

Compute Grid Clusters and Blade Systems

While clusters have revolutionised High Performance Computing, the standardisation of operating systems has also made an impact. Linux deployment has seen worldwide acceptance aiding its growth and integration. To accommodate this market requirement, VA Technologies has a wealth of experience in Linux Clustering and can preload systems with all of the major Linux distributions. In addition, system management becomes a factor in data centres due to the large number of systems involved in a cluster. This introduces a new category of underlying problems, including load balancing and hot-swap systems cooling and power consumption. VA Technologies specialise in making recommendations and designing solutions to meet these challenges.

VA Technologies Blade Systems offers many unique advantages that differentiate it from competitors' blade products and traditional rack-mount solutions. Customer benefits include maximum affordability, reduced management costs, lower power consumption, optimal ROI, and high scalability – and in most applications, blade servers even reduce acquisition costs.

While current Tier 1 blade suppliers only offer general-purpose blade servers, VA Technologies Blade system is fully optimized for a wide array of mission-critical and compute-intensive applications. With in-house design engineering agility to accommodate customer

needs rapidly, VA Technologies Blade system revolutionises modular computing architecture by offering several advanced application-optimized models such as Enterprise Blade Server, Data Centre Optimized Blade, Workstation Blade and Personal Blade.

Available with Quad or Dual Core CPU's and either two or four sockets for high-density applications.



TECHNOLOGIES

High Performance Computing Specialists



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DatacenterBlade™

DatacenterBlade™ (SBE-714D-R42/D28) is perfect for data centres and HPC applications with performance & density optimized to achieve 672 processing cores and 4TB DDR2 memory per 42U standard rack. This powerful SuperBlade® features 100-240VAC, ultra high-efficiency (93%), N+1 redundant power supplies, along with industry-leading density, performance/watt and price/performance.

DatacenterBlade™ Features:

- High density – 14 DP blades in 7U enclosure; up to 672 processing cores in standard 42U rack
- High performance – up to 0.27 GFlops/watt
- Energy efficiency – 93% efficiency power supplies and native DDR2 memory instead of FBD memory
- High availability – N+1 redundant power supplies
- Ease of Use – easy to set up with remote management tools
- Flexibility – two or four 100-240VAC power supplies

High Performance Storage – 3x SAS/SATA drives per server blade with RAID 0, 1, 5, 10

OfficeBlade™, a member of the SuperBlade® server family, is optimized for small-medium business as well as personal HPC applications. With acoustically enhanced thermal and cooling technologies, OfficeBlade™ can operate at or below 50dB with 10 DP server blades.

OfficeBlade™ Features:

- Super low noise – 50dB with 10 DP blades
- Energy efficiency – 93% efficiency power supply, DDR2 memory
- Density & performance – 10 DP blades with 20 Quad-Core Xeon processors per 7U enclosure
- Ease of Use – easy set up with remote management tools
- Flexibility – two or four 100-240VAC power supplies, optional small racks with door and air filter, optional Gigabit Ethernet switch or pass-through module, etc.
- High availability – N+1 redundant power supplies, redundant modules – chassis management, Gigabit ethernet switch or pass-through module
- High-performance storage – 2x SAS/SATA drives per server blade with RAID 0,1

Processor Blade Options INTEL

SBI-7125B-T1 Officeblade Blade

- Dual Intel® 64-bit Xeon® Quad-Core or Dual-Core, with 667 / 1066 / 1333 MHz FSB
- Up to 32GB DDR2 667 & 533 SDRAM Fully Buffered DIMM (FB-DIMM)
- Intel® (ESB2) 82563EB Dual-port gigabit Ethernet PHY Controller
- 2 x 3.5" Hot-swap SATA Drive Trays
- ATI ES1000 16MB Graphics

SBI-7425C-S3 Datacentre Blade Blade

- Dual Intel® 64-bit Xeon® Quad-Core or Dual-Core, with 1333 / 1066 MHz FSB
- Intel® 5100 (San Clemente) chipset
- Up to 48GB Reg. ECC DDR2 667 & 533 SRAM
- Intel® 82575EB Gigabit Ethernet 1x Gigabit Ethernet Port Supported
- LSI 1068E SAS controller (RAID 0, 1, 10 & optional RAID 5)
- 3x 2.5" Hot-swap SAS/SATA Drive Trays
- ATI ES1000 32MB Graphics

Processor Blade Options AMD Officeblade only

SBA-7141M-T

- Four Quad-Core / Dual-Core AMD Opteron™ 8000 Series (Socket F)
- Up to 64GB DDR2 667 SDRAM
- Intel® 82571EB Dual-port Gigabit Ethernet Controller
- 1 x 2.5" Internal SATA Drive Support
- ATI ES1000 16MB Graphics

SBA-7121M-T1

- Two Quad-Core / Dual-Core AMD Opteron™ 2300/2200 Series (Socket F)
- Up to 32GB DDR2 667 SDRAM
- Intel® 82571EB Dual-port Gigabit Ethernet Controller
- 2 x 3.5" Hot-swap SATA Drive Trays
- ATI ES1000 16MB Graphics