HPE Integrity NonStop NS2400 Server

For businesses that run nonstop

Key features

- Standards-based architecture using the Intel Itanium Processor 9500 Series
- Integrated hardware and software, enabling application fault tolerance out of the box
- A flexible platform for heterogeneous environments with a choice of application architectures and management tools
- A uniquely designed architecture for the absolute highest levels of availability[1] and reliability to enable continuous business
- A continuation of our long history of offering systems with average uptimes measured in years, and no unscheduled downtime
- A fully integrated stack of hardware, operating system, database, and software with low TCO
- Complete application compatibility with all other HPE Integrity NonStop servers

When downtime is not an option

In a world that never stops, having a nonstop business environment is critical. With today's customers expecting instant access to information and services, downtime is simply not an option.

HPE Integrity NonStop servers are widely recognized as one of the best choices for complex enterprise applications. Their integrated hardware, operating system, and database stack provide the ultimate in scalability and contribute to a server platform with one of the highest built-in reliability, availability, and serviceability (RAS) levels in the industry.

HPE Integrity NonStop NS2400 Servers run on the J-series HPE NonStop operating system. They share the same unique HPE NonStop platform attributes, such as low total cost of ownership (TCO), real-time database, integrated stack, end-to-end security, and massive scalability, while delivering the same high level of availability and data integrity as the high-end HPE BladeSystem.

Powered by the Intel® Itanium® Processor 9500 Series, you gain the advantage of one of the world's most available systems, leveraging an innovative microprocessor technology that can target multiple demand levels of complex applications with improved price and performance.

The HPE Integrity NonStop NS2400 Server provides users with a single-system view of applications. And it can efficiently and transparently make use of up to four processors to promote fast response times in a variety of demanding applications. These include complex payment systems, billing environments, securities trading, and electronic patient records solutions.

The HPE Integrity NonStop NS2400 commercial server is an AC-powered server packaged in a standard commercial rack. The HPE Integrity NonStop NS2400T Server comes in a commercial rack and is DC-powered (-48V). The HPE Integrity NonStop NS2400ST Server is packaged in an extra-sturdy seismic rack and is also DC-powered (-48V).

[1] Worldwide and U.S. High-Availability Server Forecast, 2016–2020, IDC, December 2016

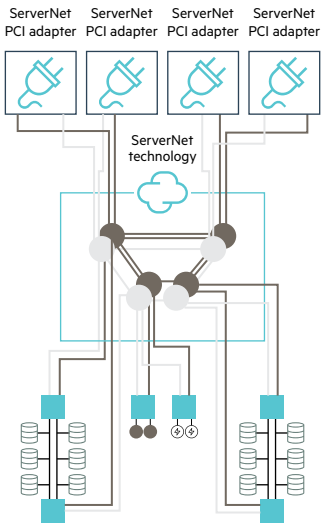

Figure 1. HPE Integrity NonStop NS2400 four-processor system

Next-generation technology at competitive price points

By using industry-standard components and utilizing the traditional advantage of HPE Integrity NonStop servers with fully integrated hardware and software, you can count on a cost-effective solution with the highest application availability and data integrity. In fact, HPE Integrity NonStop NS2400 Servers are offered at a price point that is comparable to open source alternatives and to the prior generation of entry-class HPE Integrity NonStop servers.

And, as your business needs evolve and user demand grows, HPE Integrity NonStop NS2400 Servers will support your complex application requirements. Systems can start out with as few as two physical processors and grow to four physical processors. Using the advanced Intel Itanium architecture, these systems deliver much more work per clock cycle than other processors, thus providing even greater performance.

Powered by the industry-standard Intel Itanium processor, HPE Integrity NonStop servers are uniquely designed to deliver the absolute highest levels of availability and reliability, with ultimate scalability and data integrity for the most demanding environments.

Innovation to meet changing business demands

HPE Integrity NonStop NS2400 Servers provide an additional option for meeting your real-time business needs, delivering immediate business interaction with outstanding levels of service. To help you respond to changing business demands, the HPE Integrity NonStop mission-critical operating environment offers high flexibility by providing the ability to distribute applications across nodes transparently, spreading risk geographically.

Figure 1 provides an architectural view of the server processing power of the HPE Integrity NonStop NS2400 platform.

This platform provides all the benefits of the HPE Integrity NonStop Software Suite, including software fault tolerance and fault isolation, dynamic workload balancing, linear scalability, application virtualization, and cluster programming transparency. HPE Integrity NonStop NS2400 servers can be configured with two or four physical processors in a pre-assembled and integrated rack-mount configuration. Multiple servers can be connected together using Ethernet (LAN) or WAN technologies.

Disk storage and communications are managed by the highly innovative Cluster I/O Modules (CLIMs). These powerful engines provide even greater performance for the HPE Integrity NonStop NS2400 platform as they decrease the load on the host processor, increase overall performance, and shorten response times.

Advanced manageability is integrated into HPE Integrity NonStop servers from the start, to help you manage your most demanding workloads. You can manage large applications with a single-system image. And, availability features are built-in and automatically configured, so there is no need for complex reconfiguring.

With HPE Integrity NonStop servers, you benefit from an architecture with value-added innovation, software fault tolerance, and industry-standard components.

HPE Integrity NonStop NS2400 Server—Technical specifications

Processors	2 or 4 processors per system; 2-core enabled Intel Itanium processor 9500 series at 1.73 GHz
Cache	20 MB L3
RAM	Minimum: 16 GB; Maximum: 48 GB
VIO G4SAs	Minimum: 2 (1 per fabric) (provides 4 Ethernet ports per fabric); Maximum: 4 (2 per fabric)
IP CLIMs	Minimum: 0; Maximum: 2 (provides five 1GbE ports per IP CLIM)
Storage CLIMs	Minimum 2, maximum 4
I/O adapters supported	Serial Attached SCSI (SAS); Fibre Channel; Gigabit Ethernet
SAS disk enclosure	25 SFF (2.5") drives per enclosure
Storage drives	6G SAS SFF (2.5") HDD and SSD, HPE Storage disk arrays
Standard features	Redundant power supplies; redundant fans; dual power distribution units; dual power cords
Environmental specifications	
Altitude limits	Operating: 10,000 ft. (3,000 m) maximum Non-operating: 40,000 ft. (12,000 m) maximum
Temperature limits	Operating: 50°F to 95°F (10°C to 35°C); maximum rate change: 18°F/hr (10°C/hr) Non-operating: -22°F to 140°F (-30°C to 60°C); maximum rate change: 36°F/hr (20°C/hr)
Humidity limits	Operating: 20% to 80%, non-condensing Storage: 10% to 85%
Dimensions (H x W x D)	79.00 x 51.19 x 23.54 in. (200.66 x 130.02 x 59.78 cm) (42U) 68.80 x 51.19 x 23.54 in. (174.71 x 130.02 x 59.78 cm) (36U)
Weight	1,188 lbs (539 kg)[2]
Power supply (HPE NS2400)	Typical power dissipation: 2,602 VA[3] Input current: 13 A at 200 VAC AC input power: 200–240V, 50–60 Hz
Power supply (HPE NS2400T, HPE NS2400ST)	Nominal value: -48/-60 VDC Operating range: -40 to -72 VDC
Circuit breaker rating system-server cabinet (HPE NS2400T, HPE NS2400ST)	No cabinet circuit breaker is included. Instead, there are up to two fuse panels per cabinet. Each HPE Integrity NonStop NS2400T/NS2400ST Server fuse panel requires a customer-provided 100 A maximum magnetic circuit breaker with slow trip curve.
Electromagnetic interference	Complies with FCC rules and regulations, Part 15, as a Class A Digital Device; manufacturer's declaration to EN 55022 Level A Conducted Emissions Class A: CFR 47 (U.S.); Radiated Emissions Class A: EN 55022:2006 033520, 033491, and 033186 and CFR 47 (U.S.)
Power line EF emissions	EN 61000-3-2 (Europe); EN 61000-3-3 (Europe) EN 61000-3-2:2006 (Europe); EN 61000-3-3:1995+A1:2001+A2:200 (Europe)
Regulatory	Certifications are for individual modules
Safety	Compliant with UL 60950-1/CSA C22.2 No. 60950-1-03, and EN 60950 Compliant with CAN/CSA-C22.2 No. 60950-1-07 2nd edition and IEC 60950-1:2005, MOD
System configurations	
Minimum configuration	2 processors per system using ServerNet technology; 16 GB main memory per processor
Maximum configuration	4 processors per system using ServerNet technology; 192 GB main memory per system

[2], [3] This table represents a single-rack, four-processor system (hardware base bundle) without UPS in a 42U cabinet

HPE Pointnext

HPE Pointnext leverages our strength in infrastructure, partner ecosystems, and the end-to-end lifecycle experience to accelerate powerful, scalable IT solutions to provide you the assistance for faster time to value. HPE Pointnext provides a comprehensive portfolio including Advisory and Transformational, Professional, and Operational Services to help accelerate your digital transformation.

Operational Services

HPE Datacenter Care—One of our most comprehensive support solution tailored to meet your specific data center support requirements. It offers a wide choice of proactive and reactive service levels to cover requirements ranging from the most basic to the most business-critical environments. **HPE Datacenter Care service** is designed to scale to any size and type of data center environment while providing a single point of contact for all your support needs for HPE as well as selected multivendor products.

HPE Critical Service—High-performance reactive and proactive support designed to minimize downtime. It offers an assigned support team, which includes an account support manager (ASM). This service offers access to the HPE Global NonStop Solution Center, 24x7 hardware and software support, six-hour call-to-repair commitment, enhanced parts inventory, and accelerated escalation management.

HPE Proactive 24—Provides proactive and reactive support delivered under the direction of an ASM. It offers 24x7 hardware support with four-hour on-site response, 24x7 software support with a two-hour response, and flexible call submittal.

HPE Foundation Care—Support for HPE servers, storage, networking hardware, and software to meet your availability requirements with a variety of coverage levels and response times.

Advisory and Transformation Services: HPE Pointnext designs the transformation and builds a road map tuned to your unique challenges including Hybrid IT, workload and application migration, Big Data, and the Intelligent Edge. Hewlett Packard Enterprise leverages proven architectures and blueprints, as well as integrates with partner products and solutions. We also engage the Professional and Operational Services teams as needed.

Professional Services: HPE Pointnext creates and integrates configurations that get the most out of software and hardware, and works with your preferred technologies to deliver the optimal solution. Services provided by the HPE Pointnext team, certified channel partners, or specialist delivery partners include installation and deployment services, mission-critical and technical services, and education services.

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