SUN SOLUTIONS FOR HIGH PERFORMANCE AND TECHNICAL COMPUTING

Technical Computing Portal
Expanding Application Access

Sun's Technical Computing Portal (TCP) provides High Performance and Technical Computing (HPTC) users a single, Web-based point of delivery to access services, content, and complex applications. Users have the freedom to access technical applications remotely through an Internet/Intranet browser providing secure anytime, anywhere access using simple point-and-click interfaces. No UNIX® system skills required.

Through TCP, users can:

- Upload input files with the click of a button

- Manage job submission via forms (no UNIX® system skills necessary, no need to write scripts)

- Submit jobs remotely

- Dynamically check on the status of jobs

- Receive email notification when jobs are complete

- Download/visualize output files remotely

- Easily share results with collaborators

- Quickly add legacy apps for remote use and sharing

- Make TCP resources available to other users without duplicating the investment
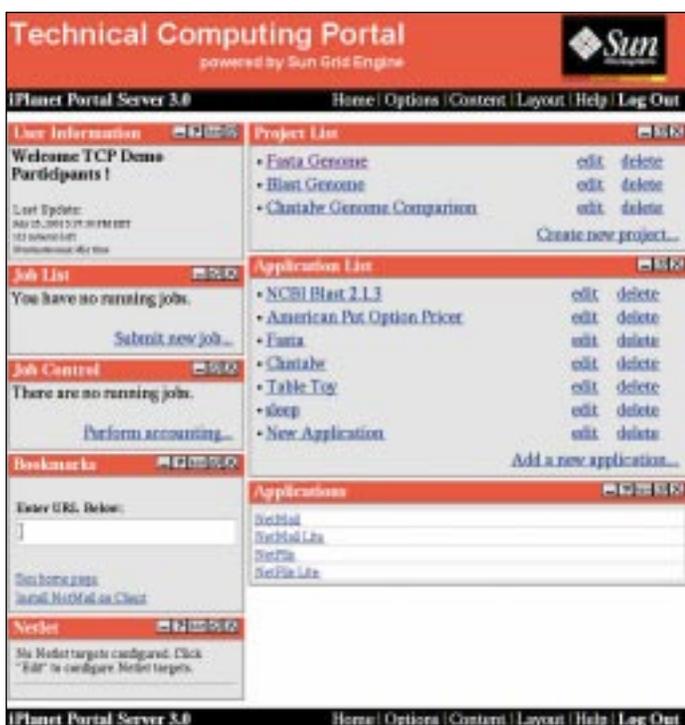
Screen View of Sun's Technical Computing Portal Prototype

A new collaborative model for supercomputing is emerging. The focus is no longer just the compute environment itself, but expanded application access, data access and availability, and improved data movement. To enable customers to take advantage of this shift in the High Performance and Technical Computing (HPTC) market, Sun is integrating new and existing technologies, services and products, including Sun Enterprise™ and SunFire™ servers, Sun Technical Workstations, Sun StorEdge™ storage products, and consulting and help training services. Sun's HPTC SOLUTIONS jumpstart applications access, cross-platform connectivity, and data access, management and control.

Applications can be quickly added to the portal—often within minutes—either by the administrator or by selected users. No application modification is necessary for batch applications with a command line interface. In other words, a legacy application binary can be transformed into an Internet-available application simply by plugging it into the TCP.

TCP builds on the commercially tested capabilities of the iPlanet™ Portal Server to deliver technical applications alongside the typical portal-based applications and content (calendar, mail, ordering, tracking).

Jobs submitted by users are transparently managed by the industry-proven Sun Grid Engine resource management software, offering an unparalleled capability for delivering application services to remote users. Resources are centrally and dynamically managed to provide maximum resource utilization according to administrator determined policies.

TCP Value Proposition:

• Greater return on IT and infrastructure investments through improved system utilization

• Achieve economies of scale for increased productivity and cost savings
  – expand application user base
  – address customers, suppliers, partners without overhead
  – more efficient use of engineers' and administrators' time
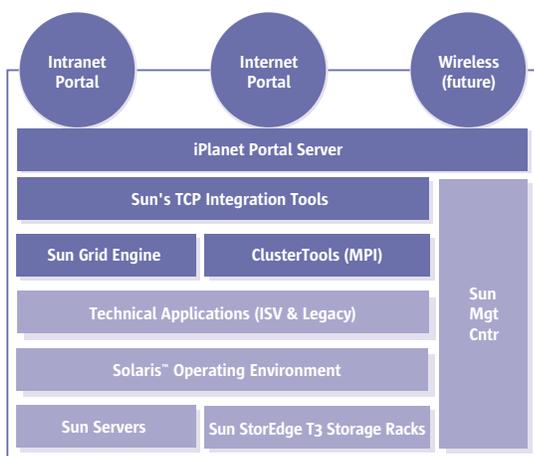
Integratable Hardware and Software Stack

Solution Components

iPlanet™ Portal Server

iPlanet™ Portal Server is the industry's first full-service platform for deploying robust portals. It provides all of the membership management, personalization, aggregation, security, and integration services necessary to quickly deploy the most demanding Sun Enterprise™ Portals. With iPlanet Portal Server, Sun Enterprise Portals can rapidly roll out highly scalable, secure customer, supplier, partner, and employee Enterprise Portals.

Sun TCP Integration Package

Consists of a series of "channels" that are added to the iPlanet Portal Server. Viewed through a browser interface, these channels transparently integrate Sun Grid Engine software's resource management capabilities.

Sun™ Grid Engine

Sun™ Grid Engine software aggregates compute power and delivers it as a network service. It provides dependable, consistent, and pervasive access to high-throughput computational capabilities, and provides the job accounting and statistics information that are needed to monitor resource utilization and determine how to improve resource allocation. The result is a net increase in available compute resources, which can lead to higher productivity, higher quality, and a reduction in the time it takes to get products to market.

Sun HPC Cluster Tools™ (MPI)*

Sun HPC ClusterTools™ software includes a high-performance, multi-protocol implementation of the industry standard Message Passing Interface (MPI), a full implementation of the MPI I/O protocol, and tools for debugging, performance analysis, and tuning of technical computing applications.

(*Required only for installations that run technical applications based on MPI).

TCP is completely integratable with business applications and existing corporate portal sites; it is just a matter of adding windows or "channels" to an existing portal to enable easy access and management of technical applications.

For more information, email to: TCPatSun@sun.com

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