



# Fixpack FP321A-06N Readme for IBM SecureWay Directory 3.2.1 AIX Server Installations





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## Fixpack FP321A-06N

Fixpack: FP321A-06N

Date: December 1, 2002

IBM® SecureWay Directory 3.2.1 (56-bit Encryption Installations)

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### General description

The Fixpack contains fixes for problems encountered in IBM SecureWay Directory Version 3.2.1. 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 SecureWay Directory Version 3.2.1 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/previous.html>. You can get to the latest information here:  
<http://www-3.ibm.com/software/network/directory/library/addendum.htm>

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### Problems fixed

#### New fixes in FP321A-06N

**APAR IR46765 (CMVC 67358)**

Provide debug hooks for commands when run from WebAdmin. Need debug versions of cgi-bin executables for SecureWay LDAP. This is needed to help in problem determination of issues with the WebAdmin interface.

**APAR IR47193 (CMVC 68302)**

Extraneous entry made in changelog when slapd starts. In a peer-to-peer environment when one of the machine's slapd process cycles, a changelog entry is made to the machine. It is not propagated to any of the other machines in the configuration.

**APAR IR47621 (CMVC 68400)**

ldapcfg does not work with space in dn. For example: "cn=directory manager,o=imc,c=us" using ldapcfg.

**APAR IR47323 (CMVC 68444)**

slapi\_search\_internal() too slow returning large multi-value entry.

**APAR IR47324 (CMVC 68572)**

Removing user attrib causes errors due to aclentries. Removing an arbitrary user-defined attribute from the directory causes errors apparently due to aclentries which refer to the deleted attribute.

**APAR IR47629 (CMVC 68805)**

Memory leak in the LDAP server. Leak identified as the client\_controls portion of the operation structure.

- APAR IR49605 (CMVC 68919)**  
Server core when ConcurrentRW=TRUE. Intermittent core in the server caused by a routine being passed a null pointer when ConcurrentRW=TRUE.
- APAR IR47630 (CMVC 68935)**  
slapd32.conf for custom db is missing code page info.
- APAR IR47633, IR48085 (CMVC 69032)**  
The slapd plugin preoperation value array is not null terminated.
- APAR IR47510 (CMVC 69302)**  
Replication Issue with Null attribute. Update: intermittent problem when there are entries in the change table that are nulling out attributes.
- APAR IR47274 (CMVC 69489)**  
Unbind freeing up connection before other operations finished with it.
- APAR IR47769 (CMVC 70314)**  
Server hangs with all workers waiting on ssl\_read. JNDI clients occasionally attempt SSL binds that are failing on the server. Code ends up attempting to read something more from the socket that never shows up, therefore thread hangs.
- APAR IR48028 (CMVC 70625)**  
Adding attribute to ObjClass causes ACLs on the tree to disappear. The attribute name in acl cache comes from the schema cache. When the schema changes, the acl cache must be flushed so that all attributenames in acl do not reference freed memory.
- APAR IR48052, IR47769 (CMVC 71113)**  
Updating {imask} Password causes server to core. The encrypt/decrypt routines had faulty error handling code and if the given password is not well formatted, the routines simply fail and cause the server to core.
- APAR IR49627 (CMVC 71448)**  
Server segFaults during error while processing SSL connection.
- APAR IR48126 (CMVC 71523)**  
Server segFault in worker thread due to mutex unlock sequence error.
- APAR IR49257 (CMVC 71552)**  
DB2 backup is not taking backup of V3.modifiedschema.
- APAR IR48371 (CMVC 72309)**  
\ escape character on jp windows fails when adding suffix.
- APAR IR48958 (CMVC 74273)**  
Server cores if ldtrc on and schema modify with big objectclass definition.
- APAR IR49241 (CMVC 75032)**  
Directory code is trying to free the same memory twice during connection error recovery.
- APAR IR49034 (CMVC 75540)**  
ldapsearch exposes slapd memory leak when the db2 backend has been configured using the local code page option.
- APAR IR49568 (CMVC 75721)**  
Replication stops after cycling slapd process when Change Log is enabled.



**APAR IR49644 (CMVC 75812)**

Internal Server Error from Suffixes & Audit with SSL enabled. WebAdmin displays "Internal Server Error" when viewing Suffixes or Audit Log if SSL is enabled.

**APAR IR48618 (CMVC 75916)**

Enable db2ldif to operate with filesizes greater than 2 Gigabytes.

**APAR IR49618 (CMVC 76050)**

A TCP connection attempt to port 389 can acquire resources that, when a failure is realized, are not appropriately returned to the resource pool.

**APAR IR48161, IR49261 (CMVC 77140)**

ACLCACHE value is not respected by SWD 321 and process grows unbounded.

## **Fixes appearing initially in 3.2.1-SWD-005**

**APAR IR46110 (CMVC 65630)**

Abstract: DMT incorrectly generates additional top attribute value and fails in editing the entry where value is generated.

**APAR IR46238 (CMVC 67194 & 65886)**

Abstract: NullPointerException is reported in the DMT log file.

**APAR IR46377 (CMVC 66976)**

Abstract: Complex search requests can lead to a completely unresponsive server.

**APAR IR46450 (CMVC 67577)**

Abstract: Bulkload non recoverable option - phase 1.

**APAR IR46500 (CMVC 66731)**

Abstract: Replication is not cleaning up correctly from previous replication.

**APAR IR46519 (CMVC 66851)**

Abstract: Migrate does not handle linefeeds in V3.modifiedschema.

**APAR IR46520 (CMVC 67704)**

Abstract: If two versions of DB2 reside on the same host as the SecureWay Directory, then libdb2.a may disable the LDAP server process.

**APAR IR46540 (CMVC 66811)**

Abstract: Server will not start with SSL using only a stash file.

**APAR IR46587 (CMVC 67010)**

Abstract: duplicateBVMod padding extra characters.

**APAR IR46756 (CMVC 67658)**

Abstract: Memory leak in client library routine ldap\_pmods\_free.

**APAR IR46778 (CMVC 67424)**

Abstract: BulkLoad temp files from Parse Phase created with the wrong permissions.

**APAR IR46893 (CMVC 67641 & 68144)**

Abstract: Slow ACL processing with bulkload when working with greater than 80K entries.

**APAR IR46918 (CMVC 67822)**

Abstract: Segmentation violation on processing an abandon followed quickly by an unbind.

- APAR IR47101 (CMVC 67909)**  
 Abstract: Having Changelog and Replication active on a server with a client plugin can cause corruption of pre/post modify variables.
- APAR IR47189 (CMVC 67856)**  
 Abstract: System traps if substring is used in slapi\_search\_internal().
- APAR IR47723 (CMVC 67366)**  
 Abstract: Attempting to bind on referral with CRAM-MD5 fails.
- APAR IR47724 (CMVC 67547)**  
 Abstract: Memory leak in the server process when using GSSAPI Sasl mechanism.
- APAR IR47725 (CMVC 67744)**  
 Abstract: Add sizelimit into filter key to distinguish equal filters with different number of returned entries requested.
- APAR IR47726 (CMVC 677856)**  
 Abstract: System traps if substring is used slapi\_search\_internal.
- APAR IR47227 (CMVC 67962)**  
 Abstract: Remove extraneous debug trace information introduced via previous eFix.
- APAR IR47228 (CMVC 68048)**  
 Abstract: iconv fails if converting to/from same code page (Solaris).

## **Fixes appearing initially in 3.2.1-SWD-004**

- APAR IR44874 (CMVC 63679)**  
 Abstract: Change changelog database password when changing DB2 LDAP instance password.
- APAR IR45396 (CMVC 64366)**  
 Abstract: Poorly constructed DN is not rejected by the server.
- APAR IR45415 (CMVC 63790 & 68024)**  
 Abstract: slapd cores with heavy load if audit log cannot be opened.
- APAR IR45552 (CMVC 63376)**  
 Abstract: Internal processing change to find the highest changeNumber value from DB2 at server startup.
- APAR IR45570 (CMVC 64412)**  
 Abstract: slapd process dies when changing passwords with encrypt.
- APAR IR45747 (CMVC 64728)**  
 Abstract: Change ACL Model for changelog information allowing superuser to assign permissions to changelog entries.
- APAR IR46021 (CMVC 65301)**  
 Abstract: Bulkload parsing time grows non-linearly.
- APAR IR46022 (CMVC 65302)**  
 Abstract: Bulkloading incrementally requires correct ACL Inheritance setup.
- APAR IR46235 (CMVC 65889)**  
 Abstract: Allow polling for idle connections performed by the lower layers of TCP/IP. (See Additional Usage Notes section of this document for information on network attributes whose values are of concern to operation provided by the fix for IR46235)

**APAR IR46271 (CMVC 64902)**

Abstract: LDAP compare with member attribute can fail.

**APAR IR46272 (CMVC 65796)**

Abstract: WebAdmin does not parse RFC compliant cookies.

**APAR IR46273 (CMVC 64071)**

Abstract: Substring search filter with unknown type gets protocol error.

**APAR IR46274 (CMVC 66057)**

Abstract: LDAP Server exits when more than 1 of the vulnerability tests are run concurrently - CERT/CC VU#505564.

## **Fixes appearing initially in 3.2.1-SWD-002**

**APAR IR45065 (CMVC 62095)**

Abstract: Garbage on ja\_JP webpage on ldap 3.2.0.

**APAR IR45093 (CMVC 63443)**

Abstract: Check the char\_len return code.

**APAR IR45298 (CMVC 38594)**

Abstract: Correctly report unknown attributes in filter.

**APAR IR45412 (CMVC 63511)**

Abstract: Return LDAP\_TYPE\_OR\_VALUE\_EXISTS if schema attr exists.

**APAR IR45413 (CMVC 63948)**

Abstract: Deleting uniquemembers incurs no such attribute warning.

**APAR IR45414 (CMVC 60369)**

Abstract: Large result sets from search cause too much server memory growth.

**APAR IR45415 (CMVC 63790)**

Abstract: slapd cores with heavy load if audit log can't be opened. Fixes appearing initially in 3.2.1-SWD-001:

**APAR IR45070 (CMVC 63433)**

Abstract: Creation of CIS, CES attribute with size > 32k should fail.

**APAR IR45078 (CMVC 63345)**

Abstract: Memory corruption when executing a modify replace with null value.

**APAR IR45094 (CMVC 61741)**

Abstract: Replica fails to start if the changelog is enabled.

## **Platforms**

AIX® 4.3.3 or higher with correct filesets and fixes (see server.txt readme packaged with the base product).

## **Dependencies**

IBM SecureWay Directory 3.2.1 must be installed.

## **Fixpack contents**

The filename for this Fixpack is FP321A-06N.tar.Z. The contents of this Fixpack include this Readme file (bin/FP321A-06NReadme.pdf). For a complete list of the contents of this Fixpack, see Table 2 on page 6.

## Applying the Fixpack

1. Extract the Fixpack contents into a temporary directory. For the purpose of this release note, assume that the symbol \$TEMP points to the following directory:

```
# cd $TEMP
# zcat FP321A-06N.tar | tar -xvf -
```

2. For each master and slave server installation targeted to receive the Fixpack, make sure the servers are stopped prior to applying the Fixpack. After the sever process is stopped, issue the command **slibclean**.
3. Replace the installed version of each file with the version included in the archive. It is recommended to move or rename the currently installed file to a location outside of the LDAP installation filesystem before installing the Fixpack. Copy the extracted file to the correct location in the install directory. Use the following example command to copy the extracted file to the correct location in the install directory:

```
cp -p $Temp/filename $INSTALL_DIR/filename
```

where *filename* is the name of the extracted file. The recommended replacement procedure avoids problems relating to links on files remaining active. The install version locations for each replaced file follow.

For client-only installations, replace or add the following files:

*Table 1. Fixpack contents for client only*

File name	Permissions	Size	sum -r results
\$INSTALL_DIR/bin/dmt.jar	755	1327009	28305
\$INSTALL_DIR/bin/ldapmodify	755	51429	20034
\$INSTALL_DIR/bin/ldapsearch	755	51422	53368
\$INSTALL_DIR/lib/libldap.a	755	525583	34023
\$INSTALL_DIR/lib/libldapstatic.a	755	700968	44069
\$INSTALL_DIR/lib/libldif.a	755	16062	18699

For server installations, in addition to the client files, replace or add the following files:

*Table 2. Additional Fixpack contents for server*

File name	Permissions	Size	sum -r results
\$INSTALL_DIR/bin/slapd	750	1713019	48572
\$INSTALL_DIR/bin/dmt.jar	755	1327009	28305
\$INSTALL_DIR/bin/ldapmodify	755	51429	20034
\$INSTALL_DIR/bin/ldapsearch	755	51422	53368
\$INSTALL_DIR/bin/proxy	750	24589	60168
\$INSTALL_DIR/bin/task_dbback	750	34989	24191
\$INSTALL_DIR/config/LDAPCFG.jar	644	827284	39567
\$INSTALL_DIR/lib/libadmin.a	644	225395	05655
\$INSTALL_DIR/lib/libback-rdbm.a	644	1745184	05017
\$INSTALL_DIR/lib/libcl.a	644	42256	17751
\$INSTALL_DIR/lib/libDSP.a	644	39436	03507

Table 2. Additional Fixpack contents for server (continued)

\$INSTALL_DIR/lib/libevent.a	644	102931	39634
\$INSTALL_DIR/lib/libldap.a	755	525583	34023
\$INSTALL_DIR/lib/libldapaudit.a	644	65639	52388
\$INSTALL_DIR/lib/libldapkrb.a	644	62243	54740
\$INSTALL_DIR/lib/libldapstatic.a	755	700968	44069
\$INSTALL_DIR/lib/libldif.a	755	16062	18699
\$INSTALL_DIR/lib/libslapi.a	644	135775	62963
\$INSTALL_DIR/lib/libtranext.a	644	95745	55268
\$INSTALL_DIR/lib/libtransys.a	644	456815	50255
\$INSTALL_DIR/lib/libutils.a	644	5116773	30798
\$INSTALL_DIR/lib/libutlsa.a	644	53212	33544
\$INSTALL_DIR/sbin/bulkload	755	524963	47964
\$INSTALL_DIR/sbin/db2ldif	755	385560	58266
\$INSTALL_DIR/sbin/ldif	755	25259	10084
\$INSTALL_DIR/sbin/ldif2db	755	391125	35856
\$INSTALL_DIR/sbin/ltou	750	27528	42712
\$INSTALL_DIR/sbin/miglen	755	83190	05249
\$INSTALL_DIR/sbin/Migrate32.jar	750	39793	15276
\$INSTALL_DIR/sbin/Migrate321.jar	750	39997	42818
\$INSTALL_DIR/sbin/runstats	755	368802	54416
\$INSTALL_DIR/sbin/setKeyConfig	755	33847	37158
\$INSTALL_DIR/sbin/utol	750	27529	02435
\$INSTALL_DIR/bin/FP321A-06N.txt	644	61	33838
\$INSTALL_DIR/web/cgi-bin/ldacgi3e.exe	4755	2903614	16184
\$INSTALL_DIR/web/cgi-bin/ldacgie.exe	4755	7590875	27710
/usr/lib/locale/ja/LC_MESSAGES/ldahtml.cat	644	167887	59037

The default value for \$INSTALL\_DIR is /usr/ldap.

Also, for ja\_JP locales only, the install version for ldahtml.cat is

/usr/lib/locale/ja/LC\_MESSAGES/ldahtml.cat

- Assign the correct owner, group, and permissions to the replaced files. Set \$OWNER as the owner value in the installation files, and \$GROUP as the group value.

The value of \$OWNER for the following files is root. The value for \$GROUP for the following files is ldap.

\$INSTALL\_DIR/web/cgi-bin/ldacgie.exe  
\$INSTALL\_DIR/web/cgi-bin/ldacgi3e.exe

The value of \$OWNER and \$GROUP for the following file is bin. Install the following file for Ja\_JP locales only.

/usr/lib/locale/ja/LC\_MESSAGES/ldahtml.cat

The value of \$OWNER for the patched files is ldap. The value for \$GROUP for the patched files is ldap.

```
# chown $OWNER filename
# chgrp $GROUP filename
```

where *filename* is the name of the file (see following list of files).

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

```
# chmod permissions filename
```

where *permissions* is the permission value for the file and *filename* is the name of the file.

For client-only installations, see the table Table 1 on page 6.

For server installations, see the table Table 2 on page 6.

6. Each of the replica and master servers can now be restarted.

## Confirming the Fixpack has been applied successfully

The Fixpack has been applied successfully if all files included in the Fixpack have replaced the pre-Fixpack files of the same names. If after applying the Fixpack the directory server cannot be restarted, or any other associated function is degraded, please notify IBM SecureWay Directory support personnel.

For a list of filesizes and sums, see Table 2 on page 6.

The contents of the bin/FP321A-06N.txt file are:

```
SecureWay Directory    Release: aus321ldap  Build: 021209a
```





Printed in U.S.A.