



Fix pack FP410L-02 README for IBM Directory Server 4.1 Linux i386



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Contents

Fix pack FP410L-02.	1	Fix pack contents	4
General description	1	Applying the Fix pack	5
Problems fixed.	1	Uninstalling the fix pack	6
New fixes in FP410L-02.	1	Confirming the Fix pack has been applied successfully.	6
Platforms	4		
Dependencies	4		

Fix pack FP410L-02

Fix pack: FP410L-02

Date: February, 2003

IBM® Directory Server Version 4.1 (128-bit Encryption Installations)

General description

The Fix pack contains fixes for problems encountered in IBM Directory Server Version 4.1. 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 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/v41/addendum41.pdf>

Problems fixed

New fixes in FP410L-02

APAR IR50601 (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 IR50455 (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 IR50494 (CMVC 75136)

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

APAR IR50504 (CMVC 77464)

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

APAR IR49550 (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 IR50441 (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 IR50384 (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 IR50596 (CMVC 77432)

modrtn -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 IR50533 (CMVC 77283)

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

APAR IR50524 (CMVC 77384)

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

APAR IR50474 (CMVC 77398)

This is a performance enhancement.

APAR IR50529 (CMVC 77325)

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

APAR IR50396 (CMVC 77369)

Sorting and Paging with multiple attribute values returns multiple entries.

APAR IR50538 (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 IR50442 (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 IR50484 (CMVC 77444)

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

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

APAR IR50480 (CMVC 75227)

Member attributes are deleted after modrtn.

APAR IR50449 (CMVC 75796)

Cannot modify a referral object by chasing referral.

APAR IR49549 (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 IR49550 (CMVC 75853)

Server hangs on Work Queue.

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

APAR IR49549 (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 IR49550 (CMVC 76550)**
Retrofit Connection reaper.
Add reaper code in 5.1 to 4.1.
- APAR IR49537 (CMVC 74502)**
Bulkload failure with entry ldif file that is 1 MB.
- APAR IR50429 (CMVC 77004)**
ldapmodify accepts invalid DN - members.
- APAR IR50500 (CMVC 76539)**
Memory leak during ldapadd with change log enabled.
- APAR IR50434 (CMVC 76147)**
Memory leak while doing repeated ldapadd operations.
- APAR IR50401 (CMVC 76149)**
Leak during repeated ldapdelete with change log.
- APAR IR50412 (CMVC 76754)**
Memory leak while doing operations in transaction with Change Log.
- APAR IR49550 (CMVC 72672)**
Server hangs when transactions and searches on base DN cn=monitor are run simultaneously.
- APAR IR50396 (CMVC 76629)**
Webadmin is not working properly for complex searches.
- APAR IR50543 (CMVC 72309)**
Escape character (\) on jp win fails when adding suffix.
Escape character is not working when creating DN on WIN2000.
- APAR IR50509 (CMVC 75032)**
Directory code is trying to free the same memory twice.
- APAR IR50390 (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 IR50420 (CMVC 76926)**
Memory leaks in paged ldapsearch.
Memory leak while doing search operation and paging.
- APAR IR503956 (CMVC 77357)**
Having multiple cn attributes for an entry is causing problems while sorting with paging.
- APAR IR50489 (CMVC 75158)**
Ldapsearch gives errors when windows client contacts Active directory server.
- APAR IR50636 (CMVC 77431)**
Directory Management Tool shows double quotes on DN containing slash.
Correct DMT handling of DIT entries containing forward slashes.
- APAR IR50641 (CMVC 77698)**
Fixed memory leaks in changelog processing.
- APAR IR50646 (CMVC 77725, 77726, 77740)**
Fixed bulkload performance issues relative to ACL src file handling and populating groups.

APAR IR50459 (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 IR50465 (CMVC 77589)

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

APAR IR50423 (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 IR50658 (CMVC 75512)

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

APAR IR50783 (CMVC 77714, 77908)

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

Platforms

SuSE Linux 7.2 or higher, RedHat Linux 7.1 or higher, or Turbolinux 6.5 or higher.

Dependencies

IBM Directory 4.1 must be installed.

Red Hat Linux 7.1 or higher, SuSE Linux 7.2 or higher, or Turbolinux 6.5 or higher.

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

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

DB2 Universal Database™ for Linux version 7.2 FixPack 5 or higher.

Fix pack contents

The archive for this Fix pack is named FP410L-02.tar.gz. The client install includes the following files:

File	bytes	sum -r
FP410L-02.filelist.client	158	42521
\$INSTALL_DIR/bin/FP410L-02.txt	54	10798
\$INSTALL_DIR/bin/FP410L-02Readme.pdf	-----	-----
\$INSTALL_DIR/include/ldap.h	38150	49793
\$INSTALL_DIR/include/slapi-plugin.h	11022	49663
\$INSTALL_DIR/lib/libibmldap.so	1062624	28858

\$INSTALL_DIR/lib/libibmldapn.so	1012003	32582
\$INSTALL_DIR/lib/libldapstatic.a	3394544	02952
\$INSTALL_DIR/lib/libldapstaticn.a	3225586	37548

The DMT install includes the files in the client install plus the following:

File	bytes	sum -r
FP410L-02.filelist.DMT	170	27276
\$INSTALL_DIR/bin/dmt.jar	1157199	64638

The server install includes the files in the DMT install plus the following:

File	bytes	sum -r
FP410L-02.filelist.server	594	48684
\$INSTALL_DIR/bin/ldapcfg	16210	40243
\$INSTALL_DIR/bin/slapd	2519392	59613
\$INSTALL_DIR/bin/slapdd	2519624	63804
\$INSTALL_DIR/bin/slapdn	2506624	25409
\$INSTALL_DIR/lib/libadmin.so	676292	43847
\$INSTALL_DIR/lib/libback-rdbm.so	3764370	64996
\$INSTALL_DIR/lib/libcfg32.so	2754448	43689
\$INSTALL_DIR/lib/libDSP.so	179118	50345
\$INSTALL_DIR/lib/libevent.so	279102	30346
\$INSTALL_DIR/lib/libibmldapcl.so	171393	21083
\$INSTALL_DIR/lib/libldacfg.so	161616	07406
\$INSTALL_DIR/lib/libldapaudit.so	197658	26733
\$INSTALL_DIR/lib/libmessage.so	217393	58607
\$INSTALL_DIR/lib/libslapi.so	402044	50712
\$INSTALL_DIR/lib/libtranext.so	279156	25814
\$INSTALL_DIR/lib/libtransys.so	1098406	19449
\$INSTALL_DIR/lib/libutils.so	6505672	48277
\$INSTALL_DIR/lib/libutlsa.so	149618	26466
\$INSTALL_DIR/sbin/bulkload	1461142	59173
\$INSTALL_DIR/sbin/db2ldif	1032789	64719
\$INSTALL_DIR/sbin/dbcheck	139608	02757
\$INSTALL_DIR/sbin/ldif	68133	28391
\$INSTALL_DIR/sbin/ldif2db	1077928	14752
\$INSTALL_DIR/sbin/ltou	112317	20101
\$INSTALL_DIR/sbin/miglen	1050678	41164
\$INSTALL_DIR/sbin/migrate41	22243	63207
\$INSTALL_DIR/sbin/runstats	1008561	40251
\$INSTALL_DIR/sbin/stripdif	153798	52285
\$INSTALL_DIR/sbin/utol	112324	10751

The default for \$INSTALL_DIR is /usr/ldap.

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

1. For each machine targeted to receive the fix pack, make sure any servers are stopped, and any client applications linked to the shared libraries (including DMT) are stopped. Programs and libraries cannot be replaced while they are in use.
2. Copy the fix pack archive (FP410L-02.tar.gz) to a directory with sufficient free space to hold both the archive and a backup of the patched files (in case you want to uninstall the fix pack). You need at least 60 MB for a full server install, less if patching a client only installation. Open a command prompt and type:

```
# su
# cd {directory where FP410L-02.tar.gz is}
# export INSTALL_DIR=/usr/ldap {or alternate IDS 4.1 install directory}
# export PATCH_DIR=`pwd`
# rm FP410L-02.filelist.*
```

All remaining steps use this command prompt.

- Determine which packages are currently installed and extract the corresponding file list from the fix pack archive. At the command prompt type the following to determine which packages are installed:

```
# rpm -qa | grep ldap-
```

- If the result includes **ldap-server-4.1-1** or **ldap-serverd-4.1-1**, then this is a server install. Extract `FP410L-02.filelist.server` from the archive and proceed to step 4. Do not attempt step 3b or 3c:

Note: Installing the server package also upgrades DMT and client.

```
# zcat FP410L-02.tar.gz | tar xf - FP410L-02.filelist.server
```

- If you do not have the server installed but do see **ldap-dmtjava-4.1-1** or **ldap-dmtjavad-4.1-1** listed, then this is a DMT install. Extract `FP410L-02.filelist.DMT` from the archive and proceed to step 4. Do not attempt step 3c:

```
# zcat FP410L-02.tar.gz | tar xf - FP410L-02.filelist.DMT
```

- If you do not have the DMT installed, then this is a client install. Extract `FP410L-02.filelist.client` from the archive and proceed to step 4:

```
# zcat FP410L-02.tar.gz | tar xf - FP410L-02.filelist.client
```

- This step is optional. Backup the existing files before applying the patch in case you need to uninstall the patch:

```
# cd $INSTALL_DIR
# tar cvf $PATCH_DIR/FP410L-02.UNDO.tar `cat $PATCH_DIR/FP410L-02.filelist.*`
# gzip $PATCH_DIR/FP410L-02.UNDO.tar
```

- Apply the fix pack:

```
# cd $PATCH_DIR
# mkdir tmp
# cd tmp
# zcat ../FP410L-02.tar.gz | tar xf - `cat ../FP410L-02.filelist.*`
# cp -r * $INSTALL_DIR
# cd ..
# rm -rf tmp
```

Uninstalling the fix pack

This can only be done if you made a backup before installing the fix pack (see step 4, above). If so, then you can uninstall the fix pack by deleting `$INSTALL_DIR/IBMldaps/bin/FP410L-02*` and extracting `$PATCH_DIR/FP410L-02.UNDO.tar.gz`:

```
# cd $INSTALL_DIR
# rm bin/FP410L-02*
# zcat $PATCH_DIR/FP410L-02.UNDO.tar.gz | tar -xvf -
```

Confirming the Fix pack has been applied successfully

After installation, the file `$INSTALL_DIR/bin/FP410L-02.txt` contains the following:

```
IBM Directory      Release: aus41ldap  Build: 030211a
```

All the files listed in `$PATCH_DIR/FP410L-02.filelist.*` match the files sizes and checksums listed in “Fix pack contents” on page 4.



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