

HP Integrity rx2660 Server

Data sheet



The HP Integrity rx2660 Server offers you new levels of entry-class value. It's a cost-effective and versatile platform for your IT environment that delivers high rack density and performance per watt. With performance and capacity to easily handle your robust application-tier and transaction workloads, it's also the right choice for your database, Java™, business intelligence, and technical computing requirements. Available in a rack or pedestal form factor and including a standard three-year warranty, the Integrity rx2660 Server is built to deliver business-critical computing capabilities and UNIX® strengths—whether yours is a small- to medium-sized business or a large enterprise.

The Integrity rx2660 Server supports your choice of applications across HP-UX 11i, Microsoft® Windows® Server 2003, Linux, and OpenVMS operating

environments. It also provides a variety of features—including easy management tools and serviceability capabilities—that simplify your system administrators' maintenance tasks. You gain greater simplicity and system control through HP server technologies such as universal hard drives, Integrity Integrated Lights Out (iLO 2), HP Systems Insight Manager (HP SIM), and the HP System Insight Display—an LED display that lets you verify your system's status right on the front of the server. Additionally, the Integrity rx2660 Server offers you a choice of I/O technologies (PCI-X or PCI Express), up to eight SAS drives of internal storage capacity (offering more than 1.1 TB), and in-box processor upgrades. Simply put, the HP Integrity rx2660 Server enables you to tackle today's problems with an eye toward the future of your infrastructure.

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

Key features and benefits

Outstanding flexibility—The HP Integrity rx2660 Server lets you choose the right operating environment for your workload. Plus, you also have the choice of rack-optimized or pedestal (reduced acoustics) form factors and I/O technologies (PCI-X or a combination of PCI Express/-X). The Integrity rx2660 Server includes all of the management, availability, and security features you expect, allowing seamless integration and management for deployment and redeployment across a heterogeneous IT environment. In addition, common HP server technologies, including universal racks, accessories, and management tools, add to a greater flexibility and return on your IT investment.

Simplified management and deployment—With the Integrity rx2660 Server, you can easily deploy a high-performing standalone, clustered, or distributed computing model. Powerful, integrated management tools—including HP System Insight Display, HP SIM, HP Integrity Essentials, iLO 2 remote management, HP Global Workload Manager (gWLM), HP Rapid Deployment Pack, and HP OpenView applications—work with the Integrity rx2660 Server for faster, more efficient server deployment and reduced operational costs. You can manage your servers with the same tools you use to manage the rest of your infrastructure—from a single interface—which promotes greater control and efficiency, along with an enhanced user/administrator experience.

Improved IT productivity and secured availability—

The Integrity rx2660 Server offers extensive high-availability features—including redundant fans, double chip spare memory, redundant power supplies, and error checking and correcting—to safeguard your data integrity, improve application availability, and reduce planned maintenance time. With the use of a Trusted Platforms Module (TPM), several robust security features such as authentication and authorization, which are built into all four operating environments, make this an ideal platform for your secure transactions. Plus, HP StorageWorks' industry-leading portfolio of network storage solutions makes it easier for your business to increase information availability and protect data while radically cutting costs.

Improved utilization and continuous service levels—

The HP Virtual Server Environment (VSE) provides flexible capacity that helps you improve server utilization in real time. With the VSE's integration of intelligent control with partitioning and high availability (through solutions such as HP Serviceguard), you can create a pool of virtual servers that grow or shrink based on your business priorities. To enhance your consolidation initiatives, the Integrity rx2660 Server supports both HP Integrity Virtual Machines and HP Secure Resource Partitions, letting you safely share your server capacity among many different applications.

Technical specifications

Processor	1.6 GHz/18 MB Intel® Itanium® 2	1.4 GHz/12 MB Intel Itanium 2	1.6 GHz/6 MB Intel Itanium 2
Processors per system	1–2	1–2	1–2
Module type	Dual core	Dual core	Single core
Clock speed	1.6 GHz	1.4 GHz	1.6 GHz
Front-side bus	533 MHz	533 MHz	533 MHz
L1 cache	32 KB	32 KB	32 KB
L2 cache	1 MB instruction/256 KB data per core	1 MB instruction/256 KB data per core	1 MB instruction/256 KB data per core
L3 cache	18 MB (9 MB per core)	12 MB (6 MB per core)	6 MB
RAM minimum/maximum	1 GB/32 GB		
RAM type	Chip spare PC2-4200 ECC x4 single rank Registered DDR2 SDRAM		
Memory protection	Error checking and correcting (ECC) on memory and caches; double chip spare		
Hard drive capacity	36 GB, 73 GB, and 146 GB Small Form Factor Serial Attached SCSI (SAS) drives available		
Internal hard drive bays	8 hot-plug Small Form Factor Serial Attached SCSI (SAS)		
Maximum internal storage	1.168 TB		
Removable media	1 open bay for DVD-ROM or DVD+RW drive		
I/O slots	Choice of one of two options: <ul style="list-style-type: none"> All PCI-X Card Cage: 3 full-length PCI-X slots (2 @ 266 MHz/64-bit, 1 @ 133 MHz/64-bit) for 5.3 GB/s of I/O bandwidth (total bandwidth with core I/O is 7.0 GB/s) Combination Card Cage: 3 full-length slots (2 PCI Express slots @ 2.6 GB/s of bandwidth each, and 1 PCI-X slot @ 133 MHz/64-bit) for a total of 6.3 GB/s of I/O bandwidth (total bandwidth with core I/O is 8.0 GB/s) 		
Network adapter	Dual-port 10/100/1000Base-TX Ethernet		
Storage controller	8-port Serial Attached SCSI (SAS) controller supports internal devices only. <i>Note:</i> Windows systems must order Smart Array SAS P400 RAID Controller. Smart Array SAS P400 RAID controller is optional for HP-UX, OpenVMS, and Linux.		
Internal RAID	RAID 1 with 2 internal HDDs RAID 1 plus Hot Spare with 3 internal HDDs RAID 5 with 3 internal HDDs RAID 6 with 4 internal HDDs		
Interfaces	VGA and 3 USB ports for local human interface; 1 RS-232 serial port for general use; 1 RS-232 serial port and 10/100Base-T LAN for Integrated Lights Out (iLO 2) management		
Form factor	Rack-optimized with 2U height; standalone (rack-less) form factor kit		
Hot-plug fans	12, configured in redundant pairs (not supported in the rack-less version)		
Operating systems supported	HP-UX 11i v3 and 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 AS/ES 4 and Novell SUSE Linux Enterprise Server 10* OpenVMS v8.3 (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	N+1 redundant power supplies (N=1) N+1 fans (not supported with Office Friendly pedestal form factor) Error checking and correcting (ECC) on memory and caches Memory double chip spare Automatic deconfiguration of memory and processors Service processor to monitor system status		
HP Virtual Server Environment (VSE)	Workload management, partitions, and availability software (optional)		www.hp.com/go/vse

Environmental specifications

Acoustics (operator/bystander) at 25°C	<7.0 Bels LwA <6.0 Bels LwA (for office-friendly pedestal version)		
Altitude	Operating: 10,000 ft. (3,000 m) maximum Non-operating: 15,000 ft. (4,600 m) maximum		
Temperature	Operating: 41°F to 95°F (5°C to 35°C) 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 Non-operating: 8% to 85% non-condensing		
Dimensions	Rack form factor Height: 3.4 in. (86 mm) 2U EIA Width: 19.0 in. (482 mm) Depth: 26.5 in. (672 mm)	Pedestal form factor Height: 20.2 in. (512 mm) Width: 10.8 in. (275 mm) Depth: 27.1 in. (688 mm)	
Weight	Maximum configuration Rack form factor: 62 lbs. (28 kg) Maximum configuration Pedestal form factor: 87 lbs. (40 kg)		
Power requirements	Maximum configuration: 798 W Maximum configuration at idle: 567 W		
Power supply	Maximum output: 800 W at 90 V to 132 V AC input/1000 W at 180 V to 264 V AC input		
BTU rating	Maximum: 2,724 BTU/hour Maximum at idle: 1,936 BTU/hour		
Voltage tolerance range	90 to 132 VAC (operating range of 100–120 VAC +/-10%) 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-0503		

* available in 2Q 2007

HP Financial Services—put the power of the HP portfolio to work for you

In addition to having the industry's strongest portfolio of products, services, people, tools, methodologies, and world-class partnerships, we also provide world-class financial services. HP Financial Services offers a full range of IT transition, acquisition, management, and disposition services to help customers most effectively manage their IT infrastructure and their balance sheet at the same time. For more information on these services, contact your HP sales representative or visit: www.hp.com/go/hpfinancialservices

For additional information, please visit our Web sites at:

HP Storage—www.hp.com/go/storageworks

HP Serviceguard—www.hp.com/go/serviceguard

HP Systems Insight Manager (SIM)—
www.hp.com/go/hpsim

For more information

For more information about the HP Integrity server family, visit:

www.hp.com/go/integrityserverfamilyguide

For more information about the HP Integrity rx2660 Server, contact any of our worldwide sales offices or visit our Web sites at: www.hp.com/go/integrity or www.hp.com/go/rx2660

HP Services

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

The HP Services portfolio offers:

- **Consulting and Integration**—a portfolio of infrastructure, industry, business application, and availability services
- **Support**
 - Assessment and Design services—translate business and technical needs into a solution that melds the necessary hardware and software support
 - Deployment services—for risk-reducing installation, startup, implementation, and integration
 - HP Factory Express—customized factory configurations and onsite deployment
 - Availability services—to reduce downtime and meet service levels in mission-critical environments
 - HP Support Plus 24 Service—integrated hardware and software support services designed specifically for your technology
 - HP Proactive 24 Service—integrated hardware and software support including proactive and reactive services to improve stability and availability across your environment
 - HP Critical Service—comprehensive support solution designed to help minimize the business impact of downtime for mission-critical applications
- **Education**—classroom courses with self-paced curriculum and online instructor-led courses delivered off-the-shelf or customized to deliver an effective learning experience

Customers rely on HP to design, deploy, operate, and support the IT systems that run their businesses. HP Services has an extensive track record of helping customers improve their ability to support their changing business needs.

For more information, please visit: www.hp.com/services/support

© Copyright 2006 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Intel and Itanium are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries. Java is a U.S. trademark of Sun Microsystems, Inc. Microsoft and Windows are U.S. registered trademarks of Microsoft Corporation. UNIX is a registered trademark of The Open Group.

To learn more, visit www.hp.com

4AA0-9668ENW, December 2006

