



# Tivoli Directory Server v6.3 – Part03 of 06 Backup and Recovery

By: Nishant Singhai & Nilesh Patel

**Tivoli** software



# Introduction

## Abstract

This STE will cover the backup and recovery of ITDS, using both command line and GUI methods. In addition we will cover common errors encountered as well as general debug methods for analysing issues.

## Objectives

- Understand the available support resources
- Understand how to take backup and recover
- Best debugging practices



# Agenda

- Before we begin
  - Important Links
  - Previous STE's
  - Planned STE's
  - Overview of Backup and Recovery
  
- ITDS Backup Utilities
  - Online/Offline Backup
  - Full backup
  
- ITDS Recovery
- ITDS Backup/Recovery Gotchas



# Agenda

- ITDS Data Import/Export
- Basic Debugging  
Backup/ Recovery Issues
- Maintenance Tasks  
ITDS fixpacks



# Important Links

➤ ITDS v6.3 Package information:

<https://www-304.ibm.com/support/docview.wss?rs=767&uid=swg27009778#ver63>

➤ 6.3 System Requirements:

<http://publib.boulder.ibm.com/infocenter/tivihelp/v2r1/index.jsp?topic=/com.ibm.IBMDS.doc/sysreq.htm>

➤ 6.3 Product Documentation:

<http://publib.boulder.ibm.com/infocenter/tivihelp/v2r1/index.jsp?topic=/com.ibm.IBMDS.doc/welcome.htm>



# Important Links

➤ Google Newsgroup:

<http://groups.google.com/group/ibm.software.ldap/topics?lnk=gschg&hl=en>

➤ Support Site:

<http://www-306.ibm.com/software/sysmgmt/products/support/IBMDirectoryServer.html>

➤ Tivoli Product Lifecycle Site:

<http://www-306.ibm.com/software/sysmgmt/products/support/lifecycle/>

➤ Tivoli Software Global User Group Community:

<http://www.tivoli-ug.org/>



# STE Links

## Previous STE's

- Introduction to IBM Tivoli Directory Server:  
<https://www-304.ibm.com/support/docview.wss?uid=swg27021610>
- TDS - Schema,ACLs, Password Policy and Secure Socket Layer  
<http://www-01.ibm.com/support/docview.wss?uid=swg27021610>



# STE Links

## Upcoming STE's

- TDS- Replication:  
[http://www-01.ibm.com/software/sysmgmt/products/support/TE/techex\\_W517531B55309Q11.html](http://www-01.ibm.com/software/sysmgmt/products/support/TE/techex_W517531B55309Q11.html)
- TDS – Proxy, Performance tuning and Troubleshooting:  
[http://www-01.ibm.com/software/sysmgmt/products/support/TE/techex\\_X900328J53343I07.html](http://www-01.ibm.com/software/sysmgmt/products/support/TE/techex_X900328J53343I07.html)
- TDS Best practices , Ask the experts  
[http://www-01.ibm.com/software/sysmgmt/products/support/TE/techex\\_A388755F84976D77.html](http://www-01.ibm.com/software/sysmgmt/products/support/TE/techex_A388755F84976D77.html)





# ITDS Backup and Restore

- Tivoli Directory Server provides methods for backing up and restoring directory server instance information. There are methods that back up the complete information for a directory server instance, and methods that back up only the data in the database.
- Tivoli Directory Server provides two mechanisms for backing up and restoring complete directory server instance information:
  - Basic (idsdbback/idsxinst )
  - Enhanced (Idapexop/WebAdmin)
- These mechanisms can back up not only the directory server instance data (stored in a DB2 database), but also the associated configuration and schema files for the directory server instance.
- Both methods provide the option to perform online or offline backups.



# ITDS Backup and Restore

- Online backups can be performed while the server is running or stopped; offline backups must be performed while the server is stopped.
  
- With either of these two methods, the backups do not back up the following files, which you must back up separately:
  - idsinstances.ldif
  - SSL related files: keys, key stash files, CRL files
  - Tivoli Directory Integrator solution files



# ITDS Backup and Restore

## ➤ Basic Backup / Restore Commands:

- Idsdbback
- Idsdbrestore

## ➤ Enhanced Backup / Restore Commands:

- Idapexop utility with the extended operations option -op backuprestore -action backup
- Idapexop utility with the extended operations option -op backuprestore -action restore



# ITDS Backup and Restore

## Basic Vs Enhanced

Feature	Basic Method	Enhanced Method
Request from	Local server	Remote or local server
Interface used	Instance Administration Tool or the <b>idsdbback</b> and <b>idsdbrestore</b> commands	Web Administration Tool or <b>ldapexop</b> utility
Backup location	Can be taken to a different location each time; overwrites the previous backup only if the backup is performed to the same location.	Provides a way to configure the backup location and method that will be used for all the backups requested through this mechanism.
Store one or multiple backups	Multiple backups	Stores only one backup at a time and overwrites previous backups when the new backup is successfully taken



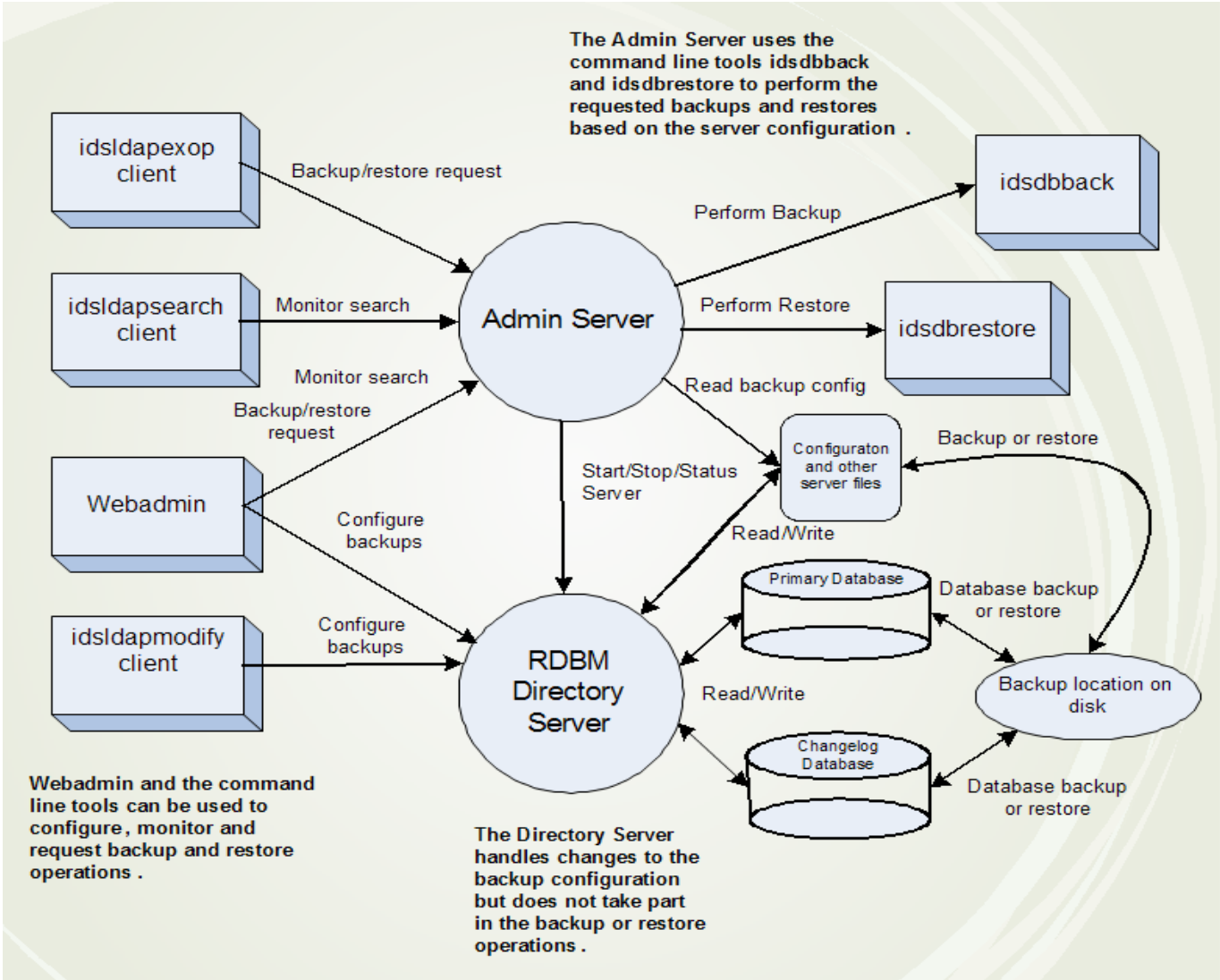
# ITDS Backup and Restore

## Basic Vs Enhanced

<b>Feature</b>	<b>Basic Method</b>	<b>Enhanced Method</b>
Restores	Administrator can choose from any backup location on the disk	Allows a restore only from the most current backup taken
Scheduling	One time request that backs up or restores to a specific location specified at the time of the backup	Provides the option to schedule backups one time, daily or weekly.
Administrator management	More required. Administrators must better manage their disk space.	Less required. Only one backup location.
Backs up and restores DB2 parameters	Backs up and restores DB2 configuration parameters and database optimization parameters	Backs up and restores DB2 configuration parameters and database optimization parameters



# Performing ITDS Backup



# Performing ITDS Backup

- Depending on how often your data changes it's advised to do this form of backup often (for example: changes frequently – daily, or fairly static – monthly). When the Idif completes it a good idea to view the data to make sure its valid. It's important to have a test system to test out the resulting backups.
- An ITDS admin would regularly check the Idif files resulting from the idsdb2ldif:
  - To make sure Idif files are valid (have the right format etc)
  - To make sure the Idif files have the complete data set.
  - It's important to have a test environment to test out the resulting backups.
- Please note: you will still need to manually back up all files in
  - /<ldap instance home>/idsslapd-<instance name>/etc (ibmslapd.conf, ibmslapddir.ksf, schema files, etc)



# Performing ITDS Backup

- The most important element to a Directory is the data which is stored within its structure. Regularly backing up this data can be achieved through a couple of options:
  - Option 1: Full backup of the data can be achieved with the `idsdb2ldif` command.
- This command has two advantages:
  - This command can be run while IBMSLDAPD is running
  - The file can be transferred to any other ITDS 6.3 server which is cryptographically synced to receive the data.
- `idsdb2ldif -l inst_name -o /filesystem/full_backup.date.ldif`





# Performing ITDS Backup

- Option 2: Included with ITDS is an ITDS utility called: idsdbback.
  
- Its important to note this utility will back up:
  - The instance ibmslapd.conf (The “config” file)
  - The instance ibmslapddir.ksf (Key Stash File)
  - The database instance.
  
- To run this you must have ibmslapd stopped:
  
- `idsdbback -I inst_name -k /filesystem/dbbackup`



# Performing ITDS Backup

- We can verify the idstools.log for success or failure of backup command.
- Location : <instance\_home>/idsslapd-<instance>/<logs>
- For example we can see below message in the log after executing the command:
- GLPDBB009I Backed up directory server instance 'dsrdbm01'.



# Performing ITDS Backup

- To take the online backup with Basic Method (i.e. Using commands `idsdb2ldif` and `idsdbback`), we first need to configure the database for online backup.
- We can configure database for online backup using below command:
- `# idscfgdb -l instance_name -w db_admin_pw -a db_admin_id -t db_name -l db_location -k backup_dir`
- To unconfigure the database for online backup we can use below command:
- `# idscfgdb -l instance_name -c`
- Note:
  - ‘-c’ is supported only if the online configuration was done through GUI tools (`idsxinst` or `WebAdmin`).
  - The -c option must not be used along with the -a, -t, and -l options, since the database is already configured. However, it can be used with the -w option.

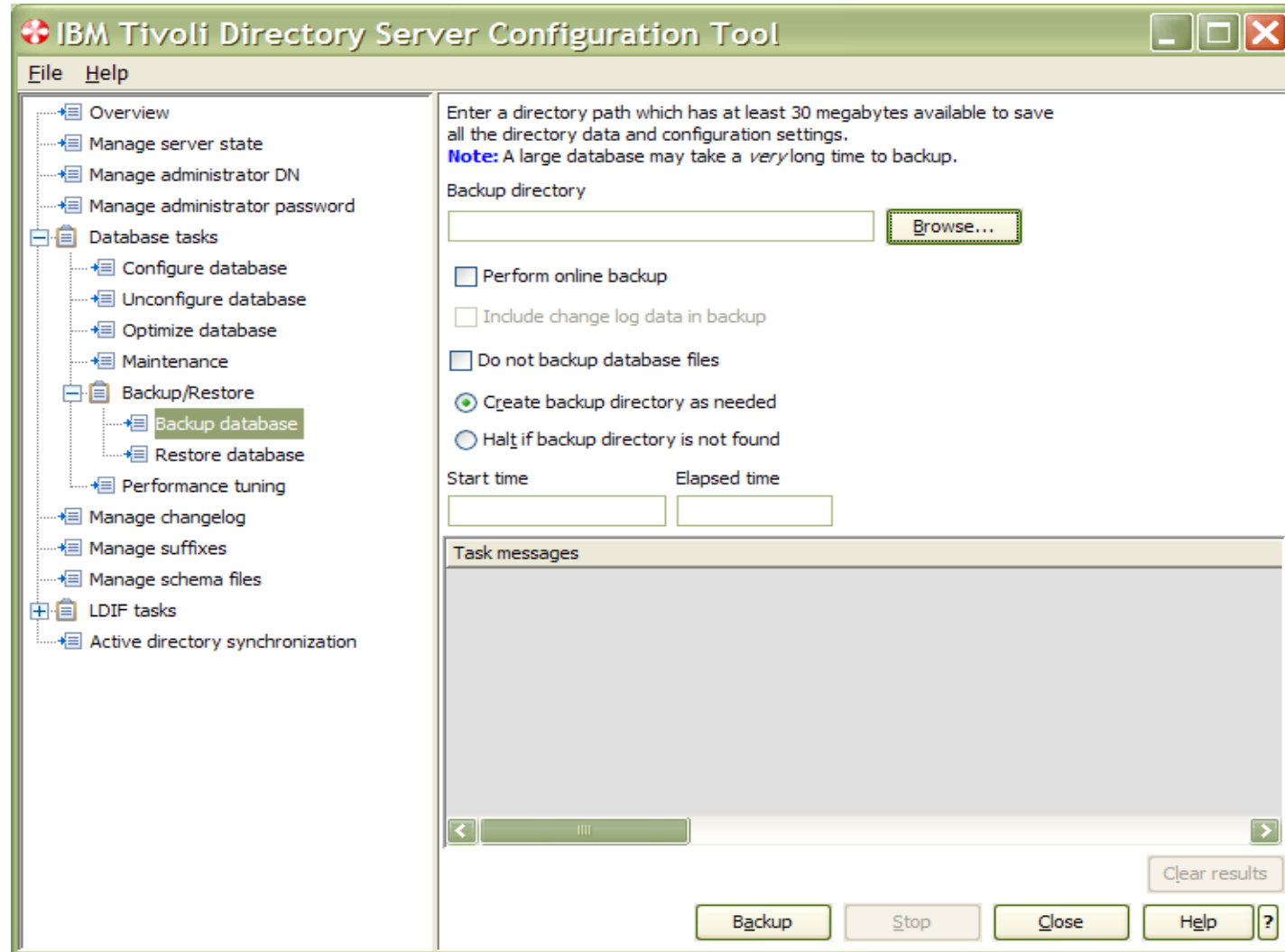


# Performing ITDS Backup

- Configure database for online backup using Instance Administration Tool:
  - Open ITDS Instance Administration Tool
  - Click on Manage
  - Navigate to Backup/Restore => Backup Database
  - Browse the Backup Directory
  - Check “Update database configuration to support online backup”
  - Click on “Backup” to start the online backup for ITDS.



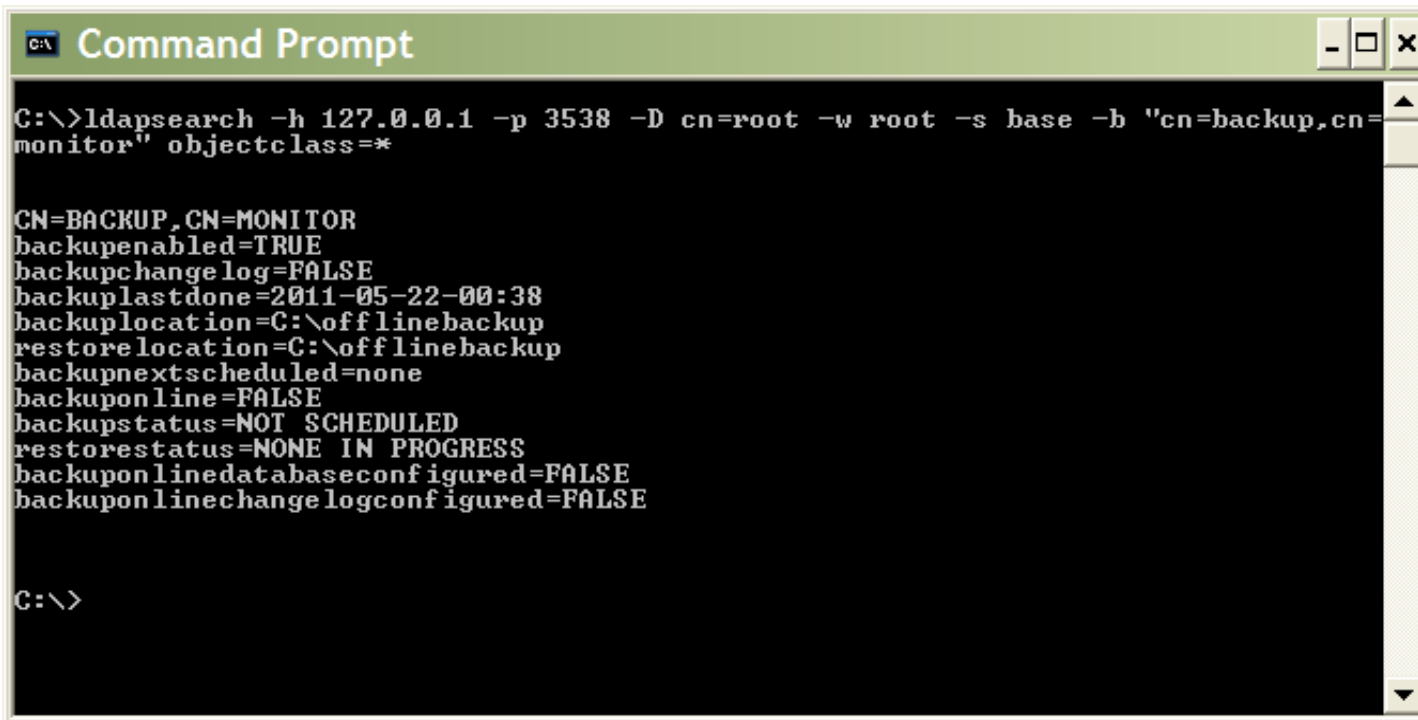
# Performing ITDS Backup



# Performing ITDS Backup

- We can use below command to verify the backup status:

```
idsldapsearch -p <admin port> -D cn=admin -w password -s base -b cn=backup,cn=monitor objectclass=*
```



```
C:\>ldapsearch -h 127.0.0.1 -p 3538 -D cn=root -w root -s base -b "cn=backup,cn=monitor" objectclass=*

CN=BACKUP,CN=MONITOR
backupenabled=TRUE
backupchange log=FALSE
backuplastdone=2011-05-22-00:38
backuplocation=C:\offlinebackup
restorelocation=C:\offlinebackup
backupnextscheduled=none
backuponline=FALSE
backupstatus=NOT SCHEDULED
restorestatus=NONE IN PROGRESS
backuponlinedatabaseconfigured=FALSE
backuponlinechange logconfigured=FALSE

C:\>
```

- Note: backuponlinedatabaseconfigured will be FALSE until the first backup is completed successfully.



# Performing ITDS Backup

- Backup Using Web Administration Tool
  - Log on to Web Administration Tool
  - Navigate to Server administration => Manage backup/restore
  
- Using Web Administration Tool we can do following backup tasks:
  1. Check Backup/Restore status
  2. Configure directory server backup
  3. Schedule directory server backup
  4. Perform directory server backup
  5. Restore directory server using existing backup files.



# Performing ITDS Backup

## Check Backup/Restore status

Manage backup/restore
[Logfiles](#) [Help](#)

<u>Backup/Restore status</u>	<u>Backup/Restore status</u>
<a href="#">Configure directory server backup</a>	Backup enabled: <input style="width: 100%;" type="text" value="False"/>
<a href="#">Schedule directory server backup</a>	Backup change log enabled: <input style="width: 100%;" type="text" value="N/A"/>
<a href="#">Perform directory server backup</a>	Backup type: <input style="width: 100%;" type="text" value="N/A"/>
<a href="#">Perform directory server restore</a>	Backup frequency: <input style="width: 100%;" type="text" value="N/A"/>
	Backup status: <input style="width: 100%;" type="text" value="N/A"/>
	Previous successful backup: <input style="width: 100%;" type="text" value="N/A"/>
	Previous backup location: <input style="width: 100%;" type="text" value="N/A"/>
	Next scheduled backup: <input style="width: 100%;" type="text" value="N/A"/>
	Next backup location: <input style="width: 100%;" type="text" value="N/A"/>
	Restore status: <input style="width: 100%;" type="text" value="N/A"/>
	<input type="button" value="Refresh"/>





# Performing ITDS Backup

## Configure directory server backup

**Manage backup/restore**

<p><u>Backup/Restore status</u></p> <p><b>* <u>Configure directory server backup</u></b></p> <p><u>Schedule directory server backup</u></p> <p><u>Perform directory server backup</u></p> <p><u>Perform directory server restore</u></p>	<p><b><u>Configure directory server backup</u></b></p> <div style="border: 2px solid yellow; padding: 2px; margin-bottom: 10px;"> <input checked="" type="checkbox"/> <b>Enable backup of directory server</b> </div> <p> <input checked="" type="radio"/> Online backup  <input type="radio"/> Offline backup                 </p> <p>Backup/Restore location:</p> <p>* <span style="border: 1px solid yellow; padding: 2px;">\LDAP\V6.3\Onlinebackup</span></p>
--	---



# Performing ITDS Backup

## Schedule directory server backup

**Manage backup/restore**

[Backup/Restore status](#)

[Configure directory server backup](#)

**[Schedule directory server backup](#)**

[Perform directory server backup](#)

[Perform directory server restore](#)

**One time**

5/18/2011 12:00:00 AM Example: 12:30:00 PM

**Recurring (Once a week or daily)**

SUNDAY 12:00:00 AM Example: 12:30:00 PM

- DAILY
- MONDAY
- TUESDAY
- WEDNESDAY
- THURSDAY
- FRIDAY
- SATURDAY
- SUNDAY

OK Apply Cancel



# Performing ITDS Backup

## Perform directory server backup

**Manage backup/restore**

---

<a href="#">Backup/Restore status</a>	<b>Perform directory server backup</b>
<a href="#">Configure directory server backup</a>	
<a href="#">Schedule directory server backup</a>	
<b><a href="#">Perform directory server backup</a></b>	
<a href="#">Perform directory server restore</a>	

**Backup type:**

**Backup status:**

**Previous successful backup:**

**Backup location:**

Last refreshed at 10:07:32 PM IST on May 21, 2011



# Performing ITDS Backup

## Restore directory server using existing backup files

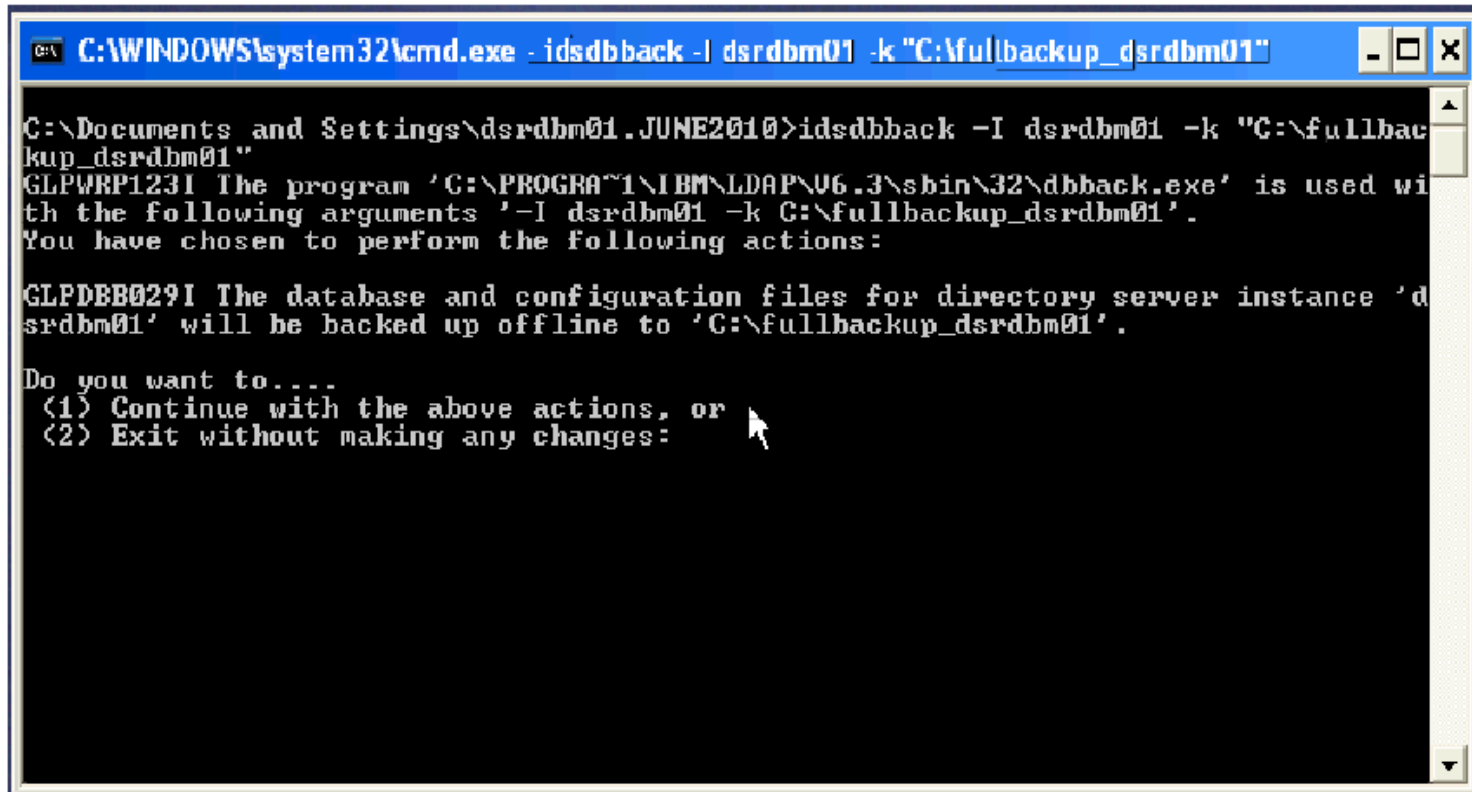
**Manage backup/restore**

<a href="#">Backup/Restore status</a>	<h3>Perform directory server restore</h3> <p><b>Note: After performing restore operation, restart the directory server.</b></p> <p>Restore status: <span style="border: 1px solid #ccc; padding: 5px; display: inline-block; width: 200px; height: 40px; vertical-align: middle;">NONE IN PROGRESS</span></p> <p>Restore location: <span style="border: 1px solid #ccc; padding: 2px; display: inline-block; width: 150px; height: 20px; vertical-align: middle;">LDAP\V6.3\Onlinebackup</span></p> <p>Restore from backup: <span style="border: 1px solid #ccc; padding: 2px; display: inline-block; width: 150px; height: 20px; vertical-align: middle;">May 15, 2011 2:35:00 PM</span></p> <p><span style="border: 1px solid #ccc; padding: 2px 10px; margin-right: 5px;">Stop server and restore now</span></p> <p><span style="border: 1px solid #ccc; padding: 2px 10px; margin-right: 5px;">View logs</span></p> <p><span style="border: 1px solid #ccc; padding: 2px 10px; margin-right: 5px;">Refresh</span></p> <p>Last refreshed at 10:10:34 PM IST on May 21, 2011</p>
<a href="#">Configure directory server backup</a>	
<a href="#">Schedule directory server backup</a>	
<a href="#">Perform directory server backup</a>	
<b><a href="#">Perform directory server restore</a></b>	

OK
Apply
Cancel

# Performing ITDS Backup

- Using idsdbback command:



```
C:\WINDOWS\system32\cmd.exe - idsdbback -I dsrdbm01 -k "C:\fullbackup_dsrdbm01"

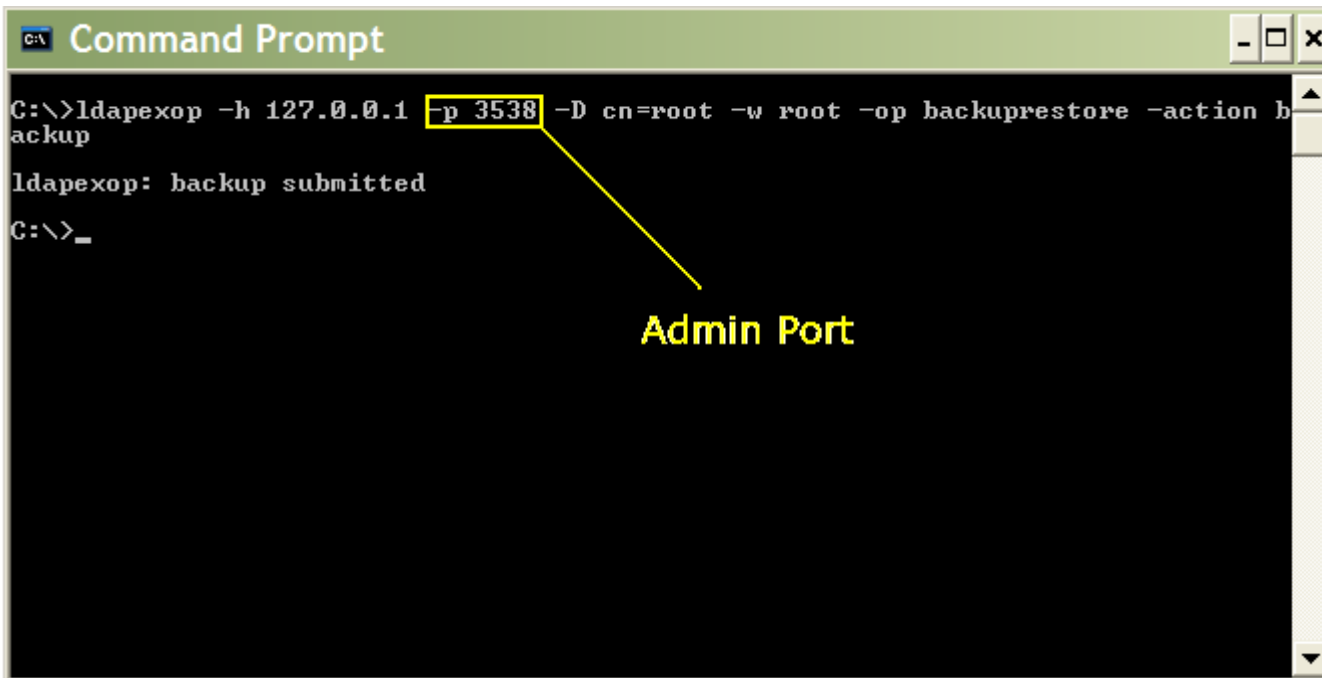
C:\Documents and Settings\dsrdbm01.JUNE2010>idsdbback -I dsrdbm01 -k "C:\fullbac
kup_dsrdbm01"
GLPWRP123I The program 'C:\PROGRAM~1\IBM\LDAP\06.3\sbin\32\dbback.exe' is used wi
th the following arguments '-I dsrdbm01 -k C:\fullbackup_dsrdbm01'.
You have chosen to perform the following actions:

GLPDBB029I The database and configuration files for directory server instance 'd
srdbm01' will be backed up offline to 'C:\fullbackup_dsrdbm01'.

Do you want to....
(1) Continue with the above actions, or
(2) Exit without making any changes:
```

# Performing ITDS Backup

- Using ldapexop command:



```
C:\>ldapexop -h 127.0.0.1 -p 3538 -D cn=root -w root -op backuprestore -action backup
ldapexop: backup submitted
C:\>_
```

Admin Port

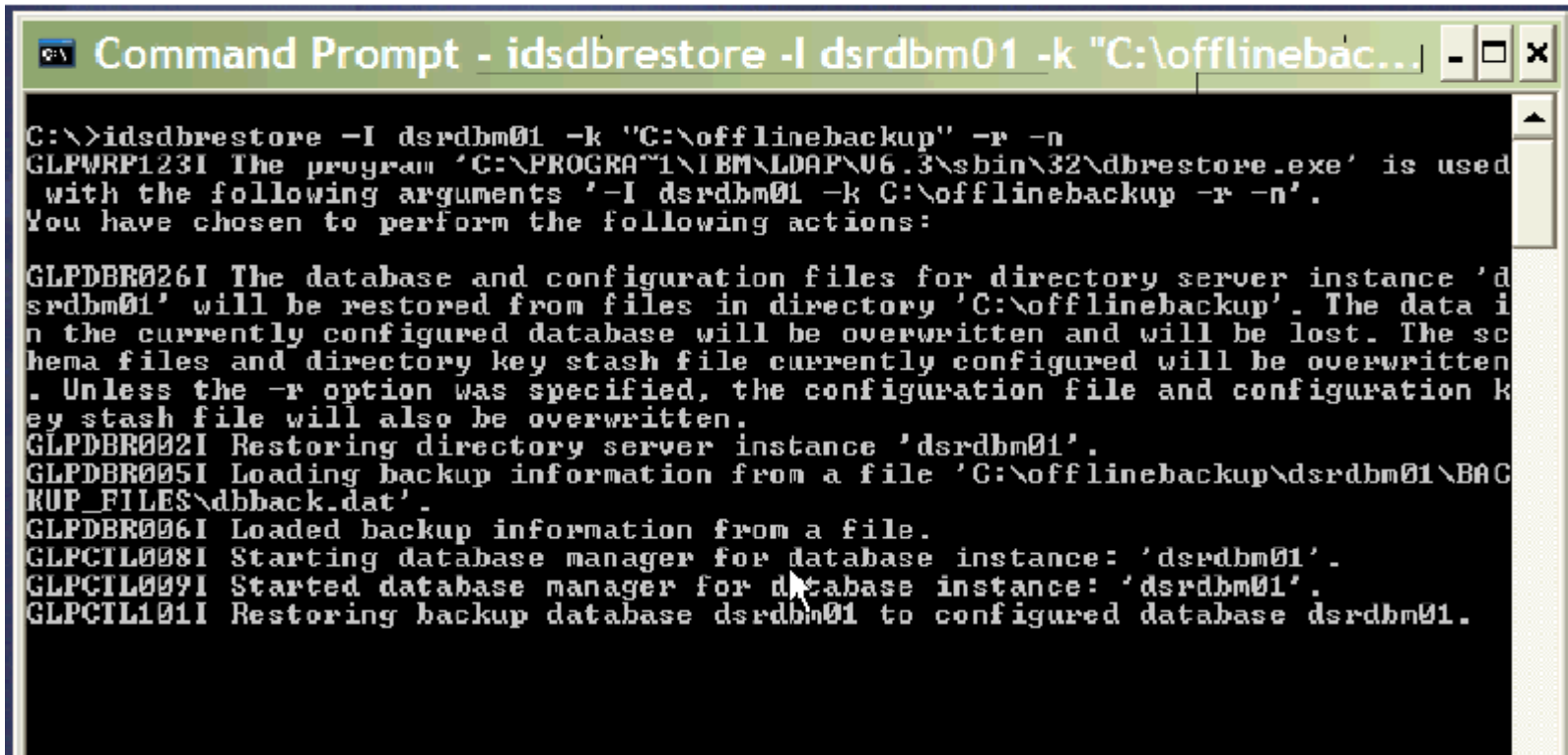


# Performing ITDS Restore

- We have following options to restore ITDS :
  - Using idsdbrestore command
  - Using Idapexop command
  - Using Web Administration Tool
- To perform restore operation ITDS instance must be stopped.
- The restore operation can only be performed by the following users:
  - Primary directory administrator
  - Local administration group member having all of the following roles: DirDataAdmin, ServerStartStopAdmin, ServerConfigGroupMember, and SchemaAdmin



# Performing ITDS Restore



```
Command Prompt - idsdbrestore -I dsrdbm01 -k "C:\offlinebac... - _ X
C:\>idsdbrestore -I dsrdbm01 -k "C:\offlinebackup" -r -n
GLPWRP123I The program 'C:\PROGRAM~1\IBM\LDAP\U6.3\sbin\32\dbrestore.exe' is used
with the following arguments '-I dsrdbm01 -k C:\offlinebackup -r -n'.
You have chosen to perform the following actions:

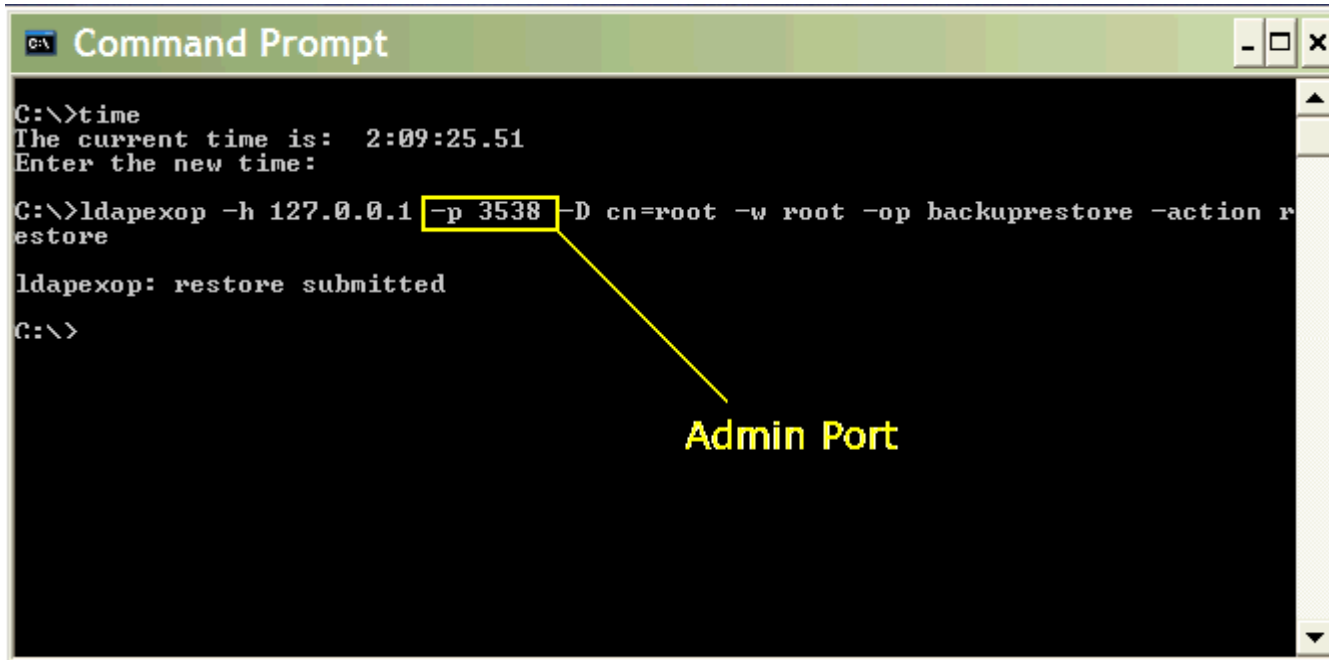
GLPDBR026I The database and configuration files for directory server instance 'd
srdbm01' will be restored from files in directory 'C:\offlinebackup'. The data i
n the currently configured database will be overwritten and will be lost. The sc
hema files and directory key stash file currently configured will be overwritten
. Unless the -r option was specified, the configuration file and configuration k
ey stash file will also be overwritten.
GLPDBR002I Restoring directory server instance 'dsrdbm01'.
GLPDBR005I Loading backup information from a file 'C:\offlinebackup\dsrdbm01\BAC
KUP_FILES\dbback.dat'.
GLPDBR006I Loaded backup information from a file.
GLPCTL008I Starting database manager for database instance: 'dsrdbm01'.
GLPCTL009I Started database manager for database instance: 'dsrdbm01'.
GLPCTL101I Restoring backup database dsrdbm01 to configured database dsrdbm01.
```





# Performing ITDS Restore

- ITDS restore using ldapexop command



```
C:\>time
The current time is:  2:09:25.51
Enter the new time:

C:\>ldapexop -h 127.0.0.1 -p 3538 -D cn=root -w root -op backuprestore -action restore
ldapexop: restore submitted
C:\>
```



# Performing ITDS Restore

- Restore Using Web Administration Tool
  1. Log on to Web Administration Tool
  2. Navigate to Server administration => Manage backup/restore => Perform directory server restore
  3. Click on “stop server and restore now”
  4. Restore status shows the status of restore request.



# Performing ITDS Restore

## Manage backup/restore

[Backup/Restore status](#)

[Configure directory server backup](#)

[Schedule directory server backup](#)

[Perform directory server backup](#)

**[Perform directory server restore](#)**

## Perform directory server restore

**Note: After performing restore operation, restart the directory server.**

Restore status:

NONE IN PROGRESS

Restore location:

LDAP\V6.3\Onlinebackup

Restore from backup:

May 15, 2011 2:35:00 PM

Last refreshed at 10:10:34 PM IST on May 21, 2011



# Performing ITDS Restore

- ITDS restore using Instance Administration Tool:
  - Open ITDS Instance Administration Tool
  - Click on “Manage”
  - Navigate to Backup/Restore => Restore Database
  - Select the Restore Directory by clicking “Browse button”
  - Click on Restore to perform ITDS restore



# Performing ITDS Restore

The screenshot displays the IBM Tivoli Directory Server Configuration Tool interface. The window title is "IBM Tivoli Directory Server Configuration Tool". The left-hand navigation pane shows a tree structure of tasks, with "Restore database" selected and highlighted. The main content area contains the following elements:

- Instructions:** "Enter a directory path from which to restore all the directory data and configuration settings." A note below states: "Note: A large database may take a long time to restore from backup."
- Restore directory:** A text input field followed by a "Browse..." button.
- Options:** Two checkboxes: "Preserve current configuration settings" and "Include change log data in restore", both currently unchecked.
- Timing:** Two input fields labeled "Start time" and "Elapsed time".
- Task messages:** A large, empty text area for displaying progress or error messages.
- Buttons:** At the bottom, there are buttons for "Restore", "Stop", "Close", "Help", and "?". A "Clear results" button is also present near the task messages area.

# ITDS Backup/Restore Gotchas

- Backups can be online or offline, but a restore requires the server to be offline.
- The very first backup even for a server configured to use online backups requires the directory server to be offline.
- Database can be configured for online backup during idscfgdb itself (-k switch).
- Backup configuration can't be made on a Proxy Server. Hence, it won't be possible to do a remote backup/restore of a proxy server, through exops or the web admin, and you cannot schedule proxy server backups.
- A restore will act upon the details provided in dbback.dat. Hence, it is recommended that if restore is to be used, the backup should be taken such that it updates dbback.dat.



# ITDS Backup/Restore Gotchas

- A restore will replace the server configuration and changed settings we recommend that the admin server to be restarted.
- Changes to the backup configuration are made to the directory server but you must request a readconfig extended operation to the admin server to have the changes take effect.
- Online backups should be scheduled periodically to remove the inactive log files from DB2.
- Backup paths should be writeable by the instance owners.
- If dbback.dat is not accessible and directory server down, it is assumed that the database is not configured for online backup.



# ITDS Backup/Restore Gotchas

- idsdbback will take an offline backup if `-u` is specified and it's the very first instance of online backup. The directory server needs to be down at this point of time.
- The `-r` switch is not used by Admin Server while firing a restore request. Hence, `ibmslapd.conf` will always be restored.
- idsideploy won't copy backup configuration to a newly deployed instance.
- idsinstances.ldif, ssl files and TDI solution files need a manual backup. The backup/restore tools won't act on these files.
- idscfgdb can be used to disable online backup. This is possible only if the online backup configuration was done through the GUI. It's recommended that for better management of online backup/restore functionality, the GUI be used rather than the command line tools. Command line tools can be used to fire the backup/restore requests.





# ITDS Data Import/Export

- ITDS provides utilities to import or export directory entries.
- We can import/export directory entries in LDIF format i.e. LDAP Data Interchange Format.
- To export directory entries we can use `idsdb2ldif / db2ldif` command.
- To import directory entries from ldif file we can use either `idsldif2db / ldif2db` or `idsbulkload / bulkload` command.
- `Idsbulkload` is a faster alternative to `idsldif2db`.



# ITDS Data Import/Export

- Exporting data using command line:  
`idsdb2ldif -l <instance_name> -o output.ldif`
- Below are some common switches that can be used with `idsdb2ldif`:
  - `-s` : Allows to export specific subtree
  - `-j` : Indicates that the operational attributes are not to be exported
  - `-n <filter_DN>`: Specifies the DN of filter entry used to filter entries before adding into output LDIF file



# ITDS Data Import/Export

- Exporting data using Instance Administration Tool:
- Launch Instance Administration Tool
- Click on Manage
- Navigate to LDIF tasks >> Export LDIF data



# ITDS Data Import/Export

**IBM Tivoli Directory Server Configuration Tool**

File Help

- Overview
- Manage server state
- Manage administrator DN
- Manage administrator password
- Database tasks
  - Configure database
  - Unconfigure database
  - Optimize database
  - Maintenance
  - Backup/Restore
  - Performance tuning
- Manage changelog
- Manage suffixes
- Manage schema files
- LDIF tasks
  - Import LDIF data
  - Export LDIF data**
- Active directory synchronization

Enter the path and name of LDIF file where the directory data will be exported.  
If you do not want to export the entire directory specify the Subtree DN.  
**Note:** A large database might take a very long time to export.

Path and LDIF file name

Overwrite if file exists  
 Export operational attributes  
 Export data for AES-enabled destination server  
 Export deleted entries

**Destination server details**

Encryption seed  Encryption salt

**Filtered replication option**

Filter entry DN   
 Comments

Subtree DN

Start time  Elapsed time

Task messages



# ITDS Data Import/Export

- Importing data using command line:  
`idsldif2db -i inputfile -l instancename`
- Below are some common switches that can be used with `idsldif2db`:
- `-r [yes|no]` : Specifies whether to replicate. The default is yes which means entries are put into the Change table and are replicated when the server restarts.
- `-g` : Specifies not to strip the trailing spaces on attribute values.



# ITDS Data Import/Export

- Exporting data using Instance Administration Tool:
- Launch Instance Administration Tool
- Click on Manage
- Navigate to LDIF tasks >> Import LDIF data



# ITDS Data Import/Export

**IBM Tivoli Directory Server Configuration Tool**

File Help

- Overview
- Manage server state
- Manage administrator DN
- Manage administrator password
- Database tasks
  - Configure database
  - Unconfigure database
  - Optimize database
  - Maintenance
  - Backup/Restore
  - Performance tuning
- Manage changelog
- Manage suffixes
- Manage schema files
- LDIF tasks
  - Import LDIF data**
  - Export LDIF data
- Active directory synchronization

Enter the path and name of LDIF file from which the directory data will be imported.  
**Note:** Before importing an LDIF file you must add the corresponding suffixes in the **Manage suffixes** task.

Path and LDIF file name

Remove trailing spaces in **Standard import** or **Bulkload**

**Standard import**    Data validation only    **Bulkload**

Schema checking is done on the data, but the data is not added to the directory.  
**Warning:** To improve performance Bulkload does not check the correctness of the data. Run **Data validation only** on the LDIF file before attempting bulkload.

Use bulkload for very large LDIF files.

Bulkload options

Enable schema checking  
 Enable ACL checking

Start time    Elapsed time

Task messages



# ITDS Basic Debugging

- When performing ITDS Backup/Restore or Import/Export, make sure the command executed without any error message.
- Following logs can be useful to get more details for ITDS Backup/Restore or Import/Export:
  - 1 ibmslapd.log
  - 2 ibmdiradm.log
  - 3 idstools.log
  - 4 db2cli.log
  - 5 db2diag.log, in case of any database errors.
  - 6 bulkload.log
  - 7 audit.log
  - 8 Backup status file (dbback.dat)





# ITDS Basic Debugging

- Enable the trace facility. From the command line, issue the following command:  
  
ldtrc on
- We can use -d <debug level> option with different utilities.
- This option causes the utility to generate debug output to stdout.
- The <debuglevel> is a bit mask that controls which output is generated with values up to 65535.
- This parameter is for use by IBM service personnel.
- While performing online backup make sure that offline backup is already taken for given LDAP instance.



# ITDS Basic Debugging

- idsbulkload appears to hang during parsing phase
- For example, if an LDIF file contains 50,000 nested groups with 100 membergroups in each of the nested groups, idsbulkload might need about 1 to 2 seconds to process each one of the nested groups during the parsing phase.
- Before executing bulkload make sure that the user has appropriate permissions.
- In case bulkload fails for some reason, we need to reconfigure the database as it is in inconsistency state.
- Bulkload fails on AIX 6.1, it need AIX FP1 for successful completion.
- The idsdbrestore utility displays error messages if the ldapdb.properties file is modified.



# ITDS Basic Debugging

- Bulkload on windows fails with below error message:  
  
GLPBLK030E Run DB2CMD.EXE first, and then run bulkload within the "DB2 CLP" command interpreter.
- In order to run the command we should do following
  - > Logon to windows with TDS instance owner.
  - > Open IBM DB2 Command Window.
  - > Make sure that current database instance is correct using command "db2 get instance" from db2 command window. If current database instance is different then set appropriate db2 instance using command  
  
"set DB2INSTANCE=<instance\_name>"
  - > Execute db2 bulkload command.



# Maintenance Tasks

- Check existing APARs and apply the latest fix pack accordingly.
- ITDS fixes:

[http://www-01.ibm.com/support/docview.wss?  
rs=767&uid=swg27009778](http://www-01.ibm.com/support/docview.wss?rs=767&uid=swg27009778)



Thank  
You



