



FixPak FP510T-01 README for IBM Directory Server 5.1 Linux s390



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FixPak FP510T-01

FixPak: FP510T-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 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 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 FP510T-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 DN's 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 multiple 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 FP510T-01.tar.gz. The client install includes the following files:

File	bytes	sum -r
=====	=====	=====
bin/FP510T-01Readme.pdf	-	-
bin/FP510T-01.txt	55	44313
bin/ibmdirctl	30474	12794
bin/ldamsg	17367	26827
bin/ldapchangepwd	29717	42222
bin/ldapdelete	28274	42064
bin/ldapexop	54964	47599
bin/ldapmodify	50773	49474
bin/ldapmodrdn	28756	47373
bin/ldapsearch	60888	43320
examples/ldapchangepwd.c	30414	62655
examples/ldapdelete.c	26547	63942
examples/ldapmodify.c	56577	10665
examples/ldapmodrdn.c	29118	16725
examples/ldapsearch.c	59018	53079
examples/makefile.ex	3416	26221
examples/sample.ldif	17338	32229
include/audit-plugin-list.h	2010	16334
include/audit-plugin.h	11964	45154
include/lber.h	1633	62011
include/ldap.h	48303	31465
include/ldaplocale.h	5142	50698
include/ldapssl.h	17949	17290
include/ldif.h	4336	46572
include/slapi-plugin.h	11865	27914
lib/ldap_plugin_sasl_cram-md5.so	15404	50428
lib/libibldap.so	441914	51502
lib/libibldapn.so	417182	48493
lib/libldapstatic.a	481274	27788
lib/libldapstaticn.a	453564	41757
lib/libldif.a	16090	36446

The Web Administration install includes the following files:

File	bytes	sum -r
=====	=====	=====
bin/FP510T-01Readme.pdf	-	-
bin/FP510T-01.txt	55	44313
idstools/DSML.zip	711844	39323
idstools/IDSWebApp.war	11881351	30921
updateWebAdmin.sh	1022	27884

The server install includes the following files:

File	bytes	sum -r
=====	=====	=====
bin/FP510T-01Readme.pdf	-	-
bin/FP510T-01.txt	55	44313
bin/IDSproxyExe	18867	44873
bin/dbback	31220	46732
bin/dbrestore	30996	27504
bin/ibmdiradm	204360	62469
bin/ibmdiradm.ksh	48	05787
bin/ibmslapd	520889	20994
bin/ibmslapdn	520888	17571
bin/ldapcfg	15322	29188
bin/ldapdiff	8946	51940
bin/ldapdiff.jar	125742	01272
config/IDSConfig.jar	1874016	15174
config/config/OpNav.Java.Application.ser	635	29664
config/console_runtime/jhall.jar	376756	34639
config/console_runtime/jopnav.jar	520307	64847
config/console_runtime/jopnavfw.jar	299931	14825
config/console_runtime/jt400.jar	3429383	57128
config/console_runtime/jui400.jar	571584	02860
config/console_runtime/op.jar	978445	64559
config/console_runtime/settings/idsconsoleapp.jreg	205	10381
config/console_runtime/uitools.jar	1005270	12143
config/console_runtime/util400.jar	290012	40038
config/console_runtime/x4j400.jar	1803877	33231
config/csa_runtime/auibase.jar	285493	28704
config/csa_runtime/auifw.jar	318679	58459
config/csa_runtime/auii18n.jar	309063	29133
config/csa_runtime/auiswing.jar	472971	14393
config/csa_runtime/jhall.jar	402270	52882
config/csa_runtime/settings/data.properties	535	26517
config/csa_runtime/settings/framework.properties	785	63995
config/csa_runtime/settings/registry.properties	732	09846
config/csa_runtime/settings/trace.properties	425	51192
config/csa_runtime/swingllspinner_Runtime.jar	161875	00481
config/csa_runtime/ui1.jar	1117025	26287
config/csa_runtime/xerces.jar	1803877	33231
lib/libDSP.so	23070	19538
lib/libIDSproxyDll.so	13816	34717
lib/libback-config.so	63067	23877
lib/libback-rdbm.so	1205687	20793
lib/libcfg32.so	1114709	25597
lib/libdbadmin.so	118818	19524
lib/libevent.so	76936	58332
lib/libibmldapcl.so	34923	52518
lib/libldacfg.so	75042	40657
lib/libldapaudit.so	36047	12459
lib/libldaprepl.so	414361	07877
lib/libldapiconv.so	7801	19881
lib/libldapjrt.so	24191	43069
lib/libloga.so	29015	62930
lib/libmessage.so	73296	28596
lib/libslapi.so	125299	56938
lib/libtranext.so	37100	25919
lib/libtransys.so	281862	01567
lib/libtrc.so	30601	65040
lib/libutils.so	2893696	53107
lib/libutlsa.so	45519	57068
sbin/Schema.jar	2141323	20637
sbin/SchemaMigrate.jar	42635	48864
sbin/bulkload	303561	39025
sbin/cfgmodify	160229	46082
sbin/db2ldif	201957	38197
sbin/ldif	30238	14488
sbin/ldif2db	197197	40668
sbin/ldtrc	82117	29153

sbin/ltou	18538	17176
sbin/migrate51	34037	38236
sbin/rc.ibmdir	1304	49489
sbin/runscript	13670	01988
sbin/runstats	181573	47920
sbin/stripldif	20781	38412
sbin/utol	18537	15529

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 (FP510T-01.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 FixPak). You need at least 90 MB for a full server install, less if patching a client only installation. Open a command prompt and type:

```
# su
# ksh
# cd {directory where FP510T-01.tar.gz is}
# export INSTALL_DIR=/usr/ldap {or alternate IDS 5.1 install directory}
# export PATCH_DIR=`pwd`
# rm FP510T-01.filelist.*
```

All remaining steps use this command prompt.

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

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

- a. If the result includes **ldap-server-5.1-1** or **ldap-serverd-5.1-1**, this is a server install. Extract FP510T-01.filelist.server from the archive:

```
# zcat FP510T-01.tar.gz | tar xf - FP510T-01.filelist.server
```

- b. If the result includes **ldap-webadminjava-5.1-1** or **ldap-webadminjavad-5.1-1** listed, this is a Web Administration install. Extract FP510T-01.filelist.webadmin from the archive:

```
# zcat FP510T-01.tar.gz | tar xf - FP510T-01.filelist.webadmin
```

- c. If the result includes **ldap-client-5.1-1** or **ldap-clientd-5.1-1**, this is a client install. Extract FP510T-01.filelist.client from the archive:

```
# zcat FP510T-01.tar.gz | tar xf - FP510T-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 don't have that file's component installed on this machine. These error(s) can be ignored.

```
# cd $INSTALL_DIR
# tar -cvf $PATCH_DIR/FP510T-01.UNDO.tar `cat $PATCH_DIR/FP510T-01.filelist.*`
# gzip $PATCH_DIR/FP510T-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 ../FP510T-01.filelist.*; do
  (zcat ../FP510T-01.tar.gz | tar xf - `cat $file`) done
```

```
# cp -r * $INSTALL_DIR
# cd ..
# rm -rf tmp
# chmod 6550 $INSTALL_DIR/sbin/runscript
```

If you are installing Web Administration:

```
# cd $PATCH_DIR
# mkdir tmp
# cd tmp
# for file in ../FP510T-01.filelist.*; do
  (zcat ../FP510T-01.tar.gz | tar xf - `cat $file`) done
# cp -r * $INSTALL_DIR
# cd ..
# chmod 6550 $INSTALL_DIR/sbin/runscript
```

Note:

Note: Executing **ibmdiradm** after you apply the FixPak results in a 32 No Such Object error. You can ignore this error. **ibmdiradm** starts successfully.

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. Make sure the appserver is running:

```
ps -ef | grep server1
```

If it is not running, run the following command to start it:

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

- d. Run the webserver admin tool:

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

At 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 WebAdmin 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 `$INSTALL_DIR/bin/FP510T-01*` and extracting `$PATCH_DIR/FP510T-01.UNDO.tar.gz`:

```
# cd $INSTALL_DIR
# rm bin/FP510T-01*
# zcat $PATCH_DIR/FP510T-01.UNDO.tar.gz | tar -xvf -
```

Confirming the FixPak has been applied successfully

After installation, the file `$INSTALL_DIR/bin/FP510T-01.txt` contains the following:

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

All the files listed in `$PATCH_DIR/FP510T-01.filelist.*` match the files sizes and checksums listed in “FixPak contents” on page 4.



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