

HP AlphaServer GS1280 system

Data sheet



Virtually unlimited power—where you want it—when you want it

For the ultimate computing platform in telecommunications, business intelligence, business applications, high-performance technical computing, and server consolidation, look to HP AlphaServer GS1280 systems with up to 64 EV7 Alpha processors.

The AlphaServer GS1280 system can be split into partitions as small as 2 processors—virtually delivering 32 servers in one package with the flexibility to move resources where needed, when needed. You can test in one partition—while others manage your workload. That's true agility. With industry-leading operating systems OpenVMS and Tru64 UNIX®, the AlphaServer GS1280 system will provide rock-solid, high performance to your computing environment for years to come. The AlphaServer GS1280 systems deliver the simplicity, agility, and value that drive an Adaptive Enterprise: business and IT synchronized to capitalize on change.

Key features and benefits

- Binary AlphaServer compatibility: make any changes you want to get the performance you need—seamlessly. Moreover, your applications don't change. They just run faster—and gain greater scalability.
- Easy-to-manage: with a single view across multiple systems—and with clustering to make multiple systems look just like one—you act once, saving time, money, and valuable IT resources.
- Maximum uptime: scheduled downtime may now be extinct when you combine HP OpenVMS and HP Tru64 UNIX

clusters with proactive fault management of major system components—and true hot-swap for everything else.

- System on a chip: delivers built-in SMP and enhanced single-system availability.
- Advanced hard partitioning: eliminates single points of failure—whether brought on by hardware or application error.
- Shared system elements: modular growth and investment protection across the entire family of EV7 AlphaServer systems.
- Switch-less mesh architecture: through truly linear scalability and fault hardening, your data stream takes the fastest route to its destination.

Achieve the peace of mind you need with the HP Alpha RetainTrust Program

With the HP Alpha RetainTrust Program, you can rely on programs to help you plan for your business and technology requirements when new technologies evolve. We have worked diligently to make sure your transition to HP Integrity servers based on Intel® Itanium® 2 processors moves at the pace you and your infrastructure require. Included in this program is the HP AlphaServer Customer Assurance Program*.

Among its many advantages, you will receive money-back satisfaction guarantees on Integrity systems running HP OpenVMS or HP-UX, financial assistance and trade-in incentives, and a wide variety of evolution resources.

* The AlphaServer Customer Assurance Program may not be available in all areas and may be subject to different terms based on local law and regulation.

The latest generation of HP AlphaServer systems uses the technical sophistication of the EV7 Alpha “system-on-a-chip” to deliver a complete new family of modular systems, from 2 to 64 processors. Building on a decade of innovation and leadership, these high-performance server systems provide immediate benefits with outstanding price/performance, scalability, reliability, flexibility, manageability, and availability.



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Technical specifications

Availability	Now	
Processor	1.30 GHz EV7z and 1.15 GHz EV7	
SMP	2–64 processors	
Memory	Up to 512 GB (8 GB/processor) RAID memory optional	
I/O subsystem	Up to 512 PCI-X slots, 192 PCI slots, and 64 AGP 4X slots	
Partitions	Up to 32 (2 CPUs minimum)	
Cabinetry	Rack May be multi-cabinet	
Performance ^{1,2}	SPECint_2000	994
	SPECfp_2000	1,684
	SPECint_rate2000/SPECfp_rate2000	
	2 processors	23/39
	4 processors	46/78
	8 processors	92/156
	16 processors	183/310
	32 processors	366/619
	64 processors	732/1,236
	STREAMS triad	
	1 processor	7,200
	2 processors	14,400
	4 processors	28,700
	8 processors	57,500
	16 processors	114,000
	32 processors	224,000
	64 processors	440,000
Operating environments	Tru64 UNIX v5.1B + IPK or later required for EV7 CPU at 1.15 GHz Tru64 UNIX v5.1B-1 + PK4 or later required for EV7z CPU at 1.30 GHz OpenVMS v7.3-1 and later versions (maximum SMP configuration is 32 processors)	
Server management	Embedded	
Reliability features	Redundant hot-swap power, fans. ECC protected memory, cache, microprocessor. Automatic server recovery. Prefailure warnings for disks, I/O, memory, CPUs, power, and temperature. RAID memory. Dynamic multi-path I/O. Hot-swappable server management LAN components. In-line data correction on system mesh. System partitions.	
Warranty	One-year on-site, 9-hour x 5-day warranty with next-business-day response Optional service plans for up to 24x7, 2-hour, same-day response times are available, as well as a complete portfolio of worldwide service offerings to maximize uptime	

¹ SPECcpu2000: Benchmark scores reflect results published on www.spec.org as of August 2004. For the latest SPEC benchmark results, visit: <http://www.spec.org/osq/cpu2000>

² STREAM: Sustainable Memory Bandwidth in High Performance Computers (<http://www.cs.virginia.edu/stream>)

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To learn more, visit www.hp.com/servers/alphaserver

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