IBM Spectrum Symphony V7.2 enables scalable, high-performance grid services for parallel compute-intensive and data-intensive applications

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At a glance

IBM Spectrum™ Symphony™ V7.2 can help you exceed your performance goals with a fast, efficient grid and analytic computing environment that offers increased scaling and performance. This release includes the following features and benefits:

- Capability to burst workload to the cloud at peak times
- Innovative data management technologies
- Enhanced multitenancy and resource management
- Expanded workload management
- Extended big data grid with IBM® Open Platform
- Improved Docker container support

Overview

IBM Spectrum Symphony V7.2 is an enterprise-class grid manager for running distributed application services on a scalable, shared, heterogeneous grid. It accelerates various compute-intensive and data-intensive applications, quickly computing results while making optimal use of available infrastructure.

Version 7.2 offers the following significant enhancements:

- Ability to create an architecture for multihead workload that allows components to work together more easily.
- Common host factory service with a standardized interface for multiple cloud providers and a select integration plug-in.
- Docker containers for not only applications but also the Spectrum Symphony cluster.
- Rolling upgrade from version 7.1.2 to 7.2.
- A complete multicloud command-line interface.
- Multicluster sessions can span multiple clusters and provide task level redirection.
- Multicluster capability now supports a global service for application profile management.

IBM Spectrum Symphony offers the following capabilities:

- Higher levels of resource utilization
- Reduced infrastructure and management costs
- Reduced application development and maintenance costs
- The agility to respond instantly to real-time demands
- Improved management of heterogeneous distributed applications
- Faster throughput and performance

IBM Spectrum Symphony V7.2 is available in Standard Edition and Advanced Edition. The following options are available:

- IBM Spectrum Symphony Desktop Harvesting
- IBM Spectrum Symphony GPU Harvesting
- IBM Spectrum Symphony Server and VM Harvesting
- IBM Spectrum Symphony Co-processor Harvesting
- IBM Spectrum LSF® Standard V10 for Spectrum Symphony V7

### Key prerequisites

A physical grid computing environment that consists of IBM Power Systems™ servers or x86 servers on supported operating systems.

### Planned availability date

March 17, 2017: Electronic download only

### Description

IBM Spectrum Symphony is designed to support distributed service-oriented architecture (SOA) environments. While it is possible to run workloads on an IBM Spectrum Symphony grid without explicit application integration in order to take full advantage of IBM Spectrum Symphony's low-latency architecture, some level of integration effort is usually needed.

A distinct advantage of IBM Spectrum Symphony over other SOA grid managers is its support for heterogeneous resource and application types. IBM Spectrum Symphony clusters can consist of mixed host types that have different hardware configurations and even run different operating systems; these can be either on-premises or in the cloud. IBM Spectrum Symphony manages diverse sets of application services on the grid, ensuring that application services are scheduled automatically to the most appropriate host, considering application demand and priority.

At the heart of IBM Spectrum Symphony is a unique resource sharing model that enables users, applications, and even entire lines of business to flexibly loan and borrow resources. Resources can be shared in flexible policy-based ways that can vary by time of day while still guaranteeing resource availability to particular applications or departments when needed. With this fluid sharing model, maximum resource use is assured. This flexible resource-sharing model enables IBM Spectrum Symphony clients to enjoy higher levels of application throughput and performance, with a smaller infrastructure investment than is required with competing grid managers. Spectrum Symphony V7.2 supports a hybrid cloud model for on-demand bursting.

### Section 508 of the US Rehabilitation Act

IBM Spectrum Symphony is capable as of March 17, 2017, when used in accordance with IBM’s associated documentation, of satisfying the applicable requirements of Section 508 of the Rehabilitation Act, provided that any assistive technology used
with the product properly interoperates with it. A US Section 508 Voluntary Product
Accessibility Template (VPAT) can be found on the Product accessibility information
website.

Reference information

IBM Spectrum Symphony Express(R) Edition has been withdrawn. For details, see
Software withdrawal 916-141, dated September 13, 2016.

IBM Spectrum Symphony V6.1 has announced end of support. For details, see

Program number

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Offering Information

Product information is available on the IBM Offering Information website.

More information is also available on the Passport Advantage(R) and Passport
Advantage Express website.

Publications

IBM Knowledge Center is a worldwide central repository of IBM technical publications
hosted in a single application, located at a single web address. You can find and
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and user experience. Create your own collections of IBM documents with PDF output
on demand.

Services

Software Services

IBM Software Services has the breadth, depth, and reach to manage your services
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Together, we provide the global reach, intellectual capital, industry insight, and
technology leadership to support a wide range of critical business needs.

To learn more about IBM Software Services, contact your Lab Services Sales or
Delivery Leader.

Technical information

Specified operating environment

Hardware requirements

- Power Systems servers (IBM POWER8(R) little endian)
- x86-based servers
- Oracle SPARC servers
Minimum hardware requirements for management hosts:

- Number of hosts: 1 or 2
- Cores used: 8
- CPU clock speed: At least 2.4 GHz
- RAM: 10 GB (4 GB for multicloud hosts)
- Disk space to install: 8 GB

**Software requirements**

IBM Spectrum Symphony V7.2, Standard and Advanced Editions, are supported on the following operating systems:

On x86-based servers, Linux™ 64-bit:

- Red Hat Enterprise Linux (RHEL) Application Server (AS) 6.4, or later
- RHEL AS 7.1 and 7.2
- SUSE Linux Enterprise Server (SLES) 11 SP2, SP3, and SP4
- SLES 12
- Ubuntu Server 16.04 LTS
- Oracle Solaris 11

On Power Systems, POWER® 64-bit LE:

- RHEL AS 7.1 and 7.2
- SLES 12
- Ubuntu 16.04 LTS

On Oracle SPARC: Solaris 11.

Additionally, IBM Spectrum Symphony V7.2 is supported on the following Microsoft™ Windows™ operating systems in 64-bit:

- Windows Server 2012 and 2012 R2
- Windows Server 2008 and 2008 R2
- Windows HPC Server 2008 and 2008 R2
- Windows 8 and 8.1
- Windows 10

**Compatibility**

IBM Spectrum Symphony V7.2 is fully backward compatible with IBM Platform Symphony V7.1 and previous supported versions. This means if you are running applications developed against earlier versions of the Platform Symphony APIs, you can deploy your applications on the most up-to-date version of IBM Spectrum Symphony.

For example, if you have qualified your applications using the client-side and server-side components and libraries included in Platform Symphony V7.1, those applications can be run as they are, without recompilation, on IBM Spectrum Symphony V7.2. Application profiles specific to each grid service govern the version of the API being used, making it possible for applications using multiple API versions to coexist on the same grid at the same time.

**Limitations**

- Support for the IBM AIX® operating system is not available.
- Linux big endian support is not provided with version 7.2.
**IBM Electronic Support**

The IBM Support Portal is your gateway to technical support. This includes IBM Electronic Support tools and resources, for software and hardware, to help save time and simplify support. The Electronic Support tools can help you find answers to questions, download fixes, troubleshoot, automate data collection, submit and track problems through the Service Request online tool, and build skills. All these tools are made available through your IBM support agreement. Read about the Electronic Support portfolio of tools on the IBM Electronic Support website.

You can also access the IBM Support Portal page and the online Service requests and PMRs tool for more support.

**Planning information**

**Packaging**

IBM Spectrum Symphony V7.2 is distributed through electronic download only in multiple eAssemblies. Included are:

- IBM International Program License Agreement in multiple languages
- Quick Start Guide
- Required installation files

No physical media is available for this offering.

This program, when downloaded from a website, contains the applicable IBM license agreement and License Information, if appropriate, and will be presented for acceptance at the time of installation of the program. For future reference, the license and License Information will be stored in a directory such as LICENSE.TXT.

**Security, auditability, and control**

The IBM Spectrum Symphony offerings use the security and auditability features of the system on which the program is installed.

The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communication facilities.

**Ordering information**

This product is only available through Passport Advantage. It is not available as shrinkwrap.

- Product group: IBM Spectrum Computing
- Product: IBM Spectrum Symphony (5725-G86)
- Product category: Other Software

Some of the components in this announcement have Value Unit-based pricing.

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**Passport Advantage**

5725-G86

Part numbers for IBM Spectrum Symphony are not changed. There is no physical media for version 7.2.
Charge metric

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<td>5725-G86</td>
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<td>IBM Spectrum LSF Standard Edition for Spectrum Symphony</td>
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<td>RVU</td>
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Resource Value Unit (RVU)

RVU is a unit of measure by which the program can be licensed. RVU Proofs of Entitlement (POEs) are based on the number of units of a specific resource used or managed by the program. Licensee must obtain sufficient entitlements for the number of RVUs required for licensee's environment for the specific resources as specified in the program specific table. RVU entitlements are specific to the program and the type of resource and may not be exchanged, interchanged, or aggregated with RVU entitlements of another program or resource. Refer to the program specific RVU table.

Notes:

- Some programs may require licenses for the resources available to and the resources being managed by the program. In that case, the following applies. In addition to the entitlements required for the resources used by the program directly, licensee must obtain entitlements for this program sufficient to cover the resources managed by the program.
- Some programs may be licensed on a managed basis only. In that case, the following applies. Instead of the entitlements required for the resources used by the program directly, licensee must obtain entitlements for this program sufficient to cover the resources managed by the program.

General Purpose Graphics Processing Unit

General Purpose Graphics Processing Unit (GPGPU) is a unit of measure by which the program can be licensed. A GPGPU is a separately installable or identifiable component that is designed for and limited to workload-specific computation and is used as an application-specific accelerator in support of the computer's central processing units. Licensee must obtain an entitlement for each GPGPU that is managed or used by the program.

Client Device

Client Device is a unit of measure by which the program can be licensed. A Client Device is a single user computing device or special purpose sensor or telemetry device that requests the execution of or receives for execution a set of commands, procedures, or applications from or provides data to another computer system that is typically referred to as a server or is otherwise managed by the server. Multiple Client Devices may share access to a common server. A Client Device may have some processing capability or be programmable to allow a user to do work. Examples include, but are not limited to actuators, appliances, automated teller machines, automatic meter readers, cash registers, disk drives, desktop computers, kiosks, notebook computers, personal digital assistant, point-of-sale terminals, sensors, smart meters, tape drives, and technical workstations. Licensee must obtain entitlements for every Client Device which runs, provides data to,
uses services provided by, or otherwise accesses the program and for every other computer or server on which the program is installed.

**Virtual Server**

Virtual Server is a unit of measure by which the program can be licensed. A server is a physical computer that comprises processing units, memory, and input/output capabilities and that executes requested procedures, commands, or applications for one or more users or client devices. Where racks, blade enclosures, or other similar equipment is being employed, each separable physical device (for example, a blade or a rack-mounted device) that has the required components is considered itself a separate server. A virtual server is either a virtual computer created by partitioning the resources available to a physical server or an unpartitioned physical server. Licensee must obtain Virtual Server entitlements for each virtual server made available to the program, regardless of the number of processor cores in the virtual server or the number of copies of the program on the virtual server.

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**License Information number**

- L-TKAO-ACGLBS -IBM Spectrum Symphony V7.2
- L-TKAO-ACGLZY -IBM Spectrum LSF 10.1 Standard Edition for Symphony V7.2

See the License Information documents page on the IBM Software License Agreement website for more information.

**Limited warranty applies**

Yes

**Limited warranty**
IBM warrants that when the program is used in the specified operating environment, it will conform to its specifications. The warranty applies only to the unmodified portion of the program. IBM does not warrant uninterrupted or error-free operation of the program or that IBM will correct all program defects. You are responsible for the results obtained from the use of the program.

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Technical support of a program product version or release will be available for a minimum of five years from the general availability date, as long as your Software Subscription and Support (also referred to as Software Maintenance) is in effect.

This technical support allows you to obtain assistance (by telephone or electronic means) from IBM for product-specific, task-oriented questions regarding the installation and operation of the program product. Software Subscription and Support also provides you with access to updates (modifications or fixes), releases, and versions of the program. You will be notified, through an announcement letter, of discontinuance of support with 12 months' notice. If you require additional technical support from IBM, including an extension of support beyond the discontinuance date, contact your IBM representative or IBM Business Partner. This extension may be available for a fee.

For additional information on the IBM Software Support Lifecycle Policy, see the IBM Software Support Lifecycle Policy website.

**Program support**

Subscription and Support includes telephone assistance, as well as access to updates, releases, and versions of the program as long as support is in effect. You will be notified of discontinuance of support with 12 months' notice.

**Money-back guarantee**

If for any reason you are dissatisfied with the program and you are the original licensee, you may obtain a refund of the amount you paid for it, if within 30 days of your invoice date you return the program and its POE to the party from whom you obtained it. If you downloaded the program, you may contact the party from whom you acquired it for instructions on how to obtain the refund.

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**Volume orders (IVO)**

No

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IBM Operational Support Services - SoftwareXcel

No

System i Software Maintenance applies

No

Variable charges apply

No

Educational allowance available

Not applicable.

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IT system security involves protecting systems and information through prevention, detection, and response to improper access from within and outside your enterprise. Improper access can result in information being altered, destroyed, or misappropriated or can result in misuse of your systems to attack others. Without a comprehensive approach to security, no IT system or product should be considered completely secure and no single product or security measure can be completely effective in preventing improper access. IBM systems and products are designed to be part of a lawful, comprehensive security approach, which will necessarily involve...
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**Prices**

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**Passport Advantage**

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**Order now**

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**Note:** Shipments will begin after the planned availability date.

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