IBM

Fix pack FP41OL-03 README for IBM Directory Server 4.1 Linux i386 Installations

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Contents

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Fix pack: FP410L-03

Date: March, 2004

IBM® Directory Server Version 4.1

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 was translated, see the *IBM Directory Server Version 4.1 README Addendum*. The Addendum file is in English only and can also be found on the IBM Directory Server Library Web page:

`http://publib.boulder.ibm.com/tividd/td/IBMDS/IDSadd41/en_US/PDF/addendum41.pdf`

Problems fixed

New fixes in FP410L-03:

APAR IR50724 (CMVC 77615)
> DNs containing extended ASCII characters return protocol error.

APAR IR53276 (CMVC 77836)
> Server might freeze for a few minutes during high CPU usage when processing very long DNs.

APAR IR50766 (CMVC 77903)
> accessRoles and accessGroup object classes can be modified to allow empty groups by changing member attribute from MUST to MAY.

APAR IR53277 (CMVC 77909)
> Improve server startup time for large directories.

APAR IR50817 (CMVC 77930)
> Server might crash (SEGV) if a compare operation is requested with a malformed entry DN.

APAR IR50935 (CMVC 78004)
> ldif2db & db2ldif utilities might run out of memory because they do not turn off caches.

APAR IR50760 (CMVC 78067)
> ibmslapd fails when anonymous user adds suffix entry immediately after configuration.

APAR IR52547 (CMVC 78067, 78158)
> Server might temporarily hang during high CPU usage during abandon or unbind operations.

APAR IR52771 (CMVC 78123)
> If cn=authenticated is defined in an ACL, and an anonymous search is performed, it is possible for the server to ABEND.

APAR IR50998 (CMVC 78185)

A bind with a long password (longer than 1000 bytes or characters) using SHA encryption might ABEND the server.

APAR IR53278 (CMVC 78254)

Potential memory leak when binding with password using SHA encryption.

APAR IR53290 (CMVC 78444)

IBM Directory Server crashes under heavy workload in multi-processor Linux environment.

APAR IR52486 (CMVC 78495)

If cn=authenticated is defined in an ACL, and an anonymous search is performed, it is possible for the server to ABEND.

APAR IR53279 (CMVC 78768)

Change logging class of Critical Accept Error.

APAR IR53280 (CMVC 78770)

Cannot stop server from Web Administration.

APAR IR53280 (CMVC 78773)

Sending an invalid attribute name starting with a digit [0-9] in an ldapadd or modify request will ABEND the server.

APAR IR51166 (CMVC 78816)

slapd fails if replicaObject is removed when replication is pending.

APAR IR53289 (CMVC 78869)

Performance on Solaris does not scale well with multiple processors.

APAR IR51379 (CMVC 78919)

slapd fails on MultiProcessor machine with Audit log on and many errors being written in parallel to slapd.errors file.

APAR IR53297 (CMVC 79320)

IBM Directory Server 4.1 might ABEND under stress on Solaris in multi-processor environment.

APAR IR52418 (CMVC 79332, 82402)

Bulkload fails to propagate ACLs with a large ldif file.

APAR IR52503 (CMVC 79415)

slapd hangs with most threads waiting for a lock in dn_cache.

APAR IR51606 (CMVC 80117)

Add warning message and entry in log file for mater DN = admin DN.

APAR IR51713 (CMVC 80345)

Replica gets UPPERCASE DN from Change table.

APAR IR51974 (CMVC 81493)

Server might core when receiving SASL bind from client with foreign characters in certificate DN.

APAR IR52230 (CMVC 81762)

C-API ldap_bind() with foreign characters in password might bind anonymously without returning an error to caller.

APAR IR53296 (CMVC 81805)

Invalid UTF-8 encoding in bind DN might cause server to ABEND.

APAR IR51517 (CMVC 82216)

Bulkload fails to propagate ACLs with a large ldif file.

APAR IR52963 (CMVC 82432)
> Connection failure in C-client leaves Windows socket open in ″LISTEN″ state.

APAR IR52692 (CMVC 82822)
> ldacgi can be used to view, but not change, any file readable by user **ldap** on the host system.

APAR IR53293 (CMVC 82889)
> Memory leaks in the client C-API when chasing referrals.

APAR IR52841 (CMVC 82973)
> Scripting code passed as an invalid cgi parameter is not sanitized in resulting ″IException″ message. Identified in BugTraq ID: 9140 (see http://www.securityfocus.com/bid/9140).

APAR IR51924 (CMVC 83273)
> Do not include administrator DN in results of anonymous root DSE search.

APAR IR52690 (CMVC 83310)
> Replica reconnect interval (5sec/5min) not consistent.

APAR IR53161 (CMVC 83628)
> 4.1 FP2 slapd will ABEND at startup if administrator DN or password are not configured.

Dependencies

IBM Directory Server 4.1 must be installed.

Fix pack contents

The archive for this fix pack is named FP410L-03.tar and contains the following files:

```
File                            bytes     cksum    sum -r
============================    =======   ==========  =====
FP410L-03/FP410L-03Readme.pdf    -----   ----------   -----
FP410L-03/install_update.sh       3625   1371210680   20852
FP410L-03/uninstall_update.sh     1466   3254931160   28112
FP410L-03/data/all_files.list      707   3355171625   59259
FP410L-03/data/patch.tar.gz    --------   ----------   -----
```

The client install includes the following files:

```
File                                      bytes      cksum  sum -r
======================================    =======   ==========  ======
/usr/ldap/bin/FP410L-03Readme.pdf          -----   ----------   -----
/usr/ldap/bin/FP410L-03.txt                   54    498286856   01071
/usr/ldap/bin/ldapdelete                   44027    835730149   41543
/usr/ldap/bin/ldapmodify                  104012   2597553891   63496
/usr/ldap/bin/ldapmodrdn                   45471   2457321752   46744
/usr/ldap/bin/ldapsearch                  112914    392240450   39056
/usr/ldap/examples/ldapsearch.c            45578   1729847414   17813
/usr/ldap/include/ldap.h                   38150   1699589595   46090
/usr/ldap/include/slapi-plugin.h           11022   4153906964   56181
/usr/ldap/lib/ldap_plugin_sasl_cram-md5.so  50704  1990371412   54201
/usr/ldap/lib/libibmldap.so              1067179   1244826553   56666
/usr/ldap/lib/libibmldapn.so             1015468   2899224515   47936
/usr/ldap/lib/libldapstatic.a            3399308   1771952615   13672
/usr/ldap/lib/libldapstaticn.a           3229232   1979807355   53085
```

A DMT & Java install adds or updates everything in the client install in addition to the following file:

```
File                                      bytes     cksum  sum -r
======================================    ======  ========== ======
/usr/ldap/bin/dmt.jar                     1157199 3008622259 40116
```

A server install adds or updates everything in the client install in addition to the
following files:

```
File                                      bytes     cksum  sum -r
======================================    ======  ========== ======
/usr/ldap/bin/ldapcfg                       16210  210322405 39747
/usr/ldap/bin/slapd                       2512474 3187076450 19361
/usr/ldap/bin/slapdn                      2499698  482745775 08310
/usr/ldap/config/LDAPCfg.jar               238643  302928737 32540
/usr/ldap/lib/libadmin.so                  676862 3511023428 45444
/usr/ldap/lib/libback-rdbm.so             3764988 1891389000 27269
/usr/ldap/lib/libcfg32.so                 2754448 3473894906 10225
/usr/ldap/lib/libDSP.so                    179118 3037200080 40314
/usr/ldap/lib/libevent.so                  279164 3726716867 52333
/usr/ldap/lib/libibmldapcl.so              171393 1035782475 38271
/usr/ldap/lib/libldacfg.so                 161616 2702978466 07406
/usr/ldap/lib/libldapaudit.so              197658 2278377811 62360
/usr/ldap/lib/libmessage.so                218240 3069299467 22342
/usr/ldap/lib/libslapi.so                  402390 2627543658 10221
/usr/ldap/lib/libtranext.so                279156  105110044 26602
/usr/ldap/lib/libtransys.so               1098406 1220517584 06641
/usr/ldap/lib/libutils.so                 6506374 1143444451 05322
/usr/ldap/lib/libutlsa.so                  149618 3575433717 63538
/usr/ldap/sbin/bulkload                   1464466  153022362 38739
/usr/ldap/sbin/db2ldif                    1034092 4152438771 54231
/usr/ldap/sbin/ldif                         68133 2503654355 45528
/usr/ldap/sbin/ldif2db                    1079363  460428685 54987
/usr/ldap/sbin/ltou                        112317 3887587821 11042
/usr/ldap/sbin/migrate41                    22243 3204062908 36089
/usr/ldap/sbin/runstats                   1009864  263497613 52065
/usr/ldap/sbin/stripldif                   153926 1344071536 49473
/usr/ldap/sbin/utol                        112324 2493137665 49555
/usr/ldap/web/en_US/config/tuning.htm       63926 1883778253 49204
/usr/ldap/web/en_US/config/tuning.pdf      161952 3069025280 59376
```

Applying the fix pack

1. Extract the FP410L-03.tar file to a directory with at least 60 MB of free space.
   This creates a new directory named FP410L-03 that contains the following files
   and subdirectories:

   ```
   install_update.sh
   uninstall_update.sh
   FP410L-03Readme.pdf
   data/
   ```

2. Log in as root.

3. Stop all IBM Directory Server client or server processes, including the LDAP
   server, Web administration and directory management tools. Programs and
   libraries cannot be replaced while they are in use.

4. Run the following command from the FP410L-03 subdirectory:

   ```
   install_update.sh
   ```

   Note: The install_update script saves a backup of your previous version of IBM
   Directory Server in the data subdirectory. Do not remove the data
   subdirectory if you intend to uninstall the update.

Uninstalling the fix pack

To uninstall the fix pack:

1. Log in as root.
2. Stop all IBM Directory Server client or server processes, including the LDAP server, Web administration and directory management tools. Programs and libraries cannot be replaced while they are in use.
3. Run the following command from the FP410L-03 subdirectory:

   `uninstall_update.sh`

Confirming the fix pack has been applied successfully

After installation, the file /usr/ldap/bin/FP410L-03.txt contains the following:

`IBM Directory    Release: aus41ldap  Build: 040308a`

Functionality/Behavior Impact

Changes in the functionality or behavior of IBM Directory Server after upgrading to this fix pack:

APAR	Impact			Description
	Low	Medium	High	
IR50766		✔		The server allows schema modification of the objectClasses **accessGroup** and **accessRole**.
IR53277	✔			A server with a large directory takes less time to start.
IR53279	✔			The message: `Critical error: accept(...` is no longer logged if log level is set to **low** (terse).
IR53289	✔			Performance is improved for multiprocessor Solaris environments.
IR51606		✔		The server no longer allows the master DN for replication to be the same as the administrator DN.
IR51713			✔	Before this fix, if a 4.1 master or peer was started with add operations pending for replication, they were replicated with the entry DN converted to all uppercase.
IR51924	✔			The server no longer returns **ibm-adminID** (administrator DN) in the results of a root DSE search.

| IR52690 | ✔ | | | A master server no longer attempts to connect to it's replicas immediately at startup; a master server attempts to connect to it's replicas only when there are changes to send (schedule permitting). When attempting to connect to a replica or peer, the server no longer logs a failure message on every attempt; the server logs a failure message on the first failure and once every hour while attempting to connect to a replica or peer. After the first failure, the server waits 5-10-20-40-60 seconds between the first 5 reconnect attempts, and then continues trying to connect every 60 seconds until reconnected. |

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