Fix pack FP322A-03 README IBM SecureWay Directory 3.2.2 AIX operating system

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Contents

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IBM® SecureWay® Directory 3.2.2

General description

The fix pack for AIX® contains fixes for problems encountered in IBM SecureWay Directory 3.2.2. The APAR number for each problem is listed in "Problems fixed". Refer to the specific APAR for more detail.

For information about changes and fixes that occurred after the product documentation was translated, see the *SecureWay Directory 3.2.2 README Addendum*. The Addendum file is in English only and can be found at the following Web address:

http://publib.boulder.ibm.com/tividd/td/IBMDS/addendum322/en_US/HTML/addendum322.htm

Problems fixed

New fixes in FP322A-03

APAR IR47566 (CMVC 72309)
Escape character on Japanese code page fails when adding suffix.

APAR IR48345 (CMVC 72209)
Upon receiving bind request over a connection that is an already established session, evaluation of group membership for ACLs must occur for this newly bound entry.

APAR IR48371 (CMVC 75622)
Allow use of IBM-943 elements on Windows® Japanese systems.

APAR IR48427 (CMVC 72548)
slapd fails intermittently on 3.2.2 and 3.2.2 efix1 and efix2 when freeing many entries.

APAR IR48529 (CMVC 72712)
Slapd fails intermittently with referrals or invalid DNs.

APAR IR48600 (CMVC 73020)
ldapcfg changes for SP™ Node environment

APAR IR48618 (CMVC 77572)
db2ldif and bulkload need to handle output files larger than 2 GB.

APAR IR48639 (CMVC 73019)
db2idrop behavior changes in ldapucfg for DB2® Versions higher than 7.1.3.

APAR IR48647 (CMVC 77387)
Server stops when handling invalid DNs.

APAR IR48847 (CMVC 73322)
HP-UX client stops when processing SHA encrypted value.

APAR IR48958 (CMVC 74273)
Server stops when schema is modified when ldtrc is on.

APAR IR49257 (CMVC 71552)
DB2 backup is not taking backup of V3.modifiedschema file.

APAR IR49261 (CMVC 73075)
ACL Cache logic error; TrimAclCache does not work.

APAR IR49272 (CMVC 74798)
SQL CLI0125E error in rdbm_select_entryblob().

APAR IR49290 (CMVC 72573)
Memory leak when searching using ModifyTimeStamp.

APAR IR49329 (CMVC 73905)
Security exposure in Directory impacts Access Manager.

APAR IR49434 (CMVC 74910)
ldapucfg -d fails with ″db2idrop: command not found″ error

APAR IR49644 (CMVC 75812)
Web Administration displays ″Internal Server Error″ when viewing Suffixes
or Audit Log if SSL is enabled.

APAR IR50066 (CMVC 77405)
Avoid linear searches in LRUMoveToEnd for ACL caches to improve
performance.

APAR IR50068 (CMVC 77479)
Modify replace with null value not removing attribute.

APAR IR50309 (CMVC 75032)
Directory code is trying to free the same memory twice.

APAR IR50343 (CMVC 77673)
Double ber_free() in search.c traps windows client.

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

APAR IR50956 (CMVC 77585)
Members do not show up in groups after migration from 3.2.1 to 3.2.2.

APAR IR50976 (CMVC 78004)
ldif2db utility does not turn off caches.

APAR IR51100 (CMVC 78768)
Change logging class of Critical Accept Error.

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

APAR IR51303 (CMVC 78770)
Cannot stop server from Web Administration.

APAR IR51326 (CMVC 78813)
DMT exception in setCurrentObject - java.lang.String.

Fixes in 3.2.2-SWD-002

APAR IR47735 (CMVC 71113)
Support using { as first character in LDAP user passwords.

APAR IR47802 (CMVC 70356)
Doing an ldapsearch on the Root DSE or Monitor class using * or attributes

to be returned is not working with 3.2.2. This fix will allow the search "ldapsearch -s base objectclass=* *" to return all attributes in the root DSE.

APAR IR48028 (CMVC 70625)
Adding an attribute and modifying ACLs to an objectclass causes the ACLs to not work correctly unless slapd is rebooted.

APAR IR48052 (CMVC 71113)
When you modify the attribute userpassword for an existing user with a hashed value the server cores.

APAR IR48137 (CMVC 71629)
Using 3.2.2 efix1, a memory leak might occur during an unbind operation (in some cases approximately 100 bytes per unbind).

APAR IR48168 (CMVC 71121)
When upgrading to 3.2.2 and running changelog with peer masters, replication will not be started until replica objects are added to both peer masters.

APAR IR48126 (CMVC 71523)
The LDAP server intermittently cores when interacting with the iPlanet proxy Client and Directory Access Router (iDAR).

APAR IR48300 (CMVC 71282)
Memory Leak in ACL cache.

APAR IR48302 (CMVC 70876)
Several errors were corrected for messages displayed when using the ldapcfg script. Before the fix, the wrong error message, or no error message, might have been displayed.

Fixes in 3.2.2-SWD-001

APAR IR47193 (CMVC 68302)
An entry is added to the changelog when slapd restarts. This entry must not be added. It also is not passed from peer to peer.

APAR IR47323 (CMVC 68444)
Slapi_Search_Internal API takes a long time to return data when compared with the command line ldapsearch using the same search parameters.

APAR IR47324 (CMVC 68572)
Removing an attribute breaks access to aclEntrys and exportability using db2ldif.

APAR IR47602 (CMVC 69302)
Replication failure when performing a modify replace with no value. The request is incorrectly written into the change table.

APAR IR47623 (CMVC 68531)
Attempting a modify replace on an attribute with syntax integer or timestamp with the same value and is part of the RDN fails. This operation has worked in previous releases.

APAR IR47624 (CMVC 68542)
Performing an ldapdelete operation incurs a deadlock in the DB2 backend, and the LDAP server hangs.

APAR IR47625 (CMVC 68545)
In a high performing environment such as BluePages, the LDAP server can appear to hang for several minutes at a time.

APAR IR47627 (CMVC 68733)
> The LDAP server encounters function sequence errors when delete operations are performed.

APAR IR47629 (CMVC 68805)
> The LDAP server experiences a memory leak in the client controls portion of the server's operation structure.

APAR IR47630 (CMVC 68935)
> When creating a custom database for the server's backend use, and it is configured for UTF-8 storage, the code page information is not put in the slapd32.conf file.

APAR IR47631 (CMVC 69012)
> The LDAP server incurs a segmentation fault when writing an audit record with unknown-auth.

APAR IR47633 (CMVC 69032)
> The LDAP server preoperation plugin preoperation value array is not null terminated as required by specifications.

APAR IR47635 (CMVC 69277)
> SASL bind reports success with SSL connections even if using a keyring database label that does not reference an actual certificate.

APAR IR47692 (CMVC 70361)
> For the ldapssl.h include file, SSL return codes must reflect the same information present in the GSKIT 5 product. Equivalent items based on the GSKIT 3 product must be removed.

APAR IR47874 (CMVC 70380)
> Bulkload utility fails if shell does not append inherited value to PATH environment variable.

APAR IR47886 (CMVC 70068, 70493)
> Search operations fail, and dbsync process shows excessive resource utilization due to default ldap_desc.deid index.

APAR IR47928 (CMVC 69750, 69774)
> Memory leaks occur in the server process.

APAR IR47930 (CMVC 70538)
> LDAP clients operating on Solaris can hang performing an add operation.

APAR IR48029 (CMVC 70142, 70236)
> Modify ldif processing to allow for sending and receiving a value identified as having zero length.

Dependencies

IBM SecureWay Directory 3.2.2, with or without fix packs, must be installed.

Fix pack contents

The archive for this fix pack is named FP322A-03.tar.Z.

The client installation includes the following files:

```
File                                   bytes  sum -r
===================================    =======  ======
FP322A-03.filelist.client                 362  06189
bin/FP322A-03Readme.pdf                   -----  -----
bin/FP322A-03.txt                          61  46637
```

```
bin/dmt                                  18941   45306
bin/dmt.jar                            1268467   40043
bin/ldapdelete                           30129   42974
bin/ldapdeleted                          30134   50507
bin/ldapmodify                           70767   31425
bin/ldapmodifyd                          70770   53841
bin/ldapmodrdn                           31703   38982
bin/ldapmodrdnd                          31708   60116
bin/ldapsearch                           69032   42474
bin/ldapsearchd                          69037   45455
examples/ldapsearch.c                    27643   27861
include/ldapssl.h                        15677   17411
lib/ldap_plugin_ibm_gsskrb.a             47867   29042
lib/libibmldap.a                       1003074   61960
lib/libibmldapd.a                      1003072   41102
lib/libldapjrt.a                        139595   19719
lib/libldapstatic.a                    1339085   31646
lib/libldapstaticd.a                   1339083   51420
lib/libldif.a                            24032   02999
```

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

```
File                                    bytes   sum -r
======================================  ======  ======
FP322A-03.filelist.server                 856   52935
bin/ldamsg                              17046   58781
bin/proxy                               29419   37373
bin/slapd                             4893784   51304
bin/slapdd                            4893955   47314
bin/task_dbback                         47956   62691
config/LDAPCfg.jar                     788942   30801
lib/libadmin.a                         478149   54222
lib/libback-rdbm.a                    5044786   15531
lib/libcl.a                            103680   52983
lib/libDSP.a                            97390   06041
lib/libevent.a                         297031   09686
lib/libldacfg.so                       128237   13441
lib/libldapaudit.a                     136542   19958
lib/libldapkrb.a                       134917   02831
lib/libmessage.a                       113831   13097
lib/libslapi.a                         330442   47948
lib/libtranext.a                       241813   33953
lib/libtransys.a                      1273633   24456
lib/libutils.a                       14404180   30898
lib/libutlsa.a                         109762   47802
sbin/bulkload                         1486962   45439
sbin/db2ldif                          1136748   63566
sbin/ldif                               39442   42324
sbin/ldif2db                          1177497   09819
sbin/ltou                               47318   30259
sbin/miglen                            202030   31755
sbin/runstats                         1105026   09315
sbin/utol                               47323   49686
web/cgi-bin/ldacgi3d.exe              2935653   40834
web/cgi-bin/ldacgi3e.exe              2935653   44461
web/cgi-bin/ldacgid.exe               7622882   46498
web/cgi-bin/ldacgie.exe               7622882   41308
```

Applying the fix pack

1. For each computer targeted to receive the fix pack, be sure that the SecureWay
   Directory server and any client applications linked to the shared libraries
   (including Web Administration and DMT) are stopped. Programs and libraries
   cannot be replaced while they are in use.

Note: After stopping the clients and server, you must run slibclean to unload shared libraries from memory before they can be replaced.

2. Copy the fix pack archive (FP322A-03.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 will need at least 150 MB for a full server installation, less if patching a client only installation.

   Open a command prompt and type:

   ```
   # su
   # slibclean
   # cd {directory where FP322A-03.tar.Z is}
   # export INSTALL_DIR=/usr/ldap
   # export PATCH_DIR=`pwd`
   # rm FP322A-03.filelist.*
   ```

   Notes:

   a. If you receive a `File not found` error, you can ignore it.

   b. Remember the value of $PATCH_DIR in case you need to uninstall the patch. (See step 4.)

   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 command to determine which packages are installed:

   ```
   # lslpp -l | grep ldap.server
   ```

   a. If any filesets are listed, this is a server installation. Extract the FP322A-03.filelist.server file from the archive by using the following command:

      ```
      # zcat FP322A-03.tar.Z | tar -xf - FP322A-03.filelist.server
      ```

      Proceed to step 4. Do not attempt step 3b.

      Note: Installing the server package also upgrades the client.

   b. If you do not have the server installed, this is a client installation. Extract the FP322A-03.filelist.client file from the archive by using the following command:

      ```
      # zcat FP322A-03.tar.Z | tar -xf - FP322A-03.filelist.client
      ```

      Proceed to step 4.

4. Back up 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 fix pack at a later time.

   ```
   # cd $INSTALL_DIR
   # tar cvf $PATCH_DIR/FP322A-03.UNDO.tar `cat $PATCH_DIR/FP322A-03.filelist.*`
   # compress $PATCH_DIR/FP322A-03.UNDO.tar
   ```

   Note: If you receive a small number of `File not found` errors during the backup, it can be because you do not have that file's component installed on this computer. These errors can be ignored.

5. Apply the fix pack:

   ```
   # cd $PATCH_DIR
   # mkdir tmp
   # cd tmp
   ```

```
# zcat ../FP322A-03.tar.Z | tar -xf - `cat ../FP322A-03.filelist.*`
# cp -r * $INSTALL_DIR
# cd ..
# rm -rf tmp
```

Confirming that the fix pack has been applied successfully

After a successful installation, the file $INSTALL_DIR/bin/FP322A-03.txt contains the following:

```
SecureWay Directory     Release: aus322ldap  Build: 030611a
```

All the files listed in $PATCH_DIR/FP322A-03.filelist.* match the files sizes and checksums listed in "Fix pack contents" on page 4.

Uninstalling the fix pack

This can be done only if you made a backup before installing the fix pack (see step 4 on page 6). If so, you can uninstall the fix pack by deleting the $INSTALL_DIR/bin/FP322A-03* files and extracting the file $PATCH_DIR/FP322A-03.UNDO.tar.Z:

```
# cd $INSTALL_DIR
# rm bin/FP322A-03*
# export PATCH_DIR={value assigned to $PATCH_DIR}
# zcat $PATCH_DIR/FP322A-03.UNDO.tar.Z | tar -xvf -
```

where the value of $PATCH_DIR is the value assigned in step 2 on page 6.

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