HP Integrity rx2600 server

Demand more—more accountability, more agility, and a better return on IT—to build your adaptive enterprise with the industry-leading HP Integrity rx2600 server.

Based on the revolutionary Intel® Itanium® 2 processor, co-developed by HP and Intel, the HP Integrity server reduces platform costs, enables higher performance and scalability, and provides the flexibility you need to build an adaptive enterprise. HP Integrity servers are easily outpacing the performance of IA-32 and classic RISC-based systems by providing more power, more applications, additional features, and a broader range of solutions.

The HP Integrity rx2600 server, powered by one to two Intel Itanium 2 processors, improves price/performance in enterprise HP-UX, Linux, or Windows® environments (with OpenVMS availability in the future) and provides a cost-effective yet powerful entry into a technology with tremendous growth potential.

To meet today's computing demands, a new era of high-performance computing has begun, and HP is leading the industry with second-generation Itanium® 2-based servers.

Increase business agility with high-performance, low-cost HP Integrity servers

With Intel Itanium 2 processors at 1.5 GHz with 6M L3 cache or 1.3 GHz with 3M L3 cache and up to 24 GB of memory, the 2-way HP Integrity rx2600 server helps you achieve more performance, improve business processes, and manage your IT more efficiently. The HP Integrity rx2600 server empowers technical computing users to do more simulations, do more in-depth analysis, run complex models faster, and render high-quality images with optimized performance. Commercial computing users will run their applications with superior performance, decreased costs, and reduced complexity.

Extensive Itanium-based systems experience and co-developer insights resulted in unmatched HP system performance gains through the development of the HP Scalable Processor Chipset zx1. Invented by HP, the zx1 Chipset fully unleashes the power of Intel Itanium 2 processors by lowering memory latencies and increasing memory and I/O subsystem scalability. With the HP zx1 Chipset, Itanium 2-based HP Integrity servers achieve industry-leading performance and memory expandability.

The performance achieved through the Itanium processor itself and the accompanying zx1 Chipset is further enhanced when rx2600 servers are used in a clustering solution. Because each HP Integrity rx2600 server is only 3.5 inches high (2U), clustering multiple HP Integrity rx2600 servers packs unprecedented performance into a densely racked, low-priced solution. Clusters allow the consolidation of system resources such as I/O, bandwidth, memory, mass storage, and compute capacity. The rx2600 cluster solutions also ensure data integrity, maximize application availability, and minimize planned maintenance time. Regardless of your choice of HP-UX, Linux, or Windows, HP has a powerful, flexible, highly available, and easily managed cluster solution to meet your needs.

Evolve your infrastructure confidently with a partner that stands accountable

When you're ready to take advantage of the performance improvements Itanium-based computing offers, HP has a full range of services to help make the transition as seamless and painless as possible. We'll help you quickly and confidently introduce HP Integrity servers into your existing IT environment and maximize their potential for your business. We offer assessment services to precisely define porting requirements and chart a course to deployment, implementation services to install and configure equipment rapidly, and education services to provide your staff with the expertise required to achieve optimal system performance. Throughout the transition process, HP accepts full accountability for delivering on the service commitments that we and our partners have made. And our commitment to your satisfaction doesn't stop with the transition process itself. Our support offerings—from simple reactive to comprehensive mission critical—reduce the risks associated with downtime once your HP Integrity systems are installed. We are looking ahead to ensure your long-term success by working with leading independent software vendors (ISVs) in both the technical and commercial markets to optimize their applications to the Itanium 2 architecture, thereby exploiting the full potential of your HP Integrity systems.

	Features	Benefits
World-leading performance and agility	• Latest generation of Intel Itanium 2 processors	• Higher performance than today's RISC and x86 platforms and significant performance improvement over the previous Intel Itanium 2 processor version
	• HP zx1 Chipset	• Blazing fast application performance and unmatched memory scalability
	• Performance clustering capabilities with manageability features	• Enables massively scalable systems from low end up to supercomputers
Vendor accountability	• HP-UX and IA-32 based applications are binary compatible with Itanium-based platforms	• Ease of transition from today's platforms to the new generation of industry-standard computing • Customer and ISV applications can run unmodified on HP Integrity servers
	• Use of existing HP server management tools to manage your operating system of choice	• Easy integration of HP Integrity servers into your existing computing environments • Rationalizes your infrastructure and support needs for reduced costs
	• Comprehensive transition services include planning, porting and migration, implementation, support, and education	• HP can help guide your evolution to HP Integrity systems quickly, easily, and painlessly
	• Complete high availability and business continuity solutions to bulletproof systems and data centers, keeping them up and running when you need them most	• Ensures data integrity • Maximizes application availability • Minimizes planned maintenance time
	• Comprehensive high availability services	• Offers choice of services to meet whatever availability needs are required for mission-critical environments
Better return on your IT investment	• Architecture of the future working for you today	• Ensures the performance you need for decades to come • Growing faster than all other microprocessor architectures
	• Easy upgrade path to future Intel Itanium processors	• In-box upgrade from current to future Intel Itanium 2 processors • A simple transition to future performance and total-cost-of-ownership improvements
	• Choice of operating systems (HP-UX, Linux, Windows, and OpenVMS in the future)	• Supports the right operating system for the right job while lowering IT costs

Maximize your return on investment

Itanium-based solutions have broad industry support and early lifecycle longevity. By choosing the HP Integrity rx2600 server now, you are assured of long-term performance gains and seamless upgrades to meet your changing business needs. Because HP offers you the flexibility to choose between HP-UX, Linux, and Windows operating systems (and OpenVMS in the future), you are guaranteed outstanding investment protection. HP Integrity servers allow you to choose the operating system that best meets your needs now and exchange operating systems as your business needs change. This is important because some applications are only available—or are more economical—on a particular operating system. In addition, the co-developer expertise of HP ensures a seamless transition with 32- and 64-bit application binary compatibility. For breakthrough flexibility, applications currently based on HP-UX, IA-32

Windows, and Linux are binary compatible with HP Integrity platforms.

HP is the only vendor to offer a proven mission-critical, enterprise-quality UNIX® operating system for Itanium-based systems. HP-UX 11i offers unsurpassed scalability, reliability, manageability, availability, and security. HP-UX 11i for HP Integrity servers even has the ability to execute PA-RISC applications using built-in HP dynamic code translation technology.

The Itanium 2-based HP Integrity rx2600 server includes all of the management, availability, and security features you typically expect to find running HP-UX, Linux, or Windows architectures. These features include the tools you need to monitor, deploy, and optimize your servers and solutions for high availability—providing maximum utilization of computing resources.

Technical specifications

Performance/scalability/flexibility

1 to 2 Intel Itanium 2 processors
Clock frequency 1.5 GHz and 1.3 GHz
System bus bandwidth 6.4 GB/s

Operating systems

HP-UX 11i v 2
Microsoft® Windows Server 2003, Enterprise Edition for 64-bit Itanium 2-based systems
Red Hat Linux Advanced Server 2.1 for the Itanium processor
SuSE Enterprise Linux 8 for Intel Itanium 2 processors

Cache (on-chip)

Level 1 cache	32 KB
Level 2 cache	256 KB
Level 3 cache	6 MB (1.5 GHz) or 3 MB (1.3 GHz)

Expansion slots

PCI-X slots	4 full-length 64-bit/133 MHz PCI-X
I/O bandwidth	4.0 GB/s

Main memory

Bus bandwidth	8.5 GB/s
RAM type	PC2100 ECC Registered DDR266A SDRAM
Capacity	24 GB max
Memory slots	12 DIMM slots
Memory latency	78 ns

Core I/O interconnect

10/100/1000BT LAN
10/100BT LAN
10/100BT management LAN
Ultra320 SCSI
RS-232 serial ports
VGA
USB

Internal storage devices

Internal bays	3 hot-plug SCSI disk bays
Disk offerings	36 GB (15K rpm) 73 GB (15K rpm) 146 GB (10K rpm)
Maximum storage	438 GB
Removable media	1 open bay for DVD-ROM or DVD/CD+RW

Peak performance

Per processor	6 GFLOPS (1.5 GHz) 5.2 GFLOPS (1.3 GHz)

High Performance Technical Computing capabilities

hptc/ClusterPack for distributed workload management
HP-UX Technical Computing Operating Environment (including HP MLIB and HP MPI)
MSC.Linux—Linux distribution for compute clusters deployed in CAE environments

The most complete Itanium-based solution from the most experienced vendor of Itanium-based systems in the industry

High availability

N+1 redundant hot-swap power supplies (N=2)

N+1 fans

ECC on memory and caches

Memory chip spare

Automatic de-configuration of memory and processors

Service processor to monitor system status

High availability and business continuity solutions (optional)

- HP Serviceguard for HP-UX
- HP Serviceguard Extension for RAC for HP-UX
- HP Serviceguard Extension for SAP for HP-UX
- HP Serviceguard Manager for HP-UX clusters
- HP Event Monitoring Service HA Monitors for HP-UX
- High Availability Toolkits for HP-UX
- HP Mirrordisk/UX
- HP Extended Campus Cluster for HP-UX
- Microsoft Cluster Service for Windows Server 2003, Enterprise Edition
- HP Cluster Verification Tool for Windows Cluster Service

Manageability

Deploy

- HP Ignite-UX for installation and deployment of the operating system
- HP Software Distributor-UX for software and patch management
- HP Enablement kit for Linux
- HP Integrity Essentials Foundation Pack for Windows with SmartSetup DVD

Monitor

- HP Servicecontrol Manager tools for HP-UX servers, including:
  - HP System Administration Manager for HP-UX system administration
  - HP System Inventory Manager for change and asset management
  - HP Event Monitoring Service for fault management
- HP-UX Kernel Configuration for easy, dynamic kernel parameter changes
- Insight Manager 7 for fault and inventory management of Windows- and Linux-based servers
- Management Processor for comprehensive remote server management of HP-UX, Windows, and Linux

Optimize

- Process Resource Manager for HP-UX resource management (optional)
- HP-UX Workload Manager for workload management based upon prioritized service-level objectives (optional)

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The breakthrough flexibility of HP Integrity multi-OS servers allows them to be deployed and redeployed as your needs evolve, for a "future-proof" IT infrastructure

Environmental specifications

Altitude

Operating	3048m (10,000 ft.) maximum
Non-operating	4572m (15,000 ft.) maximum

Temperature (Celsius and Fahrenheit)

Operating	+5° to +35° C (+41° to +95°) F
Non-operating	−40° to +70° C (−40° to +158° F)

Humidity

Operating	15% to 80% relative

Physical dimensions (rack form factor)

Height	86 mm/3.4 in./2U EIA
Width	482 mm/19 in.
Depth	680 mm/26.8 in.

Physical dimensions (pedestal form factor)

Height	495 mm/19.5 in.
Width	297 mm/11.7 in.
Depth	672 mm/26.5 in.

Net weight

Maximum configuration	25 kg/56 lb.

Power requirements

Input current	100–127V ~8.0A
	200–240V ~3.9A
	(autoranging)
Line frequency	50–60 Hz
Maximum power input	714W

Power supply

Maximum output	650W

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

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