Platform Computing

Platform LSF 8

The HPC Workload Management Standard

Key Benefits

- Maximum flexibility
- Designed for extensibility
- Ease of administration
- Extreme Scalability
- Industry-leading support

Key Features

- Easy to use and manage
- High performing, scalable architecture
- Comprehensive, intelligent scheduling policies
- Heterogeneous platform support

Overview

Platform LSF is the most powerful workload manager for demanding, distributed high performance computing environments. It provides a complete set of workload management capabilities, all designed to work together to reduce cycle times and maximize productivity in mission-critical environments.

With a comprehensive set of intelligent, policy-driven scheduling features, Platform LSF helps you maximize the use of heterogeneous resources, ensuring that resource allocation is always aligned to business priorities. Combined with powerful management features, unparalleled scalability, and the best support in the business, Platform LSF is the most complete HPC datacenter solution for workload management.

Easy to use, easy to manage

Delegation of administrative rights

Rather than relying on a single cluster administrator, Platform LSF provides the flexibility to delegate administrators at multiple levels through the organization. By enabling project managers and business owners to control their own workloads, group membership and resource allocation policies, users enjoy better service and the burden on cluster administrators is substantially reduced.

Live reconfiguration

With Platform LSF changes can be made any time "on the fly" without the need to re-start cluster services. This means that you no longer have to wait for scheduled maintenance periods to make configuration changes to your HPC resources. This "live" reconfiguration capability boosts productivity, and minimizes downtime while reacting more swiftly to changing business priorities.

Resources On-Demand

Guaranteed resource access based on SLAs

Platform LSF provides flexible scheduling capabilities; scheduling that works the way you need it to, ensuring that resources are allocated to users, groups and jobs in a fashion consistent with your service level agreements (SLAs). With extended SLA-based scheduling policies, Platform LSF provides simplified administration and ensures optimal alignment of business SLAs with available infrastructure.

Enhanced fairshare and pre-emptive scheduling

The fairshare scheduling features in Platform LSF provide the ability to fine-tune the algorithms that determine user priority and enable different fairshare policies by project, team or department. Job pre-emption controls help maximize productivity and utilization by avoiding the possibility of pre-empting jobs that are almost complete.

Unparalleled scalability

Platform LSF 8 scales to more than 48,000 cores and 200,000 queued jobs, ensuring that your HPC environment never runs out of head room.

Improved productivity

Platform LSF includes features such as bulk job submissions, dynamically adjustable swap space estimates, flexible data handling and smarter handling of dependencies in job arrays. By leveraging these capabilities, administrators can ensure that users will spend less time waiting for the cluster, and more time focused on their work

An environment that grows as you grow

While ideal for departmental clusters running your operating system of choice, a rich family of optional add-ons ensures that Platform LSF grows as you grow, expanding in both scale and sophistication.

Platform Application Center – A rich environment for building easy to use application-centric web interfaces.

Platform Process Manager – Enables reliable workflow scheduling and sophisticated process automation.

Platform RTM – A flexible real-time dashboard for monitoring global workloads and resources.

Platform Analytics – A comprehensive analysis tool for Platform LSF environments.

Platform License Scheduler – Enables policy driven allocation and tracking of commercial software licenses.

Platform Session Scheduler – A breakthrough solution for low-latency, high throughput scheduling.

Platform MultiCluster –Manage multiple distributed clusters as a single global compute resource.

Platform Adaptive Cluster –Automated compute host provisioning based on changing workload demands.

Platform Make – Empowers developers to harness the power of Platform LSF to reduce build times for complex software applications.

Platform MPI - The industry's most robust and highest performing message passing interface.

Platform LSF 8 Supported Environments

Operating System Support for x86 Hardware	• Linux® on x64 architectures including RHEL 2.1, 3, 4, 5.x, 6, SUSE Linux Enterprise Server including SLES 8, 9, 10, 11 and generic Linux distributions using 2.6 or greater kernels with glibc 2.3 (Debian, CentOS, Ubuntu, Scientific Linux and others). • Linux on ia64 systems including RHEL 4,5, SLES 9,10,11 and generic Linux distributions using 2.6 kernels and glibc 2.3 and later. • Microsoft Windows® on x32 & x64 platforms including Windows 7, Windows Vista, Windows XP, Windows Server 2003 & 2008 standard & enterprise editions, Windows HPC server 2008 • MacOS X 10.4.x, 10.5.x on Apple hardware • HP-UX 11i1, 11i2 & 11i3 on HP hardware • IBM AIX 5.3,6 & 7 on IBM hardware • Sun/Oracle Solaris 7,8,9 on SPARC 32 & 64 bit, Solaris 10 on SPARC 64 bit and x86_64 systems • Cray Unicos/lc 2.x
Platform LSF 8 Master Host Requirements	• Minimum 2 GB of physical memory (RAM) recommended • Available SWAP space twice physical memory • Minimum one high-speed network interface • Secondary master host recommended in large clusters
Platform LSF Compute Host Requirements	• 1 GB of physical memory (RAM) recommended • 40 GB of free disk space • Minimum one high-speed network interface

Platform Computing

Platform Computing is the leader in cluster, grid and cloud management software - serving more than 2,000 of the world's most demanding organizations for over 18 years. Our workload and resource management solutions deliver IT responsiveness and lower costs for enterprise and HPC applications. Platform has strategic relationships with Cray, Dell™, HP, IBM®, Intel®, Microsoft®, Red Hat®, and SAS®. Visit www.platform.com.

World Headquarters
Platform Computing Corporation
3760 14th Avenue
Markham, Ontario
Canada L3R 3T7
Tel: +1 905 948 8448
Fax: +1 905 948 9975
Toll-free Tel: 1 877 528 3676
info@platform.com

Sales - Headquarters
Toll-free Tel: 1 877 710 4477
Tel: +1 905 948 8448

North America
New York: +1 212 888 6270
San Jose: +1 408 392 4900

Europe
Bramley: +44 (0) 1256 883756
London: +44 (0) 20 3206 1470
Paris: +33 (0) 1 41 10 09 20
Düsseldorf: +49 2102 61039 0
info-europe@platform.com

Asia-Pacific
Beijing: +86 10 82276000
Xi'an: +86 029 87607400
asia@platform.com
Tokyo: +81(0)3 6302 2901
info-japan@platform.com
Singapore: +65 6307 6590
wliaw@platform.com