



# Fix pack FP411W-02 README for IBM Directory Server 4.1.1 Windows OS





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## Contents

<b>Fix pack FP411W-02</b> . . . . .	<b>1</b>	Dependencies . . . . .	4
General description . . . . .	1	Fix pack contents . . . . .	5
Problems fixed. . . . .	1	Applying the Fix pack . . . . .	5
New fixes in FP411W-02 . . . . .	1	Confirming the Fix pack has been applied	
Platforms . . . . .	4	successfully. . . . .	7



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## Fix pack FP411W-02

Fix pack: FP411W-02

Date: February, 2003

IBM® Directory Server Version 4.1.1 (128-bit Encryption Installations)

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### General description

The Fix pack contains fixes for problems encountered in IBM Directory Server Version 4.1.1. The APAR number for the problem is listed in **Problems fixed**. Refer to the specific APAR for more detail.

For information on changes and fixes that occurred after the product documentation had been translated, see the *IBM Directory Server Version 4.1.1 for Windows NT and Windows 2000 README Addendum*. This file is in English only. This file can also be found on the IBM Directory Server Library Web page using a link from

<http://www-3.ibm.com/software/network/directory/library>

You can get to the latest information here:

<http://www-3.ibm.com/software/network/directory/library/publications/411/addendum411.pdf>

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### Problems fixed

#### New fixes in FP411W-02

##### APAR IR50599 (CMVC 76302)

Adding an entry with invalid dn syntax results in an entry field missing, and the attributes field is inadequate in the audit log.

##### APAR IR50452 (CMVC 75614)

A user has a plugin that creates its own threads, but the plugin causes the server to core because the IBM Directory Server slapi interface code assumes that all threads contain a be pointer in thread-specific memory. The pointer is used without checking for NULL.

##### APAR IR50492 (CMVC 75136)

Inconsistent decoding between {crypt},{SHA} vs {iMASK}.

##### APAR IR50498 (CMVC 77464)

A memory leak in search sort key list. Currently only the last sorted search frees the sort key.

##### APAR IR50372 (CMVC 77294)

Reaper must skip active connections. If the connection has an operation chained on it, the reaper must skip (not terminate) the connection.

##### APAR IR50438 (CMVC 77230)

Filter key memory leak. If the search filter generates a result set that is more than `ibm-slapdFilterCacheBypassLimit`, then the search filter key is lost.

**APAR IR50301 (CMVC 77380)**

WIN:javacore from ldapcfg in catopen(). There is a memory violation in ldapcfg when configuring the database. It happens the first time ldapcfg calls catopen():

**APAR IR50382 (CMVC 75812)**

There is an internal server error from Suffixes & Audit with SSL on. Webadmin displays Internal Server Error (ldacgi SEGV) on Solaris. This problem occurs when viewing Suffixes or Audit Log if SSL is enabled and the kdb file is readable by user ldap.

**APAR IR50592 (CMVC 77432)**

modrdn -r with different attributes and only one original can crash server. Have an entry that has an rdn that has only one value for the attribute and that attribute is not a required attribute.

**APAR IR50531 (CMVC 77283)**

Modify replace with null value that is not removing attribute (attribute to be determined).

**APAR IR50522 (CMVC 77384)**

This is the fix for the hang related to groups and ACL processing.

**APAR IR50471 (CMVC 77398)**

This is a performance enhancement.

**APAR IR50527 (CMVC 77325)**

Do not allow the server to start with a master dn that is the same as the admin DN.

**APAR IR50394 (CMVC 77369)**

Sorting and Paging with multiple attribute values returns multiple entries.

**APAR IR50536 (CMVC 74717)**

Unable to rebind after successful first bind.

Test run C program that attempts to do binds and searches with CRAM-MD5. First bind and search succeed. Second bind attempt fails.

**APAR IR50377 (CMVC 75571)**

The IBM Directory Server 4.1 bulkload utility has much slower performance than the 3.2.2 version when the -A option is set to **no**. Fix how bulkload processes the deprecated environment variables.

**APAR IR50479 (CMVC 77444)**

Bulkload fails with ldif files that are 2 GB and larger.

Add large file fix for server utilities, for example, db2ldif.

**APAR IR50475 (CMVC 75227)**

Member attributes are deleted after modrdn.

**APAR IR50446 (CMVC 75796)**

Cannot modify a referral object by chasing referral.

**APAR IR50371 (CMVC 75785)**

JNDI causes memory leaks with unbind.

The JNDI package passes the manageDSA control on unbind. This causes a memory leak in the server.

**APAR IR50372 (CMVC 75853)**

Server hangs on Work Queue.

Under heavy loads, the server deadlocks on the work queue.

**APAR IR50371 (CMVC 75640)**

Leak in PrintMessage.

There is a do\_iconv\_open call that uses a static pointer, so memory is allocated but never freed, thus leaking on every PrintMessage.

**APAR IR503732 (CMVC 76550)**

Retrofit Connection reaper.

Add reaper code in 5.1 to 4.1.

**APAR IR49535 (CMVC 74502)**

Bulkload failure with entry ldif file that is 1 MB.

**APAR IR50426 (CMVC 77004)**

ldapmodify accepts invalid DN - members.

**APAR IR50497 (CMVC 76539)**

Memory leak during ldapadd with change log enabled.

**APAR IR50432 (CMVC 76147)**

Memory leak while doing repeated ldapadd operations.

**APAR IR50399 (CMVC 76149)**

Leak during repeated ldapdelete with change log.

**APAR IR50410 (CMVC 76754)**

Memory leak while doing operations in transaction with Change Log.

**APAR IR50372 (CMVC 72672)**

Server hangs when transactions and searches on base DN cn=monitor are run simultaneously.

**APAR IR50394 (CMVC 76629)**

Webadmin is not working properly for complex searches.

**APAR IR50361 (CMVC 72309)**

Escape character ( \ ) on jp win fails when adding suffix.

Escape character is not working when creating DN on WIN2000.

**APAR IR50507 (CMVC 75032)**

Directory code is trying to free the same memory twice.

**APAR IR50388 (CMVC 77338)**

ldif2db doesn't print out an error message when an entry has an attribute of type DN and this attribute does not meet the specifications of the Schema.

**APAR IR50418 (CMVC 76926)**

Memory leaks in paged ldapsearch.

Memory leak while doing search operation and paging.

**APAR IR50394 (CMVC 77357)**

Having multiple cn attributes for an entry is causing problems while sorting with paging.

**APAR IR50485 (CMVC 75158)**

Ldapsearch gives errors when windows client contacts Active directory server.

**APAR IR50634 (CMVC 77431)**

Directory Management Tool shows double quotes on DN containing slash. Correct DMT handling of DIT entries containing forward slashes.

**APAR IR50639 (CMVC 77698)**

Fixed memory leaks in changelog processing.

**APAR IR50644 (CMVC 77725, 77726, 77740)**

Fixed bulkload performance issues relative to ACL src file handling and populating groups.

**APAR IR50454 (CMVC 77575)**

Attempts to alter an existing object without proper permissions can cause server to hang.

This problem can be avoided by controlling the access of the users in our application to functionality, they are allowed to perform.

If someone has modifying rights on a groupOfUniqueNames and is themselves a member of that group (group contains uniquemember-attribute with modifies dn), any attempt to modify the uniquemember-attribute (for example, add or remove members to or from this group) also leads to a hanging of the server.

**APAR IR50463 (CMVC 77589)**

Error Critical error: accept(22,...) encountered when doing extended searches of the change log while also searching the directory.

**APAR IR50343 (CMVC 77673)**

IBM Directory Server server traps in ldap\_sasl\_bind\_direct when login fails in fail-over condition.

**APAR IR50417 (CMVC 75622)**

Escape character not allowed when using the Web Admin to create a Suffix DN containing a single character to be escaped (can be prefixed by a backslash ('¥' ASCII 92)). For instance, o=b\,c and "o=b,c". This problem occurs on WIN2999.

**APAR IR50662 (CMVC 75512)**

Error 116 received when configuring audit log using IBM Directory Server 4.1 WebAdmin

**APAR IR50780 (CMVC 77714, 77908)**

The LDAP server intermittently hangs/abends while under stress with mutliple updates/searches.

## Platforms

Microsoft® Windows NT® 4.0, Windows® 2000.

## Dependencies

IBM Directory Server 4.1.1 must be installed.

Refer to *IBM Directory Server Version 4.1 Installation and Configuration Guide for Multiplatforms* for additional patch requirements. See the IBM Directory Server 4.1 library at

<http://www-3.ibm.com/software/network/directory/library>

See the *IBM Directory Server Version 4.1.1 for Windows NT and Windows 2000 README Addendum* at

<http://www-3.ibm.com/software/network/directory/library/publications/411/addendum411.pdf>

## Fix pack contents

The archive for this Fix pack is named FP411W-02.zip. The archive for this Fix pack includes:

This README file  
The file bin\FP411W-02.txt  
The file bin\bulkload.exe  
The file bin\cfg32.dll  
The file bin\db2ldif.exe  
The file bin\dbcheck.exe  
The file bin\dmtd.jar  
The file bin\ldacfg.dll  
The file bin\ldap.dll  
The file bin\ldap\_plugin\_ibm\_gsskrb.dll  
The file bin\ldapcfg.exe  
The file bin\ldapucfg.exe  
The file bin\ldapxcfg.exe  
The file bin\ldif.exe  
The file bin\ldif2db.exe  
The file bin\libadmin.dll  
The file bin\libback-rdbm.dll  
The file bin\libcl.dll  
The file bin\libDSP.dll  
The file bin\libevent.dll  
The file bin\libldapaudit.dll  
The file bin\libldapkrb.dll  
The file bin\libmessage.dll  
The file bin\libslapi.dll  
The file bin\libtranext.dll  
The file bin\libtransys.dll  
The file bin\libutils.dll  
The file bin\libutlsa.dll  
The file bin\locale\dssuconvtab\IBM-943  
The file bin\ltou.exe  
The file bin\miglen.exe  
The file bin\runstats.exe  
The file bin\slapd.exe  
The file bin\utol.exe  
The file include\ldap.h  
The file include\slapi-plugin.h  
The file lib\ldapstatic.lib  
The file lib\libslapi.lib  
The file web\cgi-bin\ldacgi.exe  
The file web\cgi-bin\ldacgi3.exe

## Applying the Fix pack

**Note:** Your replication environment must be cleaned or resynchronized, or both.

See Chapter 7, "Replication," of the *IBM Directory Server Version 4.1: Administration Guide* at:

[http://www-3.ibm.com/software/network/directory/library/publications/41/config/admin\\_gd.pdf](http://www-3.ibm.com/software/network/directory/library/publications/41/config/admin_gd.pdf)

1. Extract the Fix pack contents into a scratch directory. Use an unzip utility for extraction.
2. For each of the master and slave server installations targeted to receive the Fix pack, make sure the servers are stopped prior to applying the Fix pack. Also, if this is a client only installation, make sure the applications linking to the client shared libraries have also been stopped.
3. Replace the installed version of each file with the version included in the Fix pack.

- a. Move the currently installed file to a location outside of the LDAP installation filesystem or rename the currently installed file. This prevents existing files from being overwritten by new files in the Fix pack.

**Note:** If this step is not done, then you cannot return to your pre-Fix pack state.

- b. Copy the extracted Fix pack files to the correct locations in the install folder. The install version locations for each file follow.

If the installation is a client sdk only installation (for example, Client SDK and DMT-Java were the only selections made at installation time), then from the archive, replace on the following files:

```
%INSTALL_DIR%\bin\dmtd.jar
%INSTALL_DIR%\bin\ldap.dll
%INSTALL_DIR%\bin\ldap_plugin_ibm_gsskrb.dll
%INSTALL_DIR%\include\ldap.h
%INSTALL_DIR%\include\slapi-plugin.h
%INSTALL_DIR%\lib\ldapstatic.lib
%INSTALL_DIR%\lib\libslapi.lib
```

The following file is a newly added file. There is no file of the same name to replace.

```
%INSTALL_DIR%\bin\FP411W-02.txt
%INSTALL_DIR%\bin\FP411W-02Readme.pdf
```

If the installation includes server code also, please replace the following files:

```
%INSTALL_DIR%\bin\bulkload.exe
%INSTALL_DIR%\bin\cfg32.dll
%INSTALL_DIR%\bin\db2ldif.exe
%INSTALL_DIR%\bin\dbcheck.exe
%INSTALL_DIR%\bin\ldacfg.dll
%INSTALL_DIR%\bin\ldapcfg.exe
%INSTALL_DIR%\bin\ldapucfg.exe
%INSTALL_DIR%\bin\ldapxcfg.exe
%INSTALL_DIR%\bin\ldif.exe
%INSTALL_DIR%\bin\ldif2db.exe
%INSTALL_DIR%\bin\libadmin.dll
%INSTALL_DIR%\bin\libback-rdbm.dll
%INSTALL_DIR%\bin\libcl.dll
%INSTALL_DIR%\bin\libDSP.dll
%INSTALL_DIR%\bin\libevent.dll
%INSTALL_DIR%\bin\libldapaudit.dll
%INSTALL_DIR%\bin\libldapkrb.dll
%INSTALL_DIR%\bin\libmessage.dll
%INSTALL_DIR%\bin\libslapi.dll
%INSTALL_DIR%\bin\libtranext.dll
%INSTALL_DIR%\bin\libtransys.dll
%INSTALL_DIR%\bin\libutils.dll
%INSTALL_DIR%\bin\libutlsa.dll
%INSTALL_DIR%\bin\locale\dssuconvtab\IBM-943
%INSTALL_DIR%\bin\ltou.exe
%INSTALL_DIR%\bin\miglen.exe
%INSTALL_DIR%\bin\runstats.exe
%INSTALL_DIR%\bin\slapd.exe
%INSTALL_DIR%\bin\utol.exe
%INSTALL_DIR%\web\cgi-bin\ldacgi.exe
%INSTALL_DIR%\web\cgi-bin\ldacgi3.exe
```

Again, the default for INSTALL\_DIR is C:\Program Files\IBM\LDAP.

4. Restart any application previously terminated to apply this fix pack.

## Confirming the Fix pack has been applied successfully

The Fix pack has been applied successfully if all files included in the Fix pack have replaced the pre-Fix pack files of the same names. If after applying the Fix pack the directory server cannot be restarted, or any other associated function is degraded, please notify IBM Directory Server support personnel.

Below is some relevant information on the replacement files:

Filesize for bin\FP411W-02.txt	is	68
Filesize for bin\dmr.jar	is	1157199
Filesize for bin\ldap.dll	is	385855
Filesize for bin\ldap_plugin_ibm_gsskrb.dll	is	31039
Filesize for include\ldap.h	is	39257
Filesize for include\slapi-plugin.h	is	11346
Filesize for lib\ldapstatic.lib	is	1304142
Filesize for lib\libslapi.lib	is	63620
Filesize for bin\bulkload.exe	is	308206
Filesize for bin\cfg32.dll	is	308533
Filesize for bin\db2ldif.exe	is	196593
Filesize for bin\dbcheck.exe	is	20754
Filesize for bin\ldacfg.dll	is	55251
Filesize for bin\ldapcfg.exe	is	28224
Filesize for bin\ldapucfg.exe	is	28225
Filesize for bin\ldapxcfg.exe	is	28225
Filesize for bin\ldif.exe	is	20733
Filesize for bin\ldif2db.exe	is	194641
Filesize for bin\libadmin.dll	is	218549
Filesize for bin\libback-rdbm.dll	is	837533
Filesize for bin\libcl.dll	is	39498
Filesize for bin\libDSP.dll	is	35993
Filesize for bin\libevent.dll	is	50409
Filesize for bin\libldapaudit.dll	is	38605
Filesize for bin\libldapkrb.dll	is	47337
Filesize for bin\libmessage.dll	is	84804
Filesize for bin\libslapi.dll	is	87617
Filesize for bin\libtranext.dll	is	30994
Filesize for bin\libtransys.dll	is	166024
Filesize for bin\libutils.dll	is	1081712
Filesize for bin\libutlsa.dll	is	45697
Filesize for bin\locale\dssuconvtab\IBM-943	is	135700
Filesize for bin\ltou.exe	is	20014
Filesize for bin\miglen.exe	is	209368
Filesize for bin\runstats.exe	is	184534
Filesize for bin\slapd.exe	is	487128
Filesize for bin\utol.exe	is	20018
Filesize for web\cgi-bin\ldacgi.exe	is	3070976
Filesize for web\cgi-bin\ldacgi3.exe	is	1447936

The sum command is not native to the Windows operating systems. To obtain the sum information (if required) might involve use of a Unix operating system.

sum -r bin\FP411W-02.txt	results are:	15242
sum -r bin\dmr.jar	results are:	20796
sum -r bin\ldap.dll	results are:	45516
sum -r bin\ldap_plugin_ibm_gsskrb.dll	results are:	43372
sum -r include\ldap.h	results are:	33095
sum -r include\slapi-plugin.h	results are:	55823
sum -r lib\ldapstatic.lib	results are:	16263
sum -r lib\libslapi.lib	results are:	43038
sum -r bin\bulkload.exe	results are:	54023
sum -r bin\cfg32.dll	results are:	05991
sum -r bin\db2ldif.exe	results are:	27055
sum -r bin\dbcheck.exe	results are:	08826

sum -r bin\ldacfg.dll	results are: 50271
sum -r bin\ldapcfg.exe	results are: 32025
sum -r bin\ldapucfg.exe	results are: 04080
sum -r bin\ldapxcfg.exe	results are: 51834
sum -r bin\ldif.exe	results are: 41065
sum -r bin\ldif2db.exe	results are: 07745
sum -r bin\libadmin.dll	results are: 16980
sum -r bin\libback-rdbm.dll	results are: 09817
sum -r bin\libcl.dll	results are: 36723
sum -r bin\libDSP.dll	results are: 63168
sum -r bin\libevent.dll	results are: 33870
sum -r bin\libldapaudit.dll	results are: 18396
sum -r bin\libldapkrb.dll	results are: 56569
sum -r bin\libmessage.dll	results are: 46971
sum -r bin\libslapi.dll	results are: 51655
sum -r bin\libtranext.dll	results are: 43537
sum -r bin\libtransys.dll	results are: 63810
sum -r bin\libutils.dll	results are: 14484
sum -r bin\libutlsa.dll	results are: 39067
sum -r bin\locale\dssuconvtab\IBM-943	results are: 13533
sum -r bin\ltou.exe	results are: 42763
sum -r bin\miglen.exe	results are: 13501
sum -r bin\runstats.exe	results are: 43190
sum -r bin\slapd.exe	results are: 35709
sum -r bin\utol.exe	results are: 35140
sum -r web\cgi-bin\ldacgi.exe	results are: 65457
sum -r web\cgi-bin\ldacgi3.exe	results are: 59578

The contents of the bin/FP411W-02.txt file are:

IBM Directory      Release: aus41ldap    Build: 030211a





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