

# Release Notes



# Release Notes

C doing this informati	on and the product it	 omadon in NC	moos, on page 10	•

## Contents

Chapter 1. Read This Before Installation	. 1
Chapter 2. AIX 5L for POWER Version 5.1 Expansion Pack	. 3
Where to Find AIX 5L for POWER Version 5.1 Expansion Pack Documentation	. 3
Information Center	
To List and Preview Installation Software	
To List and Preview Software from the Command Line	
To List and Preview Software from the ASCII SMIT Interface	
To List and Preview Software Using the Web-based System Manager Interface	. 5
IBM AIX Developer Kit, Java 2 Technology Edition, Version 1.3.1, 64-bit version for POWER	
Security Tools for the IBM AIX Developer Kit, Java 2 Technology Edition, Version 1.3.0, 32-bit version	n
for POWER	
Security Tools for the IBM AIX Developer Kit, Java 2 Technology Edition, Version 1.3.1, 64-bit version	
for POWER	
IBM HTTP Server for AIX, Version 1.3.19.4	
Limitations	. 7
Documentation	. 7
Installation Instructions	
Third-Party License Terms and Conditions, Notices and Information	
Netscape Communicator, Version 4.8.0.10	
Installation Information	
Migration Information	. 9
AIX Web Browsers Site	
Open Secure Shell (OpenSSH), Version 3.8.0.0	
IBM Text-to-Speech, Version 6.7.4.0	
IBM Network Authentication Service, Version 1.4 for AIX	
Documentation	
Installation and Configuration	
DES Encryption Kernel Extension 64-bit Support	. 11
Appendix. Notices.	. 13
Trademarks	

## **Chapter 1. Read This Before Installation**

**Note:** This software may contain errors that could result in critical business impact. It is highly recommended that you install the latest available fixes prior to using this software. Fixes can be obtained from IBM<sup>®</sup> eServer<sup>™</sup> pSeries<sup>®</sup> Support at the following Web site:

http://www.ibm.com/servers/eserver/support/pseries/aixfixes.html

This CD contains programs provided by IBM and other program suppliers. Each program is licensed under the terms and conditions of that specific program. These terms and conditions may vary depending on the specific program or the program supplier. Specific information on the content of this media or the terms and conditions under which these programs are licensed are contained in a readme file on Volume 1 of the media.

To obtain the Content and Terms and Conditions Information:

- 1. Log in as the root user.
- 2. Insert the *Volume 1* CD into the CD-ROM drive. If your CD-ROM drive is not /dev/cd0, substitute the correct device name and type the following commands:

```
mount -v cdrfs -o ro /dev/cd0 /mnt
cp /mnt/README* /tmp
unmount /mnt
```

The /tmp/README and /tmp/README.html files contain the content of this media or the terms and conditions under which these programs are licensed. View this information using your Web browser or the more or pg command.

## Chapter 2. AIX 5L for POWER Version 5.1 Expansion Pack

The AIX 5L<sup>™</sup> for POWER Version 5.1 Expansion Pack Release Notes include information that will help you install the products that are included on the AIX 5L for POWER Version 5.1 Expansion Pack. To view the most current version of the Release Notes, go to the online Release Notes in the IBM eServer pSeries Information Center. The Information Center is located at the following Web site:

http://publib16.boulder.ibm.com/pseries/index.htm

# Where to Find AIX 5L for POWER Version 5.1 Expansion Pack Documentation

The AIX 5L for POWER Expansion Pack is shipped with AIX 5L for POWER Version 5.1 as a vehicle for delivering new IBM and non-IBM products. Most Expansion Pack products are installed using normal installation methods. Because some Expansion Pack products cannot be installed using normal installation methods, their installation procedures are provided with their product descriptions.

The AIX 5L for POWER Version 5.1 Expansion Pack may include products that contain a cryptographic function that is subject to special export-licensing requirements by the U.S. Department of Commerce. Import restrictions may also apply to certain countries. Different packages of the AIX 5L for POWER Version 5.1 Expansion Pack accommodate varying country export or import restrictions. Refer to Ordering Information located in the Expansion Pack announcement to determine the appropriate package. Contact your IBM representative or IBM Business Partner to determine what encryption you are entitled to receive.

The contents of the Expansion Pack vary over time. New software products can be added, changed, or removed. Changes to the content of the AIX 5L for POWER Version 5.1 Expansion Pack are announced either as part of an AIX 5L for POWER announcement or independently of the release announcement.

Softcopy documentation for each product is included with the product. This Release Notes document supplements the product documentation by outlining the steps for getting started and pointing you to additional product information.

Unless otherwise indicated, products can be installed from the CD using the Web-based System Manager or SMIT. For detailed instructions, see the *AIX 5L Version 5.1 Installation Guide*. The *AIX 5L Version 5.1 Installation Guide* is available through the Information Center.

#### Information Center

The eServer pSeries Information Center is an information portal for AIX<sup>®</sup> and pSeries customers. From this site, you can access the following:

- AIX Version 4.3, AIX 5L Version 5.1 for POWER, and AIX 5L Version 5.2 documentation
- · Hardware documentation
- Message database for 7-digit error codes, LEDs, and error identifiers
- · How-to's for users and system administrators
- FAQs
- Links to Redbooks<sup>™</sup>, white papers, and related products

To access the Information Center, go to the following Web site:

http://publib16.boulder.ibm.com/pseries/index.htm

### AIX 5L for POWER Version 5.1 Documentation

AIX 5L for POWER Version 5.1 with the 5100-07 Recommended Maintenance package (APAR IY57842) documentation is available only through the Information Center. It is not included on the AIX documentation CD.

The following publications describe AIX 5.1 installation:

- AIX 5L Version 5.1 Installation Guide, order number SC23-4374
- · AIX 5L Version 5.1 Network Installation Management Guide and Reference, available only online

The AIX 5L Version 5.1 Installation Guide is available both online and in printed hardcopy.

To order the AIX 5L Version 5.1 Installation Guide, contact your point of sale, or, in the U.S., call IBM Customer Publication Support at 1-800-879-2755. Specify order number SC23-4374.

## To List and Preview Installation Software

You can list the available software products, packages, and filesets on AIX media, which can be a CD, tape, diskette, or directory. The output lists the available packages and filesets on the media. Descriptions are provided at the fileset level.

You can choose to do a preview installation before doing the actual installation. A preview installation provides the pre-installation information that occurs during a regular installation, except that no software will be installed.

When you select a package or fileset to be installed with the preview installation process, you will see a list that contains all the requisite packages and filesets required by the selected package or fileset to be successfully installed.

Other information generated during the pre-installation process concerns file system-size checking. The file systems are checked to ensure that there is enough free space available to install the selected package or fileset.

You can run list the software and use the previewing software functions from the command line, the SMIT interface, or the Web-based System Manager interface.

#### To List and Preview Software from the Command Line

- 1. Log in as the root user.
- To list the software on the first CD of the base media, insert the Volume 1 CD in the first CD drive, and type:

```
installp -ld/dev/cd0 | pg
```

A list similar to the following is displayed:

```
Fileset Name Level

IMNSearch.bld.DBCS 2.3.1.0

# NetQuestion DBCS Buildtime Modules

IMNSearch.bld.SBCS 2.3.1.0

# NetQuestion SBCS Buildtime Modules
```

• •

3. To perform a preview installation at the command line, use the **-p** flag with the **installp** command. For example, to preview the installation of the **IMNSearch.bld.DBCS** fileset, type:

```
installp -aXgq -p -d/dev/cd0 IMNSearch.bld.DBCS
```

The preview option shows the filesets selected to be installed, the filesets that are pulled in by requisites, and the system resources that are used by the **installp** operation.

### To List and Preview Software from the ASCII SMIT Interface

- 1. Log in as the root user.
- 2. List the available software on the media by using the **smitty install update** fast path.
- Select Install Software.
- 4. Press the F4 key to list the available input devices and select the appropriate one, or type the input device name in the blank field. Press Enter to continue.
- 5. To list all available software on the selected media, press the F4 key at the SOFTWARE to Install field.
- 6. Scroll through the list of software by using the arrow keys or the Page Up or Page Down keys.

**Note:** The software shown in this listing are the available packages and filesets for that software product. For example, in the following output example, the software product is IMNSearch: IMNSearch.bld

```
+ 2.3.1.0 NetQuestion DBCS Buildtime Modules
        + 2.3.1.0 NetQuestion SBCS Buildtime Modules
IMNSearch.rte.httpdlite
        @ 2.0.0.2 Lite NetQuestion Local Web Server
```

The two packages are IMNSearch.bld and IMNSearch.rte.httpdlite. The filesets in the IMNSearch.bld package are the NetQuestion DBCS Buildtime Modules fileset and the NetQuestion SBCS Buildtime Modules fileset. Both filesets are at the 2.3.1.0 level. Notice that the descriptions for the software product are provided at the fileset level.

If the fileset is preceded by a plus sign (+), then it is available to be installed. If the fileset is preceded by an at sign (@), then the fileset is already installed.

- 7. Select the package or fileset you want to install by scrolling to that package or fileset and press the F7 key to make the selection. Press Enter to continue.
- 8. To preview the installation of the package or fileset that you selected, press the Tab key to select **yes** in the **PREVIEW only?** field. Press Enter.

Note: To obtain detailed information about the installation, select yes in the DETAILED output? field. The filesets being installed are displayed in parentheses.

## To List and Preview Software Using the Web-based System Manager Interface

- 1. Log in as the root user.
- 2. To initialize the environment, type wsm & at the command prompt.
- 3. In the Navigation Area, click the plus sign (+) to the left of the client you want to manage.
- 4. Click the plus sign (+) to the left of the **Software** icon. This action expands the **Software** tree.
- 5. Highlight the **Installed Software** icon.
- 6. At the top of the Web-based System Manager window in the menu bar, click Software to display the Software menu.
- Click New Software (Install/Update).
- 8. Click Install Additional Software.
- Click Advanced Method.
- 10. Specify or select a software source.
- 11. To list available software, click Browse to display a tree view of all the software on the media. The tree can be expanded by clicking the plus sign (+) to the left of the icon.

**Note:** If the software is already installed, you will see a small checkmark to the left of the fileset description.

12. Select the package or fileset you want to install by highlighting the package or fileset.

**Note:** You can select multiple consecutive packages or filesets by holding down the left mouse button and dragging the mouse pointer up or down.

You can also use the Ctrl key or the Shift key to select multiple items. To choose nonconsecutive selections, hold the Ctrl key while making your selections with the left mouse button. To choose consecutive selections, hold the Shift key while making your selections with the left mouse button.

13. To preview the installation of the selected package or fileset, press the **Preview** button.

Additional information about AIX-supported products is available from the following Web site: http://www.ibm.com/servers/aix/products/ibmsw/list/

# IBM AIX Developer Kit, Java 2 Technology Edition, Version 1.3.1, 64-bit version for POWER

IBM AIX Developer Kit, Java<sup>™</sup> 2 Technology Edition, Version 1.3.1, 64-bit version for POWER is released in **Java13\_64.\*** filesets. The code on the Expansion Pack corresponds to the code that was released in November 2001. To see if a more recent service refresh is available:

- 1. Go to the developerWorks® Web site at http://www.ibm.com/developerworks/java/jdk/aix.
- 2. Select the **Download and service information** link.
- 3. Select the Fix Info link from the Java 1.3.1 64-bit column.

# Security Tools for the IBM AIX Developer Kit, Java 2 Technology Edition, Version 1.3.0, 32-bit version for POWER

The Java security tools are shipped in the following filesets:

- Java130.cmp-us
- Java130.jce-us
- Java130.jsse-us
- Java130.pkcs-us

The code on the Expansion Pack corresponds to the code that was released in April 2003. To see if a more recent refresh is available:

- 1. Go to the developerWorks Web site at http://www.ibm.com/developerworks/java/jdk/aix.
- 2. Select the **Download and service information** link.
- 3. Select the Fix Info link from the Java 1.3.0 column.

# Security Tools for the IBM AIX Developer Kit, Java 2 Technology Edition, Version 1.3.1, 64-bit version for POWER

The Java security tools are shipped in the following filesets:

- Java13\_64.ext.security.cmp-us
- · Java13\_64.ext.security.jce-us
- Java13\_64.ext.security.jsse-us
- Java13\_64.ext.security.pkcs-us

The code on the Expansion Pack corresponds to the code that was released in April 2003. To see if a more recent refresh is available:

- 1. Go to the developerWorks Web site at http://www.ibm.com/developerworks/java/jdk/aix.
- 2. Select the Download and service information link.
- 3. Select the Fix Info link from the Java 1.3.1 64-bit column.

## IBM HTTP Server for AIX, Version 1.3.19.4

This section provides a brief product overview and information about installing the IBM HTTP Server (IHS) and its documentation.

## Limitations

The license restriction for IBM HTTP Server, Version 1.3.19.4 states that when it is used outside of the WebSphere® Application Server (WAS), IHS can only be used in conjunction with AIX Web-based System Manager and the Documentation Library (DocSearch) in order to receive support.

IBM HTTP Server, Version 1.3.19.4 does not support the Fast Response Cache Accelerator function on AIX 5L for POWER Version 5.1. However, there might be other Web servers that support the Fast Response Cache Accelerator function on AIX 5L for POWER Version 5.1.

#### **Documentation**

The IHS product Web site contains the latest version of the documentation and installation instructions. Go to the following Web site frequently to get the most recent information:

http://www.ibm.com/software/webservers/httpservers/library.html

From this Web site, click on **User Assistance** for the IBM HTTP Server documentation and other information.

Documentation is also available in the /usr/HTTPServer/htdocs/locale /manual/ibm/ directory, where locale is your country locale.

#### Installation Instructions

Due to the license restrictions for IBM HTTP Server 1.3.19.4 when it is used outside of a WAS environment, the following installation instructions pertain only to the use of IHS with Web-based System Manager and DocSearch.

- 1. Back up your Web server configuration files in the conf directories, and back up the Web site created under the htdocs directory.
- 2. Uninstall any previous versions of the server by doing the following:
  - a. Log in as the root user.
  - b. Stop the server by changing the directory to /usr/HTTPServer/bin, and then type the following: ./apachectl stop
  - c. Type smitty.
  - d. Select Software Installation and Maintenance.
  - e. Select Software Maintenance and Utilities.
  - f. Select Remove Installed Software.
  - g. Click List under Software Name.
  - h. Select the following filesets from the list:
    - http\_server.admin
    - http\_server.base.rte
    - http server.base.source
    - http\_server.frca
    - http\_server.html.en\_US

- · http server.modules.fcgi
- http server.modules.ldap
- http\_server.modules.ldap.128
- http\_server.modules.mt
- http server.modules.snmp
- http\_server.msg.xx\_XX.admin
- http\_server.html.xx
- http\_server.msg.xx.ssl.core
- http server.base.source
- http\_server.ssl.core
- http\_server.ssl.128

**Note:** The variable xx XX is the country locale that was installed.

- i. Click OK.
- j. Change the Preview only option to No.
- k. Click **OK**.
- 3. Web-based System Manager and DocSearch require the following filesets from IBM HTTP Server Version 1.3.19.4 in order to provide remote document or file service:
  - http server.base.rte (HTTP Server Base Run-Time)
  - http\_server.base.source (HTTP Server Source Code)
- 4. Log in as root user.
- 5. Type smitty.
- 6. Select Software Installation and Maintenance.
- 7. Select Install and Update Software.
- Select Install Software Bundle.
- 9. At the INPUT device/directory for software field, click List and select the CD-ROM or DVD-RAM drive (per the system configuration).
- 10. In the Select a Fileset Bundle list, choose the wsm\_remote bundle and press Enter.
- 11. Press Enter twice to complete the installation and the remote configuration for Web-based System Manager and Doc Search.

Note: Additional message filesets for the supported country codes are available on the media.

The /usr/HTTPServer path is used as the base directory. Documents and files are served from the /usr/HTTPServer/htdocs directory.

- 12. Click **OK**.
- 13. Answer yes to the confirmation messages. The /usr/HTTPServer path is used as the base directory.
- 14. To start the IHS, either reboot the system so that the HTTP Server is automatically started through the system's /etc/inittab file, or type the following from the AIX command line:

/usr/HTTPServer/bin/httpd > /dev/console 2>&1

## Third-Party License Terms and Conditions, Notices and Information

The relevant terms and conditions, notices and other information are provided in a license file located in the /usr/HTTPServer/license directory. Any non-English version of the information in this file is unofficial and is provided to you for your convenience only. The English version of the file is the official version. The license agreement for this product refers you to this file, or to a file referenced by this file, for details concerning terms and conditions applicable to third-party software code included in this product, and for certain notices and other information that IBM must provide to you under its license to certain software code.

## **Netscape Communicator, Version 4.8.0.10**

The Expansion Pack includes the Netscape Communicator Web browser product, Version 4.8.0.10, which features the following:

- · Navigator, Messenger, Composer, and Newsgroups
- Message and help filesets for Brazilian Portuguese, Catalan, Czech, English, French, German, Hungarian, Italian, Japanese, Korean, Polish, Russian, Slovakian, Spanish, Simplified Chinese, and **Traditional Chinese**
- Initial unicode (UTF-8) implementation for all languages listed above for AIX Version 4.3.3 and later
- Bidirectional support for Hebrew and Arabic locales
- Java support, JVM 1.1.5 and AWT 1.1

### **Installation Information**

The Expansion Pack CD contains the 128-bit encrypted version of Netscape Communicator (the U.S. package). The filesets are the following:

- Netscape.communicator.com 4.8.0.10
- Netscape.communicator.us 4.8.0.0
- Netscape.msg.nn NN.communicator.rte 4.8.0.0
- Netscape.help.nn\_NN.communicator.rte 4.8.0.0

Netscape Communicator 4.8.0.10 runs on the following:

 AIX 5L for POWER Version 5.1 with the 5100-04 Recommended Maintenance package (APAR IY39794). It is specifically required if APAR IY43971 (the bos.rte.libc 5.1.0.52 fileset) is installed.

## **Migration Information**

If you are planning to migrate your AIX system to AIX 5.1, you must install Netscape Communicator 4.8.0.10 prior to migrating AIX. Previous versions of Netscape Communicator will not run on AIX 5.1.

#### **AIX Web Browsers Site**

For more information about Web browsers on AIX, see Web Browsers for AIX at the following Web site: http://www.ibm.com/servers/aix/browsers/

This Web site provides downloads for the latest Netscape Communicator and Mozilla for AIX.

In addition, Mozilla Version 1.4 for AIX is available on the Mozilla for AIX Web Browser and Application Suite CD that can be ordered through feature 0976 of the AIX System Program Order (SPO).

For the latest Netscape Communicator fixes, see the following Web site:

http://aix.software.ibm.com/aix/efixes/netscape

For more information, refer to the /usr/netscape/communicator/README.html file.

For information on how to receive a browser update if Web download is not possible, refer to the /usr/netscape/communicator/README file.

## Open Secure Shell (OpenSSH), Version 3.8.0.0

OpenSSH requires Open Secure Sockets Layer (OpenSSL) Version 0.9.6m for encryption. The OpenSSL package is available on the AIX Toolbox for Linux Applications CD. The package name is openssI-0.9.6m-1.aix5.1.ppc.rpm, and it can be installed using SMIT. OpenSSL must be installed prior to installing OpenSSH.

After Open SSH is installed, the readme file can be found in the /usr/openssh/ directory.

Note: OpenSSH installation uses the AIX electronic license feature. When you are installing OpenSSH through SMIT, you will need to view and accept the license text provided with OpenSSH.

## IBM Text-to-Speech, Version 6.7.4.0

IBM Text-to-Speech (TTS) is a speech engine that allows applications to produce speech.

### **Hardware Requirements:**

Audio card

#### **Software Requirements:**

- AIX 5L for POWER Version 5.1 with the 5100-04 Recommended Maintenance package (APAR IY39794)
- xlC.rte 5.0.2.1 or later
- xlC.aix50.rte 5.0.2.5 or later

If the xIC.rte fileset or xIC.aix50.rte fileset is not at the correct level, download the PTFs from the following Web site:

http://www.ibm.com/software/awdtools/vacpp/support

From the Web site, do the following:

- 1. In the Download section, click the All Updates (Fixes, patches, etc) link.
- 2. Set the Limit by platform or operating system field equal to AIX.
- 3. Set the **Limit by version** field equal to 5.0.
- 4. Set the **Limit by adding search terms** field equal to x1C.aix50.rte.

Note: The May 2002 C++ Runtime PTF includes both of the required filesets.

TTS includes the following installp packages:

#### tts access.base

IBM TTS runtime base

#### tts access.base.en US

IBM TTS runtime (U.S. English)

Note: Both of the listed packages must be installed. Selecting the tts access.base package will automatically install the tts\_access.base.en\_US package.

TTS is installed in the /usr/opt/ibmtts directory.

For more information, see the /usr/opt/ibmtts/docs/readme.htm file or the /usr/opt/ibmtts/docs/readme.txt file.

## IBM Network Authentication Service, Version 1.4 for AIX

IBM Network Authentication Service, Version 1.4 for AIX is a network authentication protocol based on the IETF RFC 1510 standards protocol for the Kerberos V5 IBM Network Authentication Service. It includes the Generic Security Service Application Programming Interface (GSS-API), the key distribution center server (KDC), and the server. IBM Network Authentication Service allows AIX middleware and external application writers to use authenticated and optionally encrypted message flow between their respective components.

### **Documentation**

Read the **README**. *lang* file for IBM Network Authentication Service, Version 1.4 before configuring or using the program, where *lang* specifies one of the following language locales:

- Chinese (Simplified)
- · Chinese (Traditional)
- English
- Korean
- Portuguese (Brazilian)

The **README**.*lang* file for AIX is located in the */usr/lpp/krb5* directory after the *krb5.client.rte* fileset is installed from the *krb5.client* client installation package. The **README**.*lang* file can also be viewed using the SMIT *list\_media\_info* command to list supplemental fileset information on the installation media for the *krb5.client.rte* fileset.

Documentation for IBM Network Authentication Service is available in the **krb5.doc**.*lang* installation packages, where *lang* specifies one of the following language locales:

- en\_US (U.S. English)
- Ja\_JP (Japanese)
- ko KR (Korean)
- zh\_CN (Simplified Chinese)

The documentation is in both HTML and PDF formats. Install the **krb5.doc.**lang.**html** fileset for access to HTML documents and the **krb5.doc.**lang.**pdf** fileset for access to PDF documents.

The IBM Network Authentication Service Version 1.4 Administrator's and User's Guide is installed in the following directories:

HTML

/usr/lpp/krb5/doc/html/lang/ADMINGD

PDF

/usr/lpp/krb5/doc/pdf/lang/ADMINGD

The *IBM Network Authentication Service Version 1.4 Application Development Reference* is installed in the following directories:

HTML

/usr/lpp/krb5/doc/html/lang/APDEVREF

PDF

/usr/lpp/krb5/doc/pdf/lang/APDEVREF

## **Installation and Configuration**

The *IBM Network Authentication Service Version 1.4 Administrator's and User's Guide* details the installation and configuration procedures for the product.

## **DES Encryption Kernel Extension 64-bit Support**

The DES encryption kernel extension (nfs\_kdes\_full.ext) now includes support for 64-bit kernels. This extension is used to enable Secure NFS by encrypting time stamps sent between client and server that allow each RPC message to be authenticated. For more details, see the Network File Systems (NFS) Security article in the AIX 5L Version 5.2 Security Guide.

The DES encryption kernel extension is available from the **des** fileset on the AIX Expansion Pack.

## **Appendix. Notices**

This information was developed for products and services offered in the U.S.A.

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 give you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing IBM Corporation North Castle Drive Armonk, NY 10504-1785 U.S.A.

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.

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
Dept. LRAS/Bldg. 003
11400 Burnet Road
Austin, TX 78758-3498
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.

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

IBM World Trade Asia Corporation Licensina 2-31 Roppongi 3-chome, Minato-ku Tokyo 106, Japan

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

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.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

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.

### **Trademarks**

The following terms are trademarks of International Business Machines Corporation in the United States, other countries, or both:

AIX

AIX 5L

developerWorks

eServer

**IBM** 

pSeries

Redbooks

WebSphere

Java and all Java-based trademarks and logos are trademarks or registered trademarks of Sun Microsystems, Inc. in the United States, other countries, or both.

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

Other company, product, or service names may be the trademarks or service marks of others.

## IBM

Part Number: 16R1783

Printed in U.S.A.

(1P) P/N: 16R1783

GI10-0753-01

