



# IBM Platform Cluster Manager - Standard Edition V3.2 enables you to manage complex clusters as a single system

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## At a glance

IBM® Platform Cluster Manager - Standard Edition V3.2 offers:

- Operating system provisioning and maintenance
- Deployment and management of software components
- Customizable cluster monitoring
- Reporting of historical cluster usage and performance
- Management node failover
- Web interface

For ordering, contact your IBM representative, an IBM Business Partner, or IBM Americas Call Centers at 800-IBM-CALL (Reference: YE001).

## Overview

IBM Platform Cluster Manager - Standard Edition V3.2 is easy-to-use, yet powerful cluster management software for technical computing clusters. It enables system administrators to manage a complex cluster as a single system by automating deployment of the operating system and software components, as well as provisioning and maintenance. It offers centralized monitoring with alerts and customizable alert actions.

Platform Cluster Manager - Standard Edition has the following unique capabilities:

- It includes a kit framework to simplify software deployment and maintenance in technical computing environments. This framework is used within an x86 environment to deploy software, for example, InfiniBand drivers or GPU runtime software.
- A robust and scalable monitoring system that is very easy to extend and customize. The monitoring agent uses the same technology as IBM Platform LSF® and IBM Platform Symphony® .
- An easy-to-use web portal enables the administrator to access and manage the cluster from almost anywhere.
- Reports can be generated on the statistics of the cluster usage and performance.
- It offers management node fail-over to increase the robustness of the cluster management functions in a typical cluster computing environment using commodity hardware.

Platform Cluster Manager - Standard Edition delivers the following benefits:

- Faster time to cluster readiness
- Reduced infrastructure and management costs
- Improved administrator productivity
- Increased cluster uptime

Platform Cluster Manager - Standard Edition runs on the latest generation of IBM System x® iDataPlex®, IBM PureSystems™, and other rack-based and blade servers. It is also supported on industry-standard non-IBM x86 hardware. By prequalifying and certifying these platforms at scale, IBM can help you take the risk out of deploying and managing the mission-critical compute clusters. Platform Cluster Manager - Standard Edition also supports generic x86 servers.

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## Key prerequisites

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- A cluster computing environment comprising two or more servers.
- A head node that has at least two network interfaces: One that connects to a public or corporate network and one that is connected privately to all the other nodes.
- A supported operating system installed on the head node.
- Access to the operating system media or image file used for installation of the operating system on all nodes in the cluster.
- Non-head nodes that can be set to PXE boot.

Refer to the [Hardware requirements](#) and [Software requirements](#) sections for additional information.

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## Planned availability date

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December 14, 2012

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## Description

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### ***Platform Cluster Manager - Standard Edition***

#### **Easy-to-use, comprehensive cluster management solution**

Platform Cluster Manager - Standard Edition makes it easy to deploy and manage a technical computing cluster. It offers a robust set of cluster management capabilities, including cluster provisioning, cluster monitoring, and node management. All the functions required to operate a cluster are installed at once and are tightly integrated. The next-generation web portal provides a single point of access into the cluster, making it easy to manage a complex cluster as a single system.

#### **Flexible and powerful**

Platform Cluster Manager - Standard Edition enables administrators to define provisioning templates for ease of software package management on cluster nodes. Adding or removing software components can be done without rebooting the operating system. The kit framework allows third-party users to package multiple software components with the configuration, then deploy them into the cluster nodes. The management node can be easily configured to failover. The cluster monitoring data is stored in a relational database for reporting and analysis.

Licenses for offerings in this announcement include Software Subscription and Support. Software Subscription and Support contracts are managed in Passport

Advantage® . Refer to the [Order handling](#) section of this announcement for further details.

If a new release of the offering in this announcement is made generally available in Passport Advantage after the announcement of the offering in System x ordering systems, clients with valid Software and Subscription contracts may elect to take electronic delivery of the latest release.

### **Accessibility by people with disabilities**

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

[http://www.ibm.com/able/product\\_accessibility/index.html](http://www.ibm.com/able/product_accessibility/index.html)

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### **Program number**

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Program number	VRM	Program name
5641-CM1	3.2.0	Platform Cluster Manager - Standard Edition with 1 Yr SW S&S
5641-CM3	3.2.0	Platform Cluster Manager - Standard Edition with 3 Yr SW S&S
5641-CM5	3.2.0	Platform Cluster Manager - Standard Edition with 5 Yr SW S&S
5641-CMF	3.2.0	Platform Cluster Manager - Standard Edition term license with 1 Yr SW S&S

### **Product identification number**

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Program PID number

5641-CM1  
5641-CM3  
5641-CM5  
5641-CMF

### **Product media**

#### **Passport Advantage Customers: Media Pack Entitlement Details**

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

Media pack description and entitled maintenance offering description	Part number
IBM Platform Cluster Manager - Standard Edition V3.2 English Media Pack	AJ00KEN

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### **Order handling**

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To allow for ease of order submission, the offerings in this announcement can be configured in conjunction with eligible System x hardware, software, and license-only configurations that can be created for this product based on existing supported System x hardware system units in a given business environment.

Licenses for offerings in this announcement include one year, three years, or five years of Software Subscription and Support. Software Subscription and Support renewals for all features are aligned through Passport Advantage Express® or Passport Advantage , reducing the administrative burden of keeping your Subscription and Support up to date.

If a new release of a given offering in this announcement is made generally available in Passport Advantage after the announcement of the offering in System x ordering systems, you may elect to take delivery of any release generally available for that offering during the product registration process.

Eligible software products, offered and selected during the ordering process with each hardware system, are enabled for electronic download for the system unit for which the product was ordered. Optionally, software and license-only orders can be created for these products based on existing supported hardware system units in the business environment. Offerings included in this announcement are available exclusively by electronic download.

Orders placed for the eligible offerings in this announcement will be routed and fulfilled through Passport Advantage Express . Invoicing for the initial license orders will occur through the System x order management systems. Subscription and Support renewals will be managed through Passport Advantage .

Passport Advantage allows you to have a common anniversary date for Software Subscription and Support renewals. The anniversary date, established at the order ship date for the initial product acquisition, will remain unchanged while your Passport Advantage Agreement remains in effect. New software purchases initially include 12 or 36 full months of Subscription and Support coverage. Subscription and Support in the second year (the first year of renewal) can be prorated to be coterminous with your common anniversary date but managed and invoiced through Passport Advantage . Thereafter, all Software Subscription and Support will renew at the common anniversary date and include 12 full months of Subscription and Support.

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## Offering Information

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Product information is available via the Offering Information website

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

### **Business Partner information**

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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=212-477>

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## Publications

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No hardcopy publications are shipped with this program.

The following publications and documentation are shipped with the product and available on the web:

- Installing and Managing the IBM Platform Cluster Manager Web Portal Kit
- Installing and Managing the NVIDIA CUDA kit
- Installing and Managing the IBM Platform Cluster Manager Base Kit
- Installing and Managing the OS OFED Kit
- Installing and Managing the IBM Platform Cluster Manager Kit

- Web Portal Customization Guide
- Kit Builder Guide
- Getting Started with IBM Platform Cluster Manager (Administrators)
- Administering IBM Platform Cluster Manager
- Installing IBM Platform Cluster Manager
- Release Notes for IBM Platform Cluster Manager 3.2

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 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.

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## Technical information

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### **Specified operating environment**

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#### **Hardware requirements**

Platform Cluster Manager - Standard Edition requires the following hardware:

- Minimum requirements for installer node/head node:
  - 2 GB of physical memory (RAM) for installer node/head node
  - 80 GB free disk space
  - Two Ethernet interfaces: one that connects to corporate or public network and one (provision) that connects to all compute nodes
  - DVD drive
- Minimum requirements for compute node for package-based installation:
  - 1 GB of physical memory (RAM) for compute node
  - 40 GB free disk space
  - One Ethernet interface
- Minimum requirements for image-based installation:
  - 3 GB of physical memory (RAM)
  - 40 GB free disk space
  - One Ethernet interface
- Minimum requirements for diskless installation:
  - 4 GB of physical memory (RAM)
  - One Ethernet interface
- Minimum requirements for compute node without using Platform Cluster Manager provisioning:
  - 512 MB of physical memory (RAM)
  - 10 GB of free disk space
  - One Ethernet interface

#### **Software requirements**

One of the following operating systems is required:

- Red Hat Enterprise Linux™ 6.2 x86 64 bit
- Red Hat Enterprise Linux 5.7 x86 64 bit (non-head node)

- SUSE Linux Enterprise Server 11 SP1 x86 64 bit
- CentOS 6.2 x86 64 bit (non-head node)

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.

### ***Companion products***

Typical use of this product is in conjunction with HPC workload managers such as IBM Platform LSF, IBM Platform Symphony, Oracle Grid Engine, PBS, Maui/Moab, and Hadoop.

### ***Compatibility***

Platform Cluster Manager - Standard Edition V3.2 is compatible with most cluster technologies. Compatibility is limited by the operating systems supported.

### ***Limitations***

Refer to the [Terms and conditions](#) section of this announcement or to the License Information document that is available on the IBM Software License Agreement website

<http://www.ibm.com/software/sla/sladb.nsf>

### ***Performance considerations***

The performance of this product depends upon many factors, including the number of nodes in the cluster, the number of users querying the system, and the frequency of queries. As these increase, the scheduling cycle and user response time will increase.

### ***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/electronicssupport>

Access the IBM Support Portal: <http://ibm.com/support>

Access the online Service Request tool: <http://ibm.com/support/servicerequest>

### ***Planning information***

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You must provide at least the minimum hardware and software environments in which the IBM Platform Cluster Manager - Standard Edition will operate. It is recommended to assign a systems administrator who has responsibility for planning, installation, maintaining, and administering the program.

While the installation procedures for Platform Cluster Manager are easy, fast, and have been tested carefully, as with any installation, it is prudent to ensure that backups exist and you prepare for the installation in advance.

## ***Installability***

Platform Cluster Manager - Standard Edition V3.2 requires the head node to have a fresh install of Red Hat Enterprise Linux 6.2 x86 64 bit in basic server mode or SUSE Linux Enterprise Server 11 SP1 x85 64 bit.

## ***Packaging***

For software products in this announcement, physical media and hardcopy documentation are not included in the deliverable package. The software code is delivered only through electronic download.

Platform Cluster Manager - Standard Edition V3.2 is distributed on multiple DVD media options and available for electronic download with multiple eAssemblies. Included are:

- IBM International Program License Agreement (L-ACHG-8WYTSN) in multiple languages
- Release notes
- Installation or User's Guide
- Required files

After receipt of an order, the IBM Business Partner or client will be required to register and accept Passport Advantage or Passport Express terms and conditions. Upon registration, the end customer will be provided with a website for the electronic download. The product includes the license and one year or three years of Software Subscription and Support.

Your Proof of Entitlement for these programs is a copy of a paid sales receipt, purchase order, invoice, or other sales record from IBM or its authorized reseller from whom you acquired the program, provided that it states the license charge unit (the characteristics of intended use of the program; for example, number of processors, number of users) and quantity acquired.

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***

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Platform Cluster Manager - Standard Edition 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.

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## **Software Services**

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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/>

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## Ordering information

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### *Charge metric*

Program name	Part number or PID number	Charge metric
IBM Platform Cluster Manager	5641-CM1	Managed server with 1-year S&S
IBM Platform Cluster Manager	5641-CM3	Managed server with 3-year S&S
IBM Platform Cluster Manager	5641-CM5	Managed server with 5-year S&S
IBM Platform Cluster Manager	5641-CMF	Managed server term license with 1-year S&S

### *Term License*

The "Term License plus Software Subscription and Support" grants the right to:

- Use the Program for a limited period only (most commonly 12 months).
- Receive Software Subscription and Support for the period of the term. While in effect, Software Subscription and Support authorizes licensee to use the most current commercially available version, release, or update, of the program should any be made available, as well as receive support for the program.
- At the end of each term (most commonly 12 months), the license may be renewed for an additional term (at the prevailing price). When licensee renews the Term License in the second term, and in each term thereafter, this is referred to as a "Subsequent Term License plus Software Subscription and Support". If the license is not renewed, licensee will no longer have the rights to use the program, will no longer be entitled to the benefits of Software Subscription and Support, and licensee must destroy all copies of the program.

### **Server**

Server is a unit of measure by which the program can be licensed. A server is a physical computer that is comprised of 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. For the purpose of server-based licensing, licensee must obtain entitlements for each server that is made available to the program, regardless of the number of processor cores and partitions in the server or the number of copies of the program on the server.

### Notes :

- 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 servers 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 program directly, licensee must obtain entitlements for this program sufficient to cover the servers managed by program.



## New licenses

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Orders for new licenses will be accepted now. Electronic download ability begins on the planned availability date.

## Basic licenses

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To order the programs described in this announcement, specify the type model number, order type description, supply feature, and quantity of desired licenses for the appropriate one-time charge (OTC) features listed in the tables below. After receipt of your order, you will be requested to register through Passport Advantage Express to allow for entitlement for support and notification of upgrades. Upon registration completion you will be provided with a website for the electronic download. The one-time charge for the product includes the license and Software Subscription and Support.

Single entity offering (SEO) numbers in the table below can be ordered through [ibm.com](http://ibm.com). The SEO numbers in the table below are equivalent to the type model number, description, supply feature, and OTC billing feature numbers as designated in the table. After receipt of your order, you will be requested to register through Passport Advantage Express to allow for entitlement for support and notification of upgrades. Upon registration completion, you will be provided with a website for the electronic download. The one-time charge for the product includes the license and Software Subscription and Support.

Program number and feature description	Supply feature number	OTC billing feature number	SEO number
5641-CM1 IBM Platform Cluster Manager - Standard Edition V3.x per Managed Server with 1 Year SW S&S	5809	0451	00Y4506
5641-CM3 IBM Platform Cluster Manager - Standard Edition V3.x per Managed Server with 3 Year SW S&S	5809	0452	00Y4507
5641-CM5 IBM Platform Cluster Manager - Standard Edition V3.x per Managed Server with 5 Year SW S&S	5809	0453	00Y4508
5641-CMF IBM Platform Cluster Manager - Standard Edition V3.x per Managed  Server term license (TL) with 1 Year SW S&S	5809	0450	00Y4532

## Customization options

Select the appropriate feature numbers to customize your order with delivery options desired. These features can be specified on the initial order.

Expedite shipments

Feature Description

3445 Expedite 3444 Serial Assign Only

Expedite shipments will be processed to receive 72-hour delivery from the time IBM Software Delivery and Fulfillment (SDF) receives the order.

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## **Terms and conditions**

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The information provided in this announcement letter is for reference and convenience purposes only. The terms and conditions that govern any transaction with IBM are contained in the applicable contract documents such as the IBM International Program License Agreement, IBM International Passport Advantage Agreement, and the International Passport Advantage Express Agreement.

### ***Licensing***

IBM International Program License Agreement including the License Information document and Proof of Entitlement (PoE) govern your use of the program. PoEs are required for all authorized use.

This software license includes Software Subscription and Support (also referred to as Software Maintenance).

### ***Agreement for Acquisition of Software Maintenance***

These programs are licensed under the IBM Program License Agreement (IPLA). IBM includes one, three, or five years of Software Subscription and Support (also referred to as Software Maintenance) with the initial license acquisition of each program acquired.

### ***License Information form number***

L-ACHG-8WYTSN

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

<http://www.ibm.com/software/sla/sladb.nsf>

### ***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.

IBM provides you with access to IBM databases containing information on known program defects, defect corrections, restrictions, and bypasses at no additional charge. For further information, consult the IBM Software Support Handbook found at

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

IBM will maintain this information for at least one year after the original licensee acquires the program (warranty period).

### ***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.

For clarification, note that (1) for programs acquired under the IBM International Passport Advantage offering, this term applies only to your first acquisition of the program and (2) for programs acquired under any of IBM's On/Off Capacity on Demand (On/Off CoD) software offerings, this term does not apply since these offerings apply to programs already acquired and in use by you.

***Volume orders (IVO)***

No

***Passport Advantage applies***

Yes, and through the Passport Advantage website at

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

***Software Subscription and Support applies***

Yes. The offerings in this announcement include one year, three years, or five years of Software Subscription and Support (Software Maintenance) in the price of the license.

***Program technical support***

Technical support of a program product will be available for a minimum of three 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 (via 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 (Software Maintenance) also provides you with access to updates, releases, and versions of the program. You will be notified, via 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.

***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**

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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 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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## IBM Electronic Services

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IBM has transformed its delivery of hardware and software support services to help you achieve higher system availability. Electronic Services is a Web-enabled solution that offers an exclusive, no-additional-charge enhancement to the service and support available for IBM servers. These services are designed to provide the opportunity for greater system availability with faster problem resolution and preemptive monitoring. Electronic Services comprises two separate, but complementary, elements: Electronic Services news page and Electronic Services Agent.

The Electronic Services news page is a single Internet entry point that replaces the multiple entry points traditionally used to access IBM Internet services and support. The news page enables you to gain easier access to IBM resources for assistance in resolving technical problems.

The Electronic Service Agent™ is no-additional-charge software that resides on your server. It monitors events and transmits system inventory information to IBM on a periodic, client-defined timetable. The Electronic Service Agent automatically reports hardware problems to IBM. Early knowledge about potential problems enables IBM to deliver proactive service that may result in higher system availability and performance. In addition, information collected through the Service Agent is made available to IBM service support representatives when they help answer your questions or diagnose problems. Installation and use of IBM Electronic Service Agent for problem reporting enables IBM to provide better support and service for your IBM server.

To learn how Electronic Services can work for you, visit

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

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## Prices

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### ***Business Partner information***

If you are an IBM Business Partner -- Distributor for Workstation Software acquiring products from IBM, you may link to Passport Advantage On-line for resellers where you can obtain IBM Business Partner pricing information.

<https://www.ibm.com/software/howtobuy/passportadvantage/paoreseller>

An IBM ID and password are required.

Program number and feature description	OTC billing feature number	SEO number
5641-CM1 IBM Platform Cluster Manager - Standard Edition V3.x per Managed Server with 1 Year SW S&S	0451	00Y4506
5641-CM3 IBM Platform Cluster Manager - Standard Edition V3.x per Managed Server with 3 Year SW S&S	0452	00Y4507
5641-CM5 IBM Platform Cluster Manager - Standard Edition V3.x per Managed Server with 5 Year SW S&S	0453	00Y4508
5641-CMF IBM Platform Cluster Manager - Standard Edition V3.x per Managed Server term license (TL) with	0450	00Y4532

## Pricing terms

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Prices in the following PDF prices link are suggested list prices on day of announcement for the U.S. only. They are provided for your information only. Dealer prices may vary, and prices may also vary by country. IBM list price does not include tax or shipping and is subject to change without notice.

[ENUS-212-477-LIST\\_PRICES\\_2012\\_12\\_11.PDF](#)

## IBM Global Financing

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IBM Global Financing offers competitive financing to credit-qualified customers to assist them in acquiring IT solutions. Offerings include financing for IT acquisition, including hardware, software, and services, from both IBM and other manufacturers or vendors. Offerings (for all customer segments: small, medium, and large enterprise), rates, terms, and availability can vary by country. Contact your local IBM Global Financing organization or visit

<http://www.ibm.com/financing>

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For more financing information, visit

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## Order now

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To order, contact the Americas Call Centers or your local IBM representative, or your IBM Business Partner.

To identify your local IBM representative or IBM Business Partner, call 800-IBM-4YOU (426-4968).

Phone: 800-IBM-CALL (426-2255)  
Fax: 800-2IBM-FAX (242-6329)  
Internet: [callserv@ca.ibm.com](mailto:callserv@ca.ibm.com)  
Mail: IBM Teleweb Customer Support  
ibm.com Sales Execution Center, Americas North  
3500 Steeles Ave. East, Tower 3/4  
Markham, Ontario  
Canada  
L3R 2Z1

Reference: YE001

The Americas Call Centers, our national direct marketing organization, can add your name to the mailing list for catalogs of IBM products.

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

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For the most current information regarding IBM products, consult your IBM representative or reseller, or visit the IBM worldwide contacts page

<http://www.ibm.com/planetwide/us/>