

hp servers



hp server rp7400



**fit for today and the future**

*With a flexible architecture, unmatched performance density, and unsurpassed affordability, the HP Server rp7400 sets a new standard that will instantly change your expectations of a midrange UNIX server.*

**simply more . . . power, control, and confidence**

Today's business professionals are coping with more demands and fewer resources. The solution isn't just more IT, but simply more—of the right technology.

The HP Server rp7400 delivers more power, control, and confidence in a smaller and more affordable system than any other 8-way midrange UNIX® server. This makes the HP rp7400 the exceptional platform for today's demanding business applications—e-commerce, advanced Web hosting, messaging, supply chain management (SCM), customer relationship management (CRM), enterprise resource planning (ERP), business intelligence, and high-performance technical computing.

- **more power**—the performance leader in the 8-way mid-range computing space
- **more control**—industry-leading virtual partitions and workload management
- **more confidence**—superior high availability and instant capacity upgrades



**the hp server rp7400 delivers**

- unparalleled utilization flexibility and control with virtual partitions and workload management solutions
- leading performance at a leading midrange price
- superior I/O bandwidth without trade-offs in performance or memory capacity
- unprecedented rackability, delivering four servers per standard two-meter rack
- built-in Web Internet management tools
- end-to-end high availability at a midrange price
- industry-proven 64-bit HP-UX 11i and 11.0 operating environment
- instant capacity upgrades with Instant Capacity on Demand (iCOD)
- ideal platform for: e-commerce, advanced Web hosting, supply chain management (SCM), customer relationship management (CRM), enterprise resource planning (ERP), business intelligence, and high-performance technical computing



HP servers are designed to meet a broad range of enterprise, service provider, and e-marketplace needs:

- **A-class**—low-cost, hyper-rack optimized entry-level servers
- **L-class**—scalable, rack-optimized entry-level servers
- **rp7400**—versatile and robust midrange server
- **rp8400**—flexible and powerful server that redefines midrange computing
- **Superdome**—most powerful, scalable, and available server engineered for large-scale applications and databases or as a compute engine

These servers deliver industry-leading midrange performance, scalability, and high availability. They utilize high-performance, 64-bit PA-RISC technology and the highly regarded 64-bit HP-UX 11 operating environment.

**table 1. hp rp7400 enterprise server performance**

	550MHz		650MHz		750MHz	
	1-way	8-way	1-way	8-way	1-way	8-way
SPECint_2000	379		465 <sup>1</sup>		551 <sup>1</sup>	
SPECfp_2000	369		446 <sup>1</sup>		522 <sup>1</sup>	
SPECint_rate2000		32.7		40 <sup>1</sup>		46.7 <sup>1</sup>
SPECfp_rate2000		23.0		28 <sup>1</sup>		32.1 <sup>1</sup>
OLTP <sup>2</sup>	1.0	5.44	1.30	7.01	1.49	8.1
TPC-C	60,366.82 tpmC@ 20.17/tpmC					
TPCH (300GB)	1592.30 QphH					

<sup>1</sup> Performance estimates.

<sup>2</sup> OLTP performance is relative performance compared to 1-way 550MHz.

## table 2. features and benefits

### power

1–8 high-speed 64-bit 550MHz PA-8600, and 650MHz & 750MHz PA-8700 CPUs with 2.25MB (PA-8700) on-chip cache per CPU	The world's fastest microprocessor, based on HP's PA-RISC, delivers superior performance over other processors
Up to 32GB SDRAM memory with advanced ECC protection	Huge memory capacity for handling complex applications; very fast and reliable processing power for frequently accessed data
12 PCI I/O slots, with up to 6.4GB/s of aggregate I/O bandwidth and an independent I/O channel per PCI slot with full parity checking	Reliable, expandable I/O connections that allow the system to scale both CPUs and I/O without compromise or trade-off; easily handles I/O-intensive applications without risk of becoming "I/O bound"
Core I/O including 100Base-T LAN with auto speed sensing, Ultra2 LVD SCSI, and integrated secure Web console	Advanced I/O technology built in for easy, ready-to-go networking capabilities
4 servers per standard 2-meter rack	Superior rackability that optimizes use of floor space and delivers unprecedented performance density
Unchallenged performance density, delivering unmatched performance per rack versus competitive midrange systems	More performance per rack to meet service provider and UNIX application needs while maximizing use of data center floor space
8.5GB/s memory bus and 4.3GB/s system bus	Massive bus bandwidth provides a well balanced architecture without bottlenecks
Integrated floating point processor	Accelerated compute-intensive application performance

### control

HP Virtual Partitions and workload management solutions	Provides greater system utilization, configuration flexibility, and workload isolation
Built-in HP Secure Web Console	Control of servers over the intranet from any location worldwide
Built-in HP WebQoS (Web Quality of Service) Peak	Stabilizes Web traffic for less end-user wait time
Built-in extended fault detection system	Separate support processor and bus for extended fault management of power, cooling, and system board outages; integrated with Event Monitoring Service (EMS) for instant problem notification
Built-in HP Ignite-UX	Easily and quickly launch UNIX installations or upgrades to multiple distributed servers simultaneously from a central location on the corporate intranet
Optional preloading of HP-UX operating environment and layered software products, plus factory integration of CPUs, memory, disk drives, and I/O cards	Expert integration and configuration for a quick, worry-free start

### confidence

Pay-as-you-grow iCOD (Instant Capacity on Demand)	Instantly turn on more computing power to respond dynamically to changing business demands and new revenue opportunities; instant capacity upgrades with no charge for extra CPUs until they're used; no performance compromises and minimized downtime for upgrade and repair
Hot-swap, redundant power supplies with optional third power supply for N+1 protection; redundant AC power inputs; hot-swap, N+1 cooling system; hot-plug PCI I/O subsystem	Single-system high availability features to maximize uptime
Independent, dedicated twin-turbo I/O channels (10 twin-turbo, 2 turbo)	Increased reliability and stability even under heavy loads
Low-profile, hot-plug Ultra2 SCSI disk drive bays, with one internal Ultra SCSI channel per disk	Internal high-uptime storage to protect critical data and provide mirroring capabilities
Support for 64-bit HP-UX 11i and 11.0	Top-rated UNIX with industry-proven 64-bit capability, plus a high degree of integration with the Internet, Microsoft® Windows NT®, Linux, and other operating environments and network management systems
Support for HP MC/Serviceguard high availability cluster solution; monitors up to 16 clustered servers and proactively shifts workloads to maximize mission critical application availability	Leading UNIX clustering solution featuring automatic application failover and rolling upgrade features minimizing both planned and unplanned downtime
Inclusion in Mission Critical Server Suites solution providing 99.95% uptime commitments for HP servers, middleware, HP or EMC storage, Cisco network devices, and the Oracle® database	Unique guarantee of full-solution availability including hardware, operating system, storage, networking, and database in order to sustain business 24x7x365
World-class support, including alliances with SAP, Oracle, Cisco, and Microsoft	Reduce risk with proactive and reactive services

**table 3. configuration options**

HP PA-RISC processor	550MHz PA-8600	650MHz PA-8700	750MHz PA-8700
SMP configuration	1 to 8 CPU	1 to 8 CPU	1 to 8 CPU
Supported HP-UX versions	11.0 & 11i (64-bit)	11.0 & 11i (64-bit)	11.0 & 11i (64-bit)
Minimum/Maximum memory	1024MB/32GB	1024MB/32GB	1024MB/32GB
On-chip cache (data/instr) per CPU	1MB/512KB	1.5MB/.75MB	1.5MB/.75MB
Total I/O slots	12	12	12
Internal hot-plug disk drives	2	2	2
Maximum internal disk capacity	146GB	146GB	146GB
Maximum external storage capacity	284TB	284TB	284TB
Standard I/O features	Ultra2 SCSI, 10/100Base-T LAN, 3x RS-232 ports for console and UPS connections, integrated Secure Web Console		
Supported I/O connectivity	Ultra2 SCSI (single and dual port); FWD SCSI (single and dual port); 10/100Base-TX (single and quad port); 100Base-FX; Gigabit Ethernet; FDDI; Hyperfabric; Token Ring; ATM 622 and 155Mbps; X.25, SNAplus, Frame Relay, SDLC (dual and quad); Serial Multiplexer (8- and 64-port), Fibre Channel, High Performance Peripheral Interface (HIPPI), Ultra2 SCSI RAID Controller, Dual Ultra2 SCSI/Dual 100Base-T Combo		

**table 4. environmental and regulatory specifications**

Compliance Model	RSVL-0101-A
Electromagnetic interference	Complies with FCC Rules and Regulations, part 15, as a Class A digital device. Manufacturer's Declaration to EN55022 Level A, VCCI Registered, Class I, Korea RLL
AC input power	200V-240V 50/60Hz
Maximum current requirements	13.8 Amps at 220V
Maximum power dissipation	3000 Watts
Physical dimensions	Depth: 812 mm (35 in) Width: 482 mm (19 in) Height: 445 mm (17.5 in)/10 EIA units Weight: 90 kg (200 lb)
Operating temperature	+5° to 35° C (41° to 95° F)
Non-operating temperature	-40° to 65° C (-40° to 149° F)
Maximum rate of temperature change	20° C/hour
Operating relative humidity	15% to 80%, noncondensing, max. wet bulb = 26° C
Non-operating relative humidity	5% to 90%, noncondensing
Operating altitude	To 3.0 km (10,000 ft) above sea level
Non-operating altitude	To 4.5 km (15,000 ft) above sea level

**for more information**

HP technical documentation is available online at [www.eproducts.hp.com](http://www.eproducts.hp.com). In addition, configuration tools and pricing information allow registered users to place orders online. For registration, please contact your Hewlett-Packard sales representative.

Contact any of our worldwide sales offices or HP Channel Partners (in the U.S., call 1-800-637-7740) or visit our HP Server rp7400 UNIX Servers Web site at [www.hp.com/go/servers](http://www.hp.com/go/servers) or [www.hp.com/go/rp7400](http://www.hp.com/go/rp7400).

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