Sun Compute Cluster for Research

In order to keep scientific research at the leading edge, today's scientists are using High Performance Computing (HPC) systems to solve extremely challenging projects. HPC systems use compute, interconnect, and storage power to help solve highly complex problems, perform research and computation-intensive analysis, or run workloads with massive data sets faster. The outcome is the ability to tackle larger problem sets, increase the accuracy of results, and find breakthroughs in areas thought previously unreachable.

Highlights

Open
Using industry standard components and Open Source software, the Sun Compute Cluster for Research enables you to run a broad set of scientific and engineering applications

Simple
Easy to configure and fast to deploy, The Sun Compute Cluster for Research gets you up and running in days not weeks

Scalable
Built to scale using standard interfaces, off-the-shelf components and a flexible configuration, the system is easy to adapt and scale as needs change. Increase computational power as required

Reliable
High quality, reduced risk – Reduce installation issues by leveraging Sun's enterprise-class factory testing and real-world experience in cluster and high performance computing projects

> Learn more
sun.com/education

Sun is introducing a new Compute Cluster for Research, an integrated HPC solution based on the architecture used in the 579 Teraflop "Ranger" system deployed at the Texas Advanced Computing Center (TACC).

"Since its launch in February, millions of compute hours on Ranger have been utilized by researchers from across the United States, in all areas of scientific research from computational microscopy and astronomy to weather prediction and social network visualization"

John "Jay" R. Boisseau, Ph.D.
Director, Texas Advanced Computing Center

Sun has years of experience developing systems for science and research professionals who need high performance computing.

We realize that for research institutions, the process for synthesizing and testing data is time-consuming and resource-intensive, a problem that is aggravated by increasing volumes of data.

Sun is taking High Performance Computing to the next level by offering a new Research Compute Cluster solution designed specifically for educational institutions. Now you can have the compute power to solve complex problems, run more simulations and explore new research areas, delivered in an easy to configure, integrated solution. The Sun Compute Cluster for Research helps complete many computationally intensive tasks faster, better and more cost effectively. Sun's Compute Cluster for Research brings high performance computing, storage and visualization together in a single cluster, as well as the software stack to make it all work.

Empower your Researchers
The Sun Compute Cluster for Research provides powerful capabilities that can meet your research needs now and scale as those needs grow. Many universities today are seeing the benefits of HPC in attracting researchers and gaining funding to explore new areas of science and technology. The Research Compute Cluster can be the centerpiece of a shared set of resources that will enable a broad group of users to tackle a wide set of scientific challenges. Sun can help you set up a centralized infrastructure that will benefit numerous researchers, professors and students.

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Clustering Made Easy

The Sun Compute Cluster for Research arrives ready to switch on and enables more productivity and faster time to results. This efficiency allows you to concentrate on your core science while leaving the racking, stacking and cabling tasks to specialists at Sun's factory. Combined with your choice of preloaded software for administration and resource management, such as Sun xVM Ops Center and Sun Grid Engine, the Sun Compute Cluster is an easy-to-use building block for cluster and grid systems.

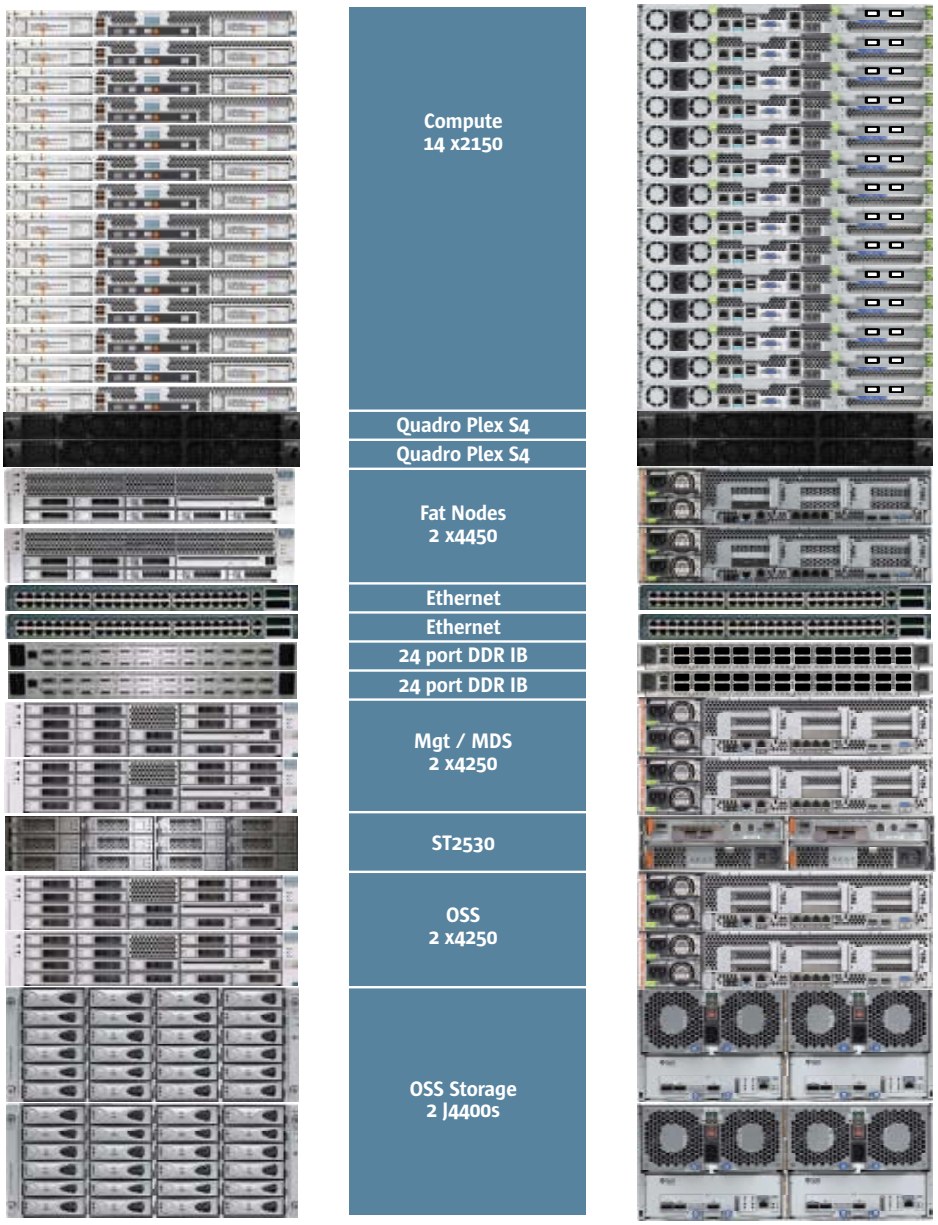
The Sun Compute Cluster for Research starts with 16-rack mount servers per rack, or 48 blade servers per Sun Blade 6048 system rack, for excellent performance. Larger clusters can be created by combining multiple racks to achieve a cluster with potentially thousands of nodes.

Configured at the factory – installed and implemented on-site

Sun delivers your HPC solution through our Sun Customer Ready program, which provides component software installation as well as factory integration and testing of the full solution. By leveraging Sun experts to perform the initial installation, integration and testing, you can reduce your deployment time and start generating results more quickly. For long-term satisfaction within your complete environment, upgrade to Platinum Support and Sun's Single Point of Contact service for incident management until closure.

To learn more about all of Sun's HPC solutions for science, research and engineering, go to sun.com/education

Rack Layout



Front — Sun Compute Cluster for Research — Rear

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