FixPak FP51OS-01 README for IBM Directory Server 5.1 Solaris OS

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Contents

FixPak FP510S-01

FixPak: FP510S-01

Date: April, 2003

IBM® Directory Server Version 5.1

General description

The FixPak contains fixes for problems encountered in IBM Directory Server Version 5.1. The APAR number for each 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 5.1 README Addendum*. The Addendum file is in English only and can also be found on the IBM Directory Server Library Web page:

`ftp://ftp.software.ibm.com/software/network/directory/library/v51/addendum51.pdf`

Problems fixed

New fixes in FP510S-01

APAR IR50993 (CMVC 75622)
> Allow DN like: cn="www.youhoo.com, (C)"

> Fixed a problem preventing the addition of DNs than have a comma in them.

APAR IR50961 (CMVC 77303)
> Server memory fault on Linux under stress

> The server exits after many stress test scenarios with infinite loops to stress the server and change log enabled.

APAR IR50962 (CMVC 77553)
> Master server hangs after restarting replica if ibmslapd has left tables locked that it needs to read.

APAR IR50987 (CMVC 77575)
> Hang when bind DN in group being modified

> Server hangs when attempting to modify group that user is a member of and does not have perm to modify.

APAR IR50988 (CMVC 77589)
> IDS server becomes unresponsive

> This problem is encountered when multiple asynchronous operations are performed on a single client connection, causing deadlocks on the server.

APAR IR50963 (CMVC 77605)
> Replication DIT constraints do not work

> An ibm-replicationGroup can be created under any objectclass (other than the ibm-replication context objectclass), but once the other replication

topology objects get added to the database without having a proper replication context object created first, the server can't start the next time if the server/context happens to be a Master server.

APAR IR50992 (CMVC 75615)

DNs containing extended ASCII return protocol error

Protocol error occurs when handling multi-byte characters are improperly truncated at the end of a buffer.

APAR IR50991 (CMVC 77673)

Double ber_free() in search.c traps windows client

APAR IR50990 (CMVC 77714)

Memory leak in filterkey when stressed

When concurrent updates and searches are run, the slapd server can leak the filterkey and the idl list if the filter cache has just been flushed.

APAR IR50989 (CMVC 77725)

bulkload: Performance issues wrt acl src table

APAR IR50965 (CMVC 77756)

Password cannot be modified if adding bad ibm-filteraclentry value

An attempt to add an entry with an invalid ibm-filteraclentry value (left out the filter part) results in an "Error, Password cannot be modified" message.

APAR IR50966 (CMVC 77757)

Deleting a subtree of an object that does not exist (parent does) returns an "Unwilling to perform" error

APAR IR50967 (CMVC 77778)

Allow an escaped # anywhere in the value of a DN

APAR IR50968 (CMVC 77792)

Nested grp code not detecting groupOfURLs type

APAR IR50969 (CMVC 77824)

Check for null password in replication bind w/GSSAPI

In the event that there is a ibm-replicaCredentials entry that contains the replicaBindDN attribute, but not the ibm-replicaCredentials attribute, errors appear in the server's error log.

APAR IR50972 (CMVC 77836)

Server freezes for several minutes during Denial of Service Tests

With certain Denial of Service tests, CPU utilization shoots up at 100% when the server processes certain DNs in a tight loop.

APAR IR50971 (CMVC 77857)

Dynamic update with scope entire may cause server to crash

APAR IR50973 (CMVC 77908)

Server core due to freeing fkey/fidl/idl in rdbm_search_cache.cpp

APAR IR50974 (CMVC 77909)

Improve server startup time

Use "SELECT EID FROM LDAPDB2.SRC WHERE OWNSRC<>-1 OR (ACLSRC<>-1 AND ACLSRC<>-2) FETCH FIRST 2 ROWS ONLY"; instead of "SELECT COUNT(*)..." in AclsDefinedinDB() in acltables.cpp to reduce server startup time.

APAR IR50975 (CMVC 77972)
Replication changes may not be processed in order received

APAR IR50976 (CMVC 78004)
Server cores when running ldif2db

The **ldif2db** and **db2ldif** utilities do not turn off the caches. This is causing **ldif2db** to crash on AIX® because the process eventually runs out of memory.

APAR IR50977 (CMVC 78029)
Server crashes on startup if referrals are defined

APAR IR50978 (CMVC 78043)
Schema changes are not recorded under changelog

APAR IR50979 (CMVC 78061)
ldapsearch fails with Out of Memory

APAR IR50980 (CMVC 78083)
Hung server during abandon/unbind operations

APAR IR50981 (CMVC 78123)
Server traps if cn=authenticated in ACL

APAR IR50982 (CMVC 78195)
Segmentation error occurs while adding replication agreement

APAR IR51067 (CMVC 78444)
slapd process intermittently abends under stress with mutliple reads/updates to entries over 40 KB

APAR IR51117 (CMVC 78037)
ldif2db does not load all data

APAR IR51118 (CMVC 78204)
Editing replica agreement does not replicate in master forwarder replica

APAR IR51119 (CMVC 78254)
Memory leak in rdbm_pwd.cpp for SHA

APAR IR51121 (CMVC 78325)
Replace on **ldapmodify** fails when attribute does not exist

APAR IR51122 (CMVC 78337)
AddModifyChangeEntry leaks memory

APAR IR51126 (CMVC 78378)
ldapmodify deadlocks

APAR IR51065 (CMVC 78367)
ldif2db does not work if it contains pwdpolicy attributes

APAR IR51067 (CMVC 78444)
Core doing search/updates on Linux with multi-processor machine

APAR IR51154 (CMVC 78285)
Unable to re-add a replication agreement after deletion

APAR IR51177 (CMVC 78397)
ldapsearch fails to return DBCS characters

APAR IR51179 (CMVC 78144)
newExtednedOP adds null extop to list in error condition

APAR IR57780 (CMVC 78468)
    Memory leaks in front end ber extended operations

APAR IR51181 (CMVC 78191)
    ldapdelete unable to delete subtree from master

APAR IR51182 (CMVC 78277)
    Server traps while modifying a schedule object

Dependencies

IBM Directory Server 5.1 must be installed.

FixPak contents

The archive for this FixPak is named FP510S-01.tar.Z. The client install includes the following files:

```
File                                                        bytes      sum -r
==========================================================  =====      ======
IBMldaps/bin/FP510S-01Readme.pdf                            -          -
IBMldaps/bin/FP510S-01.txt                                  55         44313
IBMldapc/bin/ibmdirctl                                      24336      34781
IBMldapc/bin/ldamsg                                         8464       12492
IBMldapc/bin/ldapchangepwd                                  26172      65515
IBMldapc/bin/ldapdelete                                     24920      19766
IBMldapc/bin/ldapexop                                       58060      49982
IBMldapc/bin/ldapmodify                                     50924      38050
IBMldapc/bin/ldapmodrdn                                     25180      61203
IBMldapc/bin/ldapsearch                                     57472      04791
IBMldapc/examples/ldapchangepwd.c                           30414      62655
IBMldapc/examples/ldapdelete.c                              26547      63942
IBMldapc/examples/ldapmodify.c                              56577      10665
IBMldapc/examples/ldapmodrdn.c                              29118      16725
IBMldapc/examples/ldapsearch.c                              59018      53079
IBMldapc/examples/makefile.ex                               3440       19666
IBMldapc/examples/sample.ldif                               17338      32229
IBMldapc/include/audit-plugin-list.h                        2010       16334
IBMldapc/include/audit-plugin.h                             11964      45154
IBMldapc/include/lber.h                                     1633       62011
IBMldapc/include/ldap.h                                     48303      31465
IBMldapc/include/ldapssl.h                                  17949      17290
IBMldapc/include/ldif.h                                     4336       46572
IBMldapc/include/slapi-plugin.h                             11865      27914
IBMldapc/lib/ldap_plugin_sasl_cram-md5.so                   20056      11876
IBMldapc/lib/libibmldap.so                                  616512     08917
IBMldapc/lib/libldapiconv.so                                9672       53249
IBMldapc/lib/libldapstatic.a                                667592     00082
IBMldapc/lib/libldif.a                                      21816      00063
```

The Web Administration install includes the following files:

```
File                                                        bytes      sum -r
==========================================================  =====      ======
IBMldaps/bin/FP510S-01Readme.pdf                            -          -
IBMldaps/bin/FP510S-01.txt                                  55         44313
IBMldapc/idstools/DSML.zip                                  711844     39323
IBMldapc/idstools/IDSWebApp.war                             11881351   30921
updateWebAdmin.sh                                           1022       27884
```

The server install includes the following files

```
File                                                        bytes      sum -r
==========================================================  =====      ======
IBMldaps/bin/FP510S-01Readme.pdf                            -          -
IBMldaps/bin/FP510S-01.txt                                  55         44313
IBMldaps/bin/IDSproxyExe                                    15936      07973
```

```
IBMldaps/bin/dbback                                              532532    60857
IBMldaps/bin/dbrestore                                           533220    48465
IBMldaps/bin/ibmdiradm                                           739320    38787
IBMldaps/bin/ibmslapd                                            1182276   53775
IBMldaps/bin/ldapcfg                                             15330     43020
IBMldaps/bin/ldapdiff                                            8950      23196
IBMldaps/bin/ldapdiff.jar                                        125742    01272
IBMldaps/config/IDSConfig.jar                                    1874718   17661
IBMldaps/config/config/OpNav.Java.Application.ser                635       29664
IBMldaps/config/console_runtime/jhall.jar                        376756    34639
IBMldaps/config/console_runtime/jopnav.jar                       520307    64847
IBMldaps/config/console_runtime/jopnavfw.jar                     299931    14825
IBMldaps/config/console_runtime/jt400.jar                        3429383   57128
IBMldaps/config/console_runtime/jui400.jar                       571584    02860
IBMldaps/config/console_runtime/op.jar                           978445    64559
IBMldaps/config/console_runtime/settings/idsconsoleapp.jreg      205       10381
IBMldaps/config/console_runtime/uitools.jar                      1005270   12143
IBMldaps/config/console_runtime/util400.jar                      290012    40038
IBMldaps/config/console_runtime/x4j400.jar                       1803877   33231
IBMldaps/config/csa_runtime/auibase.jar                          285493    28704
IBMldaps/config/csa_runtime/auifw.jar                            318679    58459
IBMldaps/config/csa_runtime/auii18n.jar                          309063    29133
IBMldaps/config/csa_runtime/auiswing.jar                         472971    14393
IBMldaps/config/csa_runtime/jhall.jar                            402270    52882
IBMldaps/config/csa_runtime/settings/data.properties             535       26517
IBMldaps/config/csa_runtime/settings/framework.properties        785       63995
IBMldaps/config/csa_runtime/settings/registry.properties         732       09846
IBMldaps/config/csa_runtime/settings/trace.properties            425       51192
IBMldaps/config/csa_runtime/swing11spinner_Runtime.jar           161875    00481
IBMldaps/config/csa_runtime/uil.jar                              1117025   26287
IBMldaps/config/csa_runtime/xerces.jar                           1803877   33231
IBMldaps/lib/libDSP.so                                           27000     33779
IBMldaps/lib/libIDSproxyDll.so                                   13804     21053
IBMldaps/lib/libback-config.so                                   85204     55188
IBMldaps/lib/libback-rdbm.so                                     1359472   13508
IBMldaps/lib/libcfg32_CC.so                                      1423308   28829
IBMldaps/lib/libcfg32_xlC.so                                     4962016   25706
IBMldaps/lib/libdbadmin.so                                       680332    49085
IBMldaps/lib/libevent.so                                         80656     32228
IBMldaps/lib/libibmldapcl.so                                     35664     08969
IBMldaps/lib/libldacfg.so                                        63728     30855
IBMldaps/lib/libldapaudit.so                                     35332     58218
IBMldaps/lib/libldaprepl.so                                      496588    45923
IBMldaps/lib/libloga.so                                          27552     39676
IBMldaps/lib/libmessage.so                                       80724     13894
IBMldaps/lib/libslapi.so                                         118272    21660
IBMldaps/lib/libtranext.so                                       28424     57985
IBMldaps/lib/libtransys.so                                       89080     02981
IBMldaps/lib/libtrc.so                                           42244     61806
IBMldaps/lib/libutils.so                                         4430832   22370
IBMldaps/lib/libutlsa.so                                         61508     10275
IBMldaps/sbin/Schema.jar                                         2141332   22042
IBMldaps/sbin/SchemaMigrate.jar                                  42648     11793
IBMldaps/sbin/bulkload                                           872692    38877
IBMldaps/sbin/cfgmodify                                          540028    04094
IBMldaps/sbin/db2ldif                                            732496    52694
IBMldaps/sbin/ldif                                               29120     31439
IBMldaps/sbin/ldif2db                                            729724    46463
IBMldaps/sbin/ldtrc                                              120496    28403
IBMldaps/sbin/ltou                                               516712    00971
IBMldaps/sbin/migrate51                                          34037     23348
IBMldaps/sbin/rc.ibmdir                                          1304      49489
IBMldaps/sbin/runscript                                          10928     28144
IBMldaps/sbin/runstats                                           706584    21836
IBMldaps/sbin/utol                                               516708    40738


    :
```

Applying the FixPak

1. For each machine targeted to receive the FixPak, make sure any servers are stopped, and any client applications linked to the shared libraries (including Web Administration) are stopped. Programs and libraries cannot be replaced while they are in use.

2. Copy the FixPak archive (FP510S-01.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 FixPak). You need at least 130 MB for a full server install, less if patching a client only installation. Open a command prompt and type:

```
# su
# ksh
# cd {directory where FP510S-01.tar.Z is}
# export INSTALL_DIR=/opt {or alternate IDS  install directory}
# export PATCH_DIR=`pwd`
# rm FP510S-01.filelist.*
```

   All remaining steps use this command prompt.

3. Determine which packages are currently installed and extract the corresponding filelist from the FixPak archive. At the command prompt type the following to determine which packages are installed:

```
# pkginfo | grep IBMldap
```

   a. If the result includes **application IBMldaps IBM Directory Server**, this is a server install. Extract FP510S-01.filelist.server from the archive:

```
# zcat FP510S-01.tar.Z | tar xf - FP510S-01.filelist.server
```

   b. If the result includes **application IBMldapw IBM Directory Webadmin**, this is a Web Administration install. Extract FP510S-01.filelist.webadmin from the archive:

```
# zcat FP510S-01.tar.Z | tar xf - FP510S-01.filelist.webadmin
```

   c. If the result includes **application IBMldapc IBM Directory Client**, this is a client install. Extract FP510S-01.filelist.client from the archive:

```
# zcat FP510S-01.tar.Z | tar xf - FP510S-01.filelist.client
```

4. Backup the existing files before applying the patch in case you need to uninstall the patch. This step is optional, but must be performed if you want to uninstall the FixPak at a later time.

   Note: If you get file not found errors during the backup, that could simply mean you do not have that file's component installed on this machine. These error(s) can be ignored.

```
# cd $INSTALL_DIR
# tar cvf $PATCH_DIR/FP510S-01.UNDO.tar `cat $PATCH_DIR/FP510S-01.filelist.*`
# compress $PATCH_DIR/FP510S-01.UNDO.tar
```

5. Apply the FixPak. If you are installing the Server and Client only:

```
# cd $PATCH_DIR
# mkdir tmp
# cd tmp
# for file in ../FP510S-01.filelist.*; do
  (zcat ../FP510S-01.tar.Z | tar xf - `cat $file`) done
# cp -r * $INSTALL_DIR
# cd ..
# rm -rf tmp
# chmod 6550 $INSTALL_DIR/IBMldaps/runscript
```

   If you are installing Web Administration:

```
# cd $PATCH_DIR
# mkdir tmp
# cd tmp
# for file in ../FP510S-01.filelist.*; do
  (zcat ../FP510S-01.tar.Z | tar xf - `cat $file`) done
# cp -r * $INSTALL_DIR
# cd ..
# chmod 6550 $INSTALL_DIR/IBMldaps/sbin/runscript
```

6. If you are installing Web Administration, you must complete the following steps in order for the Web Administration FixPak files to take effect.

   Note: Default command paths are used in these examples. You may have to change them if your install is different.
   - The AIX and Linux default is /usr/ldap
   - The Solaris default is /opt/IBMldapc

   a. Set the environment variable:

      AIX and Linux:

      ```
      export INSTALL_DIR=/usr/ldap
      ```

      Solaris:

      ```
      export INSTALL_DIR=/opt/IBMldapc
      ```

   b. Run the following command:

      ```
      export BOBCAT_HOME=$INSTALL_DIR/appsrv
      ```

   c. To make sure the appserver is running, execute the start server command:

      ```
      $BOBCAT_HOME/bin/startServer.sh server1
      ```

   d. Run the webserver admin tool:

      ```
      $BOBCAT_HOME/bin/wsadmin.sh
      ```

      At the the **wsadmin>** command prompt type:

      ```
      $AdminApp uninstall IDSWebApp.war
      $AdminConfig save
      quit
      ```

   e. Stop the application server

      ```
      $BOBCAT_HOME/bin/stopServer.sh server1
      ```

   f. Update the web server:

      ```
      chmod +x $PATCH_DIR/tmp/updateWebAdmin.sh
      $PATCH_DIR/tmp/updateWebAdmin.sh
      ```

   g. Restart the application server:

      ```
      $BOBCAT_HOME/bin/startServer.sh server1
      ```

   h. Test the new Web Administration by opening a browser and entering this URL:

      ```
      http://hostname:9080/IDSWebApp/IDSjsp/Login.jsp
      ```

      where *hostname* is the host name of your computer.

   i. Run the following command:

      ```
      rm -rf $PATCH_DIR/tmp
      ```

Uninstalling the FixPak

This can only be done if you made a backup before installing the FixPak (see step 4 on page 6, above). If so, then you can uninstall the FixPak by deleting $INSTALL_DIR/IBMldaps/bin/FP510S-01* and extracting $PATCH_DIR/FP510S-01.UNDO.tar.Z:

```
# cd $INSTALL_DIR
# rm IBMldaps/bin/FP510S-01*
# zcat $PATCH_DIR/FP510S-01.UNDO.tar.Z | tar xf -
```

Confirming the FixPak has been applied successfully

After installation, the file $INSTALL_DIR/IBMldaps/bin/FP510S-01.txt contains the following:

```
IBM Directory    Release: aus51pldap  Build: 030416a
```

All the files listed in $PATCH_DIR/FP510S-01.filelist.* match the files sizes and checksums listed in "FixPak contents" on page 4.

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