

HP 9000 rp8440 Server

Data sheet



The HP 9000 rp8440 Server is an affordable, scalable, and flexible system. It offers significant consolidation opportunities with exceptional performance density of up to 32 processor cores per server and two servers per rack. Powered by the dual-core PA-8900 processor and featuring the hard and virtual partitioning capabilities within HP-UX 11i, this system delivers high-end computing at a midrange price. You also gain significant performance boosts through the integration of the processor with the HP Super-Scalable Processor Chipset sx2000, developed by HP. This chipset offers decreased latencies and increased system bandwidth while delivering all the reliability, availability, and serviceability features and simplified management you would expect from a high-end server.

The HP 9000 rp8440 Server delivers tremendous value in mission-critical 64-bit computing, and it is ideal for such demanding workloads as databases, enterprise resource planning (ERP) applications, and enterprise-wide SAP installations. The HP 9000 rp8440 Server also offers lasting value, lower total cost of ownership (TCO), decreased IT complexity, and investment protection. That is because the same HP sx2000 Chipset contained in the HP 9000 rp8440 Server is designed for use with HP Integrity servers based on the Intel® Itanium® 2 processor—enabling seamless, in-chassis upgrades. So, when the time is right, your HP 9000 servers will be an ideal, cost-effective path to the flexible capacity, secured availability, simplified management, and multi-OS capabilities of HP Integrity servers.

The evolutionary attributes of the HP 9000 server family support an Adaptive Enterprise, in which business and IT are synchronized to capitalize on change.

Key features and benefits

Superb application performance to meet your demanding business needs—The HP 9000 rp8440 Server is powered by the HP sx2000 Chipset and HP PA-8900 processors. Coupled with the HP-UX 11i operating system and the HP Virtual Server Environment (VSE), the HP 9000 rp8440 Server is an ideal platform for any of your performance-sensitive workloads as well as your application and server consolidation needs. The VSE includes hard partitions (nPars), virtual partitions (vPars), high availability (Serviceguard), capacity on demand, and HP Workload Manager (WLM) capabilities, so you can maintain your service levels by allocating resources automatically to make the most effective use of system resources.

Robust and trusted operating system for your critical business and IT requirements—The capabilities of the HP sx2000 Chipset and PA-8900-based family of servers are further bolstered by HP-UX 11i, which delivers robust UNIX® leadership in high availability, security, and quality.

Cost-efficient resource utilization enhances system and application availability—The partitioning capabilities and HP utility pricing offerings of the HP 9000 rp8440 Server maximize use of your system resources and budget while maintaining service levels. Additionally, HP 9000 servers use the same intelligent management capabilities as those used across the platforms and multiple operating systems of HP's broad server portfolio—further reducing complexity while enhancing the efficiency of your heterogeneous environment.

Low TCO and investment protection—If you are looking for an outstanding return on your IT investment, the HP 9000 rp8440 Server helps reduce your TCO through aggressive acquisition prices and low operating costs. This rack-optimized server makes it possible to pack significant processing power into a smaller system chassis, which presents strong server consolidation and space conservation opportunities. And, through the use of common parts with midrange HP Integrity servers, the HP 9000 rp8440 Server offers exceptional IT investment protection through seamless, in-chassis upgrades.

Technical specifications

Processor	HP PA-8900 1.067 GHz
Processors/Cores per system	16p/32c
Module type	Dual-core
Clock speed	1.067 GHz
Front-side bus	533 MHz
L1 cache	3 MB per processor
L2 cache	64 MB
L3 cache	N/A
L4 cache	N/A
RAM minimum/maximum	2 GB/256 GB
RAM type	DDR2 registered DIMMs
Memory protection	Error checking and correcting (ECC) on memory and caches; Double Chip Spare
Hard drive capacity	73 GB, 146 GB, and 300 GB drives available
Internal hard drive bays	4 hot-plug Ultra320 SCSI; 4 additional disk drive slots on optional Server Expansion Unit 2 (SEU-2)
Maximum internal storage	1.2 TB (2.4 TB with optional Server Expansion Unit 2)
Removable media	2 (either DVD+RW or DAT); 2 additional removable media bays with optional Server Expansion Unit (SEU-2)
I/O slots	Base system: 16 internal PCI-X hot-plug I/O card slots available (8 PCI-X 266 slots, 8 PCI-X 133 slots) Optional SEU-2: 16 additional PCI-X hot-plug I/O card slots (8 PCI-X 266 slots, 8 PCI-X 133 slots)
Network adapter	10/100/1000Base-T Ethernet
Storage adapter	Ultra320 SCSI
Interfaces	1 RS-232 serial port for local console and 10/100BT management LAN
Form factor	Rack-optimized with 17U height
Operating systems supported	HP-UX 11i v1, v2 ¹ , and v3 ² (offers your choice of Foundation, Enterprise, Mission-Critical, and Technical Computing operating environments)
High availability	
Standard server features	Dynamic CPU and memory allocation/de-allocation Double Chip Spare technology Hot-plug cell boards Hot-plug fans Error checking and correcting (ECC) on all CPU, cache, memory, and I/O paths Online addition and replacement of PCI I/O cards Redundant power inputs for dual-grid connections Redundant clock sources Management processor failover (core I/O) N+1 hot-swappable fans and power supplies Hot-spare Instant Capacity CPU functionality (requires Instant Capacity CPUs) Hardware partitions (nPars)
Environmental specifications	
Altitude	Operating: 10,000 ft. (3,000 m) maximum Non-operating: 15,000 ft. (4,500 m) maximum
Temperature	Operating: 41°F to 90°F (5°C to 32°C); for altitudes >5,000 ft., derate max. temp. by 1.8°F (1°C)/1,000 ft. (300 m) Non-operating: -40°F to +158°F (-40°C to +70°C) Maximum rate of temperature change: 36°F (20°C) per hour
Humidity	Operating: 15% to 80% relative non-condensing; maximum wet bulb = 79°F (26°C)
Dimensions	
Rack form factor	Height: 29.75 in. (776 mm)/17U EIA Width: 19.0 in. (483 mm) Depth: 30.0 in. (762 mm)
Standalone frame	Height: 32.8 in. (834 mm) Width: 19.0 in. (483 mm) Depth: 30.0 in. (762 mm)
Server Expansion Unit 2	Height: 15.75 in. (401 mm) Width: 19.0 in. (483 mm) Depth: 30.0 in. (762 mm)
Weight	Base system (maximum configuration): 378 lb. (171.4 kg); Server Expansion Unit 2: 180 lb. (81.65 kg)
Power requirements	Typical power dissipation: base system—3,866 VA (maximum configuration); Server Expansion Unit 2—662 VA (maximum configuration) Input current: 19.33 A @ 200 VAC AC input power: 200–240 V, 50–60 Hz
BTU rating	Typical: 12,970 BTU/hour
Voltage tolerance range	180 to 264 VAC (operating range of 200–240 VAC +/- 10%)
Frequency tolerance range	48.5 to 61.8 Hz (operating range of 50–60 Hz +/- 3%)
Regulatory	Regulatory model number: S16

¹ Support planned for mid-2007

² Support planned in 2H 2007

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4AA0-5276ENW, February 2007

