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IBM Power™ Systems Announcement Overview

Power = Performance + Control

The key to staying one step ahead of your growing business needs is crucial to your success. That's why IBM Power Systems offers you leadership performance and unprecedented scalability. Add the unique suite of Power Systems Software and you have the 'plus' that enables unprecedented control over your infrastructure. Now, IBM Systems Director delivers a new foundation for enterprise platform management and, with IBM® Systems Director Active Energy Manager™, new energy efficiency monitoring and control options. Combined with IBM Systems Director, the new AIX® Enterprise Edition, provides an integrated platform for both UNIX® administration and enterprise service management. And, the industrial strength virtualization of PowerVM™ is enhanced with increased flexibility for storage virtualization.

Power = Efficiency + Control

The world's most popular midrange server, the IBM Power™ 570 now offers more energy efficiency and consolidation options with new processor cards that double the number of cores in the same system footprint. Starting at just 4-cores, the system can be modularly updated – with hot node add, adding server modules while the system is running – to a full 32-core single system image (32-core SMP) This new hot node/add repair feature for both the Power 570 and Power 595 supports concurrent maintenance to significantly reduce planned downtime for large enterprises. There are also two new POWER6 processor options available in the Power 570, 4.4GHz and 5.0 GHz.

Power = Simplicity + Control

New to the easy-to-buy Power Systems Express line is the IBM Power 560 Express, giving you the flexibility of modular building blocks to easily add more processing capacity in a single footprint – only when you need it. We have also extended i editions to 4-core Power 520 and 8-core Power 550 systems, giving entry i clients more options for scalability and growth. And, the IBM BladeCenter® JS12 and JS22 Express can be ordered with AIX and i pre-installed for faster deployment

October 7, 2008 – Today, IBM announced new Power Systems software and server offerings that provide more performance and control for your IT investments. Highlights of the announcement include:

Power 570 Enhancements

The Power 570 now offers new POWER6™ processors with two new two-core processor features at 4.4 GHz and the fastest POWER6 processor at 5.0 GHz for clients looking for more processing power per processor core. There is also a new four-core processor feature, built with two dual-core modules on one processor card at 4.2 GHz. With the new-four core processor feature, the Power 570 now is available in a 32-core configuration in the same footprint that formerly held 16 cores. This system delivers increased overall system throughput.

In addition, the Power 570 now features Hot-node Repair. With Hot-node Repair, a failed CEC enclosure can be isolated and then removed without an IPL of the system. When the enclosure is repaired, it can be reintegrated to the system using the Hot-node Add feature previously announced. This new function can be used to upgrade memory on a system without powering the system down.

Power 560 Express

The new IBM Power 560 Express with POWER6 processors is a 4-, 8- or 16-core SMP, rack-mounted server. The new POWER6 processors in this server are available at a frequency of 3.6 GHz. The Power 560 Express uses the new POWER6 DDR2 memory architecture to provide greater bandwidth and capacity. This enables operating at a higher data rate for large memory configurations.

This modular-built system uses one or two enclosures; each enclosure is four EIA units tall and is housed in a 19-inch rack. Able to run AIX, i and Linux concurrently, this system is designed for database serving or consolidation.

New Scalability for IBM i at the Low End

Support for the IBM i operating system is extended to the 4-core Power 520, to the 2-core, 6-core and 8-core Power 550, and to the 3.5 GHz Power 550. AIX, i and Linux can run concurrently across all entry Power Systems configurations.

Conversions from the 9407-M15 and 9408-M25 to the 8203-E4A and from the 9409-M50 to the 8204-E8A were introduced. A statement of direction was also published that IBM intends to provide the future enhancement to convert the 1-core Power 520 9407-M15 to the 1-core Power 520 8203-E4A in February 2009.

BladeCenter JS21 & JS22 enhancements

The IBM BladeCenter JS21 and JS22 have been enhanced with support for:

- Pre-installation of the IBM i operating system with BladeCenter S
- a 4-Port gigabit Ethernet Expansion Card
- a 450 GB 15,000 RPM 3.5" SAS disk drive for use in the BladeCenter S chassis
- Extended SAN options with:

- the IBM System Storage™ DS3200
- the IBM System Storage DS3400 with IBM i on the BladeCenter H chassis

IBM Systems Director for Power V6.1

IBM Systems Director 6.1 is designed to be a simplified platform management solution that streamlines the way physical and virtual systems are managed across a multi-system environment. Through an easy-to-use, point-and-click, single user interface, it offers consistent views for visualizing managed systems, determining how those systems relate to one another while identifying their individual status, thus helping you to correlate technical resources with business needs. The latest version, Systems Director 6.1, supports Tivoli® software as well as AIX 6, IBM i 6.1 and Linux on Power operating systems, and provides the foundation for platform management with improved system administration productivity for all IBM servers and storage systems, including Power Systems.

There is also a new version of Active Energy Manager, featuring a unique energy control option designed to boost performance per watt by allowing the software to slow down processor clock speed or put cores in “nap” mode when not needed. It also allows setting an energy cap for a single POWER6 server, or now even across a pool of POWER6 processor-based servers.

Power 595 Availability Enhancements

IBM Power 595 enhances your ability to support large-scale application and database growth while maintaining your reliability, availability and serviceability with features including Hot-node Add and Hot-node Repair. Power 595 systems now support adding additional processor books to the CEC without powering down the system (Hot-node Add). Power 595 systems that have experienced a component failure on a processor book can now have the processor book removed and repaired without powering down the system (Hot-node Repair).

AIX Enhancements

IBM recently introduced AIX Enterprise Edition, to help clients manage the components that support the infrastructure as opposed to the platform management provided by IBM Systems Director. For example, AIX EE manages workload partitions across multiple systems, exploits Live Application Mobility to move running applications to other physical AIX servers, monitors utilization and configuration changes, and collects and visually reports on virtualized resource usage.

The AIX operating system is now available in two editions:

- The Standard Edition includes only the AIX operating system, expansion pack, and other commonly used software such as an Internet browser.
- The new Enterprise Edition includes all the features of the Standard Edition and additional management software designed to complement the features of AIX 6. AIX Enterprise Edition is designed to improve the manageability of a virtualized AIX environment.

PowerVM Enhancements

- PowerVM technology was enhanced with support for virtual tape, enhancements to Live Partition Mobility support, and enhancements to PowerVM Lx86. The enhancements to the PowerVM virtual input output server (VIOS) make it easier for clients to simplify backup and restore operations.
- In the US, IBM is releasing a new security offering, IBM RealSecure Server Sensor for AIX, in the Power Systems channel. IBM RealSecure Server Sensor for AIX is designed to identify and block known and unknown threats and enforce corporate security policies for servers.
- IBM also released a statement of direction with the intent to enhance PowerVM with Active Memory Sharing, an advanced memory virtualization technology, in 2009. Active Memory Sharing will intelligently flow memory from one partition to another for increased utilization and flexibility of memory which helps to reduce deployment costs.

Availability Enhancements

There is a new version of PowerHA™ for AIX, the availability software with enhanced RAS features as well as a new version of iCluster®, a high availability solution based on logical replication.

The HACMP™/XD Extended Distance feature now enables native integrated unlimited distance data mirroring via Geographic Logic Volume Manager (GLVM) async mode and integrated support for Storage Volume Controller (SVC) Global Mirror for IBM SAN support, for asynchronous mirroring. Asynchronous mirroring enables you to replicate your data to a remote location, which enables you to in-source your disaster recovery operations.

There are also new and updated Rational® development tools for the IBM i operating system



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When referring to storage capacity, total TB equals total GB divided by 1000; accessible capacity may be less.

The IBM home page on the Internet can be found at <http://www.ibm.com>.

The IBM Power Systems home page on the Internet can be found at <http://www.ibm.com/systems/p/>.

The IBM BladeCenter home page on the Internet can be found at <http://www.ibm.com/systems/bladecenter/power-based.html>.

The IBM Linux on POWER home page on the Internet can be found at <http://www.ibm.com/systems/linux/power/>.