HITACHI
Inspire the Next

Hitachi Compute Blade 2000

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

Take Enterprise-class Blade Computing to New Extremes

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. Compute power on the AX55R3 and AX55S3 blade modules is delivered by Intel Xeon E5 Series processors, with up to 8 cores each and up to 2 CPUs per blade. 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 installed). This includes support for memory mirroring for high-availability applications. AX55R3 blade modules also support the installation of up to 6 small-form-factor, hot-pluggable, front-side-accessible SAS drives or SSDs, which are controlled by hardware RAID.

Both the AX55R3 and AX55S3 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, this totals up to 162Gb/sec I/O bandwidth. This balanced performance makes it possible to use virtualization to consolidate application servers and database servers for backbone systems. AX55A2 and AX57A2 blade modules support 18 and 32 memory slots, respectively, powered by Intel Xeon 5600, 7500 or E7-8800 Series processors.

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 additional 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, 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: A3 COMPUTE BLADE FEATURES

Feature	CB 2000 A3 Compute Blades	
	AX55R3 Blade 	AX55S3 Blade 
Sockets	1-2	2
CPU	Xeon E5 Family	Xeon E5 Family EP (performance)
Cores	2-16	6-16
DIMM slots	24	24
Maximum Memory	512GB (2-socket)	512GB (2-socket)
Logical Domain (LPAR) Support	30	30
PCIe/Mezzanine Slots	2/2	2/2
Hot-plug SAS Disks	6	—
Internal 1GbE Ports	2	2
RAID Cache Backup	Yes	—
Boot	LOCAL	SAN

HITACHI COMPUTE BLADE 2000: A2 COMPUTE BLADE FEATURES

Feature	CB 2000 A2 Compute Blades		
	DP (X55)-A2 Blade 	MP (X57)-A2 Blade 	MP (X57)-A2 (SMP Mode) 
Sockets	1-2	2	4, 8
CPU	Xeon 5500/5600 (max 3.46GHz)	Xeon E7-8800 (10C 2.40GHz)	Xeon E7-8800 (10C 2.40GHz)
Cores	2-12	6-20	Max. 80
DIMM slots	18	32	64, 128
Maximum Memory	192GB (2-socket)	384GB (2-socket)	768GB (4-socket, SMP) 1536GB (8-socket, SMP)
Logical Partition (LPAR) Support	Yes (60)	Yes (60)	Yes (60)
PCIe/Mezzanine Slots	2/2	2/2	4/4, 8/8
Hot Plug SAS Disks	4	—	—
Internal 1GbE Ports	2	2	4, 8

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