

IBM Rolls Out Low-Power Servers

April 12 2007

In addition to offering a number of low-watt AMD and Intel processors, Big Blue will also offer a flash drive in one its blade systems as a way to reduce power consumption.

IBM is looking to offer customers a way of reducing power consumption in the data center by offering System x and BladeCenter systems with low-watt Intel and Advanced Micro Devices processors.

At the BladeSystems Insight conference April 12 in Savannah, Ga., IBM is scheduled to introduce plans to offer these low-watt processors in its BladeCenter systems and several of its 1U (1.75-inch) and 2U (3.5-inch) System x servers.

The Armonk, N.Y., company is also planning to announce April 12 that it will offer a version of its BladeCenter H21 system with a 4GB modular flash drive.

The use of a solid-state hard drive, according to Doug Balog, vice president of IBM's BladeCenter business line, can reduce power consumption within a single server. This flash drive option can reduce power either by using it as a Linux boot device or as a storage device for low-bandwidth applications, Balog said.

Compared with a traditional hard drive with moving parts, the flash drive with the BladeCenter H21 XM can reduce power consumption by about 95 percent, Balog said.

To further reduce power consumption, IBM will start offering low-watt processors in several of server models. Starting April 12, Big Blue will be one of the first OEMs to offer Intel's 50-watt, quad-core Xeon processor in several of its systems.

IBM will offer the chip in its BladeCenter HS21 and its System x 1U x3350 and 2U x3650 systems.

In addition, IBM will use AMD's 68-watt, dual-core Opteron processors in its BladeCenter LS21, LS41 and 2U x3655 systems. These processors are part of AMD's 1000, 2000 and 8000 HE model series, offering clock speeds ranging from 1.8GHz to 2.6GHz.

Finally, IBM will add Intel's low-volt Xeon 5148 processor to its HS21 system. This chip, which has a clock speed of 2.33GHz, has a thermal envelope of 40 watts, according to Intel's Web site.

These low-power systems will also boast IBM's PowerExecutive technology, which monitors power consumption on System x and BladeCenter servers, and its Calibrated Vecteded Cooling, which manages air intake, fan placement and zone cooling within blade and rack servers.

IBM is not the only major OEM this week offering new systems aimed at controlling power consumption. On April 10, Dell announced that several of its new Opteron-based rack servers will offer better power efficiency.

Dell executives claim rack-mount servers can offer the power efficiency customers need, as opposed to the blade systems offered by other vendors, such as IBM and Hewlett-Packard. Dell added that it is also working on new blade architecture.

The new BladeCenter and System x servers from IBM are immediately available for customers. On the low end, a BladeCenter LS21 with an Opteron processor running at 1.8GHz costs \$1,979, while on the high end, an LS41 with an Opteron running at 2.0GHz costs \$9,299. The others systems range between \$2,589 and \$3,189, according to IBM. The flash drive starts at \$199.

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