

HP Integrity NonStop servers

Product family guide



Standards-based innovation for the highest levels of service

Rapid response is a business imperative in today's dynamic global marketplace, and IT infrastructures must be able to adapt accordingly. More than ever, a successful enterprise depends on the synchronization of business and IT in order to build and maintain competitive advantage. HP Integrity NonStop server technology provides the basis for an agile infrastructure, allowing solutions to easily grow and adapt as business needs change.

The Integrity NonStop server is designed to handle the world's most demanding, transaction-intensive applications with continuous availability, unrivaled data integrity, and the capability to achieve virtually unlimited scalability. Integrity NonStop systems offer the lowest total cost of ownership in the industry for enterprise-class servers, delivering more power, more software, more storage, and more investment protection for less.

Every system is built and integrated to customer specifications—including all system software—and then fully tested prior to shipment for fast, trouble-free implementation. HP Integrity NonStop servers provide 24x7 application availability out-of-the-box, making them the best choice for critical and complex enterprise applications.

Complete portfolio of offerings

Three different models of HP Integrity NonStop servers are available, providing both high-end servers that offer the highest levels of application availability with fail-safe data integrity, and an entry-level model that supplies complete fault tolerance and real-time access at a cost-effective price point. All models of the Integrity NonStop server family are based on industry-standard Intel® Itanium® processors.

High-end server models

Two high-end server options of the Integrity NonStop server are available—the HP Integrity NonStop NS16000 and NS14000 Servers.

The Integrity NonStop NS16000 and NS14000 Servers are based on the HP NonStop Advanced Architecture (NSAA), and deliver the highest level of application availability with fail-safe data integrity. These servers have raised the bar for continuity with a seven 9s level of availability (99.99999 percent).

The massive scalability of the NS16000 server makes it possible to scale applications linearly to more than 4,000 processors, while the NS14000 server can be scaled to more than 2,000 processors, with no disruption to business operations. The standards-based NSAA, coupled with ease of implementation and management, makes these Integrity NonStop server models a great choice for the most demanding high-end, business-critical applications.

Entry-level server model

The entry-level HP Integrity NonStop NS1000 Server is based on the HP NonStop Value Architecture (NSVA), which uses the HP NonStop operating system and its full software fault tolerance, combined with standard HP Integrity processors that provide commercial hardware data integrity. This results in a system that scales to 8 processors and offers a five 9s level of application availability (99.999 percent) at an extremely attractive price point.

HP Integrity NonStop servers—the gold standard for business continuity

As the world's leader in providing high service levels for business-critical applications while leveraging industry standards, Integrity NonStop servers offer you superior choice with a broad range of solutions at the level of availability and scalability that's right for your business.

Major customers around the world—including the world's largest Internet service provider and the world's largest online travel provider—are already leveraging the power of this flagship platform to drive their business success to new levels.

When customer service levels are paramount, you can count on the Integrity NonStop server from HP for your most demanding applications.

Integrity NonStop servers represent the advanced line in the ongoing evolution of HP NonStop technology, which has long been the premier choice for mission-critical computing. NonStop servers play a pivotal role in nearly 500 of the world's most prominent banks, and they process more than 60 percent of global equity transactions. They enjoy similar trust and responsibility in telecommunications, healthcare, retail, travel, manufacturing, public sector, and other key vertical industries.

Integrity NonStop servers provide the highest levels of service—in availability, scalability, data integrity, and response time—to create a foundation for building and supporting an Adaptive Enterprise. They are complemented by a full array of leasing and financial lifecycle management services in over 50 countries around the world, including IT transition, acquisition, management, and disposition.

For more information

For more information, or for assistance in selecting the optimal Integrity NonStop server configuration for your enterprise, visit www.hp.com/go/integritynonstop or contact your HP service representative.

HP Integrity NonStop servers

All members of the product family provide high service levels for business-critical applications.

Integrity NonStop server model comparison

	Entry-level	High-end	
	NS1000 server Entry-level small configuration server	NS14000 server High-end mid-configuration server	NS16000 server High-end large configuration server
Availability	Software fault tolerance with hardware redundancy	Dual Modular Redundancy (DMR) or Triple Modular Redundancy (TMR)	DMR or TMR
Architecture	NonStop Value Architecture (NSVA)	NonStop Advanced Architecture (NSAA)	NSAA
Processor	Intel Itanium 2 processor at 1.3 GHz with 3 MB cache	Intel Itanium 2 processor at 1.5 GHz with 4 MB cache	Intel Itanium 2 processor at 1.6 GHz with 6 MB cache
Server technology	Off-the-shelf HP Integrity hardware	Value-added HP Integrity NonStop hardware	Value-added HP Integrity NonStop hardware
Memory	4 or 8 GB memory per processor	4 or 8 GB memory per processor	4, 8, or 16 GB memory per processor
Processors supported	2–8 processors	2–8 processors per node	2–16 processors per node
Disk storage support	Supports Fibre Channel internal disk up to 32 TB; supports 14 Fibre Channel disks per module	Supports Fibre Channel internal disk up to 32 TB per node; supports 14 Fibre Channel disks per module	Supports Fibre Channel internal disk up to 473 TB per node; supports 14 Fibre Channel disks per module
Disk drives supported	73 GB and 146 GB, and HP StorageWorks XP12000 and XP10000 Disk Arrays	73 GB and 146 GB, and StorageWorks XP12000 and XP10000 Disk Arrays	73 GB and 146 GB, and StorageWorks XP12000 and XP10000 Disk Arrays
Scalability	Expandable to 8 processors in a single rack	Linear scalability to 255 nodes of 8 processors	Linear scalability to 255 nodes of 16 processors
Clustering	Not HP ServerNet clustered; supports Expand over IP	Supports ServerNet clustering up to 2,040 processors	Supports ServerNet clustering up to 4,080 processors
ServerNet processor connectivity	ServerNet Extender Adapters (IOAME)	ServerNet Extender Adapters (IOAME)	P-Switch
Processing power	65% of NS16000 processor power	75% of NS16000 processor power	Highest processor power
Application Virtualization	Application Virtualization across processors and across nodes with Expand/IP	Application Virtualization across nodes with both ServerNet and Expand/IP	Application Virtualization across nodes with both ServerNet and Expand/IP
I/O	Modular I/O up to 6 I/O adapters	Modular I/O up to 6 I/O adapters	Modular I/O up to 60 I/O adapters; NonStop S-series I/O
Ethernet	Industry-standard Gigabit Ethernet connectivity	Industry-standard Gigabit Ethernet connectivity	Industry-standard Gigabit Ethernet connectivity
Minimum configuration	2 processors, 4 GB memory/processor, and 5 disk drives	2 processors, 4 GB memory/processor, and 5 disk drives	2 processors, 4 GB memory/processor, and 5 disk drives
Maximum single-node configuration	8 processors, 64 GB main memory, and 32 TB internal storage capacity	8 processors, 64 GB main memory, and 32 TB internal storage capacity	16 processors, 512 GB main memory, and 473 TB internal storage capacity
Maximum configuration	8 processors, 64 GB main memory, and 32 TB internal storage capacity	255 nodes, 16 TB main memory, and 8,160 TB internal storage capacity	255 nodes, 127 TB main memory, and 58 PB internal storage capacity

HP related offerings

Storage	HP StorageWorks XP12000 Disk Array HP StorageWorks XP10000 Disk Array	StorageWorks XP12000 Disk Array StorageWorks XP10000 Disk Array	StorageWorks XP12000 Disk Array StorageWorks XP10000 Disk Array
Software	HP NonStop SQL/MX Software HP NonStop RDF/ZLT Software	NonStop SQL/MX Software NonStop RDF/ZLT Software	NonStop SQL/MX Software NonStop RDF/ZLT Software
Hardware options		HP ServerNet super clustering	ServerNet super clustering
Services	Business continuity services	Business continuity services	Evolution services
Support	Three predefined service levels	Three predefined service levels	Three predefined service levels

HP Integrity NonStop servers

Storage

HP StorageWorks XP disk array family:
StorageWorks XP12000 and XP10000 Disk Arrays

Provides storage area network (SAN) and direct connect for the HP Integrity NonStop NS16000, NS14000, and NS1000 Servers for storage virtualization, storage consolidation, and lower cost per megabyte for very large databases

Software

HP NonStop SQL/MX Database

Real-time relational database provides extreme scalability, single view of data, and mixed database workload support: concurrent OLTP and large queries on the same database

HP NonStop Remote Database Facility (NonStop RDF)/
Zero Lost Transactions (ZLT) Software

Provides disaster recovery within extremely short time frames

Hardware options

HP ServerNet super clustering

Delivers extreme scalability with ServerNet technology low latency and high bandwidth

Services

Evolution services

Eases transition to the Integrity NonStop platform with Evolution Assessment, Evolution Infrastructure Planning and Design, and NonStop Service Solutions for installation and integration

Business continuity service

Provides expert assistance from HP Services to help you reduce the complexity of providing a fully disaster-tolerant environment

Support

HP Service Solutions with three predefined service levels:

Critical Service Solution

Critical Service Solution—highest level of 24x7 mission-critical support for environments where unplanned downtime carries serious business consequences

Proactive Service Solution

Proactive Service Solution—responsive services coupled with expert problem prevention

Foundation Service Solution

Foundation Service Solution—integrated hardware and software support for mature, stable environments or nonproduction systems (i.e., test, development, and backup systems)

All three service levels provide quick installation, customized configuration, rapid startup, and NonStop educational services

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

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