Fix pack FP410H-02 README for IBM Directory Server 4.1 HPUX

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Contents

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Fix pack: FP410H-02

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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 FP410H-02

APAR IR50603 (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 IR50458 (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 IR50496 (CMVC 75136)
> Inconsistent decoding between {crypt},{SHA} vs {iMASK}.

APAR IR50506 (CMVC 77464)
> A memory leak in search sort key list. Currently only the last sorted search frees the sort key.

APAR IR50376 (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 IR50444 (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 IR50386 (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 IR50598 (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 IR50535 (CMVC 77283)

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

APAR IR50526 (CMVC 77384)

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

APAR IR50477 (CMVC 77398)

This is a performance enhancement.

APAR IR50531 (CMVC 77325)

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

APAR IR50398 (CMVC 77369)

Sorting and Paging with multiple attribute values returns multiple entries.

APAR IR50540 (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 IR50447 (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 IR50488 (CMVC 77444)

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

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

APAR IR50483 (CMVC 75227)

Member attributes are deleted after modrdn.

APAR IR50451 (CMVC 75796)

Cannot modify a referral object by chasing referral.

APAR IR50369 (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 IR50376 (CMVC 75853)

Server hangs on Work Queue.

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

APAR IR50369 (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 IR50376 (CMVC 76550)

Retrofit Connection reaper.

Add reaper code in 5.1 to 4.1.

APAR IR49539 (CMVC 74502)

Bulkload failure with entry ldif file that is 1 MB.

APAR IR50431 (CMVC 77004)

ldapmodify accepts invalid DN - members.

APAR IR50503 (CMVC 76539)

Memory leak during ldapadd with change log enabled.

APAR IR50436 (CMVC 76147)

Memory leak while doing repeated ldapadd operations.

APAR IR50403 (CMVC 76149)

Leak during repeated ldapdelete with change log.

APAR IR50414 (CMVC 76754)

Memory leak while doing operations in transaction with Change Log.

APAR IR50376 (CMVC 72672)

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

APAR IR50398 (CMVC 76629)

Webadmin is not working properly for complex searches.

APAR IR50545 (CMVC 72309)

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

Escape character is not working when creating DN on WIN2000.

APAR IR50511 (CMVC 75032)

Directory code is trying to free the same memory twice.

APAR IR50393 (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 IR50424 (CMVC 76926)

Memory leaks in paged ldapsearch.

Memory leak while doing search operation and paging.

APAR IR50398 (CMVC 77357)

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

APAR IR50491 (CMVC 75158)

Ldapsearch gives errors when windows client contacts Active directory server.

APAR IR50638 (CMVC 77431)

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

APAR IR50643 (CMVC 77698)

Fixed memory leaks in changelog processing.

APAR IR50647 (CMVC 77725, 77726, 77740)

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

APAR IR50461 (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 IR50468(CMVC 77589)

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

APAR IR50427 (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 IR50660 (CMVC 75512)

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

APAR IR50785 (CMVC 77714, 77908)

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

Platforms

Install on HPUX 11.

Dependencies

IBM Directory 4.1 must be installed.

DB2 Universal Database™ for HP-UX Workgroup or Enterprise edition version 7.1 with FixPak 3 or later (DB2®).

Fix pack contents

The archive for this Fix pack is named FP410H-02.tar.Z. The client install includes the following files:

```
File                                  bytes  sum -r
===================================== ====== ======
FP410H-02.filelist.client                158  25920
$INSTALL_DIR/bin/FP410H-02.txt            54  10798
$INSTALL_DIR/bin/FP410H-02Readme.pdf   -----  -----
$INSTALL_DIR/include/ldap.h            38150  49793
$INSTALL_DIR/include/slapi-plugin.h    11022  49663
$INSTALL_DIR/lib/libibmldap.sl       1147952  25191
$INSTALL_DIR/lib/libibmldapn.sl      1088512  02044
$INSTALL_DIR/lib/libldapstatic.a     1516372  24235
$INSTALL_DIR/lib/libldapstaticn.a    1444148  11562
```

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

```
File                            bytes    sum -r
=============================== ======== ======
FP410H-02.filelist.server           593  23448
```

```
$INSTALL_DIR/bin/ldapcfg              16216   35569
$INSTALL_DIR/bin/slapd              2479168   45319
$INSTALL_DIR/bin/slapdn             2146320   01139
$INSTALL_DIR/lib/libadmin.sl         399176   02136
$INSTALL_DIR/lib/libavl.sl            38184   55361
$INSTALL_DIR/lib/libback-rdbm.sl    3712648   35279
$INSTALL_DIR/lib/libcfg32.sl        1742776   12256
$INSTALL_DIR/lib/libcsgl.sl          696280   22128
$INSTALL_DIR/lib/libDSP.sl            68952   33125
$INSTALL_DIR/lib/libevent.sl         213208   62496
$INSTALL_DIR/lib/libibmldapcl.sl     105960   42214
$INSTALL_DIR/lib/liblber.sl          128216   45045
$INSTALL_DIR/lib/libldacfg.sl        185752   47818
$INSTALL_DIR/lib/libldapaudit.sl     107368   47549
$INSTALL_DIR/lib/libldtr.sl           91392   42258
$INSTALL_DIR/lib/liblthread.sl        17088   39920
$INSTALL_DIR/lib/libmessage.sl       119088   60338
$INSTALL_DIR/lib/libslapi.sl         210232   52178
$INSTALL_DIR/lib/libtranext.sl       251344   56965
$INSTALL_DIR/lib/libtransys.sl       547368   04200
$INSTALL_DIR/lib/libutils.sl        4947224   46609
$INSTALL_DIR/lib/libutlsa.sl         113280   20917
$INSTALL_DIR/sbin/bulkload           881488   32231
$INSTALL_DIR/sbin/db2ldif            606512   19902
$INSTALL_DIR/sbin/ldif                32352   35958
$INSTALL_DIR/sbin/ldif2db            620288   16988
$INSTALL_DIR/sbin/ltou                34312   32668
$INSTALL_DIR/sbin/runstats           579800   54141
$INSTALL_DIR/sbin/utol                34312   54400
```

The default for $INSTALL_DIR is /usr/IBMldap.

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 (FP410H-02.tar.Z) 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 50 MB for a full server install, less if patching a client only installation. Open a command prompt and type:

```
# su
# cd {directory where FP410H-02.tar.Z is}
# export INSTALL_DIR=/usr/IBMldap {or alternate IDS 4.1 install directory}
# export PATCH_DIR=`pwd`
# rm FP410H-02.filelist.*
```

   All remaining steps use this command prompt.

3. 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:

```
# swlist | grep LDAPServer
```

a. If any filesets are listed, then this is a server install. Extract
FP410H-02.filelist.server from the archive and proceed to step 4. Do not
attempt step 3b:

Note: Installing the server package also upgrades client.

```
# zcat FP410H-02.tar.Z | tar -xf - FP410H-02.filelist.server
```

b. If you do not have the server installed, then this is a client install. Extract
FP410H-02.filelist.client from the archive and proceed to step 4:

```
# zcat FP410H-02.tar.Z | tar -xf - FP410H-02.filelist.client
```

4. 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/FP410H-02.UNDO.tar `cat $PATCH_DIR/FP410H-02.filelist.*`
# compress $PATCH_DIR/FP410H-02.UNDO.tar
```

5. Apply the fix pack:

```
# cd $PATCH_DIR
# mkdir tmp
# cd tmp
# zcat ../FP410H-02.tar.Z | tar xf - `cat ../FP410H-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/bin/FP410H-02* and extracting $PATCH_DIR/FP410H-
02.UNDO.tar.Z:

```
# cd $INSTALL_DIR
# rm bin/FP410H-02*
# zcat $PATCH_DIR/FP410H-02.UNDO.tar.Z | tar -xvf -
```

Confirming the Fix pack has been applied successfully

After installation, the file $INSTALL_DIR/bin/FP410H-02.txt contains the
following:

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

All the files listed in $PATCH_DIR/FP410H-02.filelist.* match the files sizes and
checksums listed in "Fix pack contents" on page 4.

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