HP Integrity rx5670 server

Powerful HP Integrity servers—a new era of computing

The HP Integrity rx5670 server, powered by 1–4 Intel Itanium 2 processors, improves price/performance in enterprise HP-UX, Linux, and Windows® environments.

HP is providing customers with the most complete Itanium-based solutions from the most experienced vendor of Itanium-based systems in the industry.

To meet today's computing demands, a new era of high-performance computing has begun, and HP is leading the industry. Based on the revolutionary Itanium® 2 processor, co-developed by HP and Intel®, HP Integrity servers reduce platform costs, enable higher performance and scalability, and enhance flexibility, providing the agility, accountability, and return on IT you need to build an adaptive enterprise.

invent

Demand more—more accountability, more agility, and a better return on IT

Increase business agility with an entry-level performance leader

With its 1.5 GHz or 1.3 GHz Intel Itanium 2 processors and up to 96 GB of memory, the 4-way HP Integrity rx5670 server helps you achieve more performance, improve business processes, and manage your IT more efficiently. The HP Integrity rx5670 empowers technical computing users to do more simulations, perform 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.

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

The performance achieved through the Intel Itanium processor itself and the accompanying HP zx1 Chipset is further enhanced when HP Integrity rx5670 servers are used in a clustering solution. Clusters allow the consolidation of system resources such as I/O, bandwidth, memory, mass storage, and compute capacity for maximum resource utilization. HP Integrity rx5670 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 multi-OS services to help make the transition as seamless and painless as possible. We'll help you quickly and confidently introduce HP Integrity systems 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 evolution 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 multi-OS 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 Intel Itanium 2 architecture, thereby exploiting the full potential of your HP Integrity servers.

Key features and benefits

	Features	Benefits
Increased business performance and agility	• Next-generation Intel Itanium 2 processors • HP zx1 Chipset • HP-UX- and IA-32-based applications are binary-compatible with Itanium-based platforms • Performance clustering capabilities with manageability features • Improved resource utilization	• Higher performance than today's RISC and IA-32 platforms • Blazing fast application performance and unmatched memory scalability • Ease of transition from today's platforms to next-generation, industry-standard computing • Customer and ISV applications can run unmodified on the HP Integrity servers • Enable massively scalable systems, from low-end to supercomputers • Reduced costs and increased operational efficiency
Vendor accountability	• Consistent management tools • Complete high availability and business continuity solutions to bulletproof systems and data centers, keeping them up and running when you need them most • Comprehensive services	• Easy integration of HP Integrity platforms into your existing computing environments • Ensure data integrity • Maximize application availability • Minimize planned maintenance time • 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 • In-box upgrades from existing rp5400 servers to the rx5670 • Simple CPU upgrades for existing rx5670 customers to the latest 1.3 GHz or 1.5 GHz Intel Itanium 2 processors • Choice of operating systems (HP-UX, Linux, Windows)	• Ensures the performance you need for decades to come • A seamless transition to the HP Integrity systems • Increased flexibility and reduced total cost of ownership • Supports the right operating system for the right job while lowering IT costs

Maximize your return on investment

Because HP offers you the flexibility to choose between HP-UX, Linux, and Windows operating systems, you are guaranteed investment protection. HP Integrity servers allow you to choose the operating system that best meets your needs now and keep the flexibility to exchange operating systems as your business needs change. This flexibility is important because some applications are only available or are more economical on a particular operating system.

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. And, HP-UX 11i for HP Integrity servers even has the ability to execute applications written for HP 9000 (PA-RISC) servers, using built-in Aries dynamic code translation technology from HP.

The HP Integrity rx5670 server includes many of the management, availability, and security features you typically expect to find running on HP-UX, Linux, or Windows architectures. These features include the tools you need to monitor, deploy, and provision your servers as well as solutions for high availability.

To save you money and ensure a seamless migration, HP offers in-box upgrades from all previous HP 9000 rp5400 series servers—a benefit not offered by anyone else in the industry.

In addition, simple CPU upgrades are available to existing rx5670 customers who want to take advantage of the newest 1.5 GHz and 1.3 GHz Itanium 2 processors.

Technical specifications

Performance/Scalability/Flexibility	1 to 4 Intel Itanium 2 processors Clock frequency: System bus bandwidth:	 1.3 GHz or 1.5 GHz 6.4 GB/s
Cache (on-chip)	Level 1 cache: Level 2 cache: Level 3 cache:	32 KB 256 KB 6 MB @ 1.5 GHz, 3 MB @ 1.3 GHz
Main memory	Bus bandwidth: RAM type: Capacity: Memory slots:	12.8 GB/s PC2100 ECC Registered DDR266A SDRAM 96 GB max 48 DIMM slots on two 24-slot extenders
Operating systems	HP-UX 11i v2 Microsoft® Windows Server 2003, Enterprise Edition (64-bit) Linux	
Internal storage devices	Internal HDD drive bays: Ultra320 SCSI: Removable media:	4 36 GB, 73 GB, and 146 GB drives available 1 open bay for DVD-ROM or DDS
Maximum HDD (internal)	584 GB (4 x 146 GB)	
Expansion slots	PCI-X slots available: PCI slots available: I/O bandwidth:	9 (3 x 133 MHz, 6 x 66 MHz) 1 (33 MHz) 4 GB/s
Core I/O interconnect	10/100/1000BT LAN Ultra160 SCSI 10/100BT management LAN 3 x RS-232 serial ports VGA (optional) 2 x USB (optional)	
Rack-optimized design	Rackmount solution offering: For a complete list of racks and rack accessories, refer to **http://h30140.www3.hp.com**	Stationary rails (A5562A, A5575A, A5580A)—allow server to fit into 7U (12.25-inch height) space Sliding shelf (A5556A, A5581A)—allows server to fit into 8U (14-inch height) space Fits into all HP racks (requires additional adapter kit for Compaq 7000/9000/10000 series rack)

Environmental specifications

Altitude	Operating: Non-operating:	3048 m (10,000 ft.) maximum 4572 m (15,000 ft.) maximum
Temperature	Operating: Non-operating:	+5° to +35°C (+41° to +95°F) –40° to +70°C (–40° to +158°F)
Humidity	Operating:	15% to 80% RH non-condensing
Physical dimensions	Height: Width: Depth:	311 mm/12.25 in./7U EIA 482 mm/19 in. 774 mm/30.5 in.
Net weight	Maximum configuration:	72.6 kg/160 lb.
Power requirements	Input current: Line frequency: Maximum power input:	100V 10A—200V 5A (per line) 50–60 Hz 2089W
Power supply	Maximum output:	930W per supply
Regulatory	Regulatory model number:	RSVL-0105-A

High availability

Standard features

- N+1 redundant power supplies (N=2)
- N+1 fans
- ECC on memory and caches
- Memory chip spare
- Automatic deconfiguration of memory and processors
- Service processor to monitor system status

Optional high availability and business continuity solutions

- 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 Toolkit for HP-UX
- HP Mirrordisk/UX
- 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

Monitor

- HP Servicecontrol suite of 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
- Management Processor for comprehensive remote server management of HP-UX, Windows, and Linux

Provision

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

To learn more, visit www.hp.com.

5981-7545EN Rev. 2, 06/16/2003