IBM SmartCloud Orchestrator V2.3 fully automates cloud service delivery

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At a glance

IBM SmartCloud® Orchestrator V2.3 is a comprehensive open cloud management platform that automates the delivery of cloud services.

With IBM SmartCloud Orchestrator V2.3, you can:

- Automate cloud service deployment from a single cloud management platform that supports a heterogeneous set of hardware and virtualization environments. IBM SmartCloud Orchestrator now supports IBM® Power Systems™ virtualization infrastructures, in addition to VMware and OpenStack with Kernel-based Virtual Machine (KVM) environments.
- Deliver cloud services in a fully secured multitenant environment, a key enabler for service providers who want to build a cloud delivery business model.
- Build a cloud management platform based on open standards, by leveraging the OpenStack platform, which provides scalable, elastic cloud computing for both public and private clouds, large, and small.
- Manage the whole lifecycle of cloud service delivery, including patch management, compliance management, and software installation.
- Accelerate the delivery of cloud services via a completely automated self-delivery model by leveraging a sophisticated, yet easy-to-use, orchestration engine.
- Automate and standardize the deployment of multinode application topologies and blueprints.
- Monitor the health of the cloud environment with performance and capacity planning capabilities.
- Provide visibility of IT costs with features that are designed to measure, analyze, report, and invoice the utilization and cost of cloud computing resources.

Overview

IBM SmartCloud Orchestrator helps reduce IT costs and accelerates overall time-to-market of your business. It provides an integrated cloud automation platform that is designed to help orchestrate the development, deployment, and management of cloud services.

IBM SmartCloud Orchestrator V2.3 now can support delivery of cloud services on IBM Power Systems virtualization infrastructures. IBM SmartCloud Orchestrator now also fully supports the business model of service providers who want to sell cloud services by providing a cloud management solution with an advanced set of hardware and virtualization solutions that supports multiple tenants in a single, secure platform.
IBM SmartCloud Orchestrator V2.3 now also enables the delivery of cloud services in a fully secured multitenant environment, a key enabler for service providers who want to build a cloud delivery business model. Additionally, it can now manage the entire lifecycle of cloud service delivery, including patch management, compliance management, and software installation.

IBM SmartCloud Orchestrator provides comprehensive automation of cloud services, supporting infrastructure as well as application and platform services. They are delivered through a self-service portal and completely automated by an easy-to-use workload editor tightly integrated with an orchestration engine. Application topologies are graphically composed in the workload editor and then linked to a wide set of automation workflows built with a sophisticated yet very intuitive orchestrator. This combination is intended to maximize speed and flexibility to build and deliver cloud services.

IBM SmartCloud Orchestrator integrates infrastructure, application, storage, and network automation into a single open and extensible automation platform. IBM SmartCloud Orchestrator is built on open standards and leverages the OpenStack technology, which provides a rich and powerful set of infrastructure features to provision workloads on a cloud environment.

Integration with IBM and third-party tools or adaptation to existing data center processes is simplified by leveraging a large set of ready-to-use automation packages for a rapid adoption of a cloud delivery model.

IBM SmartCloud Orchestrator is available in two editions:

1. IBM SmartCloud Orchestrator (Base edition) includes workload provisioning and orchestration capabilities.
2. IBM SmartCloud Orchestrator (Enterprise edition) adds integrated monitoring and availability management of the cloud environment, with sophisticated performance and capacity planning capabilities. It also provides visibility of IT costs with features that are designed to measure, analyze, report, and invoice the utilization and costs of cloud computing resources.

IBM SmartCloud Orchestrator offers significantly increased data protection capabilities, scalability, and performance for all its database-intensive operations which, based on IBM DB2® technology, are designed to manage data more effectively and efficiently. Greater availability is delivered through enhancements such as online, automated database reorganization. In addition, the increased scalability and the ability to leverage the latest in server technology help deliver increased performance of backup and recovery processes.

Key prerequisites

Refer to the Hardware requirements and Software requirements sections.

Planned availability date

- November 15, 2013: Electronic download
- December 6, 2013: Physical delivery

Availability of programs with encryption algorithm in France is subject to French government approval.

Refer to the Availability of national languages section for national language availability.
Description

IBM SmartCloud Orchestrator V2.3 further extends its capabilities to provide a complete open and extensible cloud management platform. With IBM SmartCloud Orchestrator V2.3, now you can:

- Use IBM Power Systems virtualization infrastructures, in addition to VMware and OpenStack environments, thus, providing a cloud management platform that supports a heterogeneous set of hardware and virtualization solutions.
- Leverage an updated version of the OpenStack platform.
- Deliver cloud services in a fully secured multitenant environment, a key enabler for service providers who want to build a cloud delivery business model.
- Manage the whole lifecycle of cloud service delivery, including patch management, compliance management, and software installation.

IBM SmartCloud Orchestrator provides a unique combination of capabilities, which allows you to get the most benefit of a cloud implementation.

Full automation of cloud services

IBM SmartCloud Orchestrator can automate the entire process of delivering a new business application in the cloud, thus helping reduce the need to perform manual tasks.

IBM SmartCloud Orchestrator provides a flexible and easy-to-use graphical orchestrator that can automate the provisioning of compute and storage resources, configuration network devices such as firewall and load balancers integration with service request and change management systems, automate human tasks such as approvals, and integrate with custom tools and processes that exist in the data center.

IBM SmartCloud Orchestrator platform enables automation of infrastructure services to complex multitier applications, thus providing a unique combination of capabilities.

IBM SmartCloud Orchestrator enables rapid deployment of whole multitier applications using workload patterns. IBM SmartCloud Orchestrator can reuse a large number of ready-to-use application patterns or new patterns can be created from scratch using a graphical editor.

An extensible platform

IBM SmartCloud Orchestrator is designed to be easily extended and customized. New application patterns can be easily created with a graphical tool, and new automations can be created and plugged into the orchestration platform.

A comprehensive cloud management solution

IBM SmartCloud Orchestrator (Enterprise edition) provides the key capabilities needed to implement a cloud delivery model. It provides an integrated solution with built-in cost management capabilities, thus allowing visibility and control of the cost structure of the cloud.

IBM SmartCloud Orchestrator (Enterprise edition) also provides monitoring capabilities and capacity analytics to help right-size, consolidate, or balance workloads, while also providing visibility through health dashboards, thereby, helping increase cloud availability.

Built on open standards for an open world

IBM SmartCloud Orchestrator is built on a foundation based on open standards. This foundation is driven by OpenStack and provides a rich and powerful set
of capabilities to provision infrastructure services, leveraging Open Source virtualization technologies.

IBM SmartCloud Orchestrator also supports OASIS Topology and Orchestration Specification for Cloud Applications standard, which enables an interoperable description of application and infrastructure cloud services. Cloud services, based on OASIS Topology and Orchestration Specification for Cloud Applications specification, can be deployed and managed by any cloud management platform supporting the standard, thus helping you avoid vendor lock-in, and maintaining your investments in the definition and customization of cloud services.

IBM SmartCloud Orchestrator also ships with Jazz™ for Service Management, a set of open integration services utilizing a common infrastructure based on community driven specifications from Open Services for Lifecycle Collaboration (OSLC). Loosely coupled data integration allows for simple, bidirectional sharing of data, for example, between IBM SmartCloud Orchestrator and any IBM or third-party tool. The common registry service provides the means for virtually any tool to publish direct links to its data or easily search for links to data listed in the registry by other participating tools. Other integration services include shared visualization, administration, reporting, and security (for example, single sign-on).

These open standards allow for flexibility and choice among vendors that are critical in picking a cloud solution that meets today’s needs while still allowing for tomorrow’s adjustments. They enable IBM SmartCloud Orchestrator to provide a rich and powerful Platform as a Service feature set that can help simplify the ability to build robust patterns and efficient cloud services while still providing a robust and comprehensive infrastructure to help meet cloud administration needs.

**Comprehensive image lifecycle management**

With tools such as the Virtual Image Library, Image Construction and Composition Tool, and the Pattern Editor, IBM SmartCloud Orchestrator can help organizations manage image sprawl, ensure compliance, create base images, automate software installation, and build repeatable patterns. This breadth of capabilities helps the organization’s efforts to ensure it not only creates a robust cloud environment but also has the ability to control and manage that environment.

**Rapid provisioning and scalability**

With IBM SmartCloud Orchestrator, IT organizations can rapidly implement the specific type of cloud environment they need virtually regardless of size and can start taking advantage of the increased flexibility and performance that cloud computing offers. At any point, the cloud can be quickly scaled up or down, as needed, helping organizations meet changing IT requirements without disrupting operations.

**An integrated cloud management platform**

IBM SmartCloud Orchestrator (Enterprise edition) also provides integrated monitoring and availability management of the cloud environment, with sophisticated performance and capacity planning capabilities, as well as visibility of the IT costs with features that are designed to measure, analyze, report, and invoice the utilization and costs of cloud computing resources.

SmartCloud Orchestrator uses IBM DB2 Enterprise Server Edition. IBM DB2 Enterprise Server Edition 10.1 offers significantly increased data protection, scalability, and performance for all its database intensive operations which, based on IBM DB2 technology, is designed to manage data more effectively and efficiently. Greater availability is delivered through enhancements such as online, automated database reorganization. In addition, the increased scalability and the ability to leverage the latest in server technology helps deliver increased performance of backup and recovery processes.

**Accessibility by people with disabilities**
Product positioning

The IBM SmartCloud foundation provides a comprehensive set of technologies that can enable organizations to deploy and manage Infrastructure as a Service and Platform as a Service. It enables organizations to build and scale private cloud environments with enhanced time to market, integration, and management.

IBM SmartCloud Orchestrator V2.3 is a key component of the IBM SmartCloud foundation offerings, which accelerates the delivery of cloud services through a robust open orchestration platform that can fully automate the deployment and the lifecycle management of cloud services.

IBM SmartCloud Orchestrator V2.3 is aimed at helping large enterprises and service providers as well as general business organizations to quickly leverage the benefits of a cloud delivery model. The ease of use and the graphical composition capabilities of IBM SmartCloud Orchestrator V2.3 allow any organization of any size to quickly realize the cost benefits of a fully automated cloud delivery model. IBM SmartCloud Orchestrator V2.3 supports automation of cloud service delivery on x86 as well as IBM Power Systems infrastructures, and can be used for implementing private clouds, hybrid private and public clouds, and support service providers that want to build clouds with an advanced set of multitenant capabilities.

Availability of national languages

IBM SmartCloud Orchestrator V2.3 is enabled to support all language environments and is translated into the following languages:

- Simplified Chinese
- Traditional Chinese
- Japanese
- Korean
- Spanish
- Brazilian Portuguese
- French
- Italian
- German

Program number

<table>
<thead>
<tr>
<th>Program number</th>
<th>VRM</th>
<th>Program name</th>
</tr>
</thead>
<tbody>
<tr>
<td>5725-H28</td>
<td>2.3</td>
<td>IBM SmartCloud Orchestrator</td>
</tr>
</tbody>
</table>

Education support

Comprehensive education for IBM Tivoli® products is offered through Worldwide Tivoli Education Delivery Services. A wide range of training options are available, including classes led by instructors, learning on demand, on-site training, and blended learning solutions.
For additional information, visit


**Offering Information**

Product information is available via the Offering Information website

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

Also, visit the Passport Advantage® website

http://www.ibm.com/software/passportadvantage

**Publications**

IBM SmartCloud Orchestrator Quick Start Guide will be delivered on the Quick Start CD in PDF and HTML format.

At general availability, IBM SmartCloud Orchestrator Installation and User’s Guide (English) may be downloaded from

http://www.ibm.com/software/tivoli/library

The 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 U.S.) or customer number for 20 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**

The following are minimum required values for memory and disk space for IBM SmartCloud Orchestrator V2.3.

- Red Hat Enterprise Linux™ (RHEL) 6.3 x86-64 Linux System VT enabled
  - Number of processors: 4
  - Number of NICs: 1
  - Memory: 24 GB
  - Disk: 550 GB

- IBM Business Process Manager (BPM)
  When running SmartCloud Orchestrator, the BPM server runs more efficiently in a separate virtual machine:
  - RHEL 6.3 x86-64 Linux System
    - Number of processors: 2
    - Memory: 6 GB
    - Disk: 50 GB
You can obtain the most current and up-to-date hardware requirements at http://pic.dhe.ibm.com/infocenter/tivihelp/v48r1/index.jsp

**Software requirements**

The following operating systems are supported by IBM SmartCloud Orchestrator V2.3.

- IBM DB2 is the OpenStack backend database. The supported version is DB2 10.1 x86-64.
- IBM Virtual Image Library requires Red Hat Enterprise Linux 6.1, 6.2, 6.3, or 6.4 (64 bit).
  - Depending on the Red Hat version, a list of packages are installed during the installation procedure by using Yum from the Red Hat installation media. The list is available in the file rpmList_rhel_6.x.txt located where the il_install_package.zip had been unzipped.
- Required libraries
  - gtk2.x86_64
  - ibXtst.x86_64
- IBM SmartCloud Orchestrator installer supports Red Hat Enterprise Linux 6.3 and 6.4 x86_64.

IBM SmartCloud Orchestrator runs a hypervisor as a virtualization layer between the hardware and the operating system. Supported hypervisors are:

- VMware ESXi 4.1, VMware vSphere 5.0, VMware vSphere 5.1.
- Kernel-based Virtual Machine (KVM) hosted on Red Hat Enterprise Linux 6.3, and 6.4 x86_64.

**Note:** Ports 80 (default HTTP) and 443 must not be in use or reserved by other applications.

- IBM PowerVM® Hypervisor with VMControl V2.4.3 with these detailed specifications:
- Services contract for IBM Implementation Services for Power Systems AIX® V6.1 and IBM Migration Services for Power Systems AIX V6.1. For more information, refer to Services Announcement ZS08-0150, dated June 24, 2008.
- IBM AIX V6.1 (5765-G62) license is required with:
  - IBM Network Installation Manager Server V6.1
  - IBM System Director V6.2.1.1
- IBM Systems Director VMControl™ Image Manager V2.4.3
- IBM Systems Director for Power Systems V6.2.1.1
- IBM Hardware Management Console (7042-CR5 or 7042-CR6) with firmware V7.3.3, or later (dedicated)

One of the following machines:

- IBM Power Systems server with POWER6 technology-based processor with firmware EL340_095, or later
- IBM Power Systems server with POWER7 technology-based processor with firmware AL720_066, or later

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

http://ibm.com/electronicsupport

Access the IBM Support Portal

http://ibm.com/support

Access the online Service Request tool

http://ibm.com/support/servicerequest

Planning information

Packaging

IBM SmartCloud Orchestrator V2.3 is distributed with:

- International Program License Agreement (Z125-3301)
- License Information document
- DVD media
- Publications (refer to the Publications section)

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

IBM SmartCloud Orchestrator V2.3 uses the security and auditability features of the operating system software. The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communication facilities.

Global Technology Services®

Contact your IBM representative for the list of selected services available in your country, either as standard or customized offerings for the efficient installation, implementation, or integration of this product.

Licensing metric definitions and pricing examples

Licensing metric definitions

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 entitlements for this program sufficient to cover the resources 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 resource table found in the program's
Standby or backup systems

For programs running or resident on backup machines, IBM defines three types of situations: cold, warm and hot. In cold and warm situations, a separate entitlement for the copy on the backup machine is normally not required and typically no additional charge applies. In a hot backup situation, the customer needs to acquire other licenses or entitlements sufficient for that server. All programs running in backup mode must be solely under the customer’s control, even if running at another enterprise’s location.

As a practice, the following are definitions and allowable actions concerning the copy of the program used for backup purposes.

Cold: A copy of the program may reside, for backup purposes, on a machine as long as the program is not started. There is no additional charge for this copy.

Warm: A copy of the program may reside for backup purposes on a machine and is started, but is idling, and is not doing any work of any kind. There is no additional charge for this copy.

Hot: A copy of the program may reside for backup purposes on a machine, is started, and is doing work. The customer must acquire a license or entitlements for this copy and there will generally be an additional charge.

Doing work includes, for example, production, development, program maintenance, and testing. It also could include other activities such as mirroring of transactions, updating of files, synchronization of programs, data, or other resources (for example, active linking with another machine, program, database or other resource, and so on), or any activity or configurations that would allow an active hot switch or other synchronized switchover between programs, databases, or other resources to occur.

In the case of a program or system configuration that is designed to support a high availability environment by using various techniques (for example, duplexing, mirroring of files, or transactions, maintaining a heartbeat, active linking with another machine, program, database, or other resource), the program is considered to be doing work in the hot situation and a license or entitlement must be purchased.

Product and licensing websites

A complete list of IBM Tivoli products is available at

http://www.ibm.com/software/tivoli

IBM Tivoli product licensing documents are available at


Passport Advantage

Through the Passport Advantage Agreement, you may receive discounted pricing based on their total volume of eligible products, across all IBM brands, acquired worldwide. The volume is measured by determining the total Passport Advantage points value of the applicable acquisitions. Passport Advantage points are only used for calculating the Entitled Passport Advantage discount.

To determine the required IBM Tivoli product configuration under Passport Advantage, the IBM Tivoli Enhanced Value-Based Pricing Model applies. The customer’s environment is evaluated on a per-product basis.
Use the following two-step process to determine the total Passport Advantage points value:

1. Analyze your environment to determine the number of charge units for a product. The quantity of each product's part numbers to be ordered is determined by that analysis.

2. Order the Passport Advantage part numbers. A Passport Advantage point value, which is the same worldwide for a specific part number regardless of where the order is placed, is assigned to each IBM Tivoli product part number. The Passport Advantage point value for the applicable part number, multiplied by the quantity for that part number, will determine the Passport Advantage points for that IBM Tivoli product part number. The sum of these Passport Advantage points determines the Passport Advantage point value of the applicable IBM Tivoli product authorizations which then may be aggregated with the point value of other applicable Passport Advantage product acquisitions to determine the total Passport Advantage points value.

The discounted pricing available through Passport Advantage is expressed in the form of Suggested Volume Prices (SVPs), which vary depending on the SVP level. Each SVP level is assigned a minimum total Passport Advantage point value, which must be achieved, in order to qualify for that SVP level.

Media packs and documentation packs do not carry Passport Advantage points and are not eligible for SVP discounting.

For additional information on Passport Advantage, refer to the following:

http://www.ibm.com/software/passportadvantage

The following Passport Advantage part number categories may be orderable:

- License and Software Maintenance 12 Months - This is the product authorization with maintenance to the first anniversary date.
- Annual Software Maintenance Renewal - This is the maintenance renewal for one anniversary that applies when a customer renews their existing coverage period prior to the anniversary date at which it expires.
- Software Maintenance Reinstatement 12 months - This is for customers who have allowed their Software Maintenance to expire, and later wish to reinstate their Software Maintenance.
- Media packs - These are the physical media, such as CD-ROMs, that deliver the product's code.
- Documentation packs - These contain printed documentation such as the User's Guide and Release Notes.

**Pricing example**

The resource for the purpose of the RVU calculation is Activated Processor Cores managed by the program. An Activated Processor Core is a processor core that is available for use in a physical or virtual server, regardless of whether the capacity of the processor core can be or is limited through virtualization technologies, operating system commands, BIOS settings, or similar restrictions. Licensee can deploy the program using either full capacity licensing or virtualization capacity (sub-capacity) licensing according to the Passport Advantage Sub-Capacity Licensing Terms (refer to the web page below). If using full capacity licensing, each Activated Processor Core in the physical hardware environment managed by the program must be counted, except for those servers from which the program permanently no longer manages. If using virtualization capacity licensing, the Virtualization Capacity License Counting Rules that defines how many Activated Processor Cores must be counted, is located at


The RVU table for Activated Processor Cores on RVUs is below:
Tier | From quantity | To quantity | Factor |
-----|--------------|------------|--------|
1    | 0            | 2,500      | 1.00   |
2    | 2,501        | 10,000     | 0.80   |
3    | 10,001       | 50,000     | 0.60   |
4    | 50,001       | 150,000    | 0.40   |
5    | 150,001      | -          | 0.20   |

### Pricing example 1

A customer wishes to license for the servers in the following core environment.

Distributed servers

- 20 One Processor, Single Core servers
- 65 One Processor, Dual Core servers
- 12 Two Processor, Dual Core servers
- 10 Two Processor, Quad Core servers
- One Eight Processor, Dual Core server with two virtual or logical partitions
- One Four Processor, Quad Core server

The customer wants to manage the applicable distributed server environment:

<table>
<thead>
<tr>
<th>Systems managed</th>
<th>Quantity in customer environment</th>
<th>Activated Processor Cores to be licensed</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Processor, Single Core</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>One Processor, Dual Core</td>
<td>65</td>
<td>130</td>
</tr>
<tr>
<td>Two Processors, Dual Core</td>
<td>12</td>
<td>48</td>
</tr>
<tr>
<td>Two Processors, Quad Core</td>
<td>10</td>
<td>80</td>
</tr>
<tr>
<td>Eight Processors, Dual Core</td>
<td>1</td>
<td>16</td>
</tr>
<tr>
<td>(2 logical partitions)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Four Processors, Quad Core</td>
<td>1</td>
<td>16</td>
</tr>
<tr>
<td>Total processors to be licensed</td>
<td></td>
<td>310</td>
</tr>
</tbody>
</table>

Based on the 310 Activated Processor Cores, the customer would require 310 RVUs.

### Pricing example 2

A customer wishes to license in the following core environment:

- Servers with 45,000 Activated Processor Cores

The following calculation is used to determine the number of RVUs required to license the 45,000 Activated Processor Cores in the server environment.

<table>
<thead>
<tr>
<th>Tier</th>
<th>Quantity of Activated Processor Cores</th>
<th>RVUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2,500</td>
<td>2,500</td>
</tr>
<tr>
<td>2</td>
<td>7,500</td>
<td>6,000</td>
</tr>
<tr>
<td>3</td>
<td>35,000</td>
<td>21,000</td>
</tr>
</tbody>
</table>
Total: 29,500

- The first tier based on the RVU table is used to calculate the first 2,500 Activated Processor Cores at a factor of 1 per core or in the case above 2,500 RVUs (2,500 x 1).
- The second tier is used to calculate the Activated Processor Cores from 2,501 to 10,000 at a .8 factor or 7,500 x .8 = 6,000.
- The third tier is used for those Activated Processor Cores between 10,001 and 50,000.
- In the example, 35,000 of the Activated Processor Cores reside in tier 3 or 35,000 x .6 = 21,000.
- Adding the RVUs together for each tier, the customer requires 29,500 RVUs to license the 45,000 Activated Processor Cores.

Ordering information

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

These products may only be sold directly by IBM or by authorized IBM Business Partners for Software Value Plus.

For more information about IBM Software Value Plus, visit

http://www.ibm.com/partnerworld/page/svpAuthorized_portfolio

To locate IBM Business Partners for Software Value Plus in your geography for a specific Software Value Plus portfolio, visit

http://www.ibm.com/partnerworld/wps/bplocator/

Product group: Tivoli IT Service Management
Product: IBM SmartCloud Orchestrator (5725-H28)
Product category: IBM SmartCloud Provisioning

For ordering information, consult your IBM representative or authorized IBM Business Partner, or visit


Passport Advantage customer: Media pack entitlement details

Customers with active maintenance or subscription for the products listed are entitled to receive the corresponding media pack.

<table>
<thead>
<tr>
<th>Media packs</th>
<th>Part number</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM SmartCloud Orchestrator V2.3.0 for Red Hat Enterprise Linux (RHEL) Multilingual Media Pack</td>
<td>BJ13SML</td>
</tr>
<tr>
<td>IBM SmartCloud Orchestrator Enterprise V2.3.0 for Red Hat Enterprise Linux (RHEL) Multilingual Media Pack</td>
<td>BJ13TML</td>
</tr>
</tbody>
</table>

Current licensees

Current licensees of IBM SmartCloud Orchestrator V1.2 must place a new order for the desired distribution medium.
New licensees

Orders for new licenses will be accepted now.

Shipment will begin on the planned availability date.

Basic license

Ordering information for Passport Advantage

Passport Advantage allows you to have a common anniversary date for Software Maintenance renewals, which can simplify management and budgeting for eligible new versions and releases (and related technical support) for your covered products. The anniversary date, established at the start of your Passport Advantage Agreement, will remain unchanged while your Passport Advantage Agreement remains in effect. New software purchases will initially include twelve full months of Software Maintenance. Software Maintenance in the second year (the first year of renewal) can be prorated to be coterminous with your common anniversary date. Thereafter, all Software Maintenance will renew at the common anniversary date for twelve full months of maintenance.

Refer to the IBM International Passport Advantage Agreement and to the IBM Software Support Handbook for specific terms relating to, and a more complete description of, technical support provided through Software Maintenance.

The quantity to be specified for the Passport Advantage part numbers in the following table is per required number of Resource Value Units. To order for Passport Advantage, specify the desired part number and quantity.

Product name: IBM SmartCloud Orchestrator V2.3

Product number: 5725-H28

<table>
<thead>
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<th>description</th>
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</thead>
<tbody>
<tr>
<td>D114MLL</td>
<td>IBM SmartCloud Orchestrator per Resource Value Unit Lic + SW S&amp;S 12 Mo</td>
</tr>
<tr>
<td>E0I8GLL</td>
<td>IBM SmartCloud Orchestrator per Resource Value Unit Annual SW S&amp;S Rnw1</td>
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<tr>
<td>D114NLL</td>
<td>IBM SmartCloud Orchestrator per Resource Value Unit SW S&amp;S Reinstate 12 Mo</td>
</tr>
<tr>
<td>D1199LL</td>
<td>IBM SmartCloud Orchestrator Resource Value Unit from SmartCloud Provisioning Resource Value Unit Trade Up Lic + SW S&amp;S 12 Mo</td>
</tr>
<tr>
<td>D119JLL</td>
<td>IBM SmartCloud Orchestrator FTL Resource Value Unit Initial FT Lic + S&amp;S 12 Mo</td>
</tr>
<tr>
<td>E0IAYLL</td>
<td>IBM SmartCloud Orchestrator FTL Resource Value Unit SubSq FT Lic + S&amp;S 12 Mo</td>
</tr>
</tbody>
</table>

Product name: IBM SmartCloud Orchestrator Enterprise V2.3

Product number: 5725-H28

<table>
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<th>Part number</th>
<th>description</th>
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</thead>
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<td>IBM SmartCloud Orchestrator Enterprise per Resource Value Unit Lic + SW S&amp;S 12 Mo</td>
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IBM SmartCloud Orchestrator Enterprise per Resource Value Unit SW S&S Reinstate 12 Mo

IBM SmartCloud Orchestrator Enterprise per Resource Value Unit from SmartCloud Provisioning Resource Value Unit Trade Up Lic + SW S&S 12 Mo

IBM SmartCloud Orchestrator Enterprise per Resource Value Unit from SmartCloud Orchestrator Resource Value Unit Trade Up Lic + SW S&S 12 Mo

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<td>BJ13SML</td>
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<td>IBM SmartCloud Orchestrator V2.3</td>
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**IBM Electronic Services**

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**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 24 x 7 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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