eFix 3.2.2-SWD-001 README for SecureWay Directory 3.2.2 Linux i386 Server Installations

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Contents

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Date: March 31, 2002

eFix: 3.2.2-SWD-001

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

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

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 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
utilitization 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

Red Hat Linux 7.1 or higher, SuSE Linux 7.2 or higher, or Turbolinux 6.5 or higher.

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.i386.rpm
- ldap-serverd-3.2.2-1.i386.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/ldapmodrdnd
$INSTALL_DIR/bin/ldapsearch
$INSTALL_DIR/bin/ldapsearchd
$INSTALL_DIR/bin/slapd
$INSTALL_DIR/bin/slapdd
$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/libibmldap.so
$INSTALL_DIR/lib/libibmldapd.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-LNX-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-LNX-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/libibmldap.so
          $INSTALL_DIR/lib/libibmldapd.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/ldapmodrdnd                   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/libibmldap.so                 755
          $INSTALL_DIR/lib/libibmldapd.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      23013
- Filesize for bin/ldapdeleted       is      23013
- Filesize for bin/ldapmodify        is      39835
- Filesize for bin/ldapmodifyd       is      39835
- Filesize for bin/ldapmodrdn        is      23821
- Filesize for bin/ldapmodrdnd       is      23821
- Filesize for bin/ldapsearch        is      39495
- Filesize for bin/ldapsearchd       is      39495
- Filesize for bin/slapd             is     551012
- Filesize for bin/slapdd            is     551012
- Filesize for include/ldapssl.h     is      15677
- Filesize for lib/libslapi.so       is      90060
- Filesize for lib/libback-rdbm.so   is    1003763
- Filesize for lib/libutils.so       is    2068573
- Filesize for lib/libcl.so          is      28143
- Filesize for lib/libldapaudit.so   is      52502
- Filesize for lib/libldapjrt.so     is      29165
- Filesize for lib/libibmldap.so     is     465339
- Filesize for lib/libibmldapd.so    is     465339
- Filesize for lib/libldapstatic.a   is     509984
- Filesize for lib/libldapstaticd.a  is     509952
- Filesize for lib/libldif.a         is      11254
- Filesize for lib/libtransys.so     is     378898
- Filesize for sbin/ldif             is      16897
- Filesize for sbin/ldif2db          is     244281
- Filesize for sbin/db2ldif          is     240787
- Filesize for sbin/bulkload         is     349421
- Filesize for sbin/runstats         is     224699
- Filesize for sbin/miglen           is     248940

- sum -r   bin/ldapdelete        results are:  09323   xxxx
- sum -r   bin/ldapdeleted       results are:  49490   xxxx
- sum -r   bin/ldapmodify        results are:  53677   xxxx
- sum -r   bin/ldapmodifyd       results are:  30245   xxxx
- sum -r   bin/ldapmodrdn        results are:  53971   xxxx
- sum -r   bin/ldapmodrdnd       results are:  11691   xxxx
- sum -r   bin/ldapsearch        results are:  29418   xxxx
- sum -r   bin/ldapsearchd       results are:  08428   xxxx
- sum -r   bin/slapd             results are:  31881   xxxx
- sum -r   bin/slapdd            results are:  12593   xxxx
- sum -r   include/ldapssl.h     results are:  17457   xxxx
- sum -r   lib/libslapi.so       results are:  03629   xxxx
- sum -r   lib/libback-rdbm.so   results are:  30486   xxxx
- sum -r   lib/libutils.so       results are:  22624   xxxx
- sum -r   lib/libcl.so          results are:  29360   xxxx
- sum -r   lib/libldapaudit.so   results are:  23849   xxxx
- sum -r   lib/libldapjrt.so     results are:  19370   xxxx
- sum -r   lib/libibmldap.so     results are:  44626   xxxx
- sum -r   lib/libibmldapd.so    results are:  40852   xxxx
- sum -r   lib/libldapstatic.a   results are:  21476   xxxx
- sum -r   lib/libldapstaticd.a  results are:  38377   xxxx
- sum -r   lib/libldif.a         results are:  41090   xxxx
- sum -r   lib/libtransys.so     results are:  38409   xxxx
- sum -r   sbin/ldif             results are:  22700   xxxx
- sum -r   sbin/ldif2db          results are:  52148   xxxx
- sum -r   sbin/db2ldif          results are:  03770   xxxx
- sum -r   sbin/bulkload         results are:  02608   xxxx
- sum -r   sbin/runstats         results are:  27872   xxxx
- sum -r   sbin/miglen           results are:  44892   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: aus322ldap  Build: 020315a
```

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