

Two for Two: IBM Delivers Next Gen 64-bit eServer xSeries Solutions

By AJ Dennis

On the opening day of LinuxWorld in San Francisco, IBM announced a significant revamp of its eServer xSeries product line featuring Intel's new Xeon EM64T chip and a new branded design model for select IBM industry standard x86 servers. The new Xeon EM64T chip, codenamed Nocona, supports both 32-bit applications and 64-bit extensions at clock speeds ranging from 2.8 to 3.6 GHz, and is expected to deliver higher performance with lower power requirements (and less heat) than its 32 bit-specific Xeon predecessors.

IBM calls its new approach to implementing industry standard x86 servers the Xtended Design Architecture (XDA). According to the company, this new architecture adds high value features such as enhanced memory expansion, faster I/O, integrated RAID, redundant & hot swap disks and power supplies, and new methods of cooling. XDA also improves system availability by supporting manageability through visible alerts outside the server and the remote management capabilities of IBM Director 4.2. The Xeon EM64T and a range of the XDA components are featured in six new and upgraded servers in the IBM eServer xSeries product line, a new dual processor blade for the company's eServer BladeCenter, and processor upgrades to the IBM IntelliStation Z PRO workstation.

Pricing/Availability

Projected pricing for IBM's current basic tower (x206) and 1U rack (x306) servers with Xeon EM64T processors XDA upgrades ranges from \$499 -\$3,000 for the tower x206 and from \$1,600 -\$2,500 for the 1U rack mount x306, depending on memory and disk configuration.

New xSeries dual processor rack (the $1U \times 336$ and the $2U \times 346$) and tower (the x226 and x236) servers targeted at middle and higher end 32-bit/64-bit server customers, stand alongside IBM's current dual processor 32-bit Xeon rack (x335, x345) and tower (x225, x235) products. These new servers also feature dual Xeon EM64T processors and will include a range of features from the new XDA model. Projected pricing for the x226 ranges from \$1,000 -\$4,500; the x236 from \$2,000 -\$7,000; the $1U \times 326$ from \$2,200 -\$5,000 and the $2U \times 236$ from \$2,300 -\$6,500, all depending on system, memory and disk configuration.

IBM's new dual Xeon EM64T blade is not as yet identified with a model number, but is projected to be priced in the \$5,000 -\$10,000 range depending on system, memory, and disk configuration. The new IntelliStation Z PRO workstation is not as yet priced. Most of IBM's new xSeries products are expected to be available within thirty to sixty days, with a few extending into ninety-day delivery. The company's current 32-bit-specific Xeon rack and tower products will continue to be available for the foreseeable future.

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From product line management, to a value-add approach to implementation, to announcing at LinuxWorld, the annual show for today's fastest growing OS, IBM has executed particularly well in this eServer xSeries renovation. The company's goal in modeling and branding this approach is to highlight its industry standard platforms in a market of ever more standardized components and implementations. The two most compelling

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elements of IBM's new xSeries package are how the company supports customers to advance their 64-bit computing ambitions in an evolutionary rather than revolutionary manner and how IBM differentiates its products and market strategy with its own secret sauce in the implementation model.

For IBM, AMD's Opteron will continue as a solid citizen in the company's HPC business, where its lack of market escape velocity has not hampered its deployment in clustering and targeted HPC applications. But it seems clear that 32-/64-bit x86 solutions have a life well beyond the rarified realms of HPC, and IBM will expand its significant experience across a broader market playing field as defined by Intel. This is a safe bet for the customer not willing to leave the Intel-friendly herd and for IBM, who wishes to catch those customers in the server refresh that will be sweeping the industry over the next eighteen to twenty-four months.

As for IBM's secret sauce, we find the company's approach both credible and insightful. Consistent throughout the industry is the current server marketecture with Scale Up /SMP approach as one axis and Scale Out / Distributed (one- to four- to eight-way servers) on the other. For IBM, the XDA compliments the Scale Out portion of the IBM server marketecture in a model similar to the way its X-Architecture model illuminates the Scale Up axis. IBM has successfully cascaded, where appropriate, elements of its mainframe heritage into its X-Architecture model and has added related elements to the XDA model, particularly in the areas of system redundency and cooling.

We believe that customers will find enough familiarity in IBM's new approach to be comfortable and will also appreciate the solid value offered by the performance, availability, manageability, and flexibility enhancements offered by the company's revamped and revitalized eServer xSeries. The breadth of product offerings, the new branded XDA design model and the choice of LinuxWorld for this announcement illustrate that once again, IBM is moving quickly and decisively to deliver new models of 32-bit/64-bit x86 servers, and to show how the secret sauce of market savvy and technological innovation can even spice up industry standard solutions.