



IBM @server® OpenPower 720 System



Built on a mainframe-inspired technology and tuned for the Linux environment, IBM @server® OpenPower systems meet the requirements of clients by delivering the performance, features, reliability, availability and compute power they expect from larger systems—at affordable price-points. This competitively priced IBM 64-bit IBM POWER5™ processor-based server is designed for a flexible, open Linux architecture to help simplify today's complex IT environments.

Highlights

- ***Flexible platform—tuned for the Linux® operating system (OS) and built on open Linux OS standards—for freedom and choice***
- ***Delivers leading-edge performance and productivity***
- ***Brings world-class features such as IBM Virtualization Engine™1 technology and reliability, availability and serviceability (RAS) capabilities to an entry-level server, helping improve system utilization, reduce downtime and lower systems management costs***

The IBM @server OpenPower 720 is a high-performance 1- to 4-way system which provides a scalable and reliable platform for business-critical applications such as ERP and CRM, and compute-intensive applications such as data warehousing and data mining. On the OpenPower 720, clients can consolidate their infrastructures and optimize system utilization using the optional enterprise-class virtualization

features. By bringing optional enterprise-class virtualization technologies¹ like dynamic logical partitioning (LPAR²), Micro-Partitioning™, virtual LAN, virtual I/O and more to the open systems space, OpenPower servers provide companies with virtualization technology that can deliver significant savings in operational costs including system management, power, cooling, and real estate.

Micro-Partitioning brings virtualization to a whole new level, providing administrators with an unprecedented ability to fine-tune system resource allocations, and thus enabling clients to take a major step toward becoming an on demand business. With Micro-Partitioning, virtual servers on an OpenPower system can be as small as

1/10th of a processor and be extended in increments of as small as 1/100th of a processor, dramatically increasing the flexibility and scalability of a solution.

Linux OS tuning delivers freedom of choice

OpenPower systems are tuned for Linux and enable Linux to take advantage of inherent performance-enhancing characteristics of IBM Power Architecture™ technology, including improved memory and data access, as well as faster lock acquisitions. In addition, for even greater uptime and scalability, the Linux kernel leverages the RAS and the performance features of POWER5 processors to help improve utilization and lower operational costs.

The IBM POWER™ platform is supported by thought leaders in the Linux community such as Red Hat and Novell SUSE LINUX, as well as open source development and standards groups.

Full range of services and support

With years of experience in installing hardware and software, IBM knows what it takes to plan and configure systems. IBM Technical Support Services provides comprehensive installation services to help clients get started on Linux on POWER, migrate from other hardware platforms and deploy key workloads. In addition, IBM Global Services (IGS) provides consulting and integration services to deploy and integrate complex applications into an IT environment.

OpenPower 720 at a glance

Feature	Description
Models	<ul style="list-style-type: none">• 1 processor; 1.5 GHz; no L3 cache; 1.9MB L2 cache• 2 processors; 1.5 GHz or 1.65 GHz; 36MB L3 cache, 1.9MB L2 cache• 4 processors; 1.5 GHz or 1.65 GHz; 72MB L3 cache, 1.9MB L2, 3.8MB L2 cache• Simultaneous Multi-threading (SMT)
RAM (memory)	Minimum: 512MB on 1-way; 1GB on 2-, 4-way models Maximum: 32GB on 1-way or 2-way; 64GB on 4-way models
Internal storage	Maximum 1.1TB internal disk, 15.2TB (with optional I/O drawers)
Internal disk bays	Four standard plus four optional (73.4/146.8GB 10K rpm or 36.4GB/73.4GB 15K rpm disks)
Media bays	Two slimline bays—one DVD-ROM included as standard (can be upgraded to DVD-RAM); one standard bay for tape drive
Adapter slots	Five hot-plug 64-bit PCI-X (Four when optional I/O drawers are installed); four long and one short; 3.3 volt
Standard features	
I/O adapters	Dual ported integrated Ultra320 SCSI controller (onboard RAID optional); two Ethernet 10/100/1000 Mbps controllers
Ports	Two serial, two USB, two HMC ports, dual RIO-2 port, keyboard and mouse
Power requirements	100-127v AC for 1-, 2-way models 200-240v AC for 4-way models
Form factor	Rack drawer 7.0"H x 17.2"W x 28.8"D (178 mm x 437 mm x 731 mm); weight: 41.4 kg (91 lb) ^a Deskside 21.1"H x 7.9"W x 30.7"D (533 mm x 201 mm x 770 mm); weight: 41.4 kg (91 lb) ^a

Advanced OpenPower Virtualization optional feature

Feature	Description
Prerequisite/corequisite	<ul style="list-style-type: none">• Hardware Management Console (HMC)
POWER Hypervisor™	<ul style="list-style-type: none">• LPAR, Dynamic LPAR, VLAN, Micro-Partitioning, SMP
Virtual I/O Server	<ul style="list-style-type: none">• Virtual storage and virtual Ethernet

Additional information

RAS features	Dynamic firmware updates (planned for 2Q 05) IBM Chipkill ECC, bit-steering memory, ECC L2 cache Service processor Hot-swappable disk bays Hot-plug PCI-X slots Dynamic deallocation of processors and PCI bus slots Hot-plug cooling fans power supplies Redundant cooling fans; Optional redundant power supply
Operating systems	SUSE LINUX Enterprise Server 9 for POWER (SLES 9) Red Hat Enterprise Linux AS 3 for POWER (RHEL AS 3)
Warranty	8 A.M. to 5 P.M., next-business-day for three years (limited) at no additional cost; on-site for selected components; CRU (customer replaceable unit) for all other units (varies by country). Warranty upgrades and maintenance are available.

For more information

To learn more about IBM @server OpenPower servers, contact your IBM representative or IBM Business Partner, or visit the following Web sites:

- ibm.com/eserver/openpower
- ibm.com/linux/power



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¹ Required optional Advanced OpenPower Virtualization feature.

² Dynamic LPAR is not supported by Red Hat Enterprise Linux AS 3 for POWER.

³ Weight will vary when disks, adapters and other peripherals are installed.