SGI® Remote Visualization™

WAVE Technologies to Provide the Optimized Workflows for Today's Global Environments

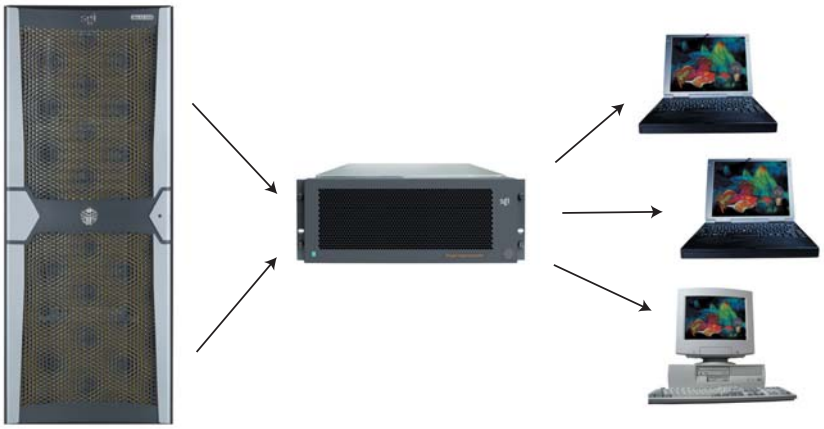
- High-Performance Remote Access
- Network Centric Visualization
- Enterprise-Wide Productivity
- Reduced Workflow Complexity
- Wide Area Visual Networking (WAVE) Technologies

Highlights

- Eliminates costly, and time consuming, data transfers over networks to remote visualization users
- Reduces the requirements for local data storage and visualization resources at remote sites
- Provides full image manipulation, interaction, and analysis capabilities in geographically dispersed locations
- Allows desktop and laptop users, without workstation CPU power, full access to visualization data
- High performance graphics and software for a complete remote visualization solution

The ability to remotely view and interact with visualization data is critical in today's fast paced research, engineering, and manufacturing workflows. Conventional remote visualization requires both the transfer of data to remote users, and significant processing power and data storage at the remote sites to view and manipulate the images. As problem sizes requiring visualization continue to grow, data transfer has become a critical bottleneck, consuming hours or days waiting for the transfer to complete. In addition, these immense data sets require ever-increasing local post-processing and visualization resources for the end user.

SGI Remote Visualization, with our VAN (Visual Area Network) and WAVE (Wide Area Visual Environment) technologies, overcomes these challenges in a comprehensive and fully integrated approach. Leveraging SGI performance compute and visualization servers, leading edge remote visualization software, and integration and optimization by SGI Professional Services, SGI Remote Visualization eliminates the need for time-consuming data transfers and local post-processing resources. These workflow advantages deliver increased productivity and cost reductions as problems sizes continue to expand.



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Model processing is performed on the SGI high performance compute server, and post-processed on an SGI Visualization Supercomputer. Graphic output is encoded as a compressed image and transmitted across a network to one or more remote user locations. At those locations, user actions, including mouse movements and keystrokes, are transmitted back to the SGI Visualization Supercomputer, where the remote visualization application interprets the user actions and transmits the appropriate image data back. The transmission of small compressed image data eliminates the need to transfer the entire model to the remote location, and reduces the need for visualization resources at that location.

Leverage High-Value Enterprise and Data Center Resources

SGI Remote Visualization places all of the compute and visualization processing on centralized, large compute centers, allowing the organization to leverage all available high performance resources, including large compute clusters, data systems, and networks. SGI Remote Visualization can scale with the data center. In addition, sensitive source data and applications remain behind secure firewalls, and image data that is transmitted to remote locations is compressed and encrypted.

Increased Enterprise-wide Productivity

By eliminating the need to transmit, store, and process visualization data on remote computers, SGI Remote Visualization dramatically shortens time-to-results latency and provides all of the functional advantages of performance visualization to a large, distributed workforce, including the concurrent display, manipulation, and analysis at remote locations such as field offices and campuses.

Reduced Costs and Complexity

The centralization of data and applications enables simplified application distribution and management, and eliminates the need for high performance workstations at the user site. Transmitting compressed image data, rather than entire models, reduces network bandwidth consumption and computing resources. SGI Remote Visualization can work within corporate standard OS environments, reducing training and management overhead.

sgi®

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