

HP Integrity rx7640 Server

Data sheet



The HP Integrity rx7640 Server delivers excellent performance and compute density for data center applications. Enterprises and high-performance computing centers will benefit from high levels of functionality and exceptional value in a midrange-class server. Powered by dual-core Intel® Itanium® 2 processors—and enhanced by the HP Super-Scalable Processor Chipset sx2000—the Integrity rx7640 Server is the perfect platform for scale-up or scale-within for database hosting, enterprise resource planning, customer relationship management, business

intelligence, and data mining and warehousing. The Integrity rx7640 Server also supports multiple operating systems—giving you the freedom to run the right solution for your IT requirements.

By investing in the Integrity rx7640 Server now, you get long-term, balanced performance improvements along with outstanding scalability and simplified management. In addition, HP offers even better investment protection and return on IT with in-box upgrades.

HP Integrity servers: delivering a better return on your IT investment through flexible capacity, secured availability, and simplified management

Key features and benefits

Outstanding scalability and blazing-fast application performance for all types of workloads—The HP Integrity rx7640 Server offers state-of-the-art features in balanced performance and flexible capacity. Powered by new dual-core Intel Itanium 2 processors—optimized by the HP sx2000 Chipset—the Integrity rx7640 Server delivers the compute density and scalability necessary to meet the most demanding business needs.

Industry-leading high-availability and reliability features—Leading high-availability technologies in the Integrity rx7640 Server guard your applications from unacceptable interruptions. The sx2000 Chipset employs error-correcting and self-healing technologies throughout, which reduces customer outages. Unique technologies include Double Chip Sparing, which immediately restores chip-spare protection after a DRAM chip has failed—shielding against the vast majority of memory failures. In addition, the Integrity rx7640 Server provides link retries and reconfiguration on reboot, which allows the recovery from link failure.

Increased flexibility with deployment/redeployment simplicity—Offering a full range of operating environments—including HP-UX 11i, Microsoft® Windows® Server 2003, Linux, and OpenVMS—the Integrity rx7640 Server provides the flexibility to easily deploy and redeploy a broad range of applications that are best suited for your business on the operating system of your choice. You can even run multiple operating systems simultaneously on the same server.

Optimized resource utilization and consolidation opportunities—Robust hard, soft, and sub-core partitioning capabilities enhance your consolidation initiatives. With comprehensive server tools to provide excellent resource partitioning, increase resource utilization, and reduce complexity, the Integrity rx7640 Server frees up IT resources and staff to perform other mission-critical tasks. Plus, HP offers the Virtual Server Environment (VSE), a flexible, fully integrated server virtualization offering that makes excellent use of your server resources. The Integrity rx7640 Server and VSE enable higher resource utilization, continuous service levels, and utility pricing—including HP Instant Capacity and Pay per use to provide a better return on IT.

Enterprise-grade I/O—The Integrity rx7640 Server supports enterprise-grade multi-port Gigabit Ethernet, SCSI, and Fibre Channel adapters as well as a variety of specialized I/O cards for network, storage, high-performance, and legacy connectivity. Additionally, the Integrity rx7640 Server supports multifunction cards that offer both storage and network connectivity for high-density I/O.

Investment protection—The Integrity rx7640 Server allows upgrades to future Intel Itanium 2 processors in the same chassis. In addition, multiple generations of Intel Itanium 2 processors can be mixed in the same HP Integrity rx7640 Server in different hard partitions, which means avoiding costly box swaps and delivering better return on your IT investment.

Technical specifications

Processor	1.6 GHz/18 MB dual-core Intel Itanium 2 2P/4C-8P/16C	1.4 GHz/12 MB dual-core Intel Itanium 2 2P/4C-8P/16C	1.6 GHz/6 MB Intel Itanium 2 2P/2C-8P/8C
Processors/Cores per system	Dual core	Dual core	Single core
Module type	1.6 GHz	1.4 GHz	1.6 GHz
Clock speed	533 MHz	533 MHz	400 MHz
Front-side bus	16 KB inst + 16 KB data	16 KB inst + 16 KB data	16 KB inst + 16 KB data
L1 cache	1 MB inst + 256 KB data	1 MB inst + 256 KB data	1 MB inst + 256 KB data
L2 cache	18 MB	12 MB	6 MB
L3 cache	N/A	N/A	N/A
RAM minimum/maximum	2 GB/128 GB		
RAM type	PC2-3200 DDR-2 registered DIMMs		
Memory protection	Error checking and correcting (ECC) on memory and caches; double chip spare		
Hard drive capacity	36 GB, 73 GB, 146 GB, and 300 GB drives		
Internal hard drive bays	4 hot-plug Ultra320 SCSI		
Maximum internal storage	1200 GB		
Removable media	1 (either DVD+RW or DAT-72GB) or 2 (slim line DVD+RW)		
I/O slots	15 PCI-X 266 slots available		
Network adapter	2 10/100/1000Base-T Ethernet		
Storage adapter	Ultra320 SCSI; Smart Array 6402/6404 RAID adapter (optional)		
Interfaces	1 RS-232 serial port for local console and 10/100Base-T management LAN		
Form factor	Rack-optimized with 10U height		
Operating systems supported	HP-UX 11i v2 (choice of Mission Critical, Enterprise, or Foundation Operating Environment) Microsoft Windows Server 2003, Enterprise and Datacenter Editions Red Hat Enterprise Linux ^{1,2} AS 4 and Novell SUSE Linux Enterprise Server ^{1,2} 10 OpenVMS v8.3 ¹ (choice of Mission Critical, Enterprise, or Foundation Operating Environment)	www.hp.com/go/hpux11i www.hp.com/go/integrity/windows www.hp.com/go/integritylinux www.hp.com/go/openvms	
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 Management processor failover (core I/O) N+1 hot-swappable fans and power supplies Hot-spare Instant Capacity functionality (for HP-UX 11i and OpenVMS partitions only; requires iCAP processors) Hardware partitions (nPars)		
Environmental specifications			
Altitude	Operating: 10,000 ft. (3000 m) maximum Non-operating: 15,000 ft. (4500 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)/1000 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: 17.5 in. (445 mm)/10U EIA Width: 19.0 in. (483 mm) Depth: 30.0 in. (762 mm)		
Standalone frame	Height: 19.6 in. (499 mm) Width: 19.0 in. (483 mm) Depth: 30.0 in. (762 mm)		
Weight	Maximum configuration: 220 lb. (99.8 kg)		
Power requirements	Typical power dissipation: 2030 VA (maximum configuration) Input current: 10.2 A @ 200 VAC AC input power: 200-240 V, 50-60 Hz		
BTU rating	Typical: 6,930 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: RSVLA-0102		

¹ Linux and OpenVMS supported only on Integrity rx7640 Server with dual-core Intel Itanium 2 processors

² Support of dual-core processors planned by end of 2006

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For more information

For more information about the HP Integrity rx7640 Server, contact any of our worldwide sales offices or visit our Web sites at: www.hp.com/go/integrity or www.hp.com/go/rx7640

For additional information please visit our Web sites at:

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HP Virtual Server Environment (VSE)—
www.hp.com/go/vse

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HP Services provides the people and processes that help you take full advantage of the server capabilities that are needed to deliver the high levels of availability and performance your business requires.

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 - HP Proactive 24 Service—integrated hardware and software support including proactive and reactive services to improve stability and availability across your IT environment
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