

# Platform™

Powering High Performance



## Platform Symphony

Fastest and most reliable SOA Grid middleware

### Highlights

- Easy to build, run and share 100+ applications on high-utilization grid
- Scale to 20,000 CPUs per grid; up to 5,000 cores per application
- Run up to 7,000 tasks per second per application, with less than 1ms roundtrip latency
- New add-ons maximize utilization of multi-core environments minimize data latency bottlenecks

### Benefits for IT Infrastructure Managers:

- Lower capital costs through 10x higher utilization –resulting in hardware purchase deferral
- Lower operational costs through 15x more systems managed per system administrator
- Meet increased demand for risk analysis with existing infrastructure

### Benefits for Application Managers:

- Accelerate risk processing and address new regulatory requirements
- Be more competitive – develop/deploy applications faster, do more analysis in a shorter amount of time
- Debug business application on development environment
- Run pre-trade and post-trade computations on the same infrastructure with best response time
- Increase the productivity and efficiency of quantitative developers by allowing them to switch easily from development to test or production environment

### Ideal for customers who:

- Have to scale applications in order to react to an unpredictable market environment, with limited budget to purchase new infrastructure
- Need to solve data access and transfer bottlenecks
- Need to improve the efficiency of their applications in a multi-core environment
- Want to improve the utilization of their infrastructure while maintaining SLAs
- Need the most low latency middleware for real time pricing and simulations
- Need the most reliable middleware for long running computations



### Manage risks, execute faster, grow your business

Financial Services firms are under increasing pressure to grow revenue and market share amidst intense competition, regulations, and the growing need for enterprise risk management. Faced with budgetary and physical constraints on expanding IT infrastructure, operations teams have to find ways to squeeze more utilization out of the existing infrastructure than humanly possible. Platform Symphony continues to deliver technology that makes the impossible achievable and allows organizations to make the best use of advances in multi-core, virtualization, data management and cloud technology.

## Do more with less

Widely deployed in Financial Services, Platform Symphony is the only grid solution built on top of a utility-based, infrastructure sharing platform. For organizations that need to share commodity infrastructure among multiple applications, IT managers count on Platform Symphony as the only utility computing foundation to meet line of business objectives. Platform Symphony eliminates the complexity of managing a shared pool of nodes, enabling enterprise-class resource sharing, availability, and security. It is the industry's fastest and most scalable SOA grid middleware, delivering speed-to-value through unparalleled application performance and enables:

- Maximized application performance by optimizing computing efficiency and data movement in multi-core environments
- Application service management for optimum use of multi-core servers
- Resource scheduling according to data affinity rules that significantly improves application performance and eliminates data, storage, and network bottlenecks
- More sophisticated and flexible application and resource management controls leading to optimized resource utilization and application SLA

## Competitive edge with higher utilization, at scale

Win the race to launch new products faster, improve service levels, and better manage your risks. Platform Symphony, designed to solve massive computational problems, empowers you with fast and accurate business results, directly impacting your bottom-line. Most server farms operate at less than 15% of their capacity, and most are over provisioned for peak loads. With Platform Symphony, you increase server and cluster utilization to up to 99%. Efficient scaling of multi-application environments, Platform Symphony has been certified up to 20,000 processing units<sup>1</sup> and transparently takes full advantage of multi-core environments.

## Easier than ever to accelerate your business applications

Platform Symphony Developer Edition, freely downloadable from [www.hpccommunity.org](http://www.hpccommunity.org), provides application developers with powerful SDK and SOA grid middleware tools to easily develop, deploy and test their service-oriented applications. Built with the developer in mind and supported through fully staffed discussion forums, Platform Symphony Developer Edition supports languages including C#, Java, C++, .NET and VB. Whether you need to interface distributed Excel models or legacy C++ applications on Linux/UNIX environments, Platform Symphony has the tools you need to get the job done fast.

1. This measurement achieved was on a Linux® cluster running the SSM in unrecoverable mode. Recoverable mode resulted in a slight degradation of scalability. Windows® and Linux® results were similar.

## Extending Platform Symphony

Your investment in Platform Symphony can be extended as your compute requirements evolve with a number of add-on products including Platform Symphony Data Affinity, Platform ISF HPC Cluster, and Platform Symphony Multi-Core Optimizer.

### Platform Symphony Data Affinity

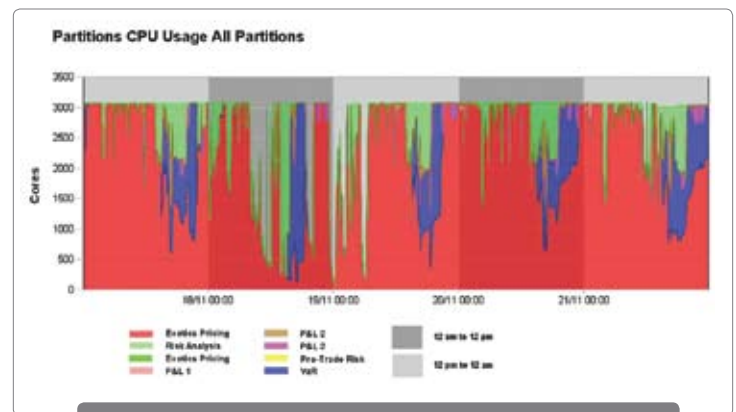
A breakthrough in dealing with the data latency bottlenecks on a grid caused by moving around large data sets, Platform Symphony Data Affinity eliminates data bottlenecks by merging the compute grid with the data grid and intelligently placing workload on systems that are physically close to the required data. This added level of scheduling intelligence results in:

- More flexible scaling of data-intensive applications, with improved performance
- Reduced application run times by up to 80%
- Improved utilization through deployment of data-sensitive applications on Enterprise Grids that previously were difficult to run in a shared environment
- Reduced reliance on expensive network storage hardware

### Platform Symphony Multi-Core Optimizer

Platform Symphony Multi-Core Optimizer makes the most out of multi-core servers – whether your application is multi-threaded or not. This add-on product for Platform Symphony is designed to:

- Improve application performance and scalability by reducing I/O and memory contention in multi-core environments
- Improve utilization by dynamically placing non-uniform workload – single-threaded, multi-threaded, data-intensive, I/O-intensive, and compute-intensive tasks – on heterogeneous resources and by using cores, memory and I/O in the most optimal way.



Screenshot from a production deployment with nine applications dynamically sharing a single grid of 3,000 cores.

# Platform™

Platform Computing is the leader in grid and cloud computing software that dynamically connects IT resources to workload demand according to business policies. Over 2,000 of the world's largest organizations rely on our solutions to improve IT productivity and reduce data center costs. Platform has strategic relationships with Cray, Dell™, HP, IBM®, Intel®, Microsoft®, Red Hat®, and SAS®. Building on 17 years of market leadership, Platform continues to help data centers be more efficient, responsive and dynamic. Visit [www.platform.com](http://www.platform.com).

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