

# HP Integrity rx7620-16 server



HP Integrity servers based on the Intel® Itanium® 2 processor offer the industry-leading performance you need to synchronize your IT and business processes so you can capitalize on change. Built on industry-standard technologies and reusable components, HP Integrity servers reduce costs and simplify change, helping you to build the foundation for an Adaptive Enterprise.

Build your Adaptive Enterprise with a server that achieves a level of functionality and value unmatched in its class—the HP Integrity rx7620-16 server. Based on the Intel Itanium 2 processor and the HP Super-Scalable Processor Chipset sx1000, the HP Integrity rx7620-16 server delivers breakthrough performance, operating system choice, and simplified management at an exceptional value.

HP Integrity servers are the ideal building blocks for creating an Adaptive Enterprise. An Adaptive Enterprise is an organization in which the IT environment is aligned with business needs and designed to provide the agility needed to respond quickly to changes as they arise.

The HP Integrity rx7620-16 server offers the flexibility and performance you need to enable this level of adaptability—all based on standard technologies and reusable components that reduce costs and simplify change.

With breakthrough performance, choice in operating systems and configurations, outstanding scalability, and tremendous value, the HP Integrity rx7620-16 server makes high-availability, 64-bit computing an affordable reality for your enterprise.

The multi-OS Integrity rx7620-16 server offers an endless choice of applications to meet your most demanding business requirements, whether those applications run on HP-UX 11i, Windows®, Linux®, or OpenVMS.

## Increase business agility with high-performance HP Integrity servers

HP Integrity servers outpace competitive systems by providing more power, more applications, additional features, and a broader range of solutions across both commercial and technical computing. The extensive experience HP gained in co-developing the Intel Itanium architecture led to the development of the HP Super-Scalable Processor Chipset sx1000. The HP sx1000 Chipset unleashes the full power of Intel Itanium 2 processors by lowering memory latencies and increasing memory and I/O throughput. The result is unmatched system performance gains to handle the most demanding business workloads—along with value that is unmatched in the industry.

In addition to the raw computing power of the HP Integrity rx7620-16 server, HP offers a full range of operating systems, including HP-UX 11i, Linux, and Windows. In the future, OpenVMS will also be available. These operating systems can even be run concurrently in the same server, thanks to HP hard-partitioning technologies. Not only does this capability provide more flexibility to help a business deploy the right solution, but it also reduces costs by consolidating multiple systems into a single HP Integrity rx7620-16 server.

## Taking HP Integrity rx7620-16 server to the next level—the HP mx2 dual-processor module consisting of two Intel Itanium 2 processors

The industry-leading flexibility, performance, and investment protection you've come to expect from the HP Integrity rx7620-16 server has been extended even further with the introduction of the mx2 dual-processor module.

Developed and offered exclusively by HP, the mx2 dual-processor module brings you double the number of Intel Itanium 2 processors in the HP Integrity rx7620-16 server. HP Integrity servers that already lead the industry across a wide number of benchmarks can now bring you significantly enhanced processing power, creating even greater opportunities to take advantage of the Itanium 2 processor for server consolidation, increased performance, and greater scalability.

## Evolve your infrastructure confidently with a partner that stands accountable

The multi-OS HP Integrity rx7620-16 server offers an endless choice of applications to meet your most demanding business requirements, whether those applications run on HP-UX 11i, Linux, or Windows (as well as OpenVMS in the future). This means that you can deploy and redeploy with ease the applications and operating systems that are best suited for your business. In addition, applications are protected, because the HP Integrity rx7620-16 server has been designed with leading high-availability technologies that virtually eliminate architecture and application vulnerability.

To achieve even greater performance, HP is working with leading independent software vendors (ISVs) in both the commercial and technical markets to optimize their applications for the Intel Itanium 2 microarchitecture, thereby achieving peak performance. HP technical computing customers are reporting compelling application performance improvements, with standard benchmark results faster than with any other microprocessors and the fastest performance on major industrial ISV codes. This leading performance is delivered with excellent industrial-ISV support on HP-UX 11i and Linux.

## HP Services—get the most out of your HP Integrity server

When you're ready to take advantage of the performance improvements Itanium-based computing offers, HP has a full range of multi-OS services available. HP Services delivers end-to-end solutions with servers, storage, management software, and services that you can count on for better time to problem resolution.

	Features	Benefits
<b>Increased performance</b>	<ul style="list-style-type: none"> <li>• Leading midrange performance based on Intel Itanium 2 processors, high-end cell-based technology, and the HP sx1000 Chipset</li> <li>• HP mx2 dual-processor module, consisting of two Intel Itanium 2 processors</li> <li>• Broad choice of operating systems</li> <li>• Robust partitioning continuum featuring hardware partitioning</li> </ul> <ul style="list-style-type: none"> <li>• Performance clustering capabilities with manageability features</li> </ul>	<ul style="list-style-type: none"> <li>• Blazing fast application performance to meet your demanding business needs</li> <li>• Superb density to enable server consolidation and a lower total cost of ownership</li> <li>• Flexibility to deploy the right operating system for your IT requirements</li> <li>• Significant consolidation opportunities based on the ability to run multiple operating systems concurrently in the same system</li> <li>• Optimized systems make high-performance technical computing (HPTC) affordable and accessible</li> </ul>
<b>Flexibility</b>	<ul style="list-style-type: none"> <li>• Industry-leading high-availability features and solutions</li> <li>• Broad portfolio of ISV applications available</li> <li>• Industry-leading services and support to build your highly available infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• Unprecedented reliability to protect your business from unforgiving interruptions</li> <li>• Wide range of choices to meet critical business and IT requirements</li> <li>• Reduced time to solution deployment; proactive and reactive support services help ensure availability and reliability of IT environments</li> </ul>
<b>Investment protection</b>	<ul style="list-style-type: none"> <li>• Comprehensive management tools</li> <li>• In-chassis upgradable from previous PA-RISC processors and to future generations of Intel Itanium processors</li> <li>• Improved resource utilization</li> </ul>	<ul style="list-style-type: none"> <li>• Common and simplified management is provided across operating systems to reduce costs</li> <li>• Superb investment protection and assured future performance without costly box swaps</li> <li>• Reduced costs and increased operational efficiency</li> </ul>

What's more, HP offers consistent quality and service levels across multiple operating systems—and HP is the only vendor that offers the services to support the implementation of multiple operating systems on a single Itanium-based server.

We'll help you quickly and confidently introduce HP Integrity systems into any existing IT environment and help maximize their potential for every business through our assessment, implementation, and education services. HP support offerings—from simple reactive support to comprehensive mission-critical support—minimize the risks associated with downtime.

## Reduce costs and maximize your return on IT investment

HP Integrity servers provide the keys to getting you an excellent return on your IT investment, including lower acquisition and operating costs. The same standards-based technologies and reusable components that make HP Integrity servers more cost-effective to build also make them easier to deploy, maintain, and manage. Moreover, with the mx2 dual-processor module, the HP Integrity rx7620-16 server now offers even greater investment protection by allowing you to get up to twice the processing power out of the same chassis for an outstanding total cost of ownership (TCO).

The HP Integrity rx7620-16 server makes taking control of your infrastructure simple and effective. With comprehensive, leading management tools to provide superior resource utilization and reduce complexity, the HP Integrity rx7620-16 server frees up IT resources and staff to perform other mission-critical tasks—eliminating costly downtime and system troubleshooting. And, with future in-chassis upgrades to future Intel Itanium processors, the HP Integrity rx7620-16 server is a highly flexible and scalable solution.

HP offers the industry's broadest family of scalable servers—all with a common architecture. Industry-standard processors in the HP Integrity rx7620-16 server allow you to reap numerous performance and cost benefits, including higher performance, lower total cost of ownership, and binary compatibility.

Itanium-based servers from HP have broad industry support and longevity. By choosing the HP Integrity rx7620-16 server now, you are sure of long-term performance gains by investing in a technology with sustainable performance improvements. In addition, HP offers the industry's best investment protection with in-box upgrades from PA-RISC to Integrity servers, a unique upgrade capability that offers unprecedented cost savings.

## Technical specifications

<b>Performance/Scalability/Flexibility</b>	<ul style="list-style-type: none"><li>• 2–8 Intel Itanium 2 processors (1.3 GHz with 3 MB cache or 1.5 GHz with 6 MB cache)</li><li>OR</li><li>• 2–16 Intel Itanium 2 processors using 8 HP mx2 dual-processor modules (1.1 GHz with 32 MB shared L4 cache)</li><li>• 1–2 cell boards (each cell: 2 or 4 processors and 2 to 32 GB memory)</li><li>• 2–64 GB memory capacity</li><li>• 15 PCI-X internal hot-plug I/O card slots</li><li>• 16 GB/s aggregate I/O slot bandwidth</li><li>• 2 hardware partitions (nPars)</li><li>• Rack or standalone server solutions</li><li>• 4 internal hot-plug disk bays and 1 internal removable media bay (DVD or DAT)</li><li>• Hot-swap, redundant power supplies</li><li>• Redundant (2N+1) input power</li><li>• Hot-swap, redundant cooling fans</li></ul>
<b>Operating systems</b>	<ul style="list-style-type: none"><li>• HP-UX 11i v2 with HP Virtual Server Environment (choice of Mission-Critical, Enterprise, or Foundation Operating Environment)</li><li>• Microsoft® Windows Server 2003, Enterprise Edition</li><li>• Microsoft Windows Server 2003, Datacenter Edition</li><li>• Red Hat Enterprise Linux (RHEL) AS 3*</li><li>• SUSE Linux Enterprise Server 9 (available 2H 2004*)</li><li>• OpenVMS (available 2005)</li></ul> <p>* Linux is supported on single Intel Itanium 2 processors. There are no current plans to support Linux on HP mx2 dual-processor module systems.</p>
<b>Availability</b>	<ul style="list-style-type: none"><li>• Dynamic CPU and memory allocation/de-allocation</li><li>• Memory chip-sparing technology</li><li>• Hot-plug cell boards</li><li>• Error checking and correcting (ECC) on all CPU, cache, memory, and I/O paths</li><li>• Online addition and replacement of PCI I/O cards</li><li>• Redundant power inputs for dual-grid connections</li><li>• Management processor failover (core I/O)</li><li>• N+1 hot-swappable fans and power supplies</li><li>• Hot-spare Instant Capacity on Demand CPU functionality (for HP-UX 11i partitions only)</li><li>• Hardware partitions (nPars) with failover functionality</li></ul>
<b>Optional high-availability and business-continuity solutions</b>	<ul style="list-style-type: none"><li>• HP Serviceguard for HP-UX 11i and Linux clusters</li><li>• HP Serviceguard Extension for RAC for HP-UX 11i</li><li>• HP Serviceguard Extension for SAP for HP-UX 11i</li><li>• HA Monitors for Event Monitoring Service for HP-UX 11i</li><li>• High-availability toolkits for HP-UX 11i and Linux</li><li>• HP Mirrordisk/UX for HP-UX 11i</li><li>• HP Extended Campus Cluster for HP-UX 11i</li><li>• Microsoft Cluster Service for Windows Server 2003, Enterprise and Datacenter Editions</li><li>• Mission-critical services and support</li></ul>
<b>Connectivity</b>	<ul style="list-style-type: none"><li>• Core I/O: 10/100/1000Base-T LAN, Ultra3 SCSI, management LAN, 3 serial ports</li><li>• Add-in cards: ATM, Token Ring, FDDI, 1000Base-SX, 1000Base-T, 10/100Base-T, Ultra2, Ultra3, Fibre Channel, terminal MUX, HP Speedcard software, X.25, Hyperfabric, combo cards</li></ul>

The HP Integrity rx7620-16 server provides an excellent return on your IT investment today and offers a secure, low-risk, and scalable solution for tomorrow.

### Further reduce costs through financing

Companies interested in further lowering their total costs may take advantage of HP Pay per use. When you acquire your HP Integrity rx7620-16 servers using

HP Pay per use for HP-UX 11i, you pay for your solution according to your level of usage—you'll never pay more than you would with a traditional lease, and you'll likely pay less. Pay per use increases your agility, improves your level of service, and lowers your total cost of computing.

## Technical specifications (continued)

<b>Manageability</b>	<ul style="list-style-type: none"> <li>Deploy: <ul style="list-style-type: none"> <li>HP Enablement Kit for Linux</li> <li>HP Integrity Essentials Foundation Pack for Windows, including Smart Setup CD</li> <li>HP Partition Manager</li> <li>HP Ignite-UX for installation and deployment of the operating system</li> <li>HP Software Distributor-UX for software and patch management</li> </ul> </li> <li>Monitor: <ul style="list-style-type: none"> <li>Built-in Management Processor for comprehensive remote server management</li> <li>HP Systems Insight Manager for centralized HP-UX, Windows, and Linux fault, asset, and configuration management</li> </ul> </li> <li>Optimize: <ul style="list-style-type: none"> <li>Process Resource Manager for HP-UX 11i resource management</li> <li>HP-UX Workload Manager for HP-UX 11i workload management, based upon service-level objectives</li> <li>HP OpenView Glanceplus Pack</li> </ul> </li> <li>Enterprise: <ul style="list-style-type: none"> <li>HP OpenView suite for infrastructure, service, and business process management</li> </ul> </li> </ul>
<b>Investment protection and flexibility</b>	<ul style="list-style-type: none"> <li>Utility pricing (Pay per use, Instant Capacity on Demand, and Pay per forecast) (HP-UX 11i only)</li> <li>Temporary Instant Capacity on Demand (HP-UX 11i only)</li> <li>In-chassis upgradability to future generations of Intel Itanium processors</li> <li>Ability to mix processor speeds within a partitioned system</li> <li>Interchangeable components with other HP servers and storage solutions</li> </ul>
<b>Support and services</b>	<ul style="list-style-type: none"> <li>Analysis, design, and implementation of infrastructure, IT processes, and IT organization</li> <li>Education services</li> <li>Smart Set integration services</li> <li>Implementation services</li> <li>Proactive and reactive support services</li> <li>Outsourcing and business recovery services</li> <li>Financial services</li> </ul>
<b>Rack-optimized design</b>	<ul style="list-style-type: none"> <li>Rackmount solution offering allows server to fit into 10U (44.45 cm height) space in all 19" EIA standard HP racks (Rack System/E and 10000 Series rack)</li> <li>J1530B: HP field rack kit for server and server expansion unit</li> <li>J1530BZ: HP factory rack kit for server and server expansion unit</li> </ul> <p>For a complete list of racks and rack accessories, refer to <a href="http://h30140.www3.hp.com">http://h30140.www3.hp.com</a></p>

## Environmental specifications

<b>Altitude</b>	Maximum non-operating Maximum operating	15,000 ft (4500 m) 10,000 ft. (3000 m)
<b>Temperature</b>	Operating  Non-operating Maximum rate of temperature change	41 to 95°F (5 to 35°C) @ 5,000 ft. For altitudes >5,000 ft., derate max. temp. by 1.8°F (1°C)/ 1000 ft. (300 m) -40 to +158°F (-40 to +70°C) 68°F/hr (20°C/hr)
<b>Humidity</b>	Operating	15% to 80%, non-condensing: max. wet bulb = 79°F (26°C)
<b>Physical dimensions</b>	Height Width Depth	Racked chassis: 10 EIA units/17.5 in. (44.45 cm) 19 in. (48.26 cm) 30 in. (76.20 cm)
<b>Net weight</b>	Maximum configuration	220 lb. (99.8 kg)
<b>Power requirements</b>	Typical power dissipation Input current AC input power	2030 VA (max. configuration) 10.2 A @ 200 Vac 200–240 V 50/60 Hz
<b>Regulatory</b>	Safety Electromagnetic interference  Power line LF emissions	UL listed, CUL certified, TÜV GS Mark, compliant with EN 60950 Complies with FCC rules and regulations, Part 15, as a Class A Digital Device; Manufacturer's declaration to EN 55022 Level A, VCCI registered, Class I, Korea RLL Europe: EN 61000-3-2; Europe: EN 61000-3-3

# HP Integrity rx7620-16 server

## Flexible Advantage Starter (FAST) system configurations

Product number	Description
AB201A	<b>HP Integrity rx7620-16 2-way server</b> —includes 1 cell board, 1 core I/O, and choice of: <ul style="list-style-type: none"><li>• 2 × 1.3 GHz Intel Itanium 2 processors with 3M L3 cache or</li><li>• 2 × 1.5 GHz Intel Itanium 2 processors with 6M L3 cache</li></ul>
AB202A	<b>HP Integrity rx7620-16 4-way server</b> —includes 1 cell board, 1 core I/O, and choice of: <ul style="list-style-type: none"><li>• 4 × 1.3 GHz Intel Itanium 2 processors with 3M L3 cache or</li><li>• 4 × 1.5 GHz Intel Itanium 2 processors with 6M L3 cache or</li><li>• 4 × 1.1 GHz Intel Itanium 2 processors using 2 HP mx2 dual-processor modules with 32 MB shared L4 cache</li></ul>
AB203A	<b>HP Integrity rx7620-16 6-way server</b> —includes 2 cell boards, 2 core I/O, and choice of: <ul style="list-style-type: none"><li>• 6 × 1.3 GHz Intel Itanium 2 processors with 3M L3 cache or</li><li>• 6 × 1.5 GHz Intel Itanium 2 processors with 6M L3 cache</li></ul>
AB204A	<b>HP Integrity rx7620-16 8-way server</b> —includes 2 cell boards, 2 core I/O, and choice of: <ul style="list-style-type: none"><li>• 8 × 1.3 GHz Intel Itanium 2 processors with 3M L3 cache or</li><li>• 8 × 1.5 GHz Intel Itanium 2 processors with 6M L3 cache or</li><li>• 8 × 1.1 GHz Intel Itanium 2 processors using 4 HP mx2 dual-processor modules with 32 MB shared L4 cache</li></ul>
AB343A	<b>HP Integrity rx7620-16 12-way server</b> —includes 2 cell boards, 2 core I/O, and <ul style="list-style-type: none"><li>• 12 × 1.1 GHz Intel Itanium 2 processors using 6 HP mx2 dual-processor modules with 32 MB shared L4 cache</li></ul>
AB344A	<b>HP Integrity rx7620-16 16-way server</b> —includes 2 cell boards, 2 core I/O, and <ul style="list-style-type: none"><li>• 16 × 1.1 GHz Intel Itanium 2 processors using 8 HP mx2 dual-processor modules with 32 MB shared L4 cache</li></ul>

## For more information

For more information about the HP Integrity rx7620-16 server, contact any of our worldwide sales offices or visit our Web sites at:

[www.hp.com/go/integrity](http://www.hp.com/go/integrity)

[www.hp.com/go/rx7620](http://www.hp.com/go/rx7620)

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