



**Fix pack FP410T-03 README for IBM  
Directory Server 4.1 Linux s390  
Installations**





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## Fix pack FP410T-03

Fix pack: FP410T-03

Date: March, 2004

IBM® Directory Server Version 4.1

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### General description

The fix pack contains fixes for problems encountered in IBM Directory Server Version 4.1. 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 was translated, see the *IBM Directory Server Version 4.1 README Addendum*. The Addendum file is in English only and can also be found on the IBM Directory Server Library Web page:

[http://publib.boulder.ibm.com/tividd/td/IBMDS/IDSadd41/en\\_US/PDF/addendum41.pdf](http://publib.boulder.ibm.com/tividd/td/IBMDS/IDSadd41/en_US/PDF/addendum41.pdf)

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### Problems fixed

New fixes in FP410T-03:

**APAR IR50724 (CMVC 77615)**

DNs containing extended ASCII characters return protocol error.

**APAR IR53276 (CMVC 77836)**

Server might freeze for a few minutes during high CPU usage when processing very long DNs.

**APAR IR50766 (CMVC 77903)**

accessRoles and accessGroup object classes can be modified to allow empty groups by changing member attribute from MUST to MAY.

**APAR IR53277 (CMVC 77909)**

Improve server startup time for large directories.

**APAR IR50817 (CMVC 77930)**

Server might crash (SEGV) if a compare operation is requested with a malformed entry DN.

**APAR IR50935 (CMVC 78004)**

ldif2db & db2ldif utilities might run out of memory because they do not turn off caches.

**APAR IR50760 (CMVC 78067)**

ibmslapd fails when anonymous user adds suffix entry immediately after configuration.

**APAR IR52547 (CMVC 78067, 78158)**

Server might temporarily hang during high CPU usage during abandon or unbind operations.

**APAR IR52771 (CMVC 78123)**

If cn=authenticated is defined in an ACL, and an anonymous search is performed, it is possible for the server to ABEND.

- APAR IR50998 (CMVC 78185)**  
A bind with a long password (longer than 1000 bytes or characters) using SHA encryption might ABEND the server.
- APAR IR53278 (CMVC 78254)**  
Potential memory leak when binding with password using SHA encryption.
- APAR IR53290 (CMVC 78444)**  
IBM Directory Server crashes under heavy workload in multi-processor Linux environment.
- APAR IR52486 (CMVC 78495)**  
If cn=authenticated is defined in an ACL, and an anonymous search is performed, it is possible for the server to ABEND.
- APAR IR53279 (CMVC 78768)**  
Change logging class of Critical Accept Error.
- APAR IR53280 (CMVC 78770)**  
Cannot stop server from Web Administration.
- APAR IR53280 (CMVC 78773)**  
Sending an invalid attribute name starting with a digit [0-9] in an ldapadd or modify request will ABEND the server.
- APAR IR51166 (CMVC 78816)**  
slapd fails if replicaObject is removed when replication is pending.
- APAR IR53289 (CMVC 78869)**  
Performance on Solaris does not scale well with multiple processors.
- APAR IR51379 (CMVC 78919)**  
slapd fails on MultiProcessor machine with Audit log on and many errors being written in parallel to slapd.errors file.
- APAR IR53297 (CMVC 79320)**  
IBM Directory Server 4.1 might ABEND under stress on Solaris in multi-processor environment.
- APAR IR52418 (CMVC 79332, 82402)**  
Bulkload fails to propagate ACLs with a large ldif file.
- APAR IR52503 (CMVC 79415)**  
slapd hangs with most threads waiting for a lock in dn\_cache.
- APAR IR51606 (CMVC 80117)**  
Add warning message and entry in log file for mater DN = admin DN.
- APAR IR51713 (CMVC 80345)**  
Replica gets UPPERCASE DN from Change table.
- APAR IR51974 (CMVC 81493)**  
Server might core when receiving SASL bind from client with foreign characters in certificate DN.
- APAR IR52230 (CMVC 81762)**  
C-API ldap\_bind() with foreign characters in password might bind anonymously without returning an error to caller.
- APAR IR53296 (CMVC 81805)**  
Invalid UTF-8 encoding in bind DN might cause server to ABEND.
- APAR IR51517 (CMVC 82216)**  
Bulkload fails to propagate ACLs with a large ldif file.



**APAR IR52963 (CMVC 82432)**

Connection failure in C-client leaves Windows socket open in "LISTEN" state.

**APAR IR52692 (CMVC 82822)**

ldacgi can be used to view, but not change, any file readable by user **ldap** on the host system.

**APAR IR53293 (CMVC 82889)**

Memory leaks in the client C-API when chasing referrals.

**APAR IR52841 (CMVC 82973)**

Scripting code passed as an invalid cgi parameter is not sanitized in resulting "IException" message. Identified in BugTraq ID: 9140 ( see <http://www.securityfocus.com/bid/9140> ).

**APAR IR51924 (CMVC 83273)**

Do not include administrator DN in results of anonymous root DSE search.

**APAR IR52690 (CMVC 83310)**

Replica reconnect interval (5sec/5min) not consistent.

**APAR IR53161 (CMVC 83628)**

4.1 FP2 slapd will ABEND at startup if administrator DN or password are not configured.

## Dependencies

IBM Directory Server 4.1 must be installed.

## Fix pack contents

The archive for this fix pack is named FP410T-03.tar and contains the following files:

File	bytes	cksum	sum -r
FP410T-03/FP410T-03Readme.pdf	-----	-----	-----
FP410T-03/install_update.sh	3625	3696504440	20466
FP410T-03/uninstall_update.sh	1466	2600973720	62959
FP410T-03/data/all_files.list	707	3355171625	59259
FP410T-03/data/patch.tar.gz	-----	-----	-----

The client install includes the following files:

File	bytes	cksum	sum -r
/usr/ldap/bin/FP410T-03Readme.pdf	-----	-----	-----
/usr/ldap/bin/FP410T-03.txt	54	498286856	01071
/usr/ldap/bin/ldapdelete	46271	2300085599	05572
/usr/ldap/bin/ldapmodify	108688	1129322221	15217
/usr/ldap/bin/ldapmodrdn	47931	3945079443	59446
/usr/ldap/bin/ldapsearch	125014	1602676083	14343
/usr/ldap/examples/ldapsearch.c	45578	1729847414	17813
/usr/ldap/include/ldap.h	38150	1699589595	46090
/usr/ldap/include/slapi-plugin.h	11022	4153906964	56181
/usr/ldap/lib/ldap_plugin_sasl_cram-md5.so	53862	2245675684	08039
/usr/ldap/lib/libibldap.so	1193517	1905743198	42669
/usr/ldap/lib/libibldapn.so	1138402	4259256147	56595
/usr/ldap/lib/libldapstatic.a	3327472	3303029541	45541
/usr/ldap/lib/libldapstaticn.a	3172140	711383020	63881

A DMT & Java install adds or updates everything in the client install in addition to the following file:

File	bytes	cksum	sum -r
/usr/ldap/bin/dmt.jar	1156991	1052787867	50413

A server install adds or updates everything in the client install in addition to the following files:

File	bytes	cksum	sum -r
/usr/ldap/bin/ldapcfg	16210	210322405	39747
/usr/ldap/bin/slapd	2835559	14682112	07055
/usr/ldap/bin/slapdn	2821395	2054411029	41134
/usr/ldap/config/LDAPCfgr.jar	238615	1314931908	40450
/usr/ldap/lib/libadmin.so	744279	3608520728	05150
/usr/ldap/lib/libback-rdbm.so	4227065	4225316562	17660
/usr/ldap/lib/libcfg32.so	3123937	1127526512	40778
/usr/ldap/lib/libDSP.so	164515	2569499279	20927
/usr/ldap/lib/libevent.so	320199	178486176	55881
/usr/ldap/lib/libibldapcl.so	163450	3457596962	21957
/usr/ldap/lib/libldacfg.so	175782	4180483621	63825
/usr/ldap/lib/libldapaudit.so	203778	263360185	28057
/usr/ldap/lib/libmessage.so	232676	2769366102	56224
/usr/ldap/lib/libslapi.so	460613	2223947785	56740
/usr/ldap/lib/libtranext.so	314187	1349207694	34495
/usr/ldap/lib/libtransys.so	1297203	1247452370	01126
/usr/ldap/lib/libutils.so	7361691	3261944846	10784
/usr/ldap/lib/libutlsa.so	156040	813967916	33232
/usr/ldap/sbin/bulkload	1509411	635916476	12198
/usr/ldap/sbin/db2ldif	1077521	1992401488	13139
/usr/ldap/sbin/ldif	66237	1725102153	34973
/usr/ldap/sbin/ldif2db	1128809	3132489073	14250
/usr/ldap/sbin/ltou	105641	3854140585	03153
/usr/ldap/sbin/migrate41	22243	3204062908	36089
/usr/ldap/sbin/runstats	1062634	301303167	05352
/usr/ldap/sbin/stripldif	142060	1835153415	12042
/usr/ldap/sbin/utol	105648	394931299	21455
/usr/ldap/web/en_US/config/tuning.htm	63926	1883778253	49204
/usr/ldap/web/en_US/config/tuning.pdf	161952	3069025280	59376

## Applying the fix pack

1. Extract the FP410T-03.tar file to a directory with at least 60 MB of free space. This creates a new directory named FP410T-03 that contains the following files and subdirectories:

```
install_update.sh
uninstall_update.sh
FP410T-03Readme.pdf
data/
```

2. Log in as root.
3. Stop all IBM Directory Server client or server processes, including the LDAP server, Web administration and directory management tools. Programs and libraries cannot be replaced while they are in use.
4. Run the following command from the FP410T-03 subdirectory:

```
install_update.sh
```

**Note:** The install\_update script saves a backup of your previous version of IBM Directory Server in the data subdirectory. Do not remove the data subdirectory if you intend to uninstall the update.

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## Uninstalling the fix pack

To uninstall the fix pack:

1. Log in as root.
2. Stop all IBM Directory Server client or server processes, including the LDAP server, Web administration and directory management tools. Programs and libraries cannot be replaced while they are in use.
3. Run the following command from the FP410T-03 subdirectory:  
uninstall\_update.sh

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## Confirming the fix pack has been applied successfully

After installation, the file /usr/ldap/bin/FP410T-03.txt contains the following:

IBM Directory      Release: aus41ldap    Build: 040308a

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## Functionality/Behavior Impact

Changes in the functionality or behavior of IBM Directory Server after upgrading to this fix pack:

APAR	Impact			Description
	Low	Medium	High	
IR50766		✓		The server allows schema modification of the objectClasses <b>accessGroup</b> and <b>accessRole</b> .
IR53277	✓			A server with a large directory takes less time to start.
IR53279	✓			The message: Critical error: accept(...  is no longer logged if log level is set to <b>low</b> (terse).
IR53289	✓			Performance is improved for multiprocessor Solaris environments.
IR51606		✓		The server no longer allows the master DN for replication to be the same as the administrator DN.
IR51713			✓	Before this fix, if a 4.1 master or peer was started with add operations pending for replication, they were replicated with the entry DN converted to all uppercase.
IR51924	✓			The server no longer returns <b>ibm-adminID</b> (administrator DN) in the results of a root DSE search.

IR52690	✓		<p>A master server no longer attempts to connect to its replicas immediately at startup; a master server attempts to connect to its replicas only when there are changes to send (schedule permitting). When attempting to connect to a replica or peer, the server no longer logs a failure message on every attempt; the server logs a failure message on the first failure and once every hour while attempting to connect to a replica or peer. After the first failure, the server waits 5-10-20-40-60 seconds between the first 5 reconnect attempts, and then continues trying to connect every 60 seconds until reconnected.</p>
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