IBM Platform Resource Scheduler for Power, V2.1 optimizes the use of OpenStack infrastructure resources on IBM Power Systems

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At a glance

With IBM® Platform Resource Scheduler for Power®, V2.1 you can:

- Achieve higher workload quality of service by reducing infrastructure bottlenecks
- Align infrastructure usage with business priorities by arbitrating usage among competing tenants
- Improve application performance by scheduling based upon affinity, topology, compute or memory utilization, and storage awareness rules
- Reduce costs by dynamically managing application license, resource, and power consumption usage
- Increase system administrative productivity through automated resource selection

For ordering, contact your IBM representative, an IBM Business Partner, or IBM Americas Call Centers at 800-IBM-CALL (Reference: RE001).

Overview

IBM Platform Resource Scheduler for Power, V2.1 provides enterprise-class dynamic resource management for OpenStack cloud environments to optimize business agility and reduce cost of cloud ownership. Platform Resource Scheduler is based upon production-proven technology from IBM Platform Computing.

Platform Resource Scheduler for Power, V2.1 can help:

- Enable private cloud and cloud service providers to deliver higher quality of services through intelligent resource pooling and policy-based infrastructure resource management.
- Increase business agility by dynamically reconfiguring heterogeneous resources according to application requirements and real-time demands.
- Increase flexibility with an open, extensible architecture including configurable out-of-the-box policies, and user-defined policies to support multiple virtualization platforms.

Key prerequisites

- IBM Power Systems™ (ppc64)
Planned availability date

December 13, 2013

Description

Platform Resource Scheduler for Power prioritizes resources to the most important applications, enables resource consolidation while preserving service level agreements, increases operational efficiency by optimizing compute and memory utilization, and decreases power consumption while reducing administrator requirements. An open architecture provides the highest levels of customization to meet your company-specific objectives with heterogeneous resource pools.

Platform Resource Scheduler for Power, V2.1 allows:

- A flexible hierarchical organizational structure and an intelligent allocation model that aligns resource capacity to departments for sharing, isolation, or guaranteed quality-of-service while maximizing overall utilization.
- An intelligent policy-based allocation engine that places workloads based upon business objectives such as utilization, energy conservation, application performance, reliability, and availability.
- An optimization of runtime environments through policies for strategies such as packing, load balancing, energy utilization, and performance, combined with real-time monitoring, such as memory, compute, I/O, and network.
- Advanced capacity planning and reservations to make sure the resources will be available when needed.

Accessibility by people with disabilities

A US Section 508 Voluntary Product Accessibility Template (VPAT) containing details on accessibility compliance can be requested at


Section 508 of the US Rehabilitation Act

IBM Platform Resource Scheduler for Power is capable as of December 13, 2013, when used in accordance with associated IBM 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 requested on the following website

http://www-03.ibm.com/able/product_accessibility/index.html

Product positioning

IBM Platform Resource Scheduler for Power is an add-on to the IBM SmartCloud Entry for Power offering. Platform Resource Scheduler is part of the IBM Platform Computing portfolio of products and an offering within the IBM Software Defined Environment initiative.

Reference information

Refer to Software Announcement 213-159, dated May 14, 2013.
Program number

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<tr>
<th>Program number</th>
<th>VRM</th>
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Product identification number

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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).


Offering Information

Product information is available via the Offering Information website

http://www.ibm.com/common/ssi

Publications

No publications are shipped with this program. Publications will be provided by Lab Services during installation.

IBM Publications Center

http://www.ibm.com/shop/publications/order

The Publications Center is a worldwide central repository for IBM product publications and marketing material with a catalog of 70,000 items. Extensive search facilities are provided. Payment options for orders are via credit card (in the US) or customer number for 50 countries. A large number of publications are available online in various file formats, and they can all be downloaded by all countries, free of charge.

Technical information

Specified operating environment

Hardware requirements

- IBM Power Systems servers

Software requirements

- Red Hat Enterprise Linux 6.3
- IBM SmartCloud Entry for Power, V3.2
**Note:** Platform Resource Scheduler integrates with the OpenStack components that are included with SmartCloud Entry. The OpenStack components always run on the Linux operating system, regardless of what operating system the SmartCloud Entry management components are installed on. There is no dependency between the operating system used by Platform Resource Scheduler for Power and the operating system SmartCloud Entry for Power runs on.

The program's specifications and specified operating environment information may be found in documentation accompanying the program, if available, such as a readme file, or other information published by IBM, such as an announcement letter. Documentation and other program content may be supplied only in the English language.

**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, at no additional charge.

- Read about the Electronic Support portfolio of tools
- Access the IBM Support Portal
  [http://ibm.com/support](http://ibm.com/support)
- Access the online Service Request tool

**Planning information**

**Customer responsibilities**

An IBM Lab Services engagement is required to install and configure your OpenStack solution using IBM Platform Resource Scheduler for Power and IBM SmartCloud Entry for Power.

**Packaging**

Platform Resource Scheduler for Power, V2.1 is distributed as a single DVD media option or available for electronic download. Included are:

- IBM International Program License Agreement in multiple languages
- User's Guide
- Required files

This program, when downloaded from a website, contains the applicable IBM license agreement and License Information, if appropriate, which 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**

Platform Resource Scheduler for Power uses the security and auditability features of the system in which it 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.
Software Services

IBM Software Services has the breadth, depth, and reach to manage your services needs. You can leverage the deep technical skills of our lab-based Software Services team and the business consulting, project management, and infrastructure expertise of our IBM Global Services team. Also, we extend our IBM Software Services reach through IBM Business Partners to provide an extensive portfolio of capabilities. 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 or to contact a Software Services sales specialist, visit

http://www.ibm.com/software/sw-services/

Ordering information

5765-EGO - Platform Resource Scheduler for Power, V2.1

Basic license one-time charge

<table>
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<th>Feature description</th>
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<td>Per processor core with 1 year software maintenance</td>
<td>0002</td>
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<tr>
<td>Per 250 processor core with 1 year software maintenance</td>
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A 250-quantity convenience feature is available for large orders.

Note: Orders will be accepted in eConfig starting December 17, 2013.

Customization feature

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This software license includes Software Maintenance, previously referred to as Software Subscription and Technical Support.

Extending coverage for a total of three years from the date of acquisition may be elected. Order the program number, feature number, and quantity to extend coverage for your software licenses. If maintenance has expired, specify the after license feature number.

Software license includes 1 year Software Maintenance for Platform Resource Scheduler for Power - 5765-EGO.

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<td>Per 250 Processor core</td>
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<tr>
<td>5660-EGO SW Maint 1-year 24 x 7 support</td>
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5662-EGO   SW Maintenance 3-year registration
Per processor core                                1329
5662-EGO   250 SW Maintenance 3-year registration
Per 250 processor core                           1330
5662-EGO   SW Maintenance 3-year 24 x 7 support
Per processor core                                1327
5662-EGO   250 SW Maint 3-year 24 x 7 support
Per 250 processor core                            1328

5661-EGO   1-year SW Maintenance after-license
Per processor core                                0843
5661-EGO   250 1-year SW Maintenance after-license
Per 250 processor core                            0844
5661-EGO   After-license 1-year 24 x 7 support
Per processor core                                0839
5661-EGO   250 After-license 1-year 24 x 7 support
Per 250 processor core                            0841

5664-EGO   3-year SW Maintenance after-license
Per processor core                                0003
5664-EGO   250 3-year SW Maintenance after-license
Per 250 processor core                            0004
5664-EGO   After-license 3-year 24 x 7 support
Per processor core                                0001
5664-EGO   250 After-license 3-year 24 x 7 support
Per 250 processor core                            0002

**System Program Order (SPO):** An order for SPO 5692-LOP is mandatory for shipments of program distribution. The individual licensed program orders are for registration and billing purposes only. No shipment occurs under these orders.

To receive shipment of machine-readable materials the order needs to include SPO 5692-LOP for Platform Resource Scheduler for Power. The individual licensed program order (for example, 5765-EGO) must still be ordered but will be for registration and billing purposes only and will not result in shipment of materials.

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**Charge metric**

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<td>3-year SwMA: Registration</td>
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<td>Per processor core</td>
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</table>
Processor Core (or Processor)

Processor Core (or Processor) is a unit of measure by which the program can be licensed. Processor Core (or Processor) is a functional unit within a computing device that interprets and executes instructions. A processor core consists of at least an instruction control unit and one or more arithmetic or logic unit. With multicore technology, each core is considered a Processor Core. Entitlements must be acquired for all activated Processor Cores available for use on the server.

Note: Some programs may require licenses for the program and what is being managed. In that case, the following applies. In addition to the entitlements required for the program directly, licensee must obtain entitlements for this program sufficient to cover the processor cores managed by the program.

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License Information form number

L-VASN-9CWKA4

The program’s License Information will be available for review on the IBM Software License Agreement website


Limited warranty applies

Yes
Limited warranty
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Volume orders (IVO)
Yes. Contact your IBM representative.

Passport Advantage applies
No

Software Subscription and Support applies
Yes. All distributed software licenses include Software Subscription and Support (also referred to as Software Maintenance) for a period of 12 months from the date of acquisition, providing a streamlined way to acquire IBM software and assure technical support coverage for all licenses. Extending coverage for a total of three years from date of acquisition may be elected.

While your Software Subscription and Support is in effect, IBM provides you assistance for your routine, short-duration installation and usage (how-to) questions, and code-related questions. IBM provides assistance via telephone and, if available, electronic access, only to your information systems (IS) technical support personnel during the normal business hours (published prime shift hours) of your IBM support center. (This assistance is not available to your end users.) IBM provides Severity 1 assistance 24 hours a day, every day of the year. For additional details, consult your IBM Software Support Handbook at

http://www.ibm.com/support/handbook

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IBM Operational Support Services - SoftwareXcel
No
**Other support**
Power SWMA

**System i® Software Maintenance applies**
No

**Variable charges apply**
No

**Educational allowance available**
Yes. A 15% education allowance applies to qualified education institution customers.

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**Statement of good security practices**

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 comprehensive security approach, which will necessarily involve additional operational procedures, and may require other systems, products, or services to be most effective. IBM does not warrant that systems and products are immune from the malicious or illegal conduct of any party.

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Now integrated into the base operating system of AIX® 5.3, AIX 6.1, and AIX 7.1, Electronic Service Agent is designed to automatically and electronically report system failures and utilization issues to IBM, which can result in faster problem resolution and increased availability. System configuration and inventory information collected by the Electronic Service Agent tool also can be viewed on the secure Electronic Support web portal, and used to improve problem determination and resolution by you and the IBM support team. To access the tool main menu, simply type "smitty esa_main", and select "Configure Electronic Service Agent." In addition, ESA now includes a powerful web user interface, giving the administrator easy access to status, tool settings, problem information, and filters. For more information and documentation on how to configure and use Electronic Service Agent, refer to

http://www.ibm.com/support/electronic

The IBM Electronic Support portal is a single Internet entry point that replaces the multiple entry points traditionally used to access IBM Internet services and support. This portal enables you to gain easier access to IBM resources for assistance in resolving technical problems. The My Systems and Premium Search functions make it even easier for Electronic Service Agent tool-enabled customers to track system inventory and find pertinent fixes.
Benefits

**Increased uptime:** The Electronic Service Agent tool is designed to enhance the Warranty or Maintenance Agreement by providing faster hardware error reporting and uploading system information to IBM Support. This can translate to less wasted time monitoring the "symptoms," diagnosing the error, and manually calling IBM Support to open a problem record. Its 24x7 monitoring and reporting mean no more dependence on human intervention or off-hours customer personnel when errors are encountered in the middle of the night.

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Choose the option entitled Purchase/upgrade tools.

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Markham, Ontario
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L3R 2Z1

Reference: RE001

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Corrections

(Corrected on December 18, 2013)
The "Description" section was revised.