

Hitachi Compute Blade 2000 blade server is an enterprise-class platform. Featuring a balanced system architecture, it eliminates bottlenecks in performance and throughput.



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Hitachi Compute Blade 2000

Take Enterprise-Class Blade Computing to New Extremes

In Hitachi Compute Blade 2000 (CB 2000), the embedded logical partitioning feature supports unprecedented configuration flexibility. It extends the benefits of logical partitioning to new areas of the enterprise data center, including mission-critical application servers and database servers, with minimal cost and maximum simplicity.

Hitachi Compute Blade (CB) 2000 elegantly integrates network, power and server resources into a single, space-efficient, flexible solution. The rack-mountable 10U chassis houses up to 8 server blade modules. For I/O versatility, there are 6 bays for internal switches and, uniquely for a blade server, up to 16 slots for standard low-profile PCI Express 2.0 cards. With sophisticated, built-in reliability, availability and serviceability (RAS) features, CB 2000 reduces the risk of unplanned downtime for mission-critical applications.

Balanced Performance

Hitachi Compute Blade 2000 supports a range of blade server options that can be combined within the same chassis. Intel Xeon E5 Series processors, with up to 8

cores each and up to 2 CPUs per blade, deliver compute power on the AX55R3 and AX55S3 blade modules. The AX55R4 blade supports a pair of E5-2600v2 processors with up to 12 cores each. Each blade provides 24 slots for high-speed, DDR3-registered ECC memory DIMMs, allowing up to 384GB of shared memory to be installed per blade (when 16GB DIMMs are used). The AX55R4 can support up to 64GB LRDIMM modules, which allow that blade to support as much as 1536GB. This blade also supports memory mirroring for high-availability applications. AX55R3 and AX55R4 blades support the installation of up to 6 small-form-factor, hot-pluggable, front-side-accessible SAS drives, or SSDs, which hardware RAID controls.

AX55R3, AX55S3 and AX55R4 blade modules support 2 PCI Express mezzanine slots and 2 standard PCI Express 2.0 (x8) slots via the backplane. When combined with the 2 on-board Gigabit Ethernet ports, I/O bandwidth totals up to 162Gb/sec. This balanced performance makes it possible to use virtualization to consolidate application servers and database servers for backbone systems.

For the ultimate in performance and scalability, Hitachi multiblade SMP interconnect technology enables you to scale up resources to 4 AX57A2 blades to achieve a

single 8-socket (64-way) SMP system with 128 memory slots.

Native Logical Partitioning

Hitachi Compute Blade 2000 logical partitioning feature, LPAR, is embedded in the firmware of CB 2000 server blades. The combination of Hitachi expertise with Intel virtualization technologies improves performance, reliability and security.

Unlike emulation solutions, the embedded virtualization feature does not degrade application performance; and unlike 3rd-party virtualization solutions, it does not require additional components, keeping total cost of ownership low. The Basic model supports 2 LPARs included with the system, and the Enterprise model allows for configuration of up to 60 LPARs. CB 2000 provides more flexibility: Use the embedded LPAR feature, Microsoft® Hyper-V®, VMware, or all 3, in a single system.

Integrated Management

Hitachi Compute Systems Manager (HCSM) is provided at no charge with CB 2000 purchase. HCSM provides agentless server management and system monitoring, including power management, asset and configuration monitoring,

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and operating-system-level management of virtual servers. HCSM also integrates seamlessly with Hitachi Command Suite for unified management view in IT environments with Hitachi storage.

CHASSIS

CHASSIS	SIZE	10U (RACK MOUNTABLE)
	DIMENSIONS (W X D X H)	447MM X 820MM X 441MM
	SERVER BLADE MODULES	UP TO 8 SERVER BLADE MODULES
	MANAGEMENT MODULES	1 STANDARD, 2 MAXIMUM (REDUNDANT)
	COOLING FANS	8 STANDARD
	SWITCH MODULES	2 STANDARD, 6 MAXIMUM
	PCIE I/O SLOTS	UP TO 16 SLOTS
	POWER SUPPLIES	UP TO 4 POWER SUPPLY MODULES (N+1 OR FULLY REDUNDANT)

HITACHI COMPUTE BLADE 2000: COMPUTE BLADE FEATURES

FEATURE	CB 2000 COMPUTE BLADES			
				
SOCKETS	AX55-R3 BLADE	AX55-S3 BLADE	AX55-R4 BLADE	MP (X57)-A2 (SMP MODE)
SOCKETS	1-2	2	2	8-FEB
CPU	XEON E5-2600	XEON E5-2600	XEON E5-2600V2	XEON E7-8800
CORES	4-16	8-16	8-24	20-80
DIMM SLOTS	18	32	32	32, 64, 128
MAXIMUM MEMORY	512GB (2-SOCKET)	1024GB (2-SOCKET)	1536GB (2-SOCKET)* 64GB LRDIMM	758GB (2-SOCKET) 1.5TB (4-SOCKET, SMP) 3.0TB (8-SOCKET, SMP)
LPAR SUPPORT	60	60	60	60
PCIE/MEZZANINE SLOTS	2/2	2/2	2/2	2/2, 4/4, 8/8
HOT PLUG SAS DISKS	4	-	-	-
INTERNAL 1GBE PORTS	2	2	2	2, 4, 8

Hitachi Data Systems

Corporate Headquarters
2845 Lafayette Street
Santa Clara, California 95050-2639 USA
www.HDS.com community.HDS.com

Regional Contact Information
Americas: +1 408 970 1000 or info@hds.com
Europe, Middle East and Africa: +44 (0) 1753 618000 or info.emea@hds.com
Asia Pacific: +852 3189 7900 or hds.marketing.apac@hds.com



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