

The most powerful Escala server with unprecedented virtualization capabilities

Escala H9-700



Designed for data centers rationalisation, and meeting the most demanding computing needs, the Escala H9-700 provides scalability, performance and energy efficiency.

Outstanding Price/Performance

The POWER7 processor-based Escala H9-700 high-range server delivers outstanding price/performance, mainframe-inspired reliability and availability features, flexible capacity upgrades and innovative virtualisation technologies. This powerful 24-inch rack-mount system, which can handle up to 256 POWER7 cores, can be used for database and application serving, as well as server rationalisation.

Leading edge virtualization features

PowerVM offers the capability to dynamically adjust system resources based on workload demands so that each partition gets the resources it needs. Active Memory™ Expansion, a new POWER7 technology, enables the effective maximum memory capacity to be much larger than the true physical memory. Innovative compression and decompression of memory content can enable memory expansion up to 100 percent. This can enable a partition to significantly more work or enable a server to run more partitions with the same physical amount of memory.

Superior virtualisation capabilities

The virtualisation capabilities are further enhanced with Partition Mobility, offered as part of the optionally available PowerVM feature. This function is designed to move running

partitions from one POWER7 server to another with no downtime.

The TurboCore feature

Escala H9-700 unique feature enables to switch between its standard throughput optimized mode and its TurboCore™ mode, where performance per core is boosted with access to both additional cache and additional clock speed. It allows users to decide how they wish to optimize their system, even after it is installed and operational. Based on the user's configuration option, any Escala H9-700 system can be booted in standard mode, enabling up to 256 processor cores running at 4.0 GHz or in TurboCore mode, enabling up to 128 processor cores running at 4.25 GHz and twice the cache. Flexibility has once more been redefined.

Bull's competence centers at your service

Bull AIX competence centers were highly involved in the recent hardware and software developments of servers using Power7 and AIX technologies. Bull's customers are able to take advantage of all of Bull's expertise to define, deploy, implement and monitor their complex infrastructures. The experts of Bull Customer Briefing Center invite you to appreciate all the latest technological improvements to novascale and Escala platforms in real conditions. Meet our experts at the Bio Demo Center : <http://www.biodemocenter.com>

PRODUCT SPECIFICATIONS

Technical specifications – Escala H9-700

ARCHITECTURE	
System packaging	42U, 24" system frame + expansion frames (4 max)
Number of processors cores /system	24 to 256 processors
Processor type (SMP)	64-bit POWER7™
Clock rates available	3.7 GHz, 4.00 GHz, 4.25 GHz (TurboCore mode)
Min/ Max memory system	16GB à 8TB
Level 2 (L2) cache	256KB
Level 3 (L3) cache	4MB (standard mode) / 8MB (TurboCore mode)
RAS FEATURES	
Chipkill™ memory	standard
Service processor	standard
Hot-swappable disks (internal and external)	standard
Dynamic Processor Deallocation	standard
Hot-plug slots	standard
Redundant Hot-plug power and cooling	standard
CAPACITY AND EXTENSION	
Power on Demand (POD)	Yes
PowerVM Standard Edition	Optionnal
PowerVM Enterprise Edition	Optionnal
Maximum logical partitions/ micro-partitions	254 maximum LPAR
Maximum PCI-E slots (64bit) with one 24" I/O drawer	20 PCI-E per drawer 24"
Maximum PCI-E (64bit) with I/O drawers 24"	640 (64bit)
Maximum internal disk per drawer/ maximum internal disk storage	26/ 7,8TB (26 x 300Go)
I/O drawer 24" required / Optional 24" I/O drawers	1/32
Max disk bays/ storage with 24" I/O drawers	832/ 249,6TB (disk SAS)
Bull StoreWay disk subsystems	Optional
EMC2 disk subsystems (AX, CX, DMX)	Optional
NetApp disk subsystems	Optional
MEDIA BAYS	
DVD Rom/Ram de base	1
Maximum slots available (slimline size)	3
External Tape drive (VXA or DAT)	Optional
COMMUNICATIONS & CONNECTIVITY	
Integrated USB ports / HMC	16 / 4 Standard
10 Gigabit Ethernet	Optional
4 Gigabit Fibre Channel	Optional
12x GX	Optional
OPERATING SYSTEM	
AIX 5L V5.3/6.1/7.1	Standard
Red Hat AS4, 5 ; Novell/Suse SLES 9, 10 for POWER	Optional
HIGH AVAILABILITY	
ARF V5, V6 ,V7 / V6.3 or PowerHA V5.4, V5.5	Optional
PERFORMANCES	
Max rPerfs	3,7GHz: 2188.08 4,00GHz: 2978.16 4,25GHz: 1852.56
SPECIFICATIONS	
Operating temperature	10 to 28 degrees C
Relative humidity	20% to 80%
Ampere	80 to 100
Operating voltage	200 to 240 V
Power consumption	28529watts
Thermal output (8proc books, 3 I/O drawers)	108847 Btu
SIZE	
Height x Width x depth (mm)	2 014mm H x 775mm W x 1 806mm D
WARRANTY	
Standard warranty	1 year

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