

*Telelogic Directory Server
Administration Guide
Release 4.3*

Before using this information, be sure to read the general information under Appendix, “Notices” on page 19.

This edition applies to **VERSION 4.3, Telelogic Directory Server** and to all subsequent releases and modifications until otherwise indicated in new editions.

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1

About this manual

This manual guides you through the Telelogic® Directory Server™ (TDS) administration. This document contains step-by-step instructions for administering the TDS.

TDS documentation

This section provides the information on the related documents available for TDS. The following TDS documents are available on the Telelogic Product Support Web site, <https://support.telelogic.com>.

Document name	Description
Telelogic Directory Server Installation Guide	Provides information on how to install the TDS.
Telelogic Directory Server Product Manual	Provides detailed information on TDS features supported in this release.

Contacting IBM Rational Software Support

Support and information for Telelogic products is currently being transitioned from the Telelogic Support site to the IBM Rational Software Support site. During this transition phase, your product support location depends on your customer history.

Product support

- If you are a heritage customer, meaning you were a Telelogic customer prior to November 1, 2008, please visit the <http://support.telelogic.com>. Telelogic customers will be redirected automatically to the IBM Rational Software Support site after the product information has been migrated.
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Before you contact Support, gather the background information that you will need to describe your problem. When describing a problem to an IBM software

support specialist, be as specific as possible and include all relevant background information so that the specialist can help you solve the problem efficiently. To save time, know the answers to these questions:

- What software versions were you running when the problem occurred?
- Do you have logs, traces, or messages that are related to the problem?
- Can you reproduce the problem? If so, what steps do you take to reproduce it?
- Is there a workaround for the problem? If so, be prepared to describe the workaround.

Other information

For Rational software product news, events, and other information, visit the [IBM Rational Software Web site](#).

Conventions used in this guide

Typeface	Description
<i>Italic</i>	Used for book titles and terminology.
Bold	Used for items that you can select and menu paths, also used for emphasis.
Courier	Used for commands, file names, and directory paths. Represents command syntax to be entered verbatim. Signifies computer output that displays on-screen.
Courier Italic	Represents values in a command string that you supply. For example, (drive:\username\commands) .

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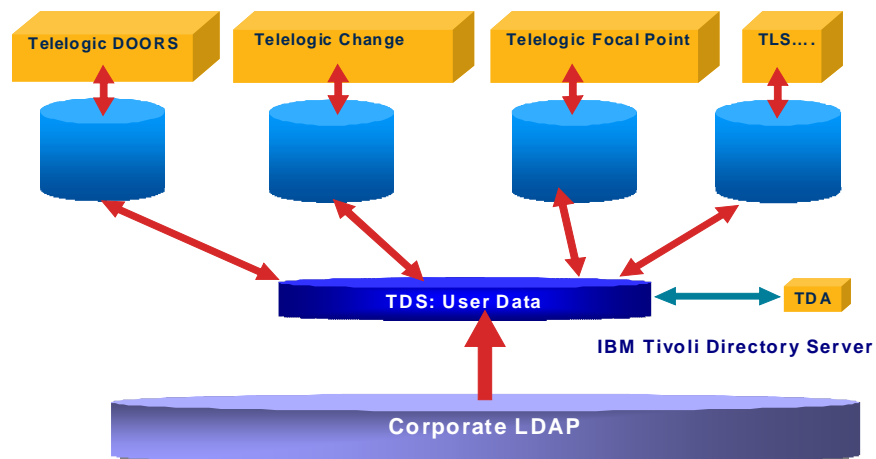
Introduction

The TDS is a single enterprise directory solution designed for user authentication and administration for Telelogic® Lifecycle Solution™ (TLS) tools. The TDS allows the TLS users to log on using the same credentials across TLS tools for which they have authorized access.

TDS 4.3 supports a wide range of platforms. For more information about the platform support, see the *Telelogic Directory Server Installation Guide*.

TDS architecture

The following diagram shows the TDS architecture.



Who should use this guide

This guide is intended for the TDS administrator. The administrator is responsible for the day-to-day operations of the server such as how to run the TDS backup programs and how to recover the directory manager password in case of password loss.

The *Telelogic Directory Server Administration Guide* contains some of the administration commands and utilities used for administering the TDS. If you are installing the TDS for the first time, refer to the *Telelogic Directory Server Installation Guide for Windows* located on the Product Support Web site <https://support.telelogic.com> for step-by-step instructions.

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Directory Server Administration

This chapter describes some of the utilities used for the directory server administration on Windows.

Note The general guidelines specified for IBM® Tivoli® Directory Server 6.1 administration apply. Refer to <http://publib.boulder.ibm.com/infocenter/tivihelp/v2r1/index.jsp?toc=/com.ibm.IBMDS.doc/toc.xml> for details.

Starting the directory server

From the command line, use the following command to start the directory server.

In Windows

```
<TDS_Home>/IBM/ldap/V6.1/sbin/Start_TDS_Server.bat
```

For example:

```
C:\Program Files\Telelogic\TDS_4.3\IBM\ldap\V6.1\sbin\  
Start_TDS_Server.bat
```

You can also double-click the `Start_TDS_Server.bat` located under the same path to start the server.

Note The TDS is setup as a Windows service, ensuring the server starts up on system reboot.

In UNIX:

On Solaris

```
$ cd /opt/IBM/ldap/V6.1/sbin
```

```
$ ./start_tds_server.sh
```

OR

```
$ ./ibmslapd -I tdsinst -n
```

On Linux

```
$ cd /opt/ibm/ldap/V6.1/sbin
$ ./start_tds_server.sh
OR
$ ./ibmslapd -I tdsinst -n
```

Stopping the directory server

From the command line, use the following command to stop the directory server.

```
<TDS_Home>/IBM/ldap/V6.1/sbin/Stop_TDS_Server.bat
```

Windows example:

```
C:\Program Files\Telelogic\TDS_4.3\IBM\ldap\V6.1\sbin\
Stop_TDS_Server.bat
```

UNIX example:

On Solaris

```
$ cd /opt/IBM/ldap/V6.1/sbin
$ ./stop_tds_server.sh
```

On Linux

```
$ cd /opt/ibm/ldap/V6.1/sbin
$ ./stopt_tds_server.sh
```

Backing up the Telelogic Directory Server

Backing up the TDS allows you to save a snapshot of the contents should the data be lost or become corrupt. The TDS backup essentially means the backing up of the IBM Tivoli Directory Server 6.1. The backup can be done on Windows, Solaris, and Linux platforms.

When these backup procedures are followed, the system automatically stores a copy of the server files on the same host. For greater security, copy and store these files on a different machine or file system.

Backing up the data

When you back up the server, all contents of the directory are saved in a backup location. This section tells you how to use the `idsdbback` command to back up the directory.

To back up your directory, do the following:

1. Stop the TDS server.
2. Change directory to the following path.
`cd <TDS_Home>\IBM\ldap\V6.1\sbin` (Windows)
`$ cd /opt/IBM/ldap/V6.1/sbin` (Unix)
3. Set the permission for the backup folder using the following command.
`$ chown tdsinst:idsldap /var/backup`
4. Backup the server using the following command.
`dbback -I instance_name backup directory path`
Example:
`$ dbback -I tdsinst /var/backup`
5. It prompts for the option. Type 1 to continue or 2 to exit.
6. Start the TDS server.

Restoring the Directory Server

Use the `restore` command to restore the server. Shut the server down before running this script.

To restore your directory, do the following:

1. Stop the TDS server.
2. Restore the backup using the following command:
`$ dbrestore -I instance_name backup directory path`
Example:
`$ dbrestore -I tdsinst /var/backup`
3. Start the TDS server.

Note For more information on backup, see <http://publib.boulder.ibm.com/infocenter/tivihelp/v2r1/index.jsp?toc=/com.ibm.IBMDS.doc/toc.xml>.

Authenticating the OS through PAM

The TDS uses Pluggable Authentication Modules (PAM) to authenticate users on Solaris, and LINUX systems. To allow TDS to authenticate users, the PAM configuration must be updated to specify the authentication methods to use for the *osauth* service, unless a reasonable default already exists.

Refer to the following tables for updating the PAM configuration.

1. On Solaris 9 and 10, the following are example additions to `/etc/pam.conf` file:

osauth	auth	sufficient	pam_unix_auth.so.1
osauth	auth	requisite	pam_authok_get.so.1
osauth	auth	required	pam_unix_auth.so.1
osauth	account	required	pam_unix_account.so.1

Note On Solaris, if the server is running with non-root privileges, ensure that server process can read the `/etc/shadow` file.

2. On Red Hat Linux, the following are example additions to the `/etc/pam.d/osauth` file:

auth	sufficient	pam_unix.so	likeauth	nullok
auth	required	pam_deny.so	-	-
account	required	pam_unix.so	-	-

3. On AIX, the Base Operating System performs the authentication.

Note If the *osauth* PAM service is not defined, the default definitions are used. The default definitions are configured with the service name *other*.

On UNIX systems the Administrator will need to provide read access to the `/etc/shadow` file to *tdsinst* user (/created during TDS installation) for OS Authentication mode to function.

For example, `$>chmod 444 /etc/shadow`

Changing the TDS operation mode

The TDS provides the `tdsconfig` utility to change the TDS operation mode from the command line. The TDS uses the operation mode to perform the authentication. For example, if the operation mode is changed to OS authentication mode, the authentication is done based on the domain name on Windows.

You can change the operation mode by doing the following:

On Windows:

1. On the command line, change the directory path to the following
`<TDS_Install>\TDS_4.3\IBM\ldap\V6.1\sbin`

2. Type `tdsconfig.exe` to run the utility.

For example:

```
C:\Program Files\Telelogic\TDS_4.3\IBM\ldap
\V6.1\sbin>tdsconfig.exe
```

3. The default URL for server authentication is displayed.

4. Type the following details as shown in the following example:

Field name	Value
TDS default URL is: ldap://localhost:1389/ Do you want to use the default url? [y/n]:	Type <i>y</i> to use the default URL or if you type <i>n</i> , the program asks you to type the TDS url. Type the valid TDS url and press Enter . Note To open the TDS in secure mode, you can include the letter "s" in the ldap URL (where the "s" refers to the secure port), followed by a valid server name and a port number. For example: ldaps:// dirserv:1636.
Enter the user name:	<i>tdsadmin</i>
Enter the password:	Type the <i>tdsadmin</i> password. It displays the current operation mode along with the list of operation modes to select from.

Select the operation mode to be set from the following: 0.Standalone mode 1.Corporate mode 2.OS authentication mode 3.Trusted OS Authentication	Enter your choice: 2
Do you want to proceed? [y/n]:	Type <i>y</i> to proceed
Enter the domain name:	<i>example.com</i>

Once you have entered all the details, the operation mode is changed and the message for successful mode change appears.

```

C:\WINDOWS\system32\cmd.exe
E:\Program Files\Telelogic\TDS_4.3\IBM\ldap\U6.1\sbin>tdsconfig
TDS default url is: ldap://localhost:1389/
Do you want to use the default url? [y/n]: y
Enter the user name: tdsadmin
Enter the password:

The current operation mode is: Corporate mode

Select the operation mode to be set from the following:
0.Standalone mode
1.Corporate mode
2.OS Authentication mode
3.Trusted OS Authentication
Enter your choice here: 2
TDS will now be functional in OS Authentication mode

Do you want to proceed? [y/n]: y
The operation mode has been changed successfully.

E:\Program Files\Telelogic\TDS_4.3\IBM\ldap\U6.1\sbin>_
    
```

Note Whenever the operation mode is changed, the **Web server** needs to be restarted.

If the operation mode is changed from **Stand-Alone** to **Corporate**, the users must be migrated as corporate users.

5. Restart the TDA.

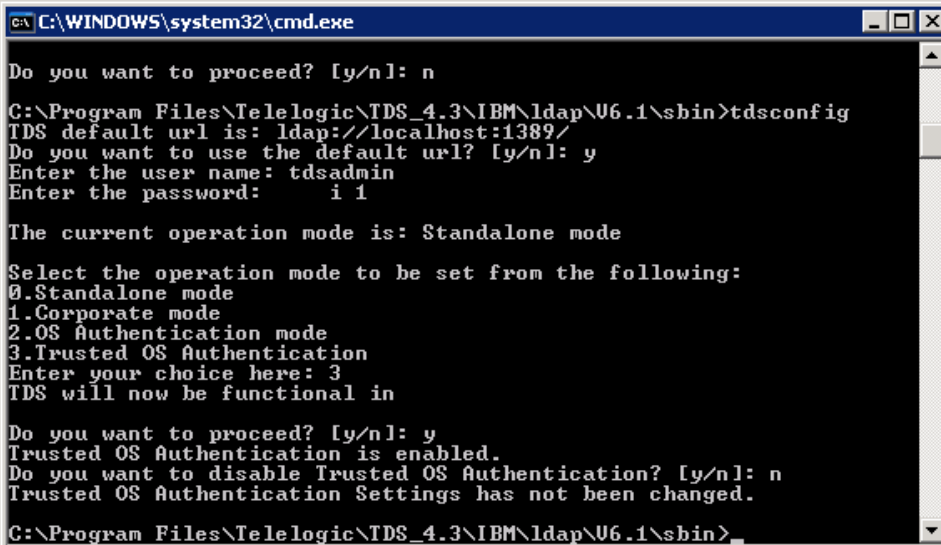
Trusted OS authentication settings

The TDS additionally supports specific settings for the Telelogic System Architect[®], and Telelogic Synergy[™] tools. The Telelogic System Architect tool by default uses the Trusted Operating System (OS) authentication. The Trusted OS setting is enabled by default within TDS.

This configuration is designed to allow the Telelogic System Architect and Telelogic Synergy tool to use the existing OS authentication to log on to the TDS. The user is not prompted for user login dialog for tool connectivity to TDS.

Use the `tdsconfig` utility to enable or disable the Trusted OS authentication. For more details, see [Changing the TDS operation mode](#) section.

The image below shows an example of this setting.



```
C:\WINDOWS\system32\cmd.exe
Do you want to proceed? [y/n]: n
C:\Program Files\Telelogic\TDS_4.3\IBM\ldap\U6.1\sbin>tdsconfig
TDS default url is: ldap://localhost:1389/
Do you want to use the default url? [y/n]: y
Enter the user name: tdsadmin
Enter the password: i 1

The current operation mode is: Standalone mode

Select the operation mode to be set from the following:
0.Standalone mode
1.Corporate mode
2.OS Authentication mode
3.Trusted OS Authentication
Enter your choice here: 3
TDS will now be functional in

Do you want to proceed? [y/n]: y
Trusted OS Authentication is enabled.
Do you want to disable Trusted OS Authentication? [y/n]: n
Trusted OS Authentication Settings has not been changed.
C:\Program Files\Telelogic\TDS_4.3\IBM\ldap\U6.1\sbin>
```

Note When the Trusted OS authentication is disabled, the TDS login dialog box appears.

Settings for assigning license feature

This section describes the settings that must be done for assigning the license features to users.

Standalone mode

The users must have their NT logon name or UNIX logon name configured in TDS to assign a license feature.

Corporate mode

The attribute `CORPORATE_LICENSING_FEATURE_LOGON_ATTRIBUTE` is configured in **TDSConfiguration.xml** file. By default, the value for this attribute is set to `samAccountName` for Active Directory Server corporate partition.

For other corporate partitions such as the IBM Tivoli Directory Server, the administrator must configure this value to a valid system login name (For example, `uid`).

Configuring SynergyUserName attribute in Corporate Mode

The attribute `CORPORATE_SYNERGYLOGONNAME_ATTRIBUTE` in **TDSConfiguration.xml** file is used for configuring the **SynergyUserName** attribute in corporate mode. By default, the value for this attribute is set to `CN` for any corporate partition.

Note The **TDSConfiguration.xml** file will be bundled as part of Telelogic Product server installation (/ E.g. Telelogic Change Server).

Enabling Secure Sockets Layer (SSL) security

The following section describes the steps for enabling the SSL security. To enable the secure connectivity between the Telelogic tools and the Active Directory Server, follow steps given in the following sections.

Exporting the certificate from the Active Directory server

To export the CA certificate from the Active Directory server, follow these steps:

1. Log on as a Domain Administrator to the Active Directory domain server that is being used to create the TDS partition.
2. Export the certificate from the Active Directory server to a file. To do so, follow these steps:
 - a. Click **Start>Control Panel> Administrative Tools>Certificate Authority** to open the CA Microsoft® Management Console (MMC) GUI.
 - b. Highlight the CA machine and right-click to select **Properties** for the CA.
 - c. From **General** menu, click **View Certificate**.
 - d. Select the **Details** view, and click the **Copy to File** button on the lower-right corner of the window.
 - e. Use the **Certificate Export** Wizard to save the CA certificate in a file.

Note You can save the CA certificate in either DER Encoded Binary X-509 format or Based-64 Encoded X-509 format.

Importing the certificate to the Telelogic products

You must import the certificate to each Telelogic tools such as Telelogic® DOORS®, Telelogic System Architect etc.

To import the CA certificate to the Telelogic products, follow these steps:

On Windows:

- Run the following command to import the certificate:

```
<Telelogic tool Install path>/ibm/gsk7/bin/gsk7cmd.exe -cert
-add -db <Telelogic tool Install path>/lib/certdb/
tdsclientkey.kdb -pw tdskey4client -label ADS_LABEL -file
<extracted Active Directory certificate.cer file>
```

- The SSL setup is complete.

On Solaris:

- Run the following command to import the certificate:

```
/opt/ibm/gsk7/bin/gsk7cmd -cert -add -db tdsclientkey.kdb -pw  
tdskey4client -label ADS_LABEL -file <extracted Active  
Directory certificate.cer file>
```

- The SSL setup is complete.

Note For more details on enabling the SSL security, see http://publib.boulder.ibm.com/infocenter/tivihelp/v2r1/index.jsp?topic=/com.ibm.itame.doc/am61_install318.htm.

Performance tuning

To improve the performance of DOORS application in corporate mode, perform the following steps.

1. Create a new file index.ldif
2. Add the following contents to the file

```
dn: cn=schema  
changetype: modify  
replace: attributetypes  
attributetypes: (1.3.6.1.4.1.15265.0.36 NAME  
( 'tdsCorporateDN' ) EQUALITY 2.5.13.1 SYNTAX  
1.3.6.1.4.1.1466.115.121.1.12 SINGLE-VALUE)  
-  
replace: ibmattributetypes  
ibmattributetypes: (1.3.6.1.4.1.15265.0.36 DBNAME  
( 'tdsCorporateDN' 'tdsCorporateDN' ) ACCESS-CLASS  
normal LENGTH 200 EQUALITY SUBSTR)
```

3. Navigate to <TDS_HOME>/IBM/ldap/V6.1/bin

4. Run the ldapmodify command:

```
ldapmodify.cmd -h <machine_name> -p <port_numbet> -D  
uid=tdsadmin,ou=people,dc=example,dc=com -w <tdsadmin  
password> -i <Path to index.ldif>
```

For example:

```
ldapmodify.cmd -h tdserver -p 1389 -D  
uid=tdsadmin,ou=people,dc=example,dc=com -w Pass123 -i  
"C:\index.ldif"
```


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Troubleshooting TDS

This chapter describes the possible problem and solutions for TDS users.

Problem	Solution
Changing or resetting the password with Non-ASCII characters does not work.	Changing or resetting the password with Non-ASCII characters are not supported by TDS.
Web TDA cannot be used for License Configuration on Solaris platform.	License Configuration on Web TDA does not function with TDA Web Access Server installed on Solaris. The TDA Web Access Server needs to be installed on Windows or Linux platforms to achieve the license configuration functionality.
Users cannot login after migration.	The TDS server needs to be restarted otherwise the data inconsistency is observed. For more information on starting the server, see Starting the directory server (page 5) .

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