

Solutions for the adaptive enterprise.

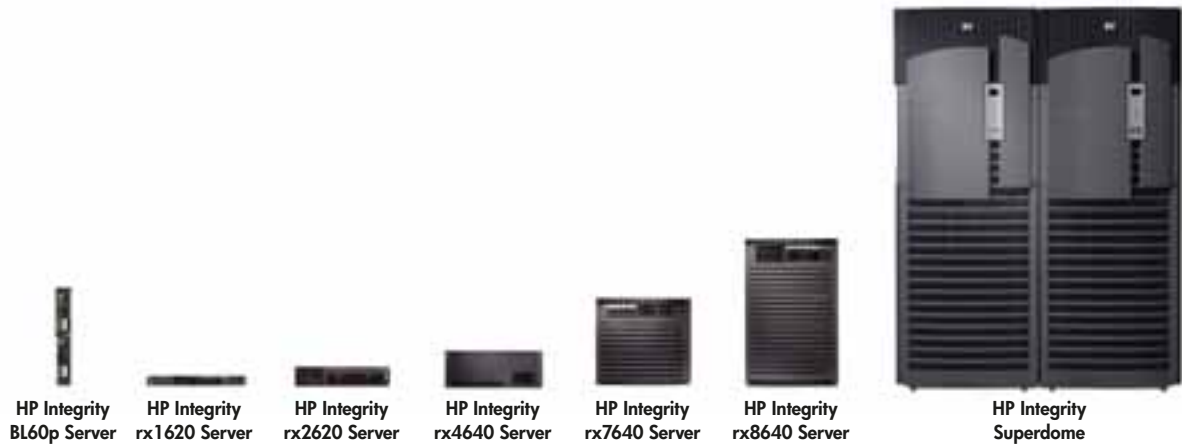


The HP Integrity server family

Trust HP Integrity servers for your most demanding workloads.

change + hp





HP Integrity servers: delivering a better return on IT

Information technology teams in enterprises of all sizes deliver significant business improvements when they are able to consolidate and simplify their IT environments, bring high-value projects up and online more quickly, and meet customers' high service-level expectations. HP Integrity servers best meet those demands by providing **flexible capacity** for your changing business needs, **secured availability** to preserve service levels, and **simplified management** to streamline operations. This approach increases your return on IT investments while letting you focus on your business. With Integrity servers, you can:

- Take advantage of the most integrated virtualization technologies that provide increased resource utilization
- Enjoy the flexibility to handle any type of workload—whether it's a batch, query, or online transaction—and scale up or out as your needs change
- Protect your environment at every level from intruders while supporting continuous operations

- Reduce your staff burdens and simplify operations with integrated management tools—along with HP storage, services, consulting, and support
- Run practically any application you need; more than 7,500 applications have been developed for HP Integrity servers by the world's leading independent software vendors (ISVs), and the numbers continue to grow rapidly
- Use your choice of the industry's leading operating systems: HP-UX 11i, Microsoft® Windows® Server 2003, Linux®, and OpenVMS
- Experience greater computing capacity, high availability, investment protection, and better price/performance on midrange and high-end Integrity servers, which are equipped with the new HP Super-Scalable Processor Chipset sx2000

HP Integrity servers are built to meet the unique computing needs of your enterprise. They're the right choice for your IT environment today—because they'll continue to handle your most demanding workloads tomorrow.

HP Integrity systems provide flexible capacity, secured availability, and simplified management—helping you to meet your business needs while delivering a better return on IT.

HP Integrity servers are part of an ecosystem to help you evolve and improve your overall IT infrastructure while driving down the cost of computing.

HP Integrity servers: the infrastructure for an Adaptive Enterprise

HP Integrity servers help you synchronize business and IT to capitalize on change. They enable an Adaptive Enterprise by promoting simplicity, agility, and value within your IT environment. Able to adapt to emerging technologies as business demands evolve, they're also built to last. HP Integrity servers further increase your IT investment return with integrated innovations such as:

- **Flexible capacity for your changing business needs**
The HP Virtual Server Environment (VSE) lets you significantly improve server utilization in real time, doubling your server utilization and effortlessly balancing IT supply with business demand. The VSE delivers additional resources to your most critical applications during peak times by creating virtual servers that automatically grow and shrink based on the service-level objectives for each application they host. Through industry-leading integration of intelligent control with partitioning and high availability, HP VSE—with HP-UX 11i as its development platform—lets you maintain continuous service levels in the event of downtime. Plus, with utility pricing solutions such as Instant Capacity, you can pay for spare capacity on an as-needed basis.

The introduction of the HP Super-Scalable Processor Chipset sx2000 in midrange and high-end Integrity servers offers up to a 30% increase in computing capacity. This significant performance increase helps you lower your costs even further with greater bandwidth, enhanced availability and I/O connectivity, reduced system latencies, and better manageability.

- **Secured availability to preserve service levels**
HP's integrated solutions for secured availability support continuous business operations and protect your IT environment at every level from intruders. Innovative technologies preserve data integrity and significantly increase application availability while reducing planned and unplanned downtime. HP Integrity servers' clustering and disaster-tolerance technologies—including HP Serviceguard for HP-UX 11i and Linux—enhance the Intel® Itanium® 2 processor's built-in high reliability, availability, and serviceability (RAS) features. Integrity servers also feature the only Microsoft-certified disaster-tolerance solution. Furthermore, OpenVMS is the most secure general-purpose commercial operating system—and applications that run in OpenVMS clusters on HP Integrity servers can achieve uptime levels measured in years. Plus, with Integrity servers' advanced partitioning capabilities, you can upgrade live systems one partition at a time.
- **Simplified management to streamline operations**
HP Integrity servers' powerful, unified infrastructure management simplifies your IT operations to create greater efficiencies. As a result, you achieve more with fewer resources. For example, HP Systems Insight Manager manages all platforms and operating systems across the HP server portfolio—along with storage—helping you to further reduce costs, decrease complexity, and increase efficiency. HP OpenView software allows you to manage your IT infrastructure and troubleshoot networks with a unified and integrated enterprise-wide management solution for reduced total cost of ownership (TCO).



Harness the power of your environment and increase your return on IT.

HP Integrity servers promote a higher return on your IT investment by providing flexible capacity, secured availability, and simplified management. Your return on IT is further enhanced by an inclusive ecosystem that helps you create a cohesive IT and business environment, including strong partnerships with industry-leading ISVs, full storage solutions, flexible financing options, and comprehensive services, consulting, and support.

- **Get complete storage solutions with HP StorageWorks products.**

With an industry-leading portfolio of network storage solutions, HP StorageWorks products deliver simplicity, agility, and value while keeping data protected, secure, and available. HP StorageWorks solutions are also transforming storage with the advent of the StorageWorks Grid—an architecture that will deliver unprecedented capabilities to create new and exciting ways to put information to work. The StorageWorks Grid is a blueprint for delivering a storage infrastructure consisting of a service-oriented architecture (SOA), single-system image management, and a scale-out architecture. For more information, contact your HP sales representative or visit:

www.hp.com/go/storageworks

- **Evolve your infrastructure with HP Services.**

More companies trust HP Services with their mission-critical support than any other organization. HP provides a broad spectrum of services to commercial and enterprise customers, including performance and availability services such as proactive mission-critical services, and support management services for deployment of the entire IT infrastructure, including HP and multivendor environments. For more information on these services, please contact your HP sales representative or visit: www.hp.com/hps/support

- **Reduce your costs with HP Financial Services.**

In addition to having the industry's strongest portfolio of products, services, people, tools, methodologies, and world-class partnerships, HP makes it easy on your balance sheet by putting the power of the HP portfolio to work for you through HP Financial Services. One popular option is Pay per use, a metered utility pricing solution available with selected HP Integrity server platforms that lets you pay for capacity as you use it. No matter which combination of reliable and innovative HP solutions you need, HP Financial Services can help reduce your costs even further with our full range of "acquire-to-retire" services. For more information, please contact your HP sales representative or visit: www.hp.com/go/hpfinancialservices



HP Integrity servers: built from the ground up to deliver outstanding price/performance and investment protection

HP Integrity BL60p Server: ideal for server consolidation and deployment in remote locations

The HP Integrity BL60p Server is the first Itanium 2-based server blade in the HP BladeSystem p-Class family. Now available with the robust, secure, and cost-effective HP-UX 11i operating environment, the Integrity BL60p Server offers dramatically improved application deployment, capacity management, reliability, and security. Plus, the Integrity BL60p Server provides increased resource utilization by supporting HP Integrity Virtual Machines and the HP Virtual Server Environment. It can also operate in the same enclosures with HP ProLiant server blades, meaning you can consolidate several UNIX®, Windows, and Linux servers into an easy-to-deploy enclosure. As a result, you can rapidly scale-up your existing environment to support business-critical applications for remote locations.

HP Integrity rx1620 and rx2620 Servers: enterprise-grade features at an entry-level price

The HP Integrity rx1620 and rx2620 Servers provide the industry's best combination of price/performance, ultra-high-density form factor, and low TCO. Featuring up to two Intel Itanium 2 processors, both servers offer a highly flexible, scalable, affordable entry into the Integrity server family. They are ideal for increasing performance and reducing cost and complexity in commercial application areas such as software development, Internet infrastructure, financial services, and Java™ applications. These servers empower technical-computing users to perform more simulations and more in-depth analyses, to run complex models faster, and to render high-quality images with greater performance. Both of these servers also offer virtualization capabilities by supporting HP Integrity Virtual Machines and the HP Virtual Server Environment.

The HP Integrity rx1620 Server is designed specifically to reduce power consumption and to fit in the smallest possible physical footprint; the Integrity rx2620 Server offers leading price/performance and scalability by utilizing low-voltage and high-performance CPUs. Both platforms are ideal for ISVs planning to migrate and develop applications because of their ability to support multiple operating systems and graphics. Clustering can enhance the benefits of both servers even further: up to 40 Integrity rx1620 Servers and up to 20 Integrity rx2620 Servers can be clustered in an industry-standard cabinet, providing a densely racked configuration that offers greater efficiency and high availability through consolidation of system resources.

HP Integrity rx4640 Server: increased business agility with leading entry-class server performance and availability

The HP Integrity rx4640 Server, with up to eight processors and 128 GB of memory, brings exceptional flexibility, price/performance, reliability, and availability in a compact, rack-optimized design to meet demanding enterprise-level computing requirements. The Integrity rx4640 Server is ideal for enterprise resource planning (ERP), customer relationship management (CRM), business intelligence, and e-commerce applications. The power and scalability of the Integrity rx4640 Server is further strengthened when it is used in a high-availability clustering solution, which improves application availability, provides data protection, and reduces planned maintenance time. Plus, with the HP Virtual Server Environment, you can optimize server resources in real time.

The new HP Super-Scalable Processor Chipset sx2000, available in midrange and high-end HP Integrity servers, offers greater performance, reliability, and availability.



Setting the stage for the future

HP Integrity rx7640 and rx8640 Servers: industry-leading midrange servers with high-end mission-critical performance and capabilities

The HP Integrity rx7640 and rx8640 Servers provide enterprises and high-performance computing centers with increased performance, flexibility, and investment protection. The 8-way flexibility and high density of the Integrity rx7640 Server enable the agility needed to meet today's commercial and technical computing demands while providing excellent business continuity—and cutting costs. The Integrity rx8640 Server, with 16-way scalability and up to 128 GB memory, is an ideal entry into high-end computing.

The hard-partitioning capabilities of both servers, along with the HP Virtual Server Environment, offer significant consolidation opportunities while reaping the blazing-fast application performance, enhanced availability, and better manageability features of the HP sx2000 Chipset.

Current midrange HP 9000 system customers have opportunities for in-chassis upgrades to enjoy the numerous benefits of Integrity rx7640 and rx8640 Servers. Overall, these two models provide high performance, scalability, and operating-system choice, all at an exceptional value.

HP Integrity Superdome: record-setting performance, world-class choice

The HP Integrity Superdome is HP's high-end enterprise computing solution, delivering pacesetter choices in configurations, scalability, operating systems, and applications along with the flexibility and high performance required for cache-intensive applications. In fact, the Integrity Superdome has set several world-record benchmarks. Offering outstanding business-continuity capabilities, simplified management architecture, and best-in-class solution deployment, the Integrity Superdome dramatically improves your response times to mission-critical tasks such as queries or simulations.

With up to 1 TB of memory, as many as 16 hard partitions (nPars), and the HP Virtual Server Environment, the Integrity Superdome is an ideal high-density platform that can help you reduce complexity through enhanced server consolidation. Whether it's for ERP, CRM, database hosting, telecom billing, HR, financial applications, data warehousing, high-performance technical computing, or any type of mission-critical enterprise application, the HP Integrity Superdome is a proven solution for the Adaptive Enterprise.

Put HP Integrity servers to work for you today.

To learn more about how HP Integrity servers can further enable your Adaptive Enterprise, please contact your HP sales representative or visit: www.hp.com/go/integrity

HP Integrity server family specifications

HP Integrity blade servers

	HP Integrity BL60p Server
Processors supported (frequency/cache)	Intel Itanium 2 processor <ul style="list-style-type: none"> • 1.6 GHz/3 MB
Number of processors	1–2
Scalable processor chipset	zx1
Operating systems supported	HP-UX 11i v2 Mission-Critical, Enterprise, and Foundation Operating Environments (OEs)
Maximum memory	8 GB
Internal hard disk drives	2
Manageability	HP Systems Insight Manager
Maximum number of BL60p blades in one HP BladeSystem enclosure	8

HP Integrity server family at a glance (entry-class servers)

	HP Integrity rx1620 Server	HP Integrity rx2620 Server	HP Integrity rx4640 Server
Processors supported (frequency/cache)	Intel Itanium 2 processor <ul style="list-style-type: none"> • 1.6 GHz/3 MB • 1.3 GHz/3 MB 	Intel Itanium 2 processor <ul style="list-style-type: none"> • 1.6 GHz/6 MB • 1.6 GHz/3 MB • 1.3 GHz/3 MB 	Intel Itanium 2 processor <ul style="list-style-type: none"> • 1.6 GHz/9 MB • 1.6 GHz/6 MB • 1.5 GHz/4 MB HP mx2 Dual-Processor Module
Number of processors	1–2	1–2	1–8
Scalable processor chipset	zx1	zx1	zx1
Operating systems supported	<ul style="list-style-type: none"> • HP-UX 11i v2 Mission-Critical, Enterprise, and Foundation Operating Environments (OEs) • Microsoft Windows Server 2003, Enterprise Edition for 64-bit Itanium-based systems • Red Hat Enterprise Linux • Novell SUSE Linux Enterprise Server • OpenVMS v8.2-1 	<ul style="list-style-type: none"> • HP-UX 11i v2 Mission-Critical, Enterprise, and Foundation Operating Environments (OEs) • Microsoft Windows Server 2003, Enterprise Edition for 64-bit Itanium-based systems • Red Hat Enterprise Linux • Novell SUSE Linux Enterprise Server • OpenVMS v8.2-1 	<ul style="list-style-type: none"> • HP-UX 11i v2 Mission-Critical, Enterprise, and Foundation Operating Environments (OEs) • Microsoft Windows Server 2003, Enterprise Edition for 64-bit Itanium-based systems • Red Hat Enterprise Linux¹ • Novell SUSE Linux Enterprise Server¹ • OpenVMS v8.2-1
Maximum memory	16 GB	32 GB	128 GB
I/O slots	2	4	6
Internal hard disk drives	2	3	2
Manageability	HP Systems Insight Manager	HP Systems Insight Manager	HP Systems Insight Manager
EIA unit height	1	2	4

HP Integrity server family at a glance (midrange and high-end servers)

	HP Integrity rx7640 Server	HP Integrity rx8640 Server	HP Integrity Superdome
Processors supported (frequency/cache)	Intel Itanium 2 processor <ul style="list-style-type: none"> • 1.6 GHz/6 MB 	Intel Itanium 2 processor <ul style="list-style-type: none"> • 1.6 GHz/6 MB 	Intel Itanium 2 processor <ul style="list-style-type: none"> • 1.6 GHz/9 MB
Number of processors	2–8	2–16	2–64
Scalable processor chipset	sx2000	sx2000	sx2000
Operating systems supported	<ul style="list-style-type: none"> • HP-UX 11i v2 Mission-Critical, Enterprise, and Foundation Operating Environments (OEs) • Microsoft Windows Server 2003, Enterprise Edition for 64-bit Itanium-based systems • Microsoft Windows Server 2003, Datacenter Edition for 64-bit Itanium-based systems • Red Hat Enterprise Linux² • Novell SUSE Linux Enterprise Server² • OpenVMS² 	<ul style="list-style-type: none"> • HP-UX 11i v2 Mission-Critical, Enterprise, and Foundation Operating Environments (OEs) • Microsoft Windows Server 2003, Enterprise Edition for 64-bit Itanium-based systems • Microsoft Windows Server 2003, Datacenter Edition for 64-bit Itanium-based systems • Red Hat Enterprise Linux² • Novell SUSE Linux Enterprise Server² • OpenVMS² 	<ul style="list-style-type: none"> • HP-UX 11i v2 Mission-Critical, Enterprise, and Foundation Operating Environments (OEs) • Microsoft Windows Server 2003, Enterprise Edition for 64-bit Itanium-based systems • Microsoft Windows Server 2003, Datacenter Edition for 64-bit Itanium-based systems • Red Hat Enterprise Linux² • Novell SUSE Linux Enterprise Server² • OpenVMS²
Maximum memory	64 GB	128 GB	1 TB
I/O slots	15	16 (32 with SEU-2 ³)	192 (with I/O expansion)
Internal hard disk drives	4	4 (8 with SEU-2 ³)	N/A
nPartitions	1–2	1–2 (1–4 with SEU-2 ³)	1–16
Manageability	HP Systems Insight Manager	HP Systems Insight Manager	HP Systems Insight Manager
EIA unit height	10	17 (26 with SEU-2 ³)	N/A

¹ Linux is not supported on the HP mx2 Dual-Processor Module.

² Linux and OpenVMS will be supported later in 2006 on the sx2000-based Integrity Superdome, rx8640, and rx7640 Servers with the Intel Itanium 'Montecito' processor and are supported today on the sx1000-based Integrity Superdome, rx8620, and rx7620 Servers.

³ SEU-2 = Server Expansion Unit 2

For the latest Linux certification information, go to www.hp.com/wwwolutions/linux/products/servers/itanium-cert-matrix.html.

To learn more, visit www.hp.com/go/integrity

© 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. Linux is a U.S. registered trademark of Linus Torvalds. Microsoft and Windows are U.S. registered trademarks of Microsoft Corporation. UNIX is a registered trademark of The Open Group.

Financing available through Hewlett-Packard Financial Services Company or one of its affiliates is subject to credit approval and execution of standard HP Financial Services documentation. Other restrictions may apply. HP Financial Services reserves the right to change or cancel this program at any time without notice.

5983-0162EN Rev. 1, March 2006

