



HP Integrity systems  
Family guide



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## Build an IT environment that delivers better business results

Shift your IT from technology that merely supports the business to a model where technology powers the business and is measured in terms of delivering better business outcomes. The HP Adaptive Infrastructure portfolio creates the foundation for delivering better business outcomes by enabling you to reduce operational costs, accelerate speed of IT change, and deliver higher quality of service to the business.

Fundamental to establishing an adaptive infrastructure are your underlying platform choices. What kind of server best suits your needs? What levels of high availability and performance do you require?

How many users will be supported? What operating system will you be using? Whether it's a departmental server, an enterprise data center, or anything in between, HP is committed to meeting your exact needs. This commitment has led more customers to choose HP servers than any other vendor's servers.\*

If you are an IT manager, you must juggle many challenges. Business units are demanding higher service levels. Mergers and restructurings may require rapid systems integration as well as database and server consolidation. And security is a growing concern.

You are probably trying to meet these challenges with a complex infrastructure that already supports tens, hundreds, or even thousands of applications. You may be running a wide variety of servers, including both outdated and underutilized machines. And you may be under pressure to meet ambitious new goals while cutting costs and conserving valuable floor space.

From consolidating multiple servers to hosting data warehouses, ERP applications, and other business-critical environments, HP Integrity systems are the answer for you. The HP Integrity line delivers dynamically scalable solutions—from blade and entry-class all the way to Superdome and NonStop servers. This family of servers provides intelligent virtualization with HP Virtual Server Environment and supports a multi-OS ecosystem for the most available UNIX® (HP-UX 11i), Windows® (Microsoft® Windows Server 2003), and Linux environments—plus OpenVMS and NonStop for 24x7 solutions. Integrity systems offer a unique combination of scalability, virtualization, and availability, enabling you to optimize your business outcomes while you decrease cost and reduce risk.

At HP, Integrity is more than technology—it's a business-critical infrastructure as well as a core value in the solutions we develop and deliver. In fact, it's helped make us the most trusted, always.

The Integrity systems family includes:

- **HP Integrity NonStop servers**—real-time, all-the-time business solutions for the enterprise
- **HP Integrity servers**—from entry-class to Superdome, a complete breadth of offerings to meet your exact business-critical needs
- **HP Integrity server blades**—business-critical capabilities of Integrity in an energy-efficient BladeSystem infrastructure

In addition to the Integrity server family, HP also offers the HP ProLiant server family. ProLiant servers offer a superior platform for your mainstream 32-bit and emerging 64-bit x86 applications and are the world's top-selling x86 industry-standard servers since 3Q 1996\*.

In fact, you may be looking for additional ways to simplify a growing, multi-server environment. How can you integrate all the moving parts and deliver business solutions on time and under budget? HP BladeSystem is a simple, modular infrastructure that is consolidated upfront to save you more time, energy and money—regardless of what you put inside. In one consolidated box, a BladeSystem supports Integrity and ProLiant server blades, StorageWorks storage blades, and a variety of virtual machine, client, and workstation solutions. With the essential IT elements built in—compute, network, storage, management, power, and cooling—the BladeSystem delivers reliable, cost-effective services to your business.

To gain the full value from your investments, you also need expert services across the IT lifecycle, intelligent software, advanced storage devices, and system-enhancing options.

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\* Source: IDC Worldwide Quarterly Server Tracker, November 2007

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- **Services**—How important is it that your service partner provide a single point of ownership and accountability? Do they meet your service needs across your enterprise? Have you reached the mission-critical reliability you require to meet your business needs? From training and basic product support to selective outsourcing, our services help you realize the full potential of your technology to meet your business requirements.
- **Software**—Do you need a single interface to monitor, automate, and control your complex IT environment? Is pooling and sharing of resources important for increasing your IT utilization? Do you need to reduce business risk from unplanned downtime? Our software allows you to manage, virtualize, and protect IT resources to simplify and optimize your infrastructure.
- **Storage**—Do you need help optimizing your storage resources, managing multivendor environments, and evolving to open architectures? Our network and direct-attached storage devices help you keep large amounts of information protected and readily accessible to people when needed.
- **Options**—Do you have everything you need to meet your infrastructure needs? Our server options—including memory, drives, processors, racks, operating system software, power, and cooling—help optimize your solution by enhancing system performance and functionality.

# HP Integrity server blades

Bringing Integrity business-critical capabilities to the modular and efficient BladeSystem infrastructure

## Server blades

### Updated



#### HP Integrity BL860c Server Blade

Robust value and virtualization of Integrity systems coupled with the economics of BladeSystem

### New



#### HP Integrity BL870c Server Blade

Ideal for application consolidation and larger business-critical workloads in a BladeSystem

<b>Processors supported</b>	Intel® Itanium® processor 9100 series 1.66 GHz (dual-core) with 18 MB cache (667 MHz FSB) 1.42 GHz (dual-core) with 12 MB cache 1.6 GHz (single-core) with 12 MB cache	Intel Itanium processor 9100 series 1.6 GHz (dual-core) with 24 MB cache 1.6 GHz (dual-core) with 18 MB cache 1.42 GHz (dual-core) with 12 MB cache
<b>Number of processors</b>	1–2	1–4
<b>Maximum number of cores</b>	4	8
<b>Scalable processor chipset</b>	zx2	zx2
<b>Operating systems supported</b>	HP-UX 11i v3 <sup>1</sup> and HP-UX 11i v2 <sup>1</sup> Microsoft Windows Server 2003, Enterprise and Datacenter Editions Red Hat Enterprise Linux 5 and 4; Novell SUSE Linux Enterprise Server 10 OpenVMS v8.3—1H1 <sup>1</sup>	HP-UX 11i v3 <sup>1</sup> and HP-UX 11i v2 <sup>1</sup> Microsoft Windows Server 2003, Enterprise and Datacenter Editions Red Hat Enterprise Linux 5 and 4; Novell SUSE Linux Enterprise Server 10 OpenVMS v8.3—1H1 <sup>1</sup>
<b>Maximum memory</b>	48 GB	96 GB
<b>I/O slots</b>	3 HP BladeSystem c-Class mezzanine form factor I/O slots Core I/O includes 2 dual-port Gigabit Ethernet (total 4) Additional GbE available via mezzanine expansion cards	3 HP BladeSystem c-Class mezzanine form factor I/O slots Core I/O includes 2 dual-port Gigabit Ethernet (total 4) Additional GbE available via mezzanine expansion cards
<b>Internal hard disk drives</b>	2	4
<b>Management</b>	HP Systems Insight Manager HP Integrity iLO 2 (Advanced Pack included)	HP Systems Insight Manager HP Integrity iLO 2 (Advanced Pack included)
<b>Form factor</b>	Full-height blade 8 blades in 10U; 4 blades in 6U	Double-wide, full-height blade 4 blades in 10U; 2 blades in 6U

## HP related offerings

<b>Storage</b>	Enterprise Virtual Array 4100 Modular Smart Array 1500	Enterprise Virtual Array 4100 Modular Smart Array 1500
<b>Software</b>	HP Virtual Server Environment HP Serviceguard Storage Management for Oracle®	HP Virtual Server Environment HP Serviceguard Storage Management for Oracle
<b>Services</b>	HP Proactive 24 Service <sup>2</sup> HP Critical Service <sup>2</sup>	HP Proactive 24 Service <sup>2</sup> HP Critical Service <sup>2</sup>
<b>Hardware options</b>	4 Gb Fibre Channel adapters 4X InfiniBand adapters	4 Gb Fibre Channel adapters 4X InfiniBand adapters

<sup>1</sup>Choice of Mission Critical, Enterprise, or Foundation Operating Environment

<sup>2</sup>All blades within a single HP BladeSystem enclosure must be at the same service level

# HP Integrity servers: entry-class

Providing the flexibility you need for diverse workloads, multiple operating environments, and future business growth, all at the price/performance your business demands

## Entry-class

Updated



**HP Integrity rx2660 Server**  
Entry-class value with incredible flexibility and high performance/watt

Updated



**HP Integrity rx3600 Server**  
Powerful, scalable entry system for demanding database and application performance

Updated



**HP Integrity rx6600 Server**  
Highly expandable platform for workload consolidation and virtualization

<b>Processors supported</b>	Intel® Itanium® processor 9100 series 1.66 GHz (dual-core) with 18 MB cache (667 MHz FSB) 1.42 GHz (dual-core) with 12 MB cache 1.6 GHz (single-core) with 12 MB cache	Intel Itanium processor 9100 series 1.66 GHz (dual-core) with 18 MB cache (667 MHz FSB) 1.42 GHz (dual-core) with 12 MB cache	Intel Itanium processor 9100 series 1.6 GHz (dual-core) with 24 MB cache 1.6 GHz (dual-core) with 18 MB cache 1.42 GHz (dual-core) with 12 MB cache
<b>Number of processors</b>	1–2	1–2	1–4
<b>Maximum number of cores</b>	4	4	8
<b>Scalable processor chipset</b>	zx2	zx2	zx2
<b>Operating systems supported</b>	HP-UX 11i v3 <sup>1</sup> and HP-UX 11i v2 <sup>1</sup> Microsoft Windows Server 2003, Enterprise and Datacenter Editions Red Hat Enterprise Linux 5 and 4; Novell SUSE Linux Enterprise Server 10 OpenVMS v8.3—1H1 <sup>1</sup>	HP-UX 11i v3 <sup>1</sup> and HP-UX 11i v2 <sup>1</sup> Microsoft Windows Server 2003, Enterprise and Datacenter Editions Red Hat Enterprise Linux 5 and 4; Novell SUSE Linux Enterprise Server 10 OpenVMS v8.3—1H1 <sup>1</sup>	HP-UX 11i v3 <sup>1</sup> and HP-UX 11i v2 <sup>1</sup> Microsoft Windows Server 2003, Enterprise and Datacenter Editions Red Hat Enterprise Linux 5 and 4; Novell SUSE Linux Enterprise Server 10 OpenVMS v8.3—1H1 <sup>1</sup>
<b>Maximum memory</b>	32 GB	96 GB	192 GB
<b>I/O slots</b>	3	8	8
<b>Internal hard disk drives</b>	8	8	16
<b>Management</b>	HP Systems Insight Manager HP Integrity iLO 2 (optional Advanced Pack)	HP Systems Insight Manager HP Integrity iLO 2 (optional Advanced Pack)	HP Systems Insight Manager HP Integrity iLO 2 (optional Advanced Pack)
<b>Rack height (EIA unit)</b>	2	4	7

## HP related offerings

<b>Storage</b>			
	Modular Smart Array 1500 Enterprise Virtual Array 4100	Modular Smart Array 1500 Enterprise Virtual Array 4100	Enterprise Virtual Array 6100 Enterprise Virtual Array 4100
<b>Software</b>			
	HP Virtual Server Environment HP Serviceguard Storage Management for Oracle	HP Virtual Server Environment HP Serviceguard Storage Management for Oracle	HP Virtual Server Environment HP Serviceguard Storage Management for Oracle
<b>Services</b>			
	HP Proactive 24 Service HP Critical Service	HP Proactive 24 Service HP Critical Service	HP Proactive 24 Service HP Critical Service
<b>Hardware options</b>			
	10000 G2 Series rack 2 Gb Fibre Channel and Gigabit Ethernet multifunction adapters	10000 G2 Series rack 4 Gb Fibre Channel adapters	10000 G2 Series rack 4 Gb Fibre Channel adapters

<sup>1</sup> Choice of Mission Critical, Enterprise, or Foundation Operating Environment

# HP Integrity servers: midrange

Flexible, available servers for your business computing needs, incorporating high-end functionality in the midrange market—perfect for multi-OS consolidation, scale-up, and performance applications

## Midrange

### Updated



**HP Integrity rx7640 Server**  
Excellent performance and compute density for data-center applications

### Updated



**HP Integrity rx8640 Server**  
Ideal platform for scale-up, performance, and server consolidation workloads with low total cost of ownership

<b>Processors supported</b>	Intel Itanium processor 9100 series 1.6 GHz (dual-core) with 24 MB cache 1.6 GHz (dual-core) with 18 MB cache 1.4 GHz (dual-core) with 12 MB cache	Intel Itanium processor 9100 series 1.6 GHz (dual-core) with 24 MB cache 1.6 GHz (dual-core) with 18 MB cache 1.4 GHz (dual-core) with 12 MB cache
<b>Number of processors</b>	2–8	2–16
<b>Maximum number of cores</b>	16	32
<b>Scalable processor chipset</b>	sx2000	sx2000
<b>Operating systems supported</b>	HP-UX 11i v3 <sup>1</sup> and HP-UX 11i v2 <sup>1</sup> Microsoft Windows Server 2003, Enterprise and Datacenter Editions Red Hat Enterprise Linux 5 and 4; Novell SUSE Linux Enterprise Server 10 OpenVMS v8.3—1H1 <sup>1</sup>	HP-UX 11i v3 <sup>1</sup> and HP-UX 11i v2 <sup>1</sup> Microsoft Windows Server 2003, Enterprise and Datacenter Editions Red Hat Enterprise Linux 5 and 4; Novell SUSE Linux Enterprise Server 10 OpenVMS v8.3—1H1 <sup>1</sup>
<b>Maximum memory</b>	256 GB	512 GB
<b>I/O slots</b>	15	16 (32 with SEU-2 <sup>2</sup> )
<b>Internal hard disk drives</b>	4	4 (8 with SEU-2 <sup>2</sup> )
<b>Hard partitions (nPars)</b>	1–2	1–2 (1–4 with SEU-2 <sup>2</sup> )
<b>Management</b>	HP Systems Insight Manager HP Integrity iLO 2	HP Systems Insight Manager HP Integrity iLO 2
<b>Rack height (EIA unit)</b>	10	17 (26 with SEU-2 <sup>2</sup> )

## HP related offerings

<b>Storage</b>	XP10000 Disk Array Enterprise Virtual Array 6100	XP20000 Disk Array Enterprise Virtual Array 8100
<b>Software</b>	HP Virtual Server Environment HP Serviceguard Extension for SAP	HP Virtual Server Environment HP Serviceguard CFS for RAC
<b>Services</b>	HP Critical Service HP Proactive 24 Service	HP Critical Service HP Proactive 24 Service
<b>Hardware options</b>	Instant Capacity (iCAP) and Temporary Instant Capacity (TiCAP) processors HP Lights Out Advanced KVM Card	Instant Capacity (iCAP) and Temporary Instant Capacity (TiCAP) processors HP Lights Out Advanced KVM Card

<sup>1</sup> Choice of Mission Critical, Enterprise, or Foundation Operating Environment

<sup>2</sup> SEU-2 = Server Expansion Unit 2

# HP Integrity servers: high-end

For enterprise-class customers requiring superior single-system high availability, leading price/performance, strong virtualization, and long-term investment protection for consolidating their demanding multi-OS applications

## High-end

### Updated



**HP Integrity Superdome**  
Scalability and virtualization ideal for enterprise consolidation

### Updated



**HP Integrity Superdome**  
Top scalability and virtualization for larger enterprise consolidation requirements

<b>Processors supported</b>	Intel Itanium processor 9100 series 1.6 GHz (dual-core) with 24 MB cache 1.6 GHz (dual-core) with 18 MB cache	Intel Itanium processor 9100 series 1.6 GHz (dual-core) with 24 MB cache 1.6 GHz (dual-core) with 18 MB cache
<b>Number of processors</b>	1–32	2–64
<b>Maximum number of cores</b>	64	128
<b>Scalable processor chipset</b>	sx2000	sx2000
<b>Operating systems supported</b>	HP-UX 11i v3 <sup>1</sup> and HP-UX 11i v2 <sup>1</sup> Microsoft Windows Server 2003, Enterprise and Datacenter Editions Red Hat Enterprise Linux <sup>2</sup> 5 and 4; Novell SUSE Linux Enterprise Server <sup>2</sup> 10 OpenVMS v8.3–1H1 <sup>1,2</sup>	HP-UX 11i v3 <sup>1</sup> and HP-UX 11i v2 <sup>1</sup> Microsoft Windows Server 2003, Enterprise and Datacenter Editions Red Hat Enterprise Linux <sup>2</sup> 5 and 4; Novell SUSE Linux Enterprise Server <sup>2</sup> 10 OpenVMS v8.3–1H1 <sup>1,2</sup>
<b>Maximum memory</b>	1 TB	2 TB
<b>I/O slots</b>	96 (with I/O expansion)	192 (with I/O expansion)
<b>Internal hard disk drives</b>	N/A	N/A
<b>Hard partitions (nPars)</b>	1–8	1–16
<b>Management</b>	HP Systems Insight Manager HP Integrity iLO 2	HP Systems Insight Manager HP Integrity iLO 2
<b>Rack height (EIA unit)</b>	Delivered in Superdome cabinet	Delivered in Superdome cabinets

## HP related offerings

<b>Storage</b>	XP12000 Disk Array Enterprise Virtual Array 8100	XP24000 Disk Array Enterprise Virtual Array 8100
<b>Software</b>	HP Virtual Server Environment HP Metrocluster and Continentalclusters	HP Virtual Server Environment HP Operations software for UNIX
<b>Services</b>	Three predefined support service levels: <ul style="list-style-type: none"> <li>• Critical Service Solution</li> <li>• Proactive Service Solution</li> <li>• Foundation Service Solution</li> </ul>	Three predefined support service levels: <ul style="list-style-type: none"> <li>• Critical Service Solution</li> <li>• Proactive Service Solution</li> <li>• Foundation Service Solution</li> </ul>
<b>Hardware options</b>	Instant Capacity (iCAP) and Temporary Instant Capacity (TiCAP) processors HP Lights Out Advanced KVM Card	Instant Capacity (iCAP) and Temporary Instant Capacity (TiCAP) processors HP Lights Out Advanced KVM Card

<sup>1</sup>Choice of Mission Critical, Enterprise, or Foundation Operating Environment

<sup>2</sup>Linux and OpenVMS supported only on Integrity Superdome with Dual-Core Intel Itanium processors

# HP Integrity NonStop servers

Ultra-robust servers that deliver continuous availability, unrivaled data integrity, and virtually unlimited scalability. Ideal for demanding, transaction-intensive applications.

## NonStop

New



**HP Integrity NonStop NS1200 Server**  
Entry-class, software fault-tolerant solution for emerging markets

New



**HP Integrity NonStop NS14200 Server**  
Midrange solution offering highest application availability with absolute data integrity and linear scalability

New



**HP Integrity NonStop NS16200 Server**  
Highest application availability with absolute data integrity and linear scalability

<b>Processors supported</b>	Intel Itanium processor 9100 series	Intel Itanium processor 9100 series	Intel Itanium processor 9100 series
<b>Clustering</b>	Supports Expand over IP (does not support ServerNet clustering) Scalable up to 8 processors	Supports ServerNet clustering Scalable up to 2040 processors	Supports ServerNet clustering Scalable up to 4080 processors
<b>Number of processors</b>	2-8 per system	2-8 per node	2-16 per node
<b>Maximum number of processors per cluster</b>	8	2040	4080
<b>Operating system supported</b>	NonStop OS	NonStop OS	NonStop OS
<b>Maximum memory</b>	64 GB	16 TB	127 TB <sup>1</sup>
<b>ServerNet processor connectivity</b>	Versatile I/O (VIO)	Versatile I/O (VIO)	I/O Adapter Module Enclosure (IOAME) Also supports S-series I/O connectivity
<b>Maximum ServerNet I/O Adapters</b>	6	6	60
<b>Internal hard disk drives</b>	336	448	3248
<b>Management</b>	NonStop System Console (NSC) HP Systems Insight Manager	NonStop System Console (NSC) HP Systems Insight Manager	NonStop System Console (NSC) HP Systems Insight Manager
<b>Rack height (EIA unit)</b>	42 (36 in some configurations)	Delivered in modular cabinet(s)	Delivered in modular cabinet(s)

## HP related offerings

<b>Storage</b>	146 GB and 300 GB FC internal hard disk drives XP Disk Array family (e.g., XP24000 Disk Array)	146 GB and 300 GB FC internal hard disk drives XP Disk Array family (e.g., XP24000 Disk Array)	146 GB and 300 GB FC internal hard disk drives XP Disk Array family (e.g., XP24000 Disk Array)
<b>Software</b>	HP NonStop SQL database software HP NonStop RDF/ZLT replication software	HP NonStop SQL database software HP NonStop RDF/ZLT replication software	HP NonStop SQL database software HP NonStop RDF/ZLT replication software
<b>Services</b>	Three predefined support service levels: <ul style="list-style-type: none"> <li>• Critical Service Solution</li> <li>• Proactive Service Solution</li> <li>• Foundation Service Solution</li> </ul>	Three predefined support service levels: <ul style="list-style-type: none"> <li>• Critical Service Solution</li> <li>• Proactive Service Solution</li> <li>• Foundation Service Solution</li> </ul>	Three predefined support service levels: <ul style="list-style-type: none"> <li>• Critical Service Solution</li> <li>• Proactive Service Solution</li> <li>• Foundation Service Solution</li> </ul>
<b>Hardware options</b>	HP Virtual TapeServer Expansion board for Fibre Channel or Ethernet	HP Virtual TapeServer Expansion board for Fibre Channel or Ethernet	Fibre Channel ServerNet Adapter (FCSA) Ethernet ServerNet Adapter (G4SA)

<sup>1</sup> 127 TB capable based upon 32 GB of memory per processor

# HP Integrity systems family



# HP related offerings

## Comprehensive solutions for the Integrity systems family

### HP Software

### Description

HP Software	Description
<b>Virtualization</b>	
<b>HP Virtual Server Environment (VSE)</b>	Creates virtual servers that can automatically grow and shrink based on service-level objectives set for each application they host. Through tight integration with partitioning, high availability, and utility pricing, the HP VSE allows you to optimize your server utilization in real time.
HP Integrity Virtual Machines*	Improves utilization by allowing several virtual machines to share a single CPU and I/O resources. Each virtual machine runs its own guest operating-system instance (HP-UX 11i, Windows, and Linux) and offers complete software isolation.
HP Virtual Partitions (vPars)*	Improves utilization by allowing multiple HP-UX instances to share one server or hard partition. Each vPar runs its own copy of HP-UX and offers complete software isolation.
HP Capacity Advisor*	Simulates placement of application workloads to help IT administrators improve server utilization through an easy-to-use tool for ongoing capacity planning. Its “what if” resource modeling capabilities present multiple outcomes that let you choose the configurations that best fit your business needs.
HP Virtualization Manager*	Reduces complexity by providing unified visualization and management of physical and virtual servers. It enables you to graphically visualize and configure how your virtual resources are being used and how they map to your physical infrastructure.
HP Global Workload Manager*	Allocates server resources automatically so that the highest-priority applications get the resources they need. Designed for multi-system Integrity server environments, it is ideal for large, centralized IT environments that host applications for many departments.
<b>Availability</b>	
<b>HP Serviceguard*</b>	HP Serviceguard portfolio keeps your business up and running 24x7 with a broad range of integrated HP-UX and Linux solutions. It builds on the concept of virtualization by grouping multiple servers into a cluster to provide fast failover while preserving data integrity
<b>HP Serviceguard Storage Management Suite</b>	Combines the power of the #1 high-availability UNIX solution, HP Serviceguard, HP VSE, and Symantec’s Veritas Storage Foundation into a comprehensive, highly available clustering and file management solution for HP-UX 11i. Two key offerings of this suite provide enhancements for Oracle environments: <ul style="list-style-type: none"><li>• HP Serviceguard Storage Management for Oracle—improves Oracle database performance by up to 10 times</li><li>• HP Serviceguard CFS for RAC—simplifies the manageability and increases the availability of Oracle Real Application Cluster (RAC) environments</li></ul>
<b>HP Serviceguard Extension for SAP</b>	Extends Serviceguard’s powerful failover capabilities to complex high-availability SAP environments by monitoring, detecting faults, and recovering transparently, eliminating planned and unplanned downtime.
<b>HP Metrocluster and Continentalclusters</b>	Provides the highest level of availability and business continuity for enterprise data centers and is HP’s disaster-tolerant solution for local and unlimited distances. This solution is built upon HP’s foundation clustering software, HP Serviceguard.
<b>Management</b>	
<b>HP Systems Insight Manager</b>	Maximizes system uptime, reduces total cost of ownership, and provides powerful monitoring and control of multiple HP Integrity servers.
<b>HP Ignite-UX</b>	Enables fast deployment of HP-UX 11i for one or many servers. It provides the means for creating and reusing standard system configurations, enables replication of systems, permits post-installation customization, and is capable of operating in both interactive and unattended modes.
<b>HP GlancePlus Pak Software</b>	Combines real-time diagnostic and monitoring capabilities with the ability to perform historical data collection and analysis. This provides an ideal solution to manage the availability and performance of a single system while retaining valuable historical information for use with enterprise management products.
<b>HP Operations Software for UNIX</b>	Discovers, monitors, controls, and reports on the availability and performance of heterogeneous, large-scale IT environments. It consolidates information for all IT components—network, systems, storage, databases, and applications.
<b>HP Integrity iLO 2</b>	Advanced remote management built into the system management processor.
<b>HP NonStop Software</b>	
<b>HP NonStop SQL Database Software</b>	NonStop SQL is a distributed relational database management system that uses the ANSI-standard Structured Query Language (SQL) to deliver a scalable, fault-tolerant database. NonStop SQL includes ODBC and JDBC software and a report writer.
<b>HP NonStop RDF/ZLT Replication Software</b>	NonStop RDF/Zero Lost Transactions software offers high-speed, low-latency transaction replication between NonStop servers and assures total data integrity for every transaction.
<b>HP Pathway with NonStop TS/MP Software</b>	Highly scalable and available application server for mission-critical OLTP applications
<b>HP NonStop Servlets for JavaServer Pages</b>	Highly scalable Apache Tomcat-based Web container for hosting enterprise Java™ components
<b>HP NonStop Tuxedo Software</b>	Highly scalable and available version of the popular BEA Tuxedo transaction processing monitor
<b>HP NonStop CORBA Software</b>	Highly scalable and available OMG CORBA compliant Object Request Broker

\*HP recommends purchasing these software products as part of the fully integrated HP Virtual Server Environment (VSE).

## HP Services

## Description

<b>HP Critical Service—24x7 comprehensive hardware and software services with enhanced escalation</b>	Highest level of 24x7 mission-critical support, enhanced escalation processes, standard 6-hour call-to-repair commitment (confirm region availability), and round-the-clock system monitoring. Ideal for reducing downtime risks in mission-critical environments.
<b>HP Proactive 24—24x7 proactive hardware and software account services</b>	Complements your internal IT resources with proactive advice and account services including integrated hardware (four-hour onsite response), software, and technical advice. 24x7 coverage of the entire IT infrastructure, improving stability and operational effectiveness.
<b>HP Service Solutions with three predefined service levels for Integrity Superdome and Integrity NonStop servers</b>	All three service levels provide preinstallation, deployment, and education. The Service Solutions are designed to speed and simplify Integrity Superdome and Integrity NonStop server implementations. <ul style="list-style-type: none"><li>• <b>Critical Service Solution</b>—highest level of 24x7 mission-critical support for environments where unplanned downtime carries serious business consequences; enhanced escalation processes, repair time commitments, and round-the-clock system monitoring</li><li>• <b>Proactive Service Solution</b>—complements your internal IT resources with proactive advice and account services, including integrated hardware (four-hour onsite response), software, and technical advice—24x7 coverage</li><li>• <b>Foundation Service Solution</b>—integrated hardware and software support for mature, stable environments or non-production systems (i.e., test, development, and backup systems)</li></ul>

## HP Storage

## Description

<b>XP Disk Array family</b>	An enterprise-class storage system that delivers state-of-the-art reliability and around-the-clock availability for mission-critical applications where downtime is not an option. The family offers broad scalability to support mission-critical processes: <ul style="list-style-type: none"><li>• XP24000—scales up to 851 TB of internal and 247 PB of external capacity.</li><li>• XP20000—scales up to 177 TB of internal and 96 PB of external capacity.</li><li>• XP12000—scales up to 332 TB of internal and 32 PB of external capacity.</li><li>• XP10000—scales up to 69 TB of internal and 16 PB of external capacity.</li></ul>
<b>Enterprise Virtual Array family</b>	An enhanced virtual storage array family for enterprises requiring an easy-to-use, high-performing midrange disk array with outstanding TCO to support business-critical processes: <ul style="list-style-type: none"><li>• EVA 8100—scales up to 120 TB of capacity</li><li>• EVA 6100—scales up to 56 TB of capacity</li><li>• EVA 4100—scales up to 28 TB of capacity</li></ul>
<b>Modular Smart Array 1500</b>	A low-cost, high-capacity SAN array for FC networks. Ideal for smaller data centers and remote office locations, the MSA1500 provides up to 64 TB of capacity and offers the most affordable data protection and performance features in its class.
<b>146 GB and 300 GB 15k rpm Fibre Channel internal hard disks</b>	These latest-generation Fibre Channel attached drives give the best available performance for system and user disks.

# HP related offerings

## Comprehensive solutions for the Integrity systems family

HP Options	Description
<b>Instant Capacity (iCAP) cells, processors, and memory</b>	Instant Capacity eliminates over-provisioning and helps to link IT costs to revenue by deferring these costs until they are actually needed. iCAP hardware is purchased for only 25% of the price of active hardware, and does not require software or support. When the additional capacity is needed, the remaining 75% is paid and the component is activated with a simple command.
<b>Temporary Instant Capacity for processors (TiCAP)</b>	Temporary Instant Capacity (TiCAP) is like a prepaid phone card that provides 30 days of activation for iCAP processor cores. TiCAP is consumed at your own pace, and includes OS and HP VSE licenses and support. TiCAP allows you to meet short-term peaks in application demands by paying for them only when they occur.
<b>Global Instant Capacity (GiCAP)</b>	Global Instant Capacity (GiCAP) allows you to move the usage rights for hardware and licenses for software within a group of servers, effectively deactivating components in one server in order to activate them in another. GiCAP is a unique HP differentiator that offers cost-effective high availability and load balancing.
<b>10000 G2 Series rack</b>	Enterprise-class rack solution combines unparalleled structural integrity, cooling, and cable management and can be used for all HP rack-mounted server and storage products.
<b>2 Gb Fibre Channel and Gigabit Ethernet multifunction adapters</b>	The HP PCI-X 2 Gb Fibre Channel and Gigabit Ethernet multifunction adapters deliver the performance, flexibility, and high availability you need to support the connectivity requirements for server consolidation in your Adaptive Enterprise. These versatile adapters offer 2 Gb Fibre Channel I/O for mass storage connectivity and 1000Base-SX or 1000Base-T Gigabit Ethernet I/O for networking connectivity, higher port density for I/O slot-constrained systems, and higher levels of failover protection.
<b>4 Gb Fibre Channel adapters</b>	HP 4 Gb Fibre Channel adapters offer the highest level of availability and support when used in conjunction with HP StorageWorks storage arrays, tape storage systems, and Fibre Channel switches. The dual-channel and single-channel 4 Gb Fibre Channel adapters effectively double performance over previous-generation Fibre Channel adapters. In addition, the 4 Gb Fibre Channel adapters auto-negotiate 1 Gb, 2 Gb, or 4 Gb transfer rates, allowing full legacy support for existing SAN infrastructures to protect your current SAN investment.
<b>4X InfiniBand adapters</b>	HP's 4X Fabric solutions provide high-speed, low-latency switched fabric solutions optimized for server clusters. HP 4X Fabric products provide a leading-edge interconnect for both High Performance Computing (HPC) customers who want to deploy clusters for scientific and engineering applications, and for commercial customers who want to deploy highly available and scalable database clusters.
<b>HP Lights Out Advanced KVM Card</b>	HP Integrity Integrated Lights Out (iLO) management processors make it simpler, faster, and less costly to remotely manage your Integrity servers. The Integrity Lights Out Advanced/KVM card is an optional accessory which combines a physical graphics/USB card with additional logic to enable the Lights Out Advanced features of Virtual Media and Integrated Remote Console.
<b>Fibre Channel ServerNet Adapter (FCSA)</b>	Two-port Fibre Channel adapter card that provides two Fibre Channel ports to connect to internal Fibre Channel Disk Modules (FCDMs), HP XP Disk Array family, and tape storage products
<b>Ethernet ServerNet Adapter (G4SA)</b>	Four-port Ethernet adapter card that provides two 10/100 Mbps ports and two 10/100/1000 Mbps ports
<b>Expansion board for Fibre Channel or Ethernet</b>	An optional expansion board expands the VIO subsystem by providing either an additional four Fibre Channel ports beyond the four embedded Fibre Channel ports, all with FCSA-like functionality; or an additional four Ethernet ports beyond the four embedded Ethernet ports, with G4SA functionality.
<b>HP Virtual TapeServer</b>	A flexible, high-performance disk-based backup and restore system that automates operations, reduces backup windows, and dramatically improves restore operations <ul style="list-style-type: none"><li>• Multi-site backup data replication for disaster recovery (DR) redundancy</li><li>• Data encryption, data compression, and clustering for availability and security</li><li>• Open systems backup application integration for autonomous operations</li></ul>
<b>2 GB, 4 GB, or larger memory upgrades</b>	HP branded memory is the easiest way to quickly enhance and improve overall system performance for demanding database and application workloads. Larger memory increases performance and is available to be added in 2 GB, 4 GB, or larger increments. HP memory modules are qualified and tested to strict HP standards to help ensure consistently high levels of performance and reliability in HP servers. Memory upgrade options differ by server. Most HP Integrity servers offer Double Chip-Spare technology.

## Leverage integrated service solutions for better business outcomes

Competitive IT organizations need an environment that's both right for today and ready to evolve as your business needs change. HP Services meets this challenge with services designed to lower your IT costs, increase availability, reduce the complexity of multivendor services, and accelerate system implementation.

- A key to business success is an agile IT infrastructure that adapts to changing needs while keeping the business running smoothly. Maintaining predictable service levels is one of the benefits of HP's comprehensive support services. To help you design, deploy, integrate, and manage an agile IT infrastructure, we cover the entire IT solution lifecycle—including convenient pre-packaged HP Care Pack service options and custom support solutions.
- Break down costly technology silos with our consulting and integration services, which allow you to access, share, and synchronize applications and data across your existing heterogeneous environment.
- Do you dream of being able to focus more on your core competencies—and less on day-to-day IT services? Our outsourcing services and global IT expertise can make this dream a reality.
- To speed product implementation, consider our factory-direct capabilities. Our plug-and-play solutions are integrated, tested and shipped in a fully configured rack. Included are pre-delivery site reviews, factory installation and configuration, onsite installation, and product orientation.
- In today's fast-paced business environment, your employees need to quickly assimilate new IT skills.

HP can help you achieve this goal with a variety of training services, including instructor-led courses, customized onsite training, and innovative remotely assisted courses.

Capitalize on your IT environment capabilities with a service partner who thoroughly understands server, storage, and network technology in a multivendor environment. Working in partnership with HP Authorized Channel Partners, HP has this expertise. Whether your company is a medium-sized organization or a large global corporation, HP Services can help. To learn more, visit [www.hp.com/hps/support](http://www.hp.com/hps/support)

## Flexible financing for lower costs

HP eases the burden on your balance sheet by offering flexible financing options 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. Additionally, HP Financial Services can help you transition from your existing solution to a new one by helping you uncover the value in your unwanted equipment. With our Asset Recovery Services, HP Financial Services will pay you for equipment that has remaining market value and manage the disposition of truly obsolete equipment in accordance with environmental regulations. No matter which combination of HP solutions you need, HP Financial Services offers a full range of “acquire-to-retire” services to put those solutions within reach. For more information, please contact your HP sales representative or visit:

[www.hp.com/go/hpfinancialservices](http://www.hp.com/go/hpfinancialservices)

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## The right partner

We're here to help you build an infrastructure that's designed for your business needs. HP is investing to unify across the data center infrastructure so that customers can standardize on management tools, enclosures, power monitoring, and the like while leveraging their investments. Are spiraling power and cooling costs draining your budget? Our energy-saving tools and technologies can help you significantly cut costs by regulating and monitoring power usage across your infrastructure. Are you trying to get the greatest utilization from your data-center floor space? We offer a complete portfolio of solutions, including small-footprint options. Do you need help scaling up or out, or designing a data center that can change along with your business need? Look to HP. Do you want the broadest range of choice from best-in-class IT providers? Our hardware, software, and service partners deliver thousands of solutions designed specifically for HP products. The bottom line? HP is the right partner to help you use technology for better business outcomes.

## For more information

To learn more about how HP Integrity servers are the best choice for today's dynamic IT environments, contact your local HP sales representative or authorized HP reseller, or visit:

**[www.hp.com/go/integrity](http://www.hp.com/go/integrity)**

To learn more, visit [www.hp.com/go/integrity](http://www.hp.com/go/integrity)

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