

bullion S16

the most advanced workspace for fast data

By leveraging the Bull technologies in mission-critical applications and supercomputing, Atos brings to the market a complete range of x86 servers, bullion™.

bullion reaches the highest level of quality of service, performance, availability and scalability to meet the 3 big challenges an IT Department is facing: Data Center optimization, IT modernization and Big Data efficient implementation.

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Optimize your Data Center

Data Centers have to accompany the rise of Cloud, Big Data and mobility, whilst guaranteeing the relevant levels of service.

Designed for the private cloud and targeting next generation Software Defined Data Centers (SDDC), bullion is the right answer to consolidate, rationalize and virtualize your Data Centers. Efficiency generator, bullion dramatically enhances users' financial equation, providing more performance and agility.

Modernize your IT

Ensuring the right evolution of application environment is a key success factor for any IT modernization project. It has to be based on highly reliable, powerful, open and scalable platforms or servers. You have all that with bullion!

New usage trends of the digital world are now at your reach: Cloud, mobility (Bring Your Own Device: BYOD), Big Data. Moreover, Liber proposes its unique approach, combining a proven methodology and Bull products to industrialize migration of legacy applications.

Make sense of your data

Big Data is now in everyone's mind. How shall you properly manage the never ending growth of data volume, velocity, variety, and transform them into an asset for your organization? With its unique memory capacity, bullion provides unrivalled features to analyze data in real-time: you are ready for the In-Memory journey.

A powerful and modular range

The bullion server range consists of 4 complementary models, sharing the same innovative technologies, embarking from 2 to 16 Intel® Xeon® E7 v3 processors, with a maximum memory capacity of 24 TB, unmatched on the market.

Depending on their needs, the users simply add 3U compute modules, connected via the Connecting Box, a patented system inherited from Bull to get rid of cabling. For more agility in configuring, bullion servers propose innovative design with hot plug memory and I/O blades.

bullion S16 in brief

The bullion S16 server, with eight 3U modules, perfectly fits in with the range dynamics, thanks to its capacity of up to 16 processors and 24 TB of memory. It provides up to 288 cores and 576 threads to host Virtual Machines (VM) clusters, critical database or In-Memory applications.

Dedicated Atos services

Coming with the bullion range, Atos proposes a full set of added value services, such as Service Assurance, to optimize operations, and Liber, to modernize the application environment.

Our best experts support our specific offers, including power audits or architecture consulting. Atos technical briefing centers are open to share field experience on real case studies with dedicated workshops and hands-on sessions.



Technical specifications

DESIGN	
Form factor	19" 24U
PROCESSORS	
Numbers	From 2 to 16 sockets, max 288 cores and 576 threads
Type	Intel® Xeon® Processor E7 v3 Family 4, 8, 10, 12, 14, 16 or 18 cores
L3 cache	Up to 45MB shared cache
ARCHITECTURE	
Chipset	Intel® C602J Chipset
Quick Path Interconnect	Max 9.6GT/s
Scalability	From 2 to 16 sockets, via BCS2 (Bull Coherence Switch 2)
Hardware Partitioning	Yes
MEMORY BLADES	
Min / max	Min: 48GB, max configuration: 24TB
Type	DDR3, DDR4 (Post RTS) RDIMM, LR-DIMM
Memory blades capacity	48GB, 96GB, 192GB, 384GB
Memory blade	Up to 64 blades, 6 slots/blade
Memory availability	Hot plug memory blades
I/O BLADES	
BUS	PCIe Gen3 x8
I/O blades	Up to 56 blades, hot swap
I/O availability	Hot plug blades
I/O BLADES TYPES	
NIC I/O blade	1GbE: 2 or 4 ports per I/O blade 10GbE: 2 ports per I/O blade
HBA I/O blade	8Gb/s: 2 ports per I/O blade 16Gb/s: 2 ports per I/O blade
Flash I/O blade	SSD Flash 1TB
SAS I/O blade	12Gb/s: 2 ext. ports per I/O blade
STORAGE	
Chassis drive bays	HDD: up to 16*, hot plug
Internal add-on disks (EBOD)	12 Gb/s SAS connectivity up to OS max. capacity
Hard drives	3.5" NL SAS 2.5" SAS 10Krpm & 15Krpm 2.5" SSD SAS
Storage Controller (optional)	1x I/O blade with RAID 0/1/10
SAN	EMC, NetApp, Bull Optima
EMBEDDED I/O PORTS	
NIC	1Gb Ethernet ports : 2, up to 16*
Management port	Up to 8x Ethernet ports for System Management*
PS/2port (mouse, keyboard)	USB or iBMC
USB ports	3, up to 24*

* by using hardware partitioning

** excluding storage module

VIDEO	
Video Controller	Via iBMC
Memory	8 MB
SECURITY	
2-level password	Yes
POWER SUPPLY**	
Hot-plug PSU	1+1
Power supply number	Up to 16, redundant Active/passive power-supply solution with ultra-capacitor (UCM)
Power type	Label 80+ Platinum, 94% efficient
Power consumption	750watt or 1600watt w/PFC (PF=0.95)
Auto-sensing	220V 60/50Hz
COOLING**	
Fan specifications	Up to 48 hot plug, n+1 redundant
PHYSICAL SPECIFICATIONS**	
Size (HxLxP)	1040 (24U) x445mm (19") x820mm (max) Recommended to use Bull racks
Weight	Up to 360kg
Operating constraints	10°C to 35°C, gradient 20°C/h, 20% to 60%, gradient 5%/h
OS & SOFTWARE	
Management Software	Bull System Manager, Bull iCare, Bull Platform Manager
Operating System	Red Hat® Enterprise Linux (12TB), VMware® vSphere ESXi™, Microsoft® Windows Server
SYSTEM MANAGEMENT	
BMC	IPMI 2.0
Remote Management	Standard via on-board iBMC
AVAILABILITY & RAS FEATURES	
Memory RAS features	ECC, Enhanced SDDC, Enhanced DDDC, Memory Sparing, MCA recovery, hot-add memory blade
Hot plug devices	Memory blades, I/O blades, disk drives, power supplies, fans, UCM.
Redundancy	Power supplies, fans, QPI paths, BCS2 connection (XQPI paths)
Serviceability	Hot add memory blades
WARRANTY & SERVICES	
Standard warranty**	3 years warranty
Warranty extension	Bull Global Care
Other services	<ul style="list-style-type: none"> ▶ IT infrastructures Advisory, energy audits ▶ Service Assurance ▶ HA, capacity & performance management ▶ Installation & integration services
REGULATOR & SAFETY	
Regulatory compliance	CE, UL/CSA, RoHS

For more information: <http://www.bull.com/bullion>

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