



# Fix pack FP410A-01 README for IBM Directory Server 4.1 AIX Server Installations





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## Fix pack FP410A-01

Fix pack: FP410A-01

Date: September 27, 2002

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

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### 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>

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### Problems fixed

#### New fixes in FP410A-01

**APAR IR48471 (CMVC 69870, 72520)**

Potential deadlock if client sends many asynchronous operations without processing results

**APAR IR49052 (CMVC 71036)**

Normally the server will return attribute names in lowercase. Setting the server environment variable (or `ibm-slapdSetenv`) `IBMLDAP_ATTRCASE=YES` will cause explicitly requested attributes to be returned in the same case used in the search request, or in the case specified by the schema if no attributes are explicitly requested.

**APAR IR48780 (CMVC 72035)**

When Access Manager performs an authentication, it has been determined that there is a memory leak on each occurrence.

Memory leak in C client API: `ldap_explode_dn()`

**APAR IR49264 (CMVC 72120)**

Non-root `ldap_compare` of dn in group membership may return operations error (RC=1)

**APAR IR49278 (CMVC 72209)**

IBM LDAP Directory 4.1.0 does not do Ownership group resolution on rebind when application is reusing LDAP connection structure.

**APAR IR49265 (CMVC 72403)**

Remove harmless error message from error log: "Found an unknown attribute 'ibm-slapdVersion' in entry 'cn=Configuration'."

- APAR IR48604 (CMVC 72448, 73144)**  
Add message to error log if a suffix violates schema definitions.
- APAR IR49260 (CMVC 72507)**  
Potential segment violation when adding entries to slapd32.conf using libcfg32 API (extremely unlikely in releases prior to 5.1)
- APAR IR48427 (CMVC 72548)**  
Slapd intermittently fails freeing entries.
- APAR IR49290 (CMVC 72573)**  
Memory Leak doing search on system/restricted attributes (i.e. modifyTimeStamp)
- APAR IR48600 (CMVC 73020)**  
Unable to configure custom database in SP Node environment.
- APAR IR49261 (CMVC 73075)**  
ACL cache continues to grow beyond ACLCAHESIZE limit. No error other than server uses more memory than expected.
- APAR IR48750 (CMVC 73165)**  
ldap\_create\_page\_control() and ldap\_parse\_page\_control() does not work correctly in Directory 4.1.  
C client API reports error 84 (Decoding error) performing paged or sorted search against iPlanet or Active Directory servers.
- APAR IR49323 (CMVC 73322)**  
Client dies processing SHA encrypted userPassword value.
- APAR IR49262 (CMVC 73727)**  
C client API may core (SEGV) under stress in wait4msg().
- APAR IR49263 (CMVC 73732)**  
Multi-threaded C client API may deadlock
- APAR IR49267 (CMVC 73743)**  
AIX ignores ibm\_slapddbConnections setting, always uses default (15)
- APAR IR48865 (CMVC 73771)**  
Intermittent server core when deleting entries. Trace ends with "Processing Acls for dn on obj 0".
- APAR IR49329 (CMVC 73905)**  
The LDAP client library abends when attempting to send a search request which includes an incorrectly structured filter composed of an imbalanced set of open and closed parentheses.
- APAR IR49214 (CMVC 74007, 74199, 75044)**  
Exception from Sun JNDI parsing a SortResponseControl: javax.naming.NamingException. Root exception is com.sun.jndi.ldap.Ber\$DecodeException: Encountered ASN.1 tag 2 (expected tag 10)
- APAR IR48992 (CMVC 74084)**  
Deleting a member from a group may cause all members to disappear if the group entry is flushed from cache, but they can be recovered by adding a member and restarting the server to rebuild the entry cache.
- APAR IR49268 (CMVC 74217)**  
The server will hang if an entry and it's parent are added in the same transaction.



**APAR IR48958 (CMVC 74273)**

Server core if ldtrc on with an objectclass definition > 8KB long.

**APAR IR48959 (CMVC 74333)**

Remove harmless error message from error log:  
"Attribute:ditStructureRules has one or more invalid matching rules  
EQUALITY:2.5.13.29 SUBSTR: ORDERING: for  
syntax:1.3.6.1.4.1.1466.115.121.1.17"

**APAR IR49002 (CMVC 74551)**

Target DN in changelog is all uppercase.

**APAR IR49269 (CMVC 74642)**

Client gets decoding error when reverse order sort key is not last sort key specified on the search.

**APAR IR49270 (CMVC 74749)**

Server allows mod\_rdn where old & new dn are identical.

**APAR IR49438 (CMVC 74877)**

Performing a dynamic schema modification will terminate the server if changelog is enabled for that type of operation.

**APAR IR49436 (CMVC 74885)**

Potential memory leak in entry cache

**APAR IR49435 (CMVC 74907)**

Fix GB18030 support for AIX, OS/400 and Solaris

**APAR IR49434 (CMVC 74910)**

ldapucfg -d fails w/ "db2idrop: command not found" (regression on Unix caused by fix for APAR IR48639)

**APAR IR49433 (CMVC 74947)**

Search fails when reverse sort key used by Sun Java client.

**APAR IR49432 (CMVC 75077)**

Changelog timestamp in local time

**APAR IR49431 (CMVC 75101)**

ldif2db hangs w/ mutex lock.

**APAR IR49424 (CMVC 75157)**

Partial fix for memory leaks in bulkload parse phase

## Platforms

AIX<sup>®</sup> Operating System versions 4.3.3 or higher.

## Dependencies

IBM Directory 4.1 must be installed.

DB2 Universal Database<sup>™</sup> for AIX version 7.2 Enterprise Edition (DB2<sup>®</sup>)

## Files replaced or added by this Fix pack

With \$INSTALL\_DIR representing the root of the LDAP installation, the files replaced are:

```
$INSTALL_DIR/bin/slapd  
$INSTALL_DIR/bin/slapdn  
$INSTALL_DIR/lib/libadmin.a  
$INSTALL_DIR/lib/libback-rdbm.a  
$INSTALL_DIR/lib/libcfg32.a
```

```

$INSTALL_DIR/lib/libDSP.a
$INSTALL_DIR/lib/libevent.a
$INSTALL_DIR/lib/libibldap.a
$INSTALL_DIR/lib/libibldap64n.a
$INSTALL_DIR/lib/libibldapcl.a
$INSTALL_DIR/lib/libibldapn.a
$INSTALL_DIR/lib/libldapaudit.a
$INSTALL_DIR/lib/libldapkrb.a
$INSTALL_DIR/lib/libldapstatic.a
$INSTALL_DIR/lib/libldapstaticn.a
$INSTALL_DIR/lib/libmessage.a
$INSTALL_DIR/lib/libslapi.a
$INSTALL_DIR/lib/libtranext.a
$INSTALL_DIR/lib/libtransys.a
$INSTALL_DIR/lib/libutils.a
$INSTALL_DIR/lib/libutlsa.a
$INSTALL_DIR/lib/aix5/libibldap64n.a
$INSTALL_DIR/lib/aix5/libldapstatic.a
$INSTALL_DIR/sbin/bulkload
$INSTALL_DIR/sbin/db2ldif2
$INSTALL_DIR/sbin/ldif2db
$INSTALL_DIR/sbin/ltou
$INSTALL_DIR/sbin/miglen
$INSTALL_DIR/sbin/runstats
$INSTALL_DIR/sbin/uto1
$INSTALL_DIR/bin/FP410A-01.txt

```

The default for `INSTALL_DIR` is `/usr/ldap`.

## Fix pack contents

The archive for this Fix pack is named `FP410A-01.tar.Z`. The archive for this Fix pack includes:

- This README file
- The file `bin/slapd`
- The file `bin/slapdn`
- The file `lib/libadmin.a`
- The file `lib/libback-rdbm.a`
- The file `lib/libcfg32.a`
- The file `lib/libDSP.a`
- The file `lib/libevent.a`
- The file `lib/libibldap.a`
- The file `lib/libibldap64n.a`
- The file `lib/libibldapcl.a`
- The file `lib/libibldapn.a`
- The file `lib/libldapaudit.a`
- The file `lib/libldapkrb.a`
- The file `lib/libldapstatic.a`
- The file `lib/libldapstaticn.a`
- The file `lib/libmessage.a`
- The file `lib/libslapi.a`
- The file `lib/libtranext.a`
- The file `lib/libtransys.a`
- The file `lib/libutils.a`
- The file `lib/libutlsa.a`
- The file `lib/aix5/libibldap64n.a`
- The file `lib/aix5/libldapstatic.a`
- The file `sbin/bulkload`
- The file `sbin/db2ldif2`
- The file `sbin/ldif2db`
- The file `sbin/ltou`
- The file `sbin/miglen`
- The file `sbin/runstats`
- The file `sbin/uto1`
- The file `bin/FP410A-01.txt`

## Applying the Fix pack

**Note:** Your replication environment must be cleaned or resynched, 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 temporary directory. For the purpose of this release note, assume that the symbol \$TEMP points to the following directory:

```
# cd $TEMP
# tar -xvf FP410A-01.tar.Z
```

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.
3. Replace the installed version of each file with the version included in the Fix pack. Move the currently installed file to a location outside of the LDAP installation filesystem or rename the currently installed file. Copy the extracted files to the correct locations in the install folder. The install version locations for each file are:

```
$INSTALL_DIR/bin/slapd
$INSTALL_DIR/bin/slapdn
$INSTALL_DIR/lib/libadmin.a
$INSTALL_DIR/lib/libback-rdbm.a
$INSTALL_DIR/lib/libcfg32.a
$INSTALL_DIR/lib/libDSP.a
$INSTALL_DIR/lib/libevent.a
$INSTALL_DIR/lib/libibldap.a
$INSTALL_DIR/lib/libibldap64n.a
$INSTALL_DIR/lib/libibldapcl.a
$INSTALL_DIR/lib/libibldapn.a
$INSTALL_DIR/lib/libldapaudit.a
$INSTALL_DIR/lib/libldapkrb.a
$INSTALL_DIR/lib/libldapstatic.a
$INSTALL_DIR/lib/libldapstaticn.a
$INSTALL_DIR/lib/libmessage.a
$INSTALL_DIR/lib/libslapi.a
$INSTALL_DIR/lib/libtranext.a
$INSTALL_DIR/lib/libtransys.a
$INSTALL_DIR/lib/libutils.a
$INSTALL_DIR/lib/libutlsa.a
$INSTALL_DIR/lib/aix5/libibldap64n.a
$INSTALL_DIR/lib/aix5/libldapstatic.a
$INSTALL_DIR/sbin/bulkload
$INSTALL_DIR/sbin/db2ldif2
$INSTALL_DIR/sbin/ldif2db
$INSTALL_DIR/sbin/ltou
$INSTALL_DIR/sbin/miglen
$INSTALL_DIR/sbin/runstats
$INSTALL_DIR/sbin/uto1
$INSTALL_DIR/bin/FP410A-01.txt
```

Again, the default for INSTALL\_DIR is /usr/ldap.

4. Assign the correct owner, group, and permissions to the replaced files. Assume \$OWNER is the owner value in the installation files, and \$GROUP is the group value. The value for \$GROUP for all files is ldap.

```
# chown $OWNER <file>
# chgrp $GROUP <file>
```

The permissions on the files must be set according to the following guide:

```
# chmod <permissions> <file>
```

\$INSTALL_DIR/bin/slapd	755
\$INSTALL_DIR/bin/slapdn	755
\$INSTALL_DIR/lib/libadmin.a	644
\$INSTALL_DIR/lib/libback-rdbm.a	644
\$INSTALL_DIR/lib/libcfg32.a	644
\$INSTALL_DIR/lib/libDSP.a	644
\$INSTALL_DIR/lib/libevent.a	644
\$INSTALL_DIR/lib/libibmdap.a	755
\$INSTALL_DIR/lib/libibmdap64n.a	755
\$INSTALL_DIR/lib/libibmdapcl.a	644
\$INSTALL_DIR/lib/libibmdapn.a	755
\$INSTALL_DIR/lib/libldapaudit.a	644
\$INSTALL_DIR/lib/libldapkrb.a	644
\$INSTALL_DIR/lib/libldapstatic.a	755
\$INSTALL_DIR/lib/libldapstaticn.a	755
\$INSTALL_DIR/lib/libmessage.a	644
\$INSTALL_DIR/lib/libslapi.a	644
\$INSTALL_DIR/lib/libtranext.a	644
\$INSTALL_DIR/lib/libtransys.a	644
\$INSTALL_DIR/lib/libutils.a	644
\$INSTALL_DIR/lib/libutlsa.a	644
\$INSTALL_DIR/lib/aix5/libibmdap64n.a	755
\$INSTALL_DIR/lib/aix5/libldapstatic.a	755
\$INSTALL_DIR/sbin/bulkload	750
\$INSTALL_DIR/sbin/db2ldif	750
\$INSTALL_DIR/sbin/ldif2db	750
\$INSTALL_DIR/sbin/ltou	750
\$INSTALL_DIR/sbin/miglen	750
\$INSTALL_DIR/sbin/runstats	750
\$INSTALL_DIR/sbin/uto1	750
\$INSTALL_DIR/bin/FP410A-01.txt	644

5. Start each of the replica and master servers.

## 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/slapd	is	903792
- Filesize for bin/slapdn	is	903811
- Filesize for lib/libadmin.a	is	244087
- Filesize for lib/libback-rdbm.a	is	1435873
- Filesize for lib/libcfg32.a	is	2886668
- Filesize for lib/libDSP.a	is	25227
- Filesize for lib/libevent.a	is	78527
- Filesize for lib/libibmdap.a	is	577407
- Filesize for lib/libibmdap64n.a	is	507115
- Filesize for lib/libibmdapcl.a	is	40963
- Filesize for lib/libibmdapn.a	is	544675
- Filesize for lib/libldapaudit.a	is	49744
- Filesize for lib/libldapkrb.a	is	56444
- Filesize for lib/libldapstatic.a	is	752214
- Filesize for lib/libldapstaticn.a	is	711711
- Filesize for lib/libmessage.a	is	89053
- Filesize for lib/libslapi.a	is	127358
- Filesize for lib/libtranext.a	is	264682
- Filesize for lib/libtransys.a	is	328352
- Filesize for lib/libutils.a	is	2472138
- Filesize for lib/libutlsa.a	is	64592
- Filesize for lib/aix5/libibmdap64n.a	is	507409
- Filesize for lib/aix5/libldapstatic.a	is	1398286
- Filesize for sbin/bulkload	is	692241

```

- Filesize for sbin/db2ldif          is 530202
- Filesize for sbin/ldif2db         is 529223
- Filesize for sbin/ltou            is 29758
- Filesize for sbin/miglen          is 85724
- Filesize for sbin/runstats        is 509594
- Filesize for sbin/uto1            is 29759

- sum -r bin/slapd                  results are: 20734
- sum -r bin/slapdn                 results are: 46588
- sum -r lib/libadmin.a             results are: 44819
- sum -r lib/libback-rdbm.a         results are: 29807
- sum -r lib/libcfg32.a             results are: 45495
- sum -r lib/libDSP.a               results are: 09015
- sum -r lib/libevent.a             results are: 03098
- sum -r lib/libibmldap.a           results are: 51029
- sum -r lib/libibmldap64n.a        results are: 35419
- sum -r lib/libibmldapcl.a         results are: 38950
- sum -r lib/libibmldapn.a          results are: 16860
- sum -r lib/libldapaudit.a         results are: 46283
- sum -r lib/libldapkrb.a           results are: 54992
- sum -r lib/libldapstatic.a        results are: 08876
- sum -r lib/libldapstaticn.a       results are: 15780
- sum -r lib/libmessage.a           results are: 16864
- sum -r lib/libslapi.a             results are: 63538
- sum -r lib/libtranext.a           results are: 19673
- sum -r lib/libtransys.a           results are: 25631
- sum -r lib/libutils.a             results are: 08886
- sum -r lib/libutlsa.a             results are: 30716
- sum -r lib/aix5/libibmldap64n.a    results are: 53604
- sum -r lib/aix5/libldapstatic.a    results are: 50998
- sum -r sbin/bulkload               results are: 34133
- sum -r sbin/db2ldif               results are: 27971
- sum -r sbin/ldif2db               results are: 07425
- sum -r sbin/ltou                  results are: 00492
- sum -r sbin/miglen                 results are: 37156
- sum -r sbin/runstats               results are: 27730
- sum -r sbin/uto1                  results are: 46222

```

Each xxxx represents the number of blocks used by the file. This number is filesystem format dependent.

The contents of the bin/FP410A-01.txt file are:

IBM Directory      Release: aus41ldap    Build: 020906a







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