



# eFix 3.2.2-SWD-001 README for SecureWay Directory 3.2.2 Linux s390 Server Installations





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## eFix 3.2.2-SWD-001

Date: March 31, 2002

eFix: 3.2.2-SWD-001

Component: SecureWay® Directory 3.2.2 (128-bit Encryption Server Installations)

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### General description

The eFix contains fixes for several problems encountered in SecureWay Directory 3.2.2. The APAR number for each problem is listed in the "Problems fixed" section. Refer to the specific APAR for more detail about each problem.

For information on changes and fixes that occurred after the product documentation had been translated, see the *SecureWay Directory Version 3.2.2 README Addendum*. This file is in English only. This file can also be found on the IBM® SecureWay Directory Library Web page using a link from <http://www.software.ibm.com/network/directory/library>. You can get to the latest information here:  
<http://www-4.ibm.com/software/network/directory/library/v322/addendum322.htm>

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### Problems fixed

#### New fixes in 3.2.2-SWD-001

**APAR IR46387 (CMVC 66977)**

LDAPCFG fails if file libjvm.a is found elsewhere in LIBPATH.

**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 IR47274 (CMVC 69489)**

Processing for unbind can free up a connection before other operations have completed use of the connection.

**APAR IR47323 (CMVC 68444)**

Slapi\_Search\_Internal API takes a long time to return data 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 IR47621 (CMVC 70455)**

Fix password change for custom database named ldapdb2.

**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 info is not put in slapd32.conf.

**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 same information present in the GSKIT 5 product. Equivalent items based on the GSKIT 3 product must be removed.

**APAR IR47714 (CMVC 69531)**

Replicating modify replace with no value when stored in the change table can exhibit failures.

**APAR IR47769 (CMVC 70314)**

LDAP server hangs with all worker threads waiting on ssl\_read.

**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 show 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 receipt value identified to have zero length.



## Platforms

SuSE Linux 7.0 (kernel 2.2.16) and Turbolinux 6.5 (kernel 2.2.19).

**Note:** Red Hat Linux 7.2 is supported running as a client only.

Refer to the server README file included with the ldap-serverd-3.2.2-1.i386.rpm package for complete information on supported versions of Linux.

## Dependencies

SecureWay Directory 3.2.2 or 3.2.2 efix1 must be installed. The required installation consists of the following two packages:

- ldap-clientd-3.2.2-1.s390.rpm
- ldap-serverd-3.2.2-1.s390.rpm

DB2 Universal Database™ version 7.2 FixPack 5 or higher.

## Files replaced or added by this eFix

With \$INSTALL\_DIR representing the root of the LDAP installation, the files replaced are:

```
$INSTALL_DIR/bin/ldapdelete
$INSTALL_DIR/bin/ldapdeleted
$INSTALL_DIR/bin/ldapmodify
$INSTALL_DIR/bin/ldapmodifyd
$INSTALL_DIR/bin/ldapmodrdn
$INSTALL_DIR/bin/ldapmodrnd
$INSTALL_DIR/bin/ldapsearch
$INSTALL_DIR/bin/ldapsearchd
$INSTALL_DIR/bin/slapd
$INSTALL_DIR/bin/slapdd
$INSTALL_DIR/include/ldaps1.h
$INSTALL_DIR/lib/libslapi.so
$INSTALL_DIR/lib/libback-rdbm.so
$INSTALL_DIR/lib/libutils.so
$INSTALL_DIR/lib/libcl.so
$INSTALL_DIR/lib/libldapaudit.so
$INSTALL_DIR/lib/libldapjrt.so
$INSTALL_DIR/lib/libibldap.so
$INSTALL_DIR/lib/libibldapd.so
$INSTALL_DIR/lib/libldapstatic.a
$INSTALL_DIR/lib/libldapstaticd.a
$INSTALL_DIR/lib/libldif.a
$INSTALL_DIR/lib/libtransys.so
$INSTALL_DIR/sbin/ldif
$INSTALL_DIR/sbin/ldif2db
$INSTALL_DIR/sbin/db2ldif
$INSTALL_DIR/sbin/bulkload
$INSTALL_DIR/sbin/runstats
$INSTALL_DIR/sbin/miglen

$INSTALL_DIR/web/readme/buildno.txt
```

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

## eFix contents

The archive for this eFix is named 3.2.2-SWD-001-LNX390-US.tar. The archive for this eFix includes:

- This README file
- The file bin/ldapdelete
- The file bin/ldapdeleted
- The file bin/ldapmodify
- The file bin/ldapmodifyd
- The file bin/ldapmodrdn
- The file bin/ldapmodrdnd
- The file bin/ldapsearch
- The file bin/ldapsearchd
- The file bin/ldapcfg
- The file bin/slapd
- The file bin/slapdd
- The file include/ldapssl.h
- The file lib/libslapi.so
- The file lib/libback-rdbm.so
- The file lib/libutils.so
- The file lib/libcl.so
- The file lib/libldapaudit.so
- The file lib/libldapjrt.so
- The file lib/libibmldap.so
- The file lib/libibmldapd.so
- The file lib/libldapstatic.a
- The file lib/libldapstaticd.a
- The file lib/libldif.a
- The file lib/libtransys.so
- The file sbin/ldif
- The file sbin/ldif2db
- The file sbin/db2ldif
- The file sbin/bulkload
- The file sbin/runstats
- The file sbin/miglen
- The file web/readme/buildno.txt

## Applying the eFix

**Note:** Your replication environment must be cleaned or resynched, or both. See section 5.2 of the *IBM(R) SecureWay(R) Directory Version 3.2.2 Server Readme* at:

<http://www-4.ibm.com/software/network/directory/library/v322/server.htm>

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

```
# cd $TEMP
# tar -xvf 3.2.2-SWD-001-LNX390-US.tar
```

2. For each of the master and slave server installations targeted to receive the eFix, make sure the servers are stopped prior to applying the eFix.
3. Replace the installed version of each file with the version included in the eFix. Move the currently installed file to a location outside of the LDAP installation filesystem or rename the currently installed file. Copy the extracted files to the correct locations in the install folder. The install version locations for each file are:

```
$INSTALL_DIR/bin/ldapdelete
$INSTALL_DIR/bin/ldapdeleted           (For 128-bit version only)
$INSTALL_DIR/bin/ldapmodify
$INSTALL_DIR/bin/ldapmodifyd         (For 128-bit version only)
$INSTALL_DIR/bin/ldapmodrdn
$INSTALL_DIR/bin/ldapmodrdnd        (For 128-bit version only)
$INSTALL_DIR/bin/ldapsearch
$INSTALL_DIR/bin/ldapsearchd        (For 128-bit version only)
$INSTALL_DIR/bin/slapd
$INSTALL_DIR/bin/slapdd             (For 128-bit version only)
```

```

$INSTALL_DIR/include/ldapssl.h
$INSTALL_DIR/lib/libslapi.so
$INSTALL_DIR/lib/libback-rdbm.so
$INSTALL_DIR/lib/libutils.so
$INSTALL_DIR/lib/libcl.so
$INSTALL_DIR/lib/libldapaudit.so
$INSTALL_DIR/lib/libldapjrt.so
$INSTALL_DIR/lib/libibldap.so
$INSTALL_DIR/lib/libibldapd.so      (For 128-bit version only)
$INSTALL_DIR/lib/libldapstatic.a
$INSTALL_DIR/lib/libldapstaticd.a  (For 128-bit version only)
$INSTALL_DIR/lib/libldif.a
$INSTALL_DIR/lib/libtransys.so
$INSTALL_DIR/sbin/ldif
$INSTALL_DIR/sbin/ldif2db
$INSTALL_DIR/sbin/db2ldif
$INSTALL_DIR/sbin/bulkload
$INSTALL_DIR/sbin/runstats
$INSTALL_DIR/sbin/miglen

$INSTALL_DIR/web/readme/buildno.txt      (For level tracking purposes)

```

Again, the default for `INSTALL_DIR` is `/usr/ldap`.

4. Assign the correct owner, group, and permissions to the replaced files. Assume `$OWNER` is the owner value in the installation files, and `$GROUP` is the group value. The value of `$OWNER` for all files is `ldap`. The value for `$GROUP` for all files is `ldap`.

```

# chown $OWNER <file>
# chgrp $GROUP <file>

```

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

```

# chmod <permissions> <file>
$INSTALL_DIR/bin/ldapdelete          755
$INSTALL_DIR/bin/ldapdeleted          755
$INSTALL_DIR/bin/ldapmodify          755
$INSTALL_DIR/bin/ldapmodifyd         755
$INSTALL_DIR/bin/ldapmodrdn          755
$INSTALL_DIR/bin/ldapmodrnd          755
$INSTALL_DIR/bin/ldapsearch          755
$INSTALL_DIR/bin/ldapsearchd         755
$INSTALL_DIR/bin/slapd                750
$INSTALL_DIR/bin/slapdd               750
$INSTALL_DIR/include/ldapssl.h       644
$INSTALL_DIR/lib/libslapi.so          644
$INSTALL_DIR/lib/libback-rdbm.so      644
$INSTALL_DIR/lib/libutils.so          644
$INSTALL_DIR/lib/libcl.so             644
$INSTALL_DIR/lib/libldapaudit.so      644
$INSTALL_DIR/lib/libldapjrt.so        755
$INSTALL_DIR/lib/libibldap.so         755
$INSTALL_DIR/lib/libibldapd.so        755
$INSTALL_DIR/lib/libldapstatic.a      755
$INSTALL_DIR/lib/libldapstaticd.a     755
$INSTALL_DIR/lib/libldif.a            755
$INSTALL_DIR/lib/libtransys.so        644
$INSTALL_DIR/sbin/ldif                755
$INSTALL_DIR/sbin/ldif2db             750
$INSTALL_DIR/sbin/db2ldif             750
$INSTALL_DIR/sbin/bulkload            750
$INSTALL_DIR/sbin/runstats            750
$INSTALL_DIR/sbin/miglen              750

```

5. Start each of the replica and master servers.

## Confirming the eFix has been applied successfully

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

Below is some relevant information on the replacement files:

```
- Filesize for bin/ldapdelete           is 25397
- Filesize for bin/ldapdeleted          is 25397
- Filesize for bin/ldapmodify          is 46847
- Filesize for bin/ldapmodifyd         is 46847
- Filesize for bin/ldapmodrdn          is 26429
- Filesize for bin/ldapmodrwnd         is 26429
- Filesize for bin/ldapsearch          is 46163
- Filesize for bin/ldapsearchd         is 46163
- Filesize for bin/slapd                is 673000
- Filesize for bin/slapdd              is 673000
- Filesize for include/ldapssl.h       is 15677
- Filesize for lib/libslapi.so         is 129180
- Filesize for lib/libback-rdbm.so     is 1246252
- Filesize for lib/libutils.so         is 2649472
- Filesize for lib/libcl.so            is 32978
- Filesize for lib/libldapaudit.so     is 64338
- Filesize for lib/libldapjrt.so       is 30349
- Filesize for lib/libibldap.so        is 545506
- Filesize for lib/libibldapd.so       is 545498
- Filesize for lib/libldapstatic.a     is 584716
- Filesize for lib/libldapstaticd.a    is 584700
- Filesize for lib/libldif.a           is 13126
- Filesize for lib/libtransys.so       is 526317
- Filesize for sbin/ldif               is 19489
- Filesize for sbin/ldif2db            is 267180
- Filesize for sbin/db2ldif            is 263113
- Filesize for sbin/bulkload           is 368627
- Filesize for sbin/runstats           is 248951
- Filesize for sbin/miglen             is 275992

- sum -r bin/ldapdelete                 results are: 63462 xxxx
- sum -r bin/ldapdeleted                results are: 56995 xxxx
- sum -r bin/ldapmodify                 results are: 16676 xxxx
- sum -r bin/ldapmodifyd                results are: 22762 xxxx
- sum -r bin/ldapmodrdn                 results are: 30886 xxxx
- sum -r bin/ldapmodrwnd                results are: 45199 xxxx
- sum -r bin/ldapsearch                 results are: 59147 xxxx
- sum -r bin/ldapsearchd                results are: 42798 xxxx
- sum -r bin/slapd                      results are: 18800 xxxx
- sum -r bin/slapdd                     results are: 00824 xxxx
- sum -r include/ldapssl.h              results are: 17457 xxxx
- sum -r lib/libslapi.so                 results are: 02729 xxxx
- sum -r lib/libback-rdbm.so             results are: 17481 xxxx
- sum -r lib/libutils.so                 results are: 17708 xxxx
- sum -r lib/libcl.so                    results are: 28238 xxxx
- sum -r lib/libldapaudit.so             results are: 16630 xxxx
- sum -r lib/libldapjrt.so               results are: 60377 xxxx
- sum -r lib/libibldap.so                 results are: 53181 xxxx
- sum -r lib/libibldapd.so               results are: 35587 xxxx
- sum -r lib/libldapstatic.a             results are: 63710 xxxx
- sum -r lib/libldapstaticd.a            results are: 15573 xxxx
- sum -r lib/libldif.a                   results are: 33306 xxxx
- sum -r lib/libtransys.so               results are: 22035 xxxx
- sum -r sbin/ldif                       results are: 47255 xxxx
- sum -r sbin/ldif2db                   results are: 26699 xxxx
- sum -r sbin/db2ldif                    results are: 49019 xxxx
```

```
- sum -r sbin/bulkload      results are: 40696 xxxx
- sum -r sbin/runstats     results are: 45428 xxxx
- sum -r sbin/miglen       results are: 05344 xxxx
```

Each xxxx represents the number of blocks used by the file. This number is filesystem format dependent.

The contents of the web/readme/buildno.txt file are:

SecureWay Directory Release: aus3221dap Build: 020315a







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