SGI® Virtu™ VN

Key Features

- Delivers fully integrated high-performance visualization capabilities to SGI's compute and storage systems
- Top compute performance with Dual-Core and Quad-Core Intel® Xeon® processor-based visualization nodes
- Extreme graphics performance with a full range of NVIDIA® Quadro™ FX Graphic processing units
- Operating system support for Red Hat® Enterprise Linux®, SUSE® Linux® Enterprise Server, and Microsoft® Windows® Compute Cluster Server

Key Benefits

- Delivers industry-leading visualization node density of 5 nodes in a 4U rack space
- Adds seamless and scalable high performance visualization capabilities to existing and new engineering, research, scientific and media clusters
- Flexible node configurations that are closely coupled and integrated with SGI Altix®, SGI® Altix® XE and SGI® Altix® ICE compute platforms and InfiniteStorage Solutions
- Comprehensive integration delivers optimized workflow, increased system utilization, and maximized user productivity

DELIVERING ADVANCED REAL-TIME VISUALIZATION FOR COLLABORATIVE AND STANDALONE ENVIRONMENTS

The SGI® Virtu™ VN200, a member of the Virtu family of solutions, extends the SGI heritage of visual supercomputing with a range of high-density, high-performance visualization nodes designed specifically for the performance visualization needs of today's HPC and commercial business users. It brings a new level of flexibility, power, and accuracy to real-time visual analytic environments.

Virtu™ VN nodes feature the latest generation of Intel® Quad-Core processors and NVIDIA® Quadro™ FX graphics technologies. The Virtu™ VN200 features the industry's highest node density – up to 5 Virtu™ VN200 nodes can be packed in to a 4U rack space – ideal for today's cluster environments. All systems employ our comprehensive visualization enabled software environment stack – a suite of fully validated and optimized operating systems, utilities, and applications. They are tightly integrated into our industry-leading compute-visualization-data systems, delivering a seamless and highly productive supercomputing experience.

The SGI Virtu VN200 is designed to power applications ranging from stand-alone graphics processing to collaborative environments. It is ideal for consolidating distributed workstations into a single, powerful environment. Users ranging from medical personnel and search and rescue teams to product design and decision support can take advantage of this next generation of visual collaboration in a highly distributed, real-time environment. The resulting increases in efficiency and overall productivity are enormous.

Visualize, Communicate and Collaborate

SGI Performance Visualization meets the demands of today's HPC and commercial business users by delivering an unmatched capacity to rapidly visualize enormous amounts of data, interact with highly complex visual objects in real time, and enable remote visualization and organizational collaboration.

Do More with a Trusted Consultant

SGI understands your challenges and is dedicated to helping you achieve breakthrough performance. Not only does SGI provide the Virtu solution family, but we can also provide the technical expertise in visualization, high-performance computing, and storage to make your system work together to seamlessly to achieve the results you expect.

Pick Your Level of World-Class Support

SGI provides a range of support options to best meet your enterprise's needs. For those with IT organizations who prefer to support their own systems, SGI provides phone support and next-business day advanced parts exchange. We also offer SGI's highly rated onsite hardware support at a range of response times to meet your exact requirements.

	SGI Virtu™ VN200
Node Type	Highly Scalable Rack Optimized High Density Node
Form Factor	Rack mounted, up to 5 nodes horizontal per 4U subrack
Processor	Up to two Quad-Core Intel® Xeon® Processors,5400 series (2 per node) • Front Side Bus: 1600 or 1333 MHz • L2 Cache: 12MB
Memory per node	From 4GB to 32GB DDR2 800 MHz FB-DIMM
Graphics	NVIDIA® FX 1700, Quadro™ FX 3700 and FX 5600 cards available
Interconnect	Onboard DDR InfiniBand & GigE
Chassis	6.72”w x 3.44”h x 32.93”d; (1) PCIe x16 Gen2; Redundant power supplies

SGI Visual Supercomputing Software Stack	
System Software	• Red Hat® Enterprise Linux® 5.0 • SUSE® Linux® Enterprise Server 10 • Microsoft® Windows® Compute Cluster Server 2003 • SGI ProPack™ 5 for Linux®
Visualization Software Stack*	• Cluster Management Software: Scali Manage • Job Scheduling/ Workload Management: Altair® PBS Professional™ • Fabric Management: SGI InfiniBand Fabric Management (based on OFED) or Voltaire GridStack (SLES 9 systems) • Filesystem: XFS™ 64-bit journaled filesystem (on SUSE Linux OS), CXFS™ shared filesystem for SANs • Network File System: Samba, NFS
SGI ProPack™ 5 for Linux®	• Supports Novell® SUSE® Linux Enterprise Server 10 and Red Hat® Enterprise Linux® 5 • Linux Operating System Enhancements: CPUSETS, Cross Partition support with XPMEM, NUMA Tools (dlook, dplace) memory management • General Application Support: Linkless Flexible File I/O (FFIO) libraries, Intel® compiler runtime libraries, Performance Co-Pilot™ • Parallel Application Support: Array Services and Secure Array Services, SGI Message Passing Toolkit (MPI), Perfcatcher (MPI profiler), XPMEM DAPL for Intel MPI Library • System Support: ESP (embedded support partner), SGI ProPack configuration script, SGI Technical Support Tools

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