

AIX 7 with Technology Level 2 Expansion Pack

*Release Notes*

**IBM**



AIX 7 with Technology Level 2 Expansion Pack

*Release Notes*



**Note**

Before using this information and the product it supports, read the information in "Notices" on page 21.

**First Edition (October 2012)**

This edition applies to IBM AIX 7 with Technology Level 2 and to all subsequent release and modifications until otherwise indicated in new editions.

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## Contents

<b>About this document</b> . . . . .	<b>v</b>	Certificate Authentication Services . . . . .	9
Highlighting . . . . .	v	IP Filter converted to the AIX operating system . . . . .	10
Case-sensitivity in AIX . . . . .	v	Network security options TCP Wrapper 1.1.0.0 . . . . .	10
ISO 9000. . . . .	v	AIX Network Data Administration Facility . . . . .	10
<b>What's new</b> . . . . .	<b>1</b>	<b>IBM Tivoli Directory Server</b> . . . . .	<b>11</b>
IBM 32-bit and 64-bit SDK for AIX, Java Technology Edition, Version 7. . . . .	1	Installation and configuration . . . . .	11
rsyslogd daemon . . . . .	1	 	
 		<b>IBM Network Authentication Service, Version 1.5.0.3 for AIX</b> . . . . .	<b>13</b>
<b>Read this before installation</b> . . . . .	<b>3</b>	Documentation . . . . .	13
 		Installation and configuration . . . . .	14
<b>Installation, migration, upgrade, and configuration information</b> . . . . .	<b>5</b>	 	
Listing and previewing installation software. . . . .	5	<b>IBM 64-bit SDK for AIX, Java Technology Edition, Version 5.</b> . . . . .	<b>15</b>
Listing and previewing software from the command line . . . . .	6	 	
Listing and previewing software from the ASCII SMIT interface. . . . .	6	<b>IBM 32-bit SDK for AIX, Java Technology Edition, Version 6.</b> . . . . .	<b>17</b>
<b>AIX 7 with 7100-02 Expansion Pack security</b> . . . . .	<b>9</b>	<b>RSCT 3.1.4 CIM resource manager.</b> . . . . .	<b>19</b>
Open Secure Sockets Layer, Version 0.9.8.2400 . . . . .	9	 	
AIX certificate and SSL Base Runtime . . . . .	9	<b>Notices</b> . . . . .	<b>21</b>
Data Encryption Standard kernel extension 64-bit . . . . .	9	Trademarks . . . . .	23



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## About this document

The Release Notes topics include late technical information that is not included in other topics, and they highlight new functions for the IBM® AIX® 7 with Technology Level 2 licensed program.

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## Highlighting

The following highlighting conventions are used in this document:

<b>Bold</b>	Identifies commands, subroutines, keywords, files, structures, directories, and other items whose names are predefined by the system. Bold also identifies graphical objects such as buttons, labels, and icons that the you select.
<i>Italics</i>	Identifies parameters whose actual names or values are to be supplied by the user.
Monospace	Identifies examples of specific data values, examples of text similar to what you might see displayed, examples of portions of program code similar to what you might write as a programmer, messages from the system, or information you type.

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## Case-sensitivity in AIX

Everything in the AIX operating system is case-sensitive, which means that it distinguishes between uppercase and lowercase letters. For example, you can use the **ls** command to list files. If you type **LS**, the system responds that the command is not found. Likewise, **FILEA**, **FiLea**, and **filea** are three distinct file names, even if they reside in the same directory. To avoid causing undesirable actions to be performed, always ensure that you use the correct case.

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## ISO 9000

ISO 9000 registered quality systems were used in the development and manufacturing of this product.





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## What's new

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### IBM 32-bit and 64-bit SDK for AIX, Java Technology Edition, Version 7

IBM 32-bit and 64-bit SDK for AIX, Java™ Technology Edition, Version 7 is released in Java7.\* for the 32-bit filesets and in Java7\_64.\* for the 64-bit filesets. The Java7.jre fileset is required. The Java7.sdk fileset is an optional fileset that includes only development files, such as the javac compiler and header files. To use the Java7.sdk fileset, you must install the Java7.jre fileset.

For more information about IBM 32-bit and 64-bit SDK for AIX, Java Technology Edition, Version 7, see Java 7 on AIX documentation, a developerWorks® website.

To determine whether a more recent service refresh is available, complete the following steps:

1. Go to the developerWorks website at <https://www.ibm.com/developerworks/java/jdk/aix/service.html>.
2. Depending on the version you want, click **Fix Info** in the Java 7 32-bit row or in the Java 7 64-bit row.

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### rsyslogd daemon

The **rsyslogd** daemon reads a socket and sends the message line to a destination that is specified by the `/etc/rsyslog.conf` configuration file. The **rsyslogd** daemon reads the configuration file when it is activated.

For more information about the **rsyslogd** daemon, see the rsyslogd daemon topic in the AIX 7.1 Information Center (<http://pic.dhe.ibm.com/infocenter/aix/v6r1/topic/com.ibm.aix.cmds/doc/aixcmds4/rsyslogd.htm>).



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## Read this before installation

This software might contain errors that can result in a critical business impact. Before using this software, you must install the latest available fixes. You can obtain fixes from the Fix Central website (<http://www.ibm.com/support/fixcentral>).

The Expansion Pack DVD contains programs that are provided by IBM and other program suppliers. Each program is licensed under the terms and conditions of that specific program. These terms and conditions can vary depending on the specific program or the program supplier. Specific information about the content of this DVD and the terms and conditions under which these programs are licensed are contained in a readme file on the media.

To obtain the content and Terms and Conditions information:

1. Log in as the root user.
2. Insert the DVD into the media drive. If your media 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
umount /mnt
```

The `/tmp/README` and `/tmp/README.html` files contain the content or the Terms and Conditions under which these programs are licensed. View this information by using a web browser, or run the **more** command or the **pg** command.

Softcopy documentation for each product is included with the product. These Release Notes supplement the product documentation by outlining the steps for getting started and by pointing you to more product information.



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## Installation, migration, upgrade, and configuration information

The AIX 7 with 7100-02 Expansion Pack Release Notes include information that helps you install the products that are included on the AIX 7 with 7100-02 Expansion Pack. To view the most current version, see AIX Expansion Pack Release Notes in the AIX 7.1 Information Center ([http://pic.dhe.ibm.com/infocenter/aix/v6r1/topic/com.ibm.aix.ntl/releasenotes\\_kickoff.htm](http://pic.dhe.ibm.com/infocenter/aix/v6r1/topic/com.ibm.aix.ntl/releasenotes_kickoff.htm)).

The AIX 7 with 7100-02 Expansion Pack is included with the AIX 7 with 7100-02 operating system as a vehicle for delivering new IBM and non-IBM products. Most AIX 7 with 7100-02 Expansion Pack products can be installed by using normal installation methods. Some Expansion Pack products cannot be installed by using normal installation methods. Their installation procedures are provided under their product descriptions.

The AIX 7 with 7100-02 Expansion Pack might include products that contain a cryptographic function that is subject to special export-licensing requirements by the US Department of Commerce. Import restrictions can also apply to certain countries. Different packages of the AIX 7 with 7100-02 Expansion Pack accommodate varying country export or import restrictions. To determine which package is appropriate for you, review the Ordering Information which is located in the Expansion Pack announcement. Contact your IBM representative or IBM Business Partner to determine which type of 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 7 with 7100-02 Expansion Pack are announced either as part of an AIX announcement or independently of the release announcement.

Unless otherwise indicated, products can be installed from the DVD by using the System Management Interface Tool (SMIT). For more information about installing products, see the Installation and migration topic in the AIX 7.1 Information Center (<http://publib.boulder.ibm.com/infocenter/aix/v7r1/index.jsp?topic=/com.ibm.aix.install/doc/insgdrf/insgdrf-kickoff.htm>).

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## Listing and previewing installation software

You can list the available software products, packages, and filesets on AIX media, which can be a DVD or directory. The output shows the available packages and filesets on the media. The descriptions are provided at the fileset level.

You can perform a preview installation before doing the actual installation. A preview installation provides the preinstallation information that occurs during a regular installation, except that no software is installed.

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

Other information generated during the preinstallation process concerns the 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 list the software and use the previewing software functions from the command line or the SMIT interface.

## Listing and previewing software from the command line

1. Log in as the root user.
2. To list the software on the first DVD of the base media, insert the DVD into the media drive, and type the following command:

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

A list similar to the following is displayed:

```
fileset Name                Level                I/U Q Content
=====
ICU4C.adt                    2.8.0.0             I  N usr
#  ICU Application Developer's Toolkit

ICU4C.man.en_US              2.8.0.0             I  N usr
#  ICU Manual Pages - U.S. English
```

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 ICU4C.adt fileset, enter the following command from the command line:

```
installp -aXgq -p -d/dev/cd0 ICU4C.adt
```

The preview option displays the requisite filesets, that are to be installed and the system resources that are being used.

## Listing and previewing software from the ASCII SMIT interface

1. Log in as the root user.
2. From the command line, enter `smitty install_update`.
3. Select **Install Software**.
4. Press F4 (List) 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. In the **SOFTWARE to Install** field, press F4 (List) to list all available software on the selected media.
6. Scroll through the list of software by using the arrow keys or the Page Up or Page Down keys.

**Note:** The following listing shows the available software packages and filesets for that software product.

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

For example, in the following output example, the software product is ICU4C:

```
ICU4C.adt                                ALL
+ 2.8.0.0  ICU Application Developer's Toolkit

ICU4C.man.en_US                           ALL
+ 2.8.0.0  ICU Manual Pages - U.S. English

ICU4C.rte                                  ALL
+ 2.8.0.0  International Components for Unicode
```

The three packages are **ICU4C.adt**, **ICU4C.man.en\_US**, and **ICU4C.rte**. The fileset in the **ICU4C.adt** package is the ICU Application Developer's Toolkit at the 2.8.0.0 level. The descriptions for the software product are provided at the fileset level. There is often more than one fileset per package.

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

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





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## AIX 7 with 7100-02 Expansion Pack security

This section lists security restrictions and limitations for the AIX 7 with 7100-02 Expansion Pack.

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### Open Secure Sockets Layer, Version 0.9.8.2400

Open Secure Shell (OpenSSH) requires Open Secure Sockets Layer (OpenSSL) Version 0.9.8.2400 for encryption. The OpenSSL package is available as an installp image in the AIX 7 with 7100-02 Expansion Pack. The package name is `openssl-0.9.8.2400`, and it can be installed by using SMIT. You must use the OpenSSL Version 0.9.8.2400 before installing OpenSSH.

After OpenSSH is installed, find the `readme` file in the `/usr/openssh/` directory.

This version of OpenSSH supports PAM authentication on the AIX 7 with 7100-02 operating system. You can find more information about OpenSSL Version 0.9.8.2400 in the `readme` file in the `/usr/openssh/` directory.

**Note:** OpenSSH installation uses the AIX electronic license feature. When you are installing OpenSSH through SMIT, you must view and accept the license text that is provided with OpenSSH.

OpenSSH 4.3 and later versions use Kerberos 5 authentication and authorization through the Network Authentication Service (NAS), Version 1.4.0.7. You must be running NAS (Kerberos) Version 1.4.0.7, or later, before updating OpenSSH.

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### AIX certificate and SSL Base Runtime

The AIX Certificate and SSL Base Runtime (GSKIT) program provides libraries that are necessary to enable Secure Socket Layer (SSL) communications with Tivoli® Directory Server.

To configure SSL communication with Tivoli Directory Server Version 6.1 and Version 6.2, you must install GSKIT Version 7.0.

To configure SSL communication with Tivoli Directory Version 6.3, you must install GSKIT Version 8.0.

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### Data Encryption Standard kernel extension 64-bit

With the Data Encryption Standard (DES) kernel extension, `nfs_kdes_full.ext`, you can now use 64-bit kernels. This extension uses secure Network File System (NFS) by encrypting time stamps sent between the client and the server, which allows each Remote Procedure Call (RPC) message to be authenticated.

For more information about this extension, see the Network File Systems security topic in the AIX 7.1 Information Center ([http://pic.dhe.ibm.com/infocenter/aix/v7r1/topic/com.ibm.aix.security/doc/security/secure\\_nfs.htm](http://pic.dhe.ibm.com/infocenter/aix/v7r1/topic/com.ibm.aix.security/doc/security/secure_nfs.htm)).

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

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### Certificate Authentication Services

Certificate Authentication Services are not included with the AIX 7 with 7100-02 operating system.

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## **IP Filter converted to the AIX operating system**

IP Filter, Version 5.3.0.0 open source software is converted to the AIX operating system. The IP Filter software package can be used to provide network address translation (NAT) or firewall services. For more information about licensing, see the IP Filter website (<http://coombs.anu.edu.au/~avalon/>).

---

## **Network security options TCP Wrapper 1.1.0.0**

TCP Wrapper is a simple open source tool to monitor and control incoming network traffic. For more information about the TCP Wrapper, see the Wietse's tools and papers website (<ftp://ftp.porcupine.org/pub/security/index.html>).

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## **AIX Network Data Administration Facility**

The AIX Network Data Administration Facility (AIX NDAF) for AIX 7 with 7100-02 is not on the Expansion Pack media. It is on the base media.

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## IBM Tivoli Directory Server

For the latest information about the IBM Tivoli Directory Server that uses Lightweight Directory Access Panel (LDAP) product, see the Tivoli Directory Server website (<http://www.ibm.com/software/tivoli/products/directory-server>).

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### Installation and configuration

The following IBM Tivoli Directory Server Version 6.2 cryptography filesets are no longer provided on the AIX Expansion Pack media:

- `idsldap.clt_max_crypto32bit62`
- `idsldap.clt_max_crypto64bit62`
- `idsldap.srv_max_cryptobase64bit62`
- `idsldap.webadmin_max_crypto62`

These filesets are provided on the AIX 7 base install media starting with the 7100-02 media.

The IBM Tivoli Directory Server Version 6.3 cryptography filesets are provided on the AIX Expansion Pack media.

For information specific to IBM Tivoli Directory Server installation and configuration, see Tivoli Directory Server, a developerWorks website (<https://www.ibm.com/developerworks/wikis/display/tivolidoccentral/Tivoli+Directory+Server>).

You can use the Web Administration Tool on the AIX operating system. You can install the Web Administration Tool on a system with or without the client or server.



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# IBM Network Authentication Service, Version 1.5.0.3 for AIX

IBM Network Authentication Service, Version 1.5.0.3 for the AIX environment is a network-authentication protocol based on the IETF RFC 1510 standards protocol for the Kerberos V5 IBM Network Authentication Service. The IBM Network Authentication Service includes the Generic Security Service API (GSSAPI), the Key Distribution Center (KDC) server, and the server. With IBM Network Authentication Service, AIX middleware and external application writers can use authenticated and optionally encrypted message flow between their respective components.

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## Documentation

Read the *README.lang* file for IBM Network Authentication Service, Version 1.5 before you configure or use the program, where *lang* is one of the following language locales:

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

The *README.lang* file for the AIX environment 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 by using the SMIT **list\_media\_info** command to list supplemental fileset information about the installation media for the `krb5.client.rte` fileset.

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

- en\_US (US English)
- Ja\_JP (Japanese)
- ko\_KR (Korean)
- zh\_CN (Simplified Chinese)

The documentation is in both HTML and PDF files. 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 1.5 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 1.5 Application Development Reference* is installed in the following directories:

- HTML

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

- PDF

## **Installation and configuration**

The *IBM Network Authentication Service Version 1.5 Administrator's and User's Guide* details the installation and configuration procedures for the product.

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## IBM 64-bit SDK for AIX, Java Technology Edition, Version 5

IBM 64-bit SDK for AIX, Java Technology Edition, Version 5 is released in Java5\_64.\* filesets. For more information about this version, see the `/usr/java5_64/docs/sdkguide.aix64.htm` file.

To determine whether a more recent service refresh is available, complete the following steps:

1. Go to the developerWorks website at <https://www.ibm.com/developerworks/java/jdk/aix/service.html>.
2. Click **Fix Info** in the Java 5 64-bit row.





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## IBM 32-bit SDK for AIX, Java Technology Edition, Version 6

IBM 32-bit SDK for AIX, Java Technology Edition, Version 6 is released in Java6.\* filesets. For more information about this version, see the `/usr/java6/docs/sdkguide.aix32.htm` file.

To determine whether a more recent service refresh is available, complete the following steps:

1. Go to the developerWorks website at <https://www.ibm.com/developerworks/java/jdk/aix/service.html>.
2. Click **Fix Info** in the Java 6 32-bit row.



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## RSCT 3.1.4 CIM resource manager

The Common Information Model (CIM) resource manager is a Resource Monitoring and Control (RMC) resource manager that enables RMC to be used to query system configuration through CIM classes. CIM resource manager is contained in the `rsct.exp` package.

After installation, the CIM resource manager readme file is found in the `/usr/sbin/rsct/README/rsct.exp.README` directory.

For more information about the CIM resource manager, see the Administering RSCT topic in the AIX 7.1 Information Center ([http://pic.dhe.ibm.com/infocenter/aix/v7r1/index.jsp?topic=/com.ibm.aix.rsct314.admin/idrsct\\_admin\\_kickoff.htm](http://pic.dhe.ibm.com/infocenter/aix/v7r1/index.jsp?topic=/com.ibm.aix.rsct314.admin/idrsct_admin_kickoff.htm)).



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