addition, each of these operating environments has full access to system resources, be they CPUs, storage, I/O, or other. While other vendors tend to offer their customers either/or solutions supporting a base OS along with Linux iterations, the i5 provides either/or/or/or flexibility that is simply unmatched in the marketplace.

### **Choose Your Capacity**

The eServer i5 model 570 offers mid-sized enterprise customers even greater levels of system flexibility and choice through the integration of Reserve Capacity on Demand, On/Off Capacity on Demand, and Memory Capacity on Demand. The new Reserve Capacity on Demand enables customers to purchase additional processing power that is automatically engaged by the system when the server requires more capacity. IBM's Capacity On Demand permits customers to pay only for the compute cycles they use by allowing POWER5 processors and memory to be turned on and off according to workload demand.

### **Dialing Up Price/Performance**

The capabilities of the eServer i5 are remarkable. However, these beg the question: can mere mortals afford such a solution? The answer is clearly yes. The eServer i5 model 520 Express Edition is between 35% and 48% less expensive than comparable eServer iSeries model 800 Value, Standard, and Advanced versions. High-performing eServer i5 solutions that cost less than \$50,000 today are comparable to solutions that cost approximately \$250,000 a mere two years ago.

### **What Does It All Mean?**

The business computing mantra of the 21<sup>st</sup> century is clearly about doing more with less, and is true for human and financial resources, as well as IT. Complex solutions replete with multiple servers and cabling nightmares are out. Simplification, integration, and manageability are in.

Unlike any competing solution, the IBM eServer i5 is a state-of-the-art 64-bit computing solution that supports the array of enterprise IT functionality manifest in UNIX, Windows, Linux, and OS/400 computing environments. In addition, these uniquely flexible capabilities are integrated into a single, no-nonsense computing resource priced within reach of even the smallest SMB. The eServer i5 can be tailored to fit the multiple operating system needs of smaller enterprises today while providing capabilities such as Capacity on Demand, and micro-partitioning that was formerly only available in high-end solutions. Overall, the eServer i5 provides customers both unmatched performance flexibility and the security of a growth path that protects present and future IT investments. Enterprises that are seeking to reap the cost savings and operational advantages of infrastructure simplification while continuing to support multiple operating systems are well advised to consider the IBM eServer i5 family of servers.