

Sun™ Rapid Solutions

Sun Compute Cluster



In today's economic climate, it's more important than ever that businesses deploy solutions that are not only cost-effective, but also simple to order, fast to deploy, and run—day in and day out, without interruption. In the past, achieving this in a high-performance computing (HPC) environment has been difficult, if not impossible.

Highlights

- **Easy to manage** – Preloaded software tools from Sun make cluster provisioning and administration simpler
- **Fast deployment** – Sun Customer Ready program helps reduce time to deployment by up to 90%
- **Scalable compute power** – Scaling from 1 to 8 racks, the solution is designed to grow with your needs
- **High quality, reduced risk** – Help reduce installation issues by leveraging Sun's factory testing and real-world experience
- **Optimized utilization** – Using Sun Grid Engine software, customers have reported up to 90% system utilization rates
- **Loaded with open source software** – Avoid vendor lock-in and enjoy the benefits of open source software

This has changed with the introduction of the Sun™ Rapid Solutions, Sun Compute Cluster solution. Now, using the power of HPC to solve your complex business issues is simple, fast, cost-effective, and easy to deploy. Built on a foundation of design excellence and choice of industry standard components, the Sun Compute Cluster solution brings new levels of performance, efficiency, and scalability to your infrastructure. The result: lightning-fast deployment, breakthrough economics, plus the power to run more simulations, perform intricate business analysis faster, and bring new products to market faster.

Sun Compute Cluster: Simple, scalable, reliable, open. Delivering faster time to results.

The Sun Compute Cluster is a streamlined HPC solution, specifically designed to help solve your most computationally intensive business problems. Consisting of servers, networking, interconnects, and software, all integrated at the factory, it is an easy-to-deploy building block for creating clusters and grids, changing the economics of scalable computing by defining systems at the rack level. Using your choice of Sun Fire™ servers or Sun Blade™ modular systems, the solution delivers a powerful, flexible platform designed for the reliability, and expandability necessary to meet HPC needs.

The Sun Compute Cluster solution arrives ready to switch on, with software for administration

and resource management, such as Sun xVM Ops Center and Sun Grid Engine, preloaded. This helps enable more productivity and faster time to results—and you can concentrate on your core business, while leaving the racking, stacking, and cabling tasks to the specialists at Sun's factory.

Configured and tested at the factory—installed and implemented onsite.

Sun delivers your HPC solution through the Sun Customer Ready program, which provides component software installation as well as factory integration and testing of the full solution.

Additionally, prescribed services are essential for your Sun Compute Cluster solution. These services provide a custom Delivery and Supportability Cookbook, Acceptance Test Plan and Procedure, and an Operational i-Runbook. Prescribed services include **Enterprise Installation Services** for proactive planning, including a site audit, to get you ready for installation fast and effectively and **Sun Datacenter Express Onsite Implementation Service** for project management of all elements of service and technical delivery, including installation, integration, acceptance testing, and a transfer of information. For long-term satisfaction within your complete environment, upgrade to a **SunSpectrum™ hardware support and software service plan**, and **Sun Single Point of Contact Service** for incident management with support contracts from multiple vendors.

Hardware components

Server nodes options

- A record-breaking x64 (x86, 64-bit) product line of rackmount servers, based on AMD Opteron™ or Intel® Xeon® processor technology
- Sun Blade 6000 family, one of the industry's most open, versatile enterprise blade platform delivering fast performance, ease of scalability, energy efficiency, and longevity. It includes the Sun Blade 6000 chassis, and a variety of blade server modules

Single rack scalability

- Up to 8 racks with 32 rackmount compute nodes when Gigabit Ethernet (GbE) data and management networks are installed
- Up to 8 racks with 30 blade server modules in a Sun Blade 6000 chassis when data and management networks are installed

Networking and interconnects

Once your switching fabric is determined, all the components that are needed for either GbE or Infiniband are included in the pre-configured sizing selections, including cables.

Software components

Operating systems

SUSE Linux Enterprise Server 10

Systems management

Sun xVM Ops Center helps simplify discovery, monitoring, and operating system provisioning. It provides comprehensive updates and patch management, firmware updates, and hardware management from power up to production.

Sun Grid Engine software provides distributed resource management and policy-based workload management of applications for increased productivity and easier management of grids.

Additional software

Sun Studio 12 software is a set of performance tools designed to help answer questions about

application performance for SUSE Linux operating systems. The tool chain includes parallelizing compilers, code-level and memory debuggers, performance and thread analysis tools, OpenMP support, as well as optimized math libraries.

Sun HPC ClusterTools™ 8 software is an integrated toolkit that allows developers to create and tune Message-passing Interface (MPI) applications that run on high performance clusters and SMPs. Sun HPC ClusterTools software offers a comprehensive set of capabilities for parallel computing.

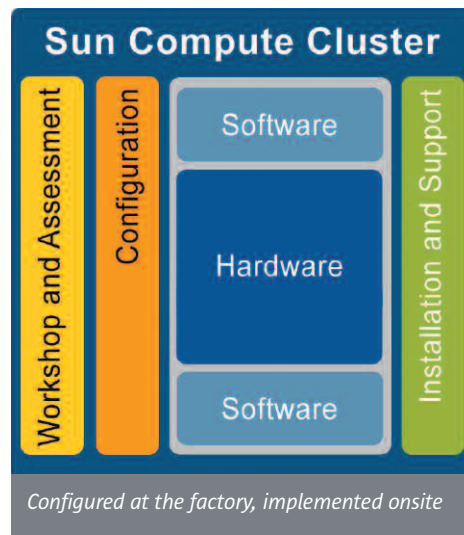
Recommended configurations

Sun provides recommended express configurations for specific workloads, making it easier to choose the right platform for an application. Sun also provides reference configurations based on best practices and expertise gained in real-world deployments.

Recommended services

Sun Eco Services Suite

Helps implement an energy management program so you can control your IT operating costs through better utilization of internal resources, as well as reduce power and energy costs.



Learn More

To learn more about the Sun Compute Cluster solution, go to sun.com/hpccluster

Sun Datacenter Express Service Workshop and Site Assessment

A 3-day workshop translates business drivers and IT requirements into a service-delivered solution. The Site Assessment provides a site evaluation for installation of the equipment.

Remote or onsite operations management

Provides tailored management capabilities for your datacenter's IT operations.

HPC administration classes

Sun offers several courses designed to provide essential information and skills needed to install and administer HPC hardware and software systems.

Additional HPC solutions

The Sun Compute Cluster solution serves as a foundation for other HPC solutions from Sun. For example, additional HPC solutions focus on financial, manufacturing, and storage markets.

Sun Rapid Solutions

Sun Rapid Solutions give you a single point of contact to get it right the first time with tested industry solutions made up of our scalable, repeatable, open, and future-proofed technologies and services. Our combination of experience, knowledge, and best practices means your infrastructure is in good hands, so you can focus on your core business.