IBM Endpoint Manager
Version 9.1

Patch Management for VMWare ESX Server
User's Guide

IBM

IBM Endpoint Manager
Version 9.1

Patch Management for VMWare ESX Server
User's Guide

IBM

This edition applies to version 9, release 1, modification level 0 of IBM Endpoint Manager and to all subsequent releases and modifications until otherwise indicated in new editions.

Contents

Chapter 1. Overview

IBM Endpoint Manager Patch Management for VMware ESX provides audit Fixlets for new patch bundle updates that VMware releases.

Patch Management for VMware ESX provides a way to query the patch status of devices for VMware ESX without installing an agent on the machine. It uses the management extender which communicates with the VMware API.

Patch management is available through the Patches for ESX site.

Supported platforms

IBM Endpoint Manager Patch Management for ESX supports VMWare updates on various platforms.

The following supported platforms are:
- VMWare ESX Server 3.0.0
- VMWare ESX Server 3.0.1
- VMWare ESX Server 3.0.2
- VMWare ESX Server 3.5
- VMWare ESX Server 4.0
- VMWare ESX Server 4.1

Patch Management for ESX provides the following updates:
- Critical
- General
- Security

To install ESX patches, subscribe to the Patches for ESX sites.

Site subscription

Sites are collections of Fixlet messages that are created internally by you, by IBM, or by vendors.

Subscribe to a site to access the Fixlet messages to patch systems in your deployment.

You can add a site subscription by acquiring a Masthead file from a vendor or from IBM or by using the Licensing Dashboard. For more information about subscribing to Fixlet sites, see the *IBM Endpoint Manager Installation Guide*.

For more information about sites, see the *IBM Endpoint Manager Console Operator's Guide*.

Chapter 2. Download plug-ins

Download plug-ins are executable programs that download a specified patch from the website of the patch vendor. To ease the process of caching, Fixlets have an incorporated protocol that uses download plug-ins.

For the Fixlet to recognize the protocol, the related download plug-in must be registered. You must use the Manage Download Plug-ins dashboard to register the download plug-in. After you register the plug-in, you can run the Fixlets to download, cache, and deploy patches from the IBM® Endpoint Manager console.

If you already registered the plug-in, you can use the Manage Download Plug-ins dashboard to run the update. You must use the dashboard also to unregister and configure the download plug-in. For more information about the dashboard, see the following topics.

Note: Use the official mirror server configuration when you plan to download large amounts of packages. Specify the mirror server URL and credentials during the download plug-in registration or configuration to avoid being locked out of your account.

Note: If you install the download plug-in on relays, it is suggested that you also install it on the server.

Manage Download Plug-ins dashboard

Use the Manage Download Plug-ins dashboard to oversee and manage download plug-ins in your deployment.

You can use the Manage Download Plug-ins dashboard to register, unregister, configure, and upgrade the download plug-ins for different patch vendors. For more information about these features, see the following topics.

You must subscribe to the Patching Support site to gain access to this dashboard. To view the Manage Download Plug-ins dashboard, go to **Patch Management domain** > **All Patch Management** > **Dashboards** > **Manage Download Plug-ins**.
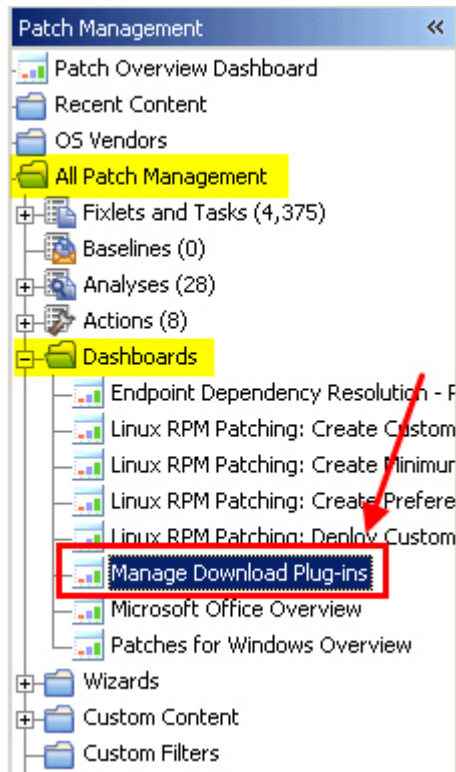
Figure 1. Patch Management navigation tree

The dashboard displays all the servers and windows-only relays in your deployment. Select a server or relay to view all the plug-ins for that computer. The dashboard shows you also the version and status for each plug-in in one consolidated view.
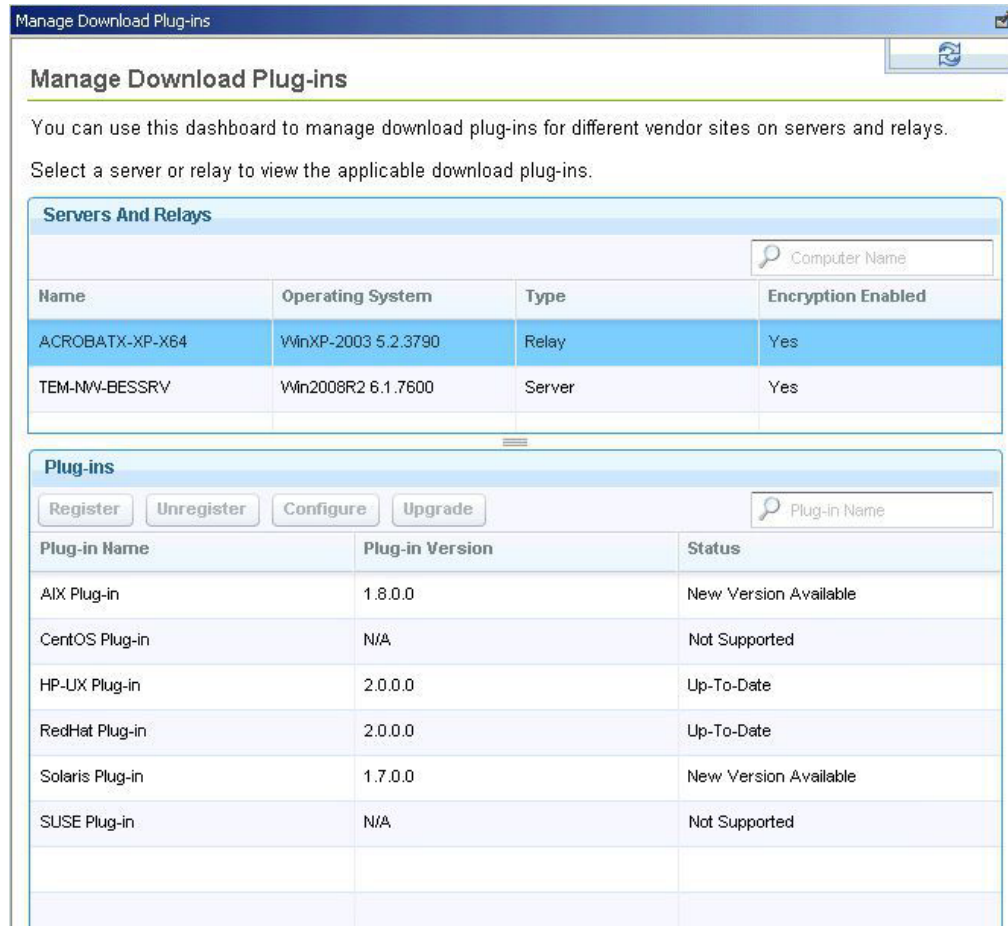
Figure 2. Manage Download Plug-ins dashboard

A plug-in can be in one of the following states:
- Not Installed
- New Version Available
- Up-To-Date
- Not Supported

Note: CentOS and SUSE Linux download plug-ins are not supported in relays.

The dashboard has a live keyword search capability. You can search based on the naming convention of the servers, relays, and plug-ins.

Registering the ESX download plug-in

Use the Manage Download Plug-ins dashboard to register the download plug-in for ESX.

You must complete the following tasks:
- Subscribe to the **Patching Support** site to gain access to the Manage Download Plug-ins dashboard.
- Enable the **Encryption for Clients** Fixlet on servers and relays for which you want to register the download plug-in.
- Activate the **Encryption Analysis for Clients** analysis and **Download Plug-in Versions** analysis.

When you register the download plug-in on a computer without the plug-in, the plug-in is automatically installed and the configuration file is created.

If the download plug-in is already installed on the computer, the configuration file is overwritten.

1. From the Patch Management domain, click **All Patch Management** > **Dashboards** > **Manage Download Plug-ins dashboard**.
2. From the Servers and Relays table, select the server or relay on which the download plug-in is to be registered.
3. From the Plug-ins table, select **ESX Plug-in**.
4. Click **Register**. The Register ESX Plug-in wizard displays.
5. Optional: Enter the proxy parameters if the downloads must go through a proxy server.

   Proxy URL
   > The URL of your proxy server. It must be a well-formed URL, which contains a protocol and a host name. The URL is usually the IP address or DNS name of your proxy server and its port, which is separated by a colon. For example: `http://192.168.100.10:8080`.

   Proxy Username
   > Your proxy user name if your proxy server requires authentication. It is usually in the form of `domain\username`.

   Proxy Password
   > Your proxy password if your proxy server requires authentication.

   Confirm Proxy Password
   > Your proxy password for confirmation.
6. Click **OK**. The Take Action dialog displays.
7. Select the target computer.
8. Click **OK**.

You successfully registered the ESX download plug-in.

Unregistering the ESX download plug-in

Use the Manage Download Plug-ins dashboard to unregister the download plug-in for ESX.

1. From the Patch Management domain, click **All Patch Management** > **Dashboards** > **Manage Download Plug-ins dashboard**.
2. From the Servers and Relays table, select the server or relay on which the download plug-in is to be unregistered.
3. From the Plug-ins table, select **ESX Plug-in**.
4. Click **Unregister**. The Take Action dialog displays.
5. Select the target computer.
6. Click **OK**.

You successfully unregistered the ESX download plug-in.

Configuring the ESX download plug-in

Use the Manage Download Plug-ins dashboard to configure the download plug-in for ESX.

You might want to take note of your existing configuration for the download plug-in. Existing configurations are overwritten when you configure the download plug-in.

1. From the Patch Management domain, click **All Patch Management** > **Dashboards** > **Manage Download Plug-ins dashboard**.
2. From the Servers and Relays table, select the server or relay on which the download plug-in is to be configured.
3. From the Plug-ins table, select **ESX Plug-in**.
4. Click **Configure**. The Configure ESX Plug-in wizard displays.
5. Optional: Enter the proxy parameters if the downloads must go through a proxy server.

   Proxy URL
   > The URL of your proxy server. It must be a well-formed URL, which contains a protocol and a host name. The URL is usually the IP address or DNS name of your proxy server and its port, which is separated by a colon. For example: `http://192.168.100.10:8080`.

   Proxy Username
   > Your proxy user name if your proxy server requires authentication. It is usually in the form of `domain\username`.

   Proxy Password
   > Your proxy password if your proxy server requires authentication.

   Confirm Proxy Password
   > Your proxy password for confirmation.
6. Click **OK**. The Take Action dialog displays.
7. Select the target computer.
8. Click **OK**.

You successfully configured the ESX download plug-in.

Upgrading the ESX download plug-in

Use the Manage Download Plug-ins dashboard to upgrade the download plug-in for ESX.

1. From the Patch Management domain, click **All Patch Management** > **Dashboards** > **Manage Download Plug-ins dashboard**.
2. From the Servers and Relays table, select the server or relay on which the download plug-in is to be upgraded.
3. From the Plug-ins table, select **ESX Plug-in**.
4. Click **Upgrade**. The Take Action dialog displays.
5. Select the target computer.
6. Click **OK**.

You now have the latest version of the ESX download plug-in installed.

Chapter 3. Patch using Fixlets

You can apply ESX patches to your deployment by using the Fixlets on the Patches for ESX3 site.

To deploy ESX patches, click the Patch Management domain and select the VMWare ESX node under OS Vendors.

From the navigation tree, you can view ESX recent content, which includes new and modified Fixlets, as well as configuration, analyses, and an ESX 4 Patch Wizard.
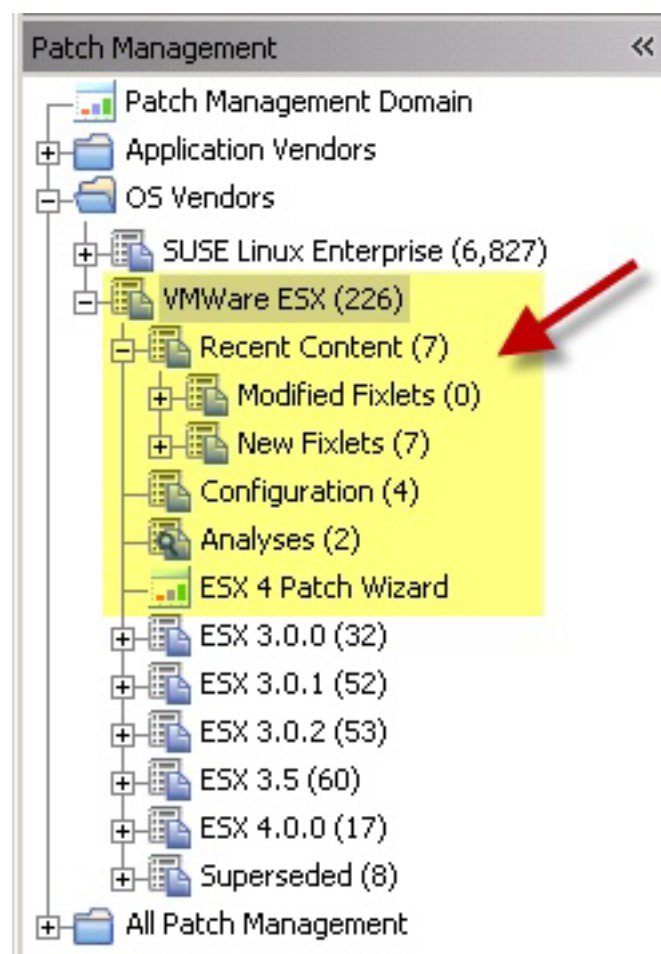
Click the ESX 4.1.0 node to see patches according to severity (Critical, General, and Security).
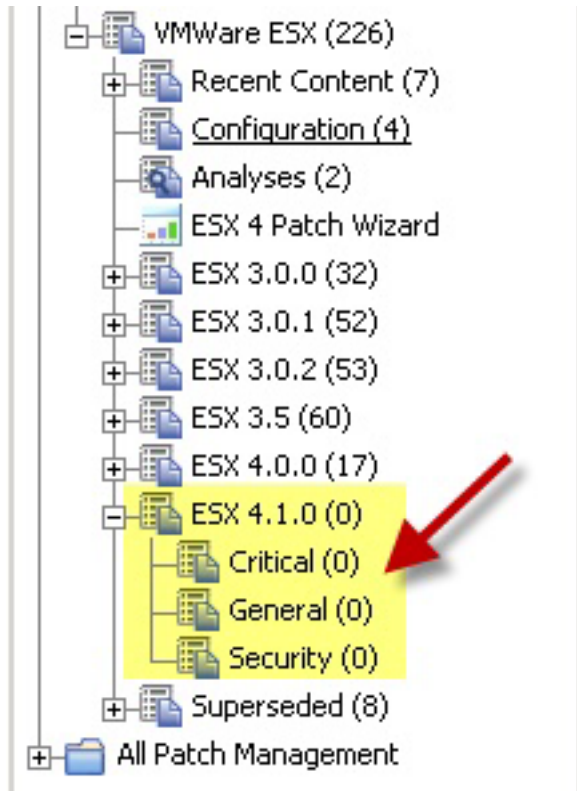
After you select an appropriate node, you can see Fixlets in the Work Area. Select the Fixlet that you want to apply, click **Take action**, and start the deployment process. Deprecated patches can be found in the Superseded node in the navigation tree.
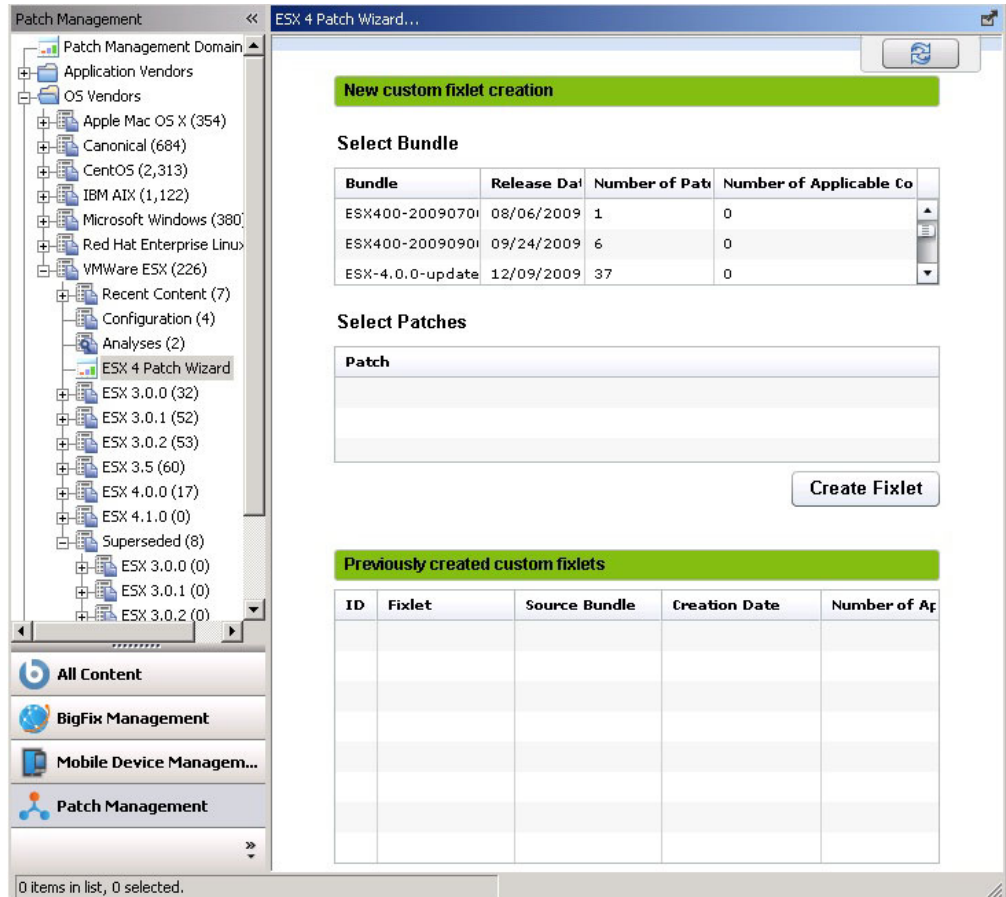
ESX 4 patch wizard

The ESX Patch Wizard allows you to deploy individual patches from an update bundle.

Click on a bundle to see the available individual patches. Select one or more of the patches and click **Create Fixlet**.

In the Take Action dialog, click in the Actions box to deploy the action.

Gather ESX patch information

Perform an inventory of ESX patches that are currently installed on ESX servers to ensure that the ESX Patch content accurately identifies the target systems.

You can generate this inventory from the **Gather ESX Patching Information** task, which can be accessed from the **Configuration** node in the navigation tree. This task is also updated at the end of each successful patch action.
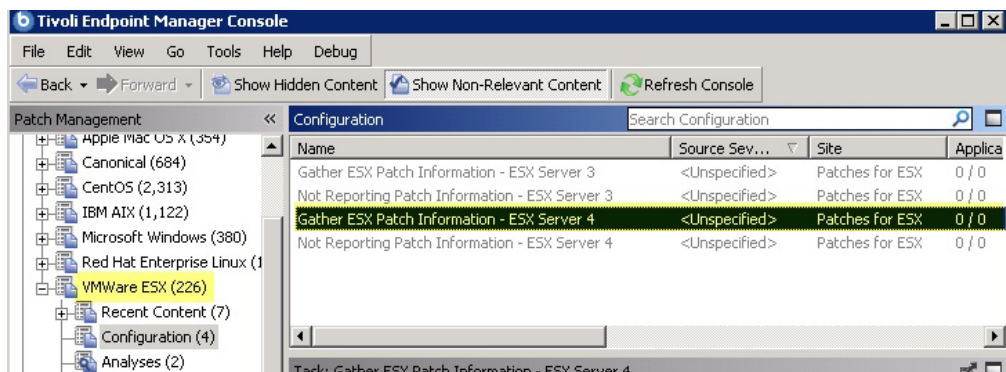
You can view the current list of installed ESX patches for any ESX system by
activating the **Installed ESX Patches** analysis. Select **Analyses** from the navigation
tree, locate the correct analysis, and select **Activate** from the right-click menu to
activate it.
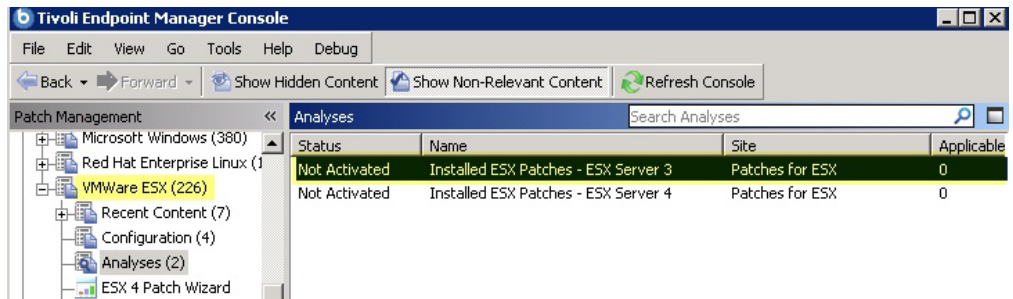
Appendix A. Support

For more information about this product, see the following resources:

- http://pic.dhe.ibm.com/infocenter/tivihelp/v26r1/topic/com.ibm.tem.doc_9.1/welcome/welcome.html
- IBM Endpoint Manager Support site
- IBM Endpoint Manager wiki
- Knowledge Base
- Forums and Communities

Appendix B. Frequently asked questions

To better understand Patch Management for ESX, read the following questions and answers.

What are superseded patches?

Superseded patches are Fixlets that contain outdated packages. If a Fixlet is superseded, then a newer Fixlet exists with newer versions of the packages. The newer Fixlet ID can be found in the description of the superseded Fixlet.

Where are the deployment logs located on endpoints?

The log is located at /var/log/vmware/esxupdate.log.

Why is my action reporting back as a failed download?

As some patches can be large, make sure you have adequate disk space in the default BES data folder to run them.

Notices

This information was developed for products and services that are offered in the USA.

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing
IBM Corporation
North Castle Drive, MD-NC119
Armonk, NY 10504-1785
United States of America

For license inquiries regarding double-byte character set (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

Intellectual Property Licensing
Legal and Intellectual Property Law
IBM Japan Ltd.
19-21, Nihonbashi-Hakozakicho, Chuo-ku
Tokyo 103-8510, Japan

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law: INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM websites are provided for convenience only and do not in any manner serve as an endorsement of those

websites. The materials at those websites are not part of the materials for this IBM product and use of those websites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

IBM Corporation
2Z4A/101
11400 Burnet Road
Austin, TX 78758 U.S.A.

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

All statements regarding IBM's future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

All IBM prices shown are IBM's suggested retail prices, are current and are subject to change without notice. Dealer prices may vary.

This information is for planning purposes only. The information herein is subject to change before the products described become available.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

COPYRIGHT LICENSE:

This information contains sample application programs in source language, which illustrate programming techniques on various operating platforms. You may copy, modify, and distribute these sample programs in any form without payment to IBM, for the purposes of developing, using, marketing or distributing application programs conforming to the application programming interface for the operating platform for which the sample programs are written. These examples have not been thoroughly tested under all conditions. IBM, therefore, cannot guarantee or imply reliability, serviceability, or function of these programs. The sample programs are provided "AS IS", without warranty of any kind. IBM shall not be liable for any damages arising out of your use of the sample programs.

Each copy or any portion of these sample programs or any derivative work, must include a copyright notice as follows:

Portions of this code are derived from IBM Corp. Sample Programs.

© Copyright IBM Corp. _enter the year or years_. All rights reserved.

Programming interface information

Trademarks

IBM, the IBM logo, and ibm.com are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the web at www.ibm.com/legal/copytrade.shtml.

Adobe, Acrobat, PostScript and all Adobe-based trademarks are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States, other countries, or both.

IT Infrastructure Library is a registered trademark of the Central Computer and Telecommunications Agency which is now part of the Office of Government Commerce.

Intel, Intel logo, Intel Inside, Intel Inside logo, Intel Centrino, Intel Centrino logo, Celeron, Intel Xeon, Intel SpeedStep, Itanium, and Pentium are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

Linux is a trademark of Linus Torvalds in the United States, other countries, or both.

Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

ITIL is a registered trademark, and a registered community trademark of The Minister for the Cabinet Office, and is registered in the U.S. Patent and Trademark Office.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Java™ and all Java-based trademarks and logos are trademarks or registered trademarks of Oracle and/or its affiliates.

Cell Broadband Engine is a trademark of Sony Computer Entertainment, Inc. in the United States, other countries, or both and is used under license therefrom.

Linear Tape-Open, LTO, the LTO Logo, Ultrium, and the Ultrium logo are trademarks of HP, IBM Corp. and Quantum in the U.S. and other countries.

Terms and conditions for product documentation

Permissions for the use of these publications are granted subject to the following terms and conditions.

Applicability

These terms and conditions are in addition to any terms of use for the IBM website.

Personal use

You may reproduce these publications for your personal, noncommercial use provided that all proprietary notices are preserved. You may not distribute, display or make derivative work of these publications, or any portion thereof, without the express consent of IBM.

Commercial use

You may reproduce, distribute and display these publications solely within your enterprise provided that all proprietary notices are preserved. You may not make derivative works of these publications, or reproduce, distribute or display these publications or any portion thereof outside your enterprise, without the express consent of IBM.

Rights

Except as expressly granted in this permission, no other permissions, licenses or rights are granted, either express or implied, to the publications or any information, data, software or other intellectual property contained therein.

IBM reserves the right to withdraw the permissions granted herein whenever, in its discretion, the use of the publications is detrimental to its interest or, as determined by IBM, the above instructions are not being properly followed.

You may not download, export or re-export this information except in full compliance with all applicable laws and regulations, including all United States export laws and regulations.

IBM MAKES NO GUARANTEE ABOUT THE CONTENT OF THESE PUBLICATIONS. THE PUBLICATIONS ARE PROVIDED "AS-IS" AND WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY, NON-INFRINGEMENT, AND FITNESS FOR A PARTICULAR PURPOSE.

IBM ®

Product Number: 5725-C45