



Preview: IBM Platform Computing accelerates results with comprehensive and integrated cluster, grid, HPC cloud, and analytics management

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At a glance

The Platform Computing family of products enables you to realize unmatched performance, scalability, and utilization in your computing environment.

- Shorten time to full production readiness with easy-to-use cluster management.
- Easily adapt to changing user requirements with automated provisioning.
- Increase user and administrator productivity by leveraging robust workload management.
- Reduce infrastructure costs with optimal resource utilization.
- Accelerate time to results with high-throughput, low-latency scheduling.

Overview

IBM® Platform Computing is widely viewed as the systems software of choice for technical and high performance computing (HPC), including computationally and data-intensive design, manufacturing, financial analytics, business, and research applications. Platform Computing products are used to optimize deployment of complex applications and workloads in many of the world's largest environments (100,000+ cores). The core value of the product portfolio is simplifying and accelerating high-performance simulations and analysis to help you uncover insights into your business, products, and science.

Many organizations face the constant challenge of increasing compute capacity and processing massive amounts of data to support key applications that drive business value and competitive advantage. The IBM Platform Computing products can simplify the setup, integration, and management of your heterogeneous technical computing infrastructure while driving up server utilization, increasing application throughput, and helping to greatly improve time to results. Platform Computing software also helps integrate servers, storage, parallel execution environments, and applications, enabling the delivery of complete solutions that greatly simplify and accelerate deployment and management of high-performance clusters, grids, and HPC clouds. Business value is delivered in days versus weeks or months.

Platform Computing offerings can help you:

- Obtain higher quality results faster
- Reduce infrastructure and management costs
- Easily adapt to changing user requirements

IBM Platform Computing complements the IBM systems and technology portfolio by providing simplified management software to help eliminate the complexity

of optimizing cluster, grid, and HPC cloud environments. The following products comprise the IBM Platform Computing portfolio:

- IBM Platform LSF® product family: Powerful, comprehensive technical computing workload management
- IBM Platform HPC: Fully integrated, easy-to-use management software, including cluster management, workload management, reporting, and MPI
- IBM Platform Symphony™ product family: High-throughput, low-latency grid management software for compute and data-intensive applications
- IBM Platform Cluster Manager: Automated self-service creation, flexing, and management of heterogeneous HPC clusters for use by multiple tenants
- IBM Platform MPI: High-performance, production-quality MPI implementation for application parallelization
- IBM Platform Analytics: Advanced technical computing analytics for visualizing, correlating, and analyzing massive amounts of workload data for data-driven decision making

Platform Computing software runs on a variety of hardware and operating environments, including the latest generation of IBM System x® servers. By prequalifying and certifying these platforms as complete solutions, IBM helps take the risk out of deploying mission-critical high-performance technical computing deployments.

Key prerequisites

The IBM Platform Computing portfolio of products runs on:

- A cluster, grid, or HPC cloud computing environment comprised of two or more servers
- Cluster nodes preinstalled with supported operating environments
- Cluster nodes connected via a fast TCP/IP network infrastructure
- Management hosts on the cluster sharing a common network file system

Planned availability date

Previews provide insight into IBM plans and direction. Availability, prices, ordering information, and terms and conditions will be provided when the product is announced.

Description

Accelerate results with comprehensive and integrated cluster, grid, HPC cloud, and analytics management

IBM Platform Computing simplifies and accelerates deployment and management of high-performance clusters, grids, and HPC clouds. Platform Computing products are used to optimize deployment of complex applications and workloads in many of the world's largest environments, including computationally and data-intensive design, manufacturing, financial analytics, business, and research applications.

Product portfolio

Platform Computing provides a focused technical computing management software portfolio ideal for engineering, financial services, digital media, oil and gas, life sciences, government laboratories, and other research and development organizations in need of simplified, high-performance, and agile systems workload and resource management. This includes:

- **IBM Platform LSF** : The IBM Platform LSF product family provides powerful workload management for demanding distributed, and mission-critical high-performance technical computing environments. Other solutions may lack key components and vendor support, but IBM Platform LSF includes a comprehensive set of intelligent, policy-driven scheduling features. It is designed to enable optimal utilization of all compute infrastructure resources while increasing application throughput, helping to ensure a high return on investment.
- **IBM Platform HPC for System x** : IBM Platform HPC for System x is a robust, yet easy-to-use high performance computing management software. Its robust cluster and workload management capabilities are accessible using the latest design in web-based interfaces, making it powerful, yet easy to use. The result is shorter time to system readiness and productivity as well as optimal application throughput for reduced time to results. Backed by excellent customer support, Platform HPC for System x incorporates nearly two decades of product and technology leadership.
- **IBM Platform Symphony** : The IBM Platform Symphony product family provides enterprise-class management for running distributed application services on a scalable, shared, heterogeneous grid. It accelerates a wide variety of compute and data-intensive applications, quickly computing results while making optimal use of available infrastructure. Unlike other solutions that may lack dynamic resource sharing, Platform Symphony's efficient, low-latency middleware and scheduling architecture is designed to provide the performance and agility required to predictably meet and exceed throughput goals for the most demanding analytic workloads, including Hadoop MapReduce applications.
- **IBM Platform Cluster Manager**: The IBM Platform Cluster Manager product is built to provision, run, manage, and monitor high performance computing clusters. IBM Platform Cluster Manager Advanced Edition, automates assembly of multiple high-performance technical computing environments on a shared compute infrastructure for use by multiple teams. It creates an agile environment for running technical computing and analysis workloads to consolidate disparate cluster infrastructure, resulting in increased hardware utilization and the ability to meet or exceed service level agreements while lowering costs.
- **IBM Platform MPI**: IBM Platform MPI is a high-performance, production-quality implementation of the Message Passing Interface (MPI). Platform MPI supports the broadest range of industry standard platforms, interconnects, and operating systems, helping ensure that parallel applications can run anywhere.
- **IBM Platform Analytics**: IBM Platform Analytics is an advanced tool for visualizing and analyzing massive amounts of workload data. It enables managers, planners, and administrators to easily correlate job, resource, and license data from one or multiple clusters for data-driven decision making. With better insight into high performance computing datacenter environments, organizations can identify and quickly remove bottlenecks, spot emerging trends, and plan capacity more effectively. Traditional business intelligence solutions require significant time and multiple steps to translate raw data into usable information. However, IBM Platform Analytics incorporates innovative visualization tools that are built on top of a powerful analytics engine for quick and easy results. You can utilize the preconfigured dashboards or construct your own, quickly answer questions about your technical computing infrastructure and applications, and use that information to optimize technical computing resource utilization.

Additionally, IBM Platform services, support, and training will be offered, which provides a robust set of "quick-start" and professional services, support, and training to help you plan, build, manage, and support your HPC or technical computing software environment.

Product positioning

The Platform Computing products are an integral part of IBM's HPC cloud solutions, delivering a full range of cloud deployment, management, and optimization capabilities for flexible shared computing environments.

Clusters comprised of IBM System x servers offer an ideal hardware platform for IBM Platform Computing products, all of which are certified to run on the M4

generation of System x servers, including the most recent iDataPlex® and Flex systems. The IBM Platform HPC product is an integral part of the Intelligent Cluster™ solution, providing tightly integrated cluster and workload management capabilities.

The Platform Computing technical computing software portfolio complements IBM's high-performance technical computing platforms, including IBM Power Systems™ servers and IBM System Storage® .

The IBM Platform Symphony product can deliver a shared grid environment running Hadoop MapReduce applications on Infosphere BigInsights. You can benefit from the low-latency capabilities, heterogeneous application support, and sophisticated scheduling and management.

If you are running applications that benefit from a distributed parallel file system, General Parallel File System (GPFS™) may be deployed together with Platform Computing products, providing improved file system performance for data-intensive applications.

Depending on the nature of your requirement, Platform Computing deployments often include software development and integration services. With its breadth of services capabilities, IBM is uniquely positioned to help you integrate applications and be up and running quickly to get maximum value from your grid computing investment.

Business Partner information

If you are a Direct Reseller - System Reseller acquiring products from IBM , you may link directly to Business Partner information for this announcement. A PartnerWorld® ID and password are required (use IBM ID).

<https://www.ibm.com/partnerworld/mem/sla.jsp?num=212-211>

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