ZCP 7.0 (build 41322)

Zarafa Collaboration Platform

The Migration Manual

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The Migration Manual
Edition 2.0

The Zarafa Collaboration Platform (ZCP) combines the usability of Outlook with the stability and flexibility of a Linux server. It features a rich web-interface, the Zarafa WebAccess, and provides brilliant integration options with all sorts of clients including all most popular mobile platforms.

Most components of ZCP are open source, licensed under the *AGPLv3*[1], can therefore be downloaded freely as *ZCP's Community Edition*[2].

Several closed source components exist, most notably:

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[4] http://creativecommons.org/licenses/by-sa/3.0/
[1] http://www.gnu.org/licenses/agpl-3.0.html
[2] http://www.zarafa.com/content/community

- the Zarafa Windows Client providing Outlook integration,

- the Zarafa BES Integration providing Blackberry Enterprise Server connectivity,

- the Zarafa ADS Plugin providing Active Directory integration, and

- the Zarafa Backup Tools.

These components, together with several advanced features for large setups and hosters, are only available in combination with a support contract as part of *ZCP's Commercial Editions*[3].

Alternatively there is a wide selection of hosted ZCP offerings available.

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[3] http://www.zarafa.com/content/editions

Introduction

Currently migrating for MS Exchange to the Zarafa Collaboration Platform is performed by importing `.pst` files to the Zarafa Server. It is also possible to export `.pst` files from Zarafa.

1.1. Zarafa Migration Tool

The Zarafa Migration Tool performs a migration by opening each user's store in the data source (exchange.pst), travesing over the MAPI folder structure migrating each message and folder. This means that all data from the data source will be migrated, including mail, attachments, appointments, tasks, contacts etc. The Zarafa Migration Tool will also check if the message/folder already exists at the destination (a Zarafa Server or a `.pst` file) to avoid duplicates. The tool will not create users on the Zarafa Collaboration Platform, it assumes that the users to which the administrator wants to migrate data to already exist on the Zarafa Server.

1.1.1. Exchange to Zarafa Migration

The Zarafa Migration Tool can migrate multiple stores from one MS Exchange server to one Zarafa Server.

1.1.2. PST to Zarafa Migration

The Zarafa Migration Tool can import multiple `.pst` files to the stores of the users on the Zarafa Server. There are many ways to retrieve the `.pst` files with the users store. You might work with `.pst` files stored on clients separately, centrally stored on a server or use a groupware solution.

Microsoft has made a very useful tool, called "ExMerge". With this `.pst` files can be imported into an Exchange mail server, and more importantly, allows one to export an Exchange mail server to `.pst` files. See *the Knowledge Base article*[1] for the installation and configuration of Exmerge.

The Zarafa Migration Tool is then used in the next stage to import these `.pst` files into the Zarafa Server.

1.1.3. Zarafa to PST Migration

The Zarafa Migration Tool can export pst files from Zarafa server user stores. The tool will create one pst per user store.

1.1.4. Scalix to Zarafa Migration Tool

The Zarafa Migration Tool can migrate multiple stores from one Scalix server to one Zarafa Server. However, this can only be done with the `zarafamigrationCmdLine.exe` tool. See *Chapter 3, Scalix Migration* for more information on migrating from Scalix to Zarafa.

1.2. Scope of this document

This manual is intended for users of the Zarafa Migration Tool. This document will explain how to conduct the different migrations available.

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[1] http://support.microsoft.com/kb/327304

Usage

Before installing the Zarafa Migration Tool make sure the Zarafa Server is installed and configured on the Linux server. The Exchange server or pst files used as data-source are available. The Zarafa Migration tool must be installed on a Windows system without any components of MS Exchange. Before installing the Migration tool make sure you have installed Outlook 2003/2007, the Zarafa client with the same version as the Zarafa server and .NET framework 3.x.

> **Important**
>
> Before starting the Migration Tool, make shure all the .NET packages are updated to the most recent released version. It is known at least the following issues should be adressed: - KB2418240 - KB983582 - KB983582 - KB982865 - KB951847

When closing the migration before completing the installation it is possible to save the configuration. This option is available when closing the migration tool in a dialog. When restarting the migration tool the saved values are picked up so the migration an continue.

The tool can also be run from the command line by issuing the command `zarafamigrationCmdLine.exe` from the migration program folder. If run with `--help` it will show the available options. If a `config.cfg` file is available in the same directory or specified by the `-f` command line option the config file will be used. See the *Chapter 5, Appendix A; Configuration options command line tool* for a peek at config file format.

2.1. Starting the Migration Tool

To install the Migration tool run `zarafamigrationtool.msi` and follow the necessary steps. Then start the migration tool itself: Start **>** Programs **>** Zarafa Migration Tool.

2.2. Select Type Of Migration

In the welcome screen click link corresponding to the type of migration that is going to be conducted. The first page will be about setting Logging and Filters amoung others. The following two pages will differ depending on the chosen migration type (see next three chapters). After which the rest of the input pages are common to all migration types.
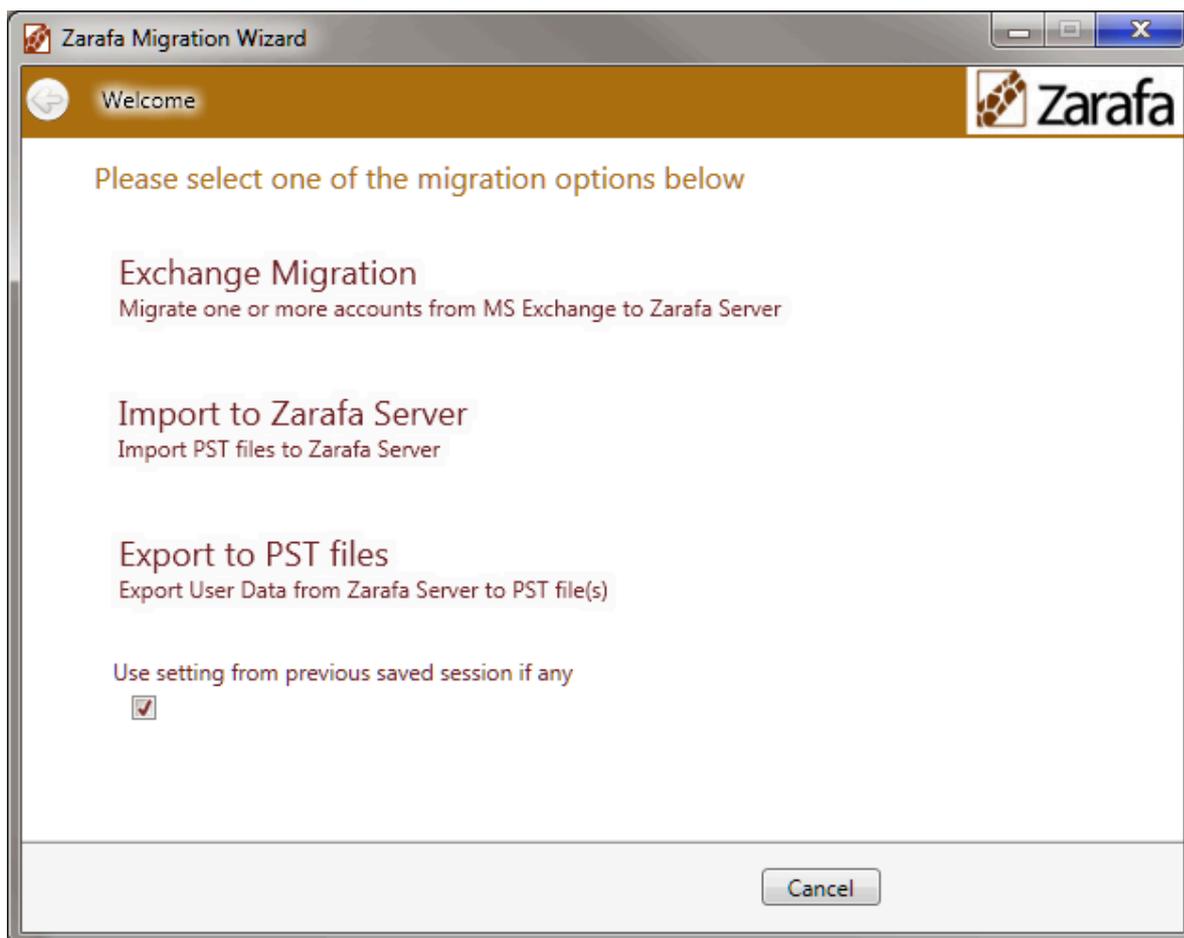
Figure 2.1. Welcome

2.3. Logging, Data Filter, etc.

At the first page it is possible to set a number of parameters controlling the migration.
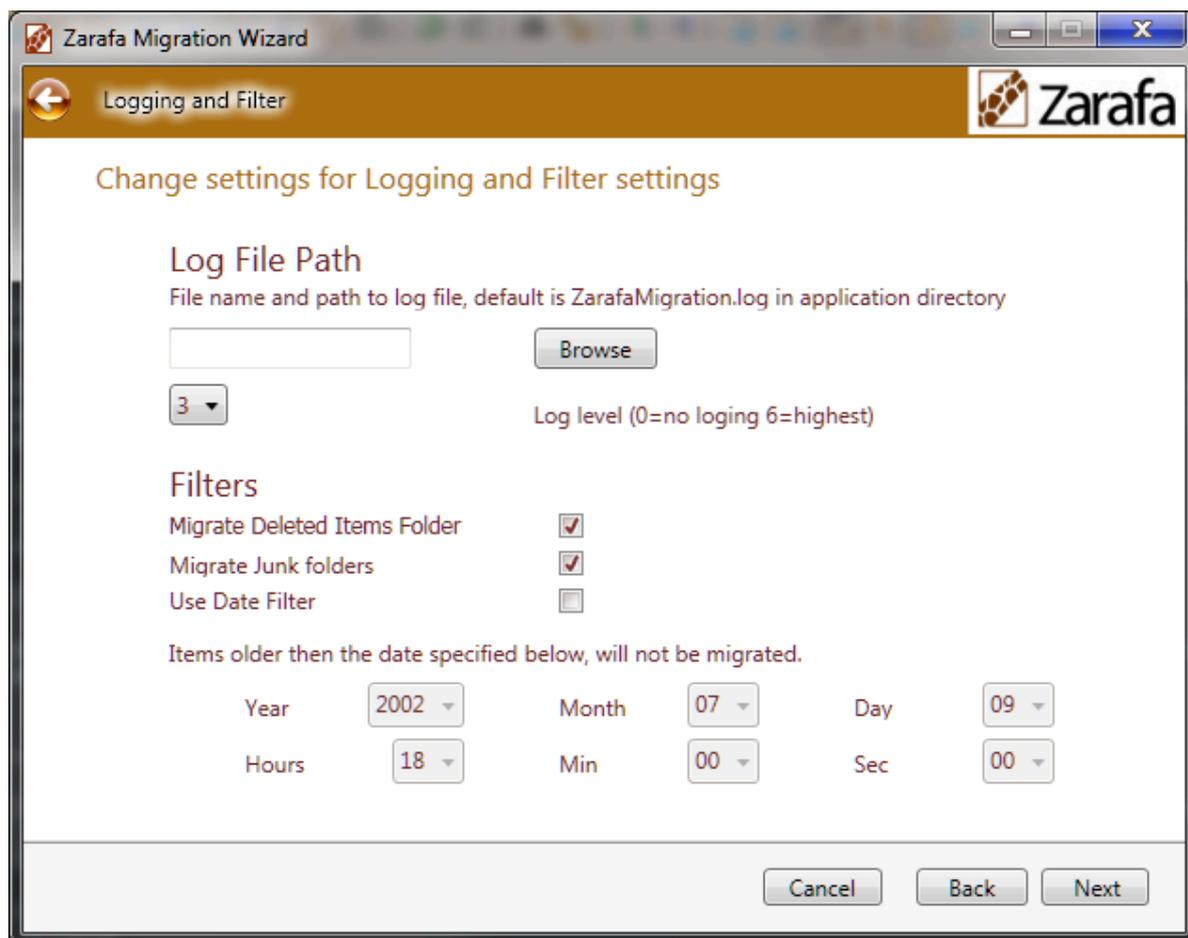
Figure 2.2. Logging

It is possible to specify another log file name and location then the default one (`ZarafaMigration.log` in the migration program directory).

- Click *browse* and select *file*.

  It is possible to select another logging level. 0 means no logging and 6 means debug logging, which is very verbose. By default info logging level is used (3). Change values in the drop down menu.

- If migration of junk folder is wanted tick the check box Migrate Junk Folder.

- If migration of deleted items is wanted tick the check box Migrate Deleted Items Folder.

- If filtering of old items is wanted, enter the date for which to filter the stores with.

- If use date filter is checked, items older then the specified date will be excluded in the migration.

2.4. Source and destination configuration

2.4.1. Exchange To Zarafa Migration
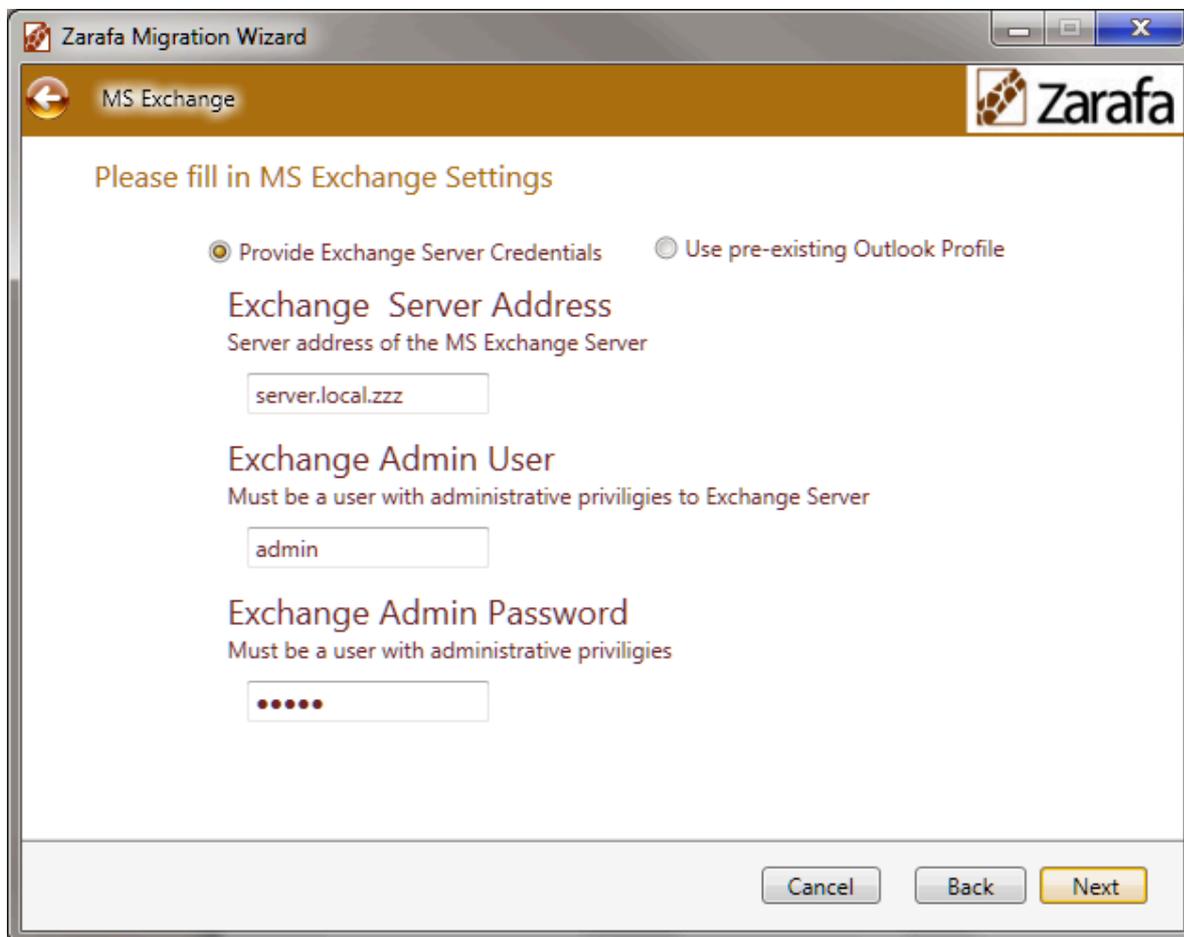
Figure 2.3. ExchangeServer

In the Exchange Server Page enter either a pre created Outlook admin profile or enter the Exchange server name and admin user and password. By selecting either server address or profile radio-buttons. Click next.

Figure 2.4. ExchangeOutlookProfile

A connection test is performed, of which the progress is shown in status field at the bottom left. When the test is successful, the next page will be shown.

On the Zarafa Server Page the address of Zarafa Server instance should be provided, by default port 236 will be added. If another port is used this should be specified with a colon after the host name. Consequtively the admin users credentials should be supplied.

Figure 2.5. Zarafa

Click next.

Again a connection test is performed, of which the progress is shown in status field at the bottom left. When the test is successful, the next page will be shown.

2.4.2. PST To Zarafa Migration

In the PST File Configuration Page click the *Browse* button and locate the location of where the `.pst` files are stored.

If none is chosen it defaults to the migrator program folder.
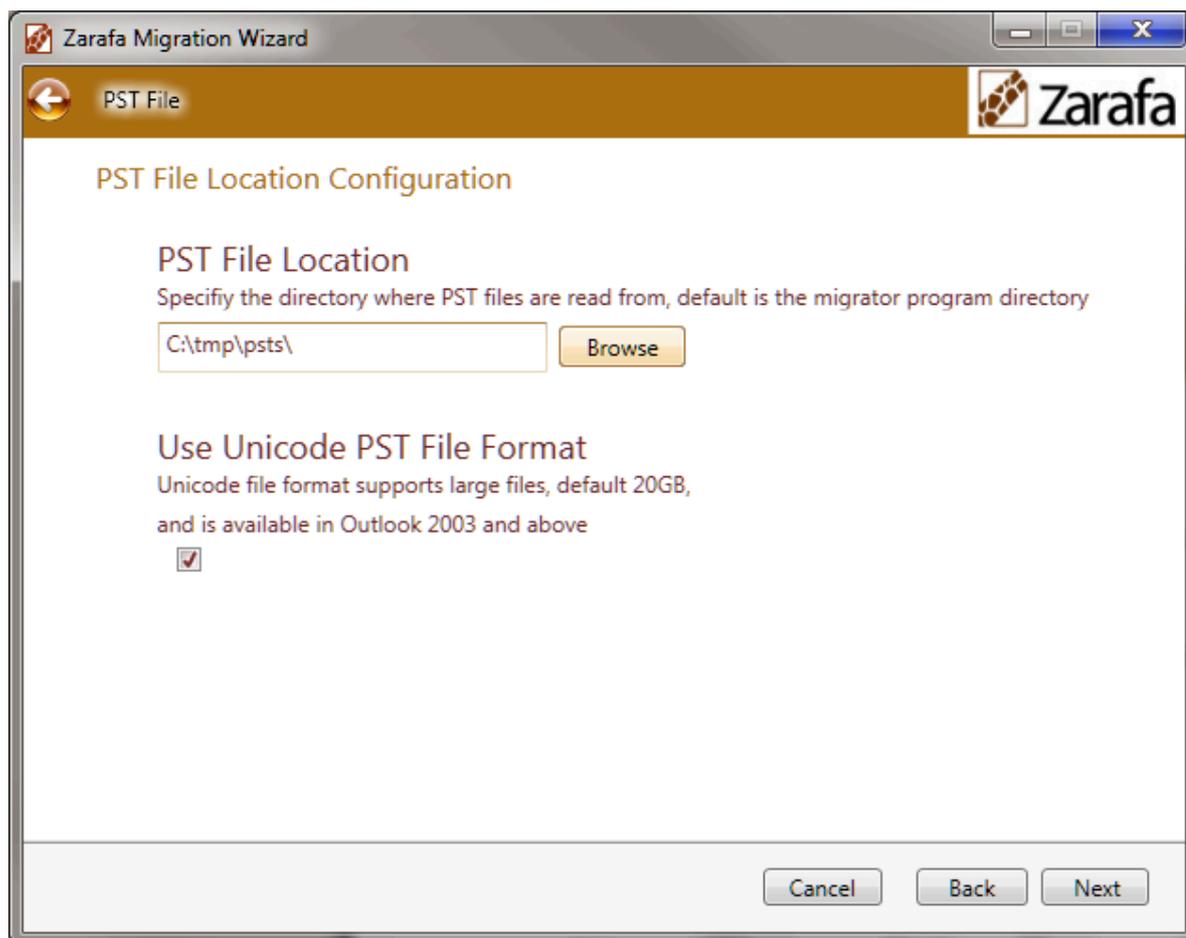
Figure 2.6. PSTRead

In case unicode files are provided the migration tool should be told so by checking the appropriate check box. This supports large files, up to 20GB. This option can only be used if using Outlook 2003 and higher. If not ticked a maximum size of 2GB will be used.

Click Next

On the Zarafa Server Page the address of Zarafa Server instance should be provided, by default port 236 will be added. If another port is used this should be specified with a colon after the host name.

See *Figure 2.5, "Zarafa"*

Click next.

A connection test is performed, of which the progress is shown in status field at the bottom left. When the test is successful, the next page will be shown.
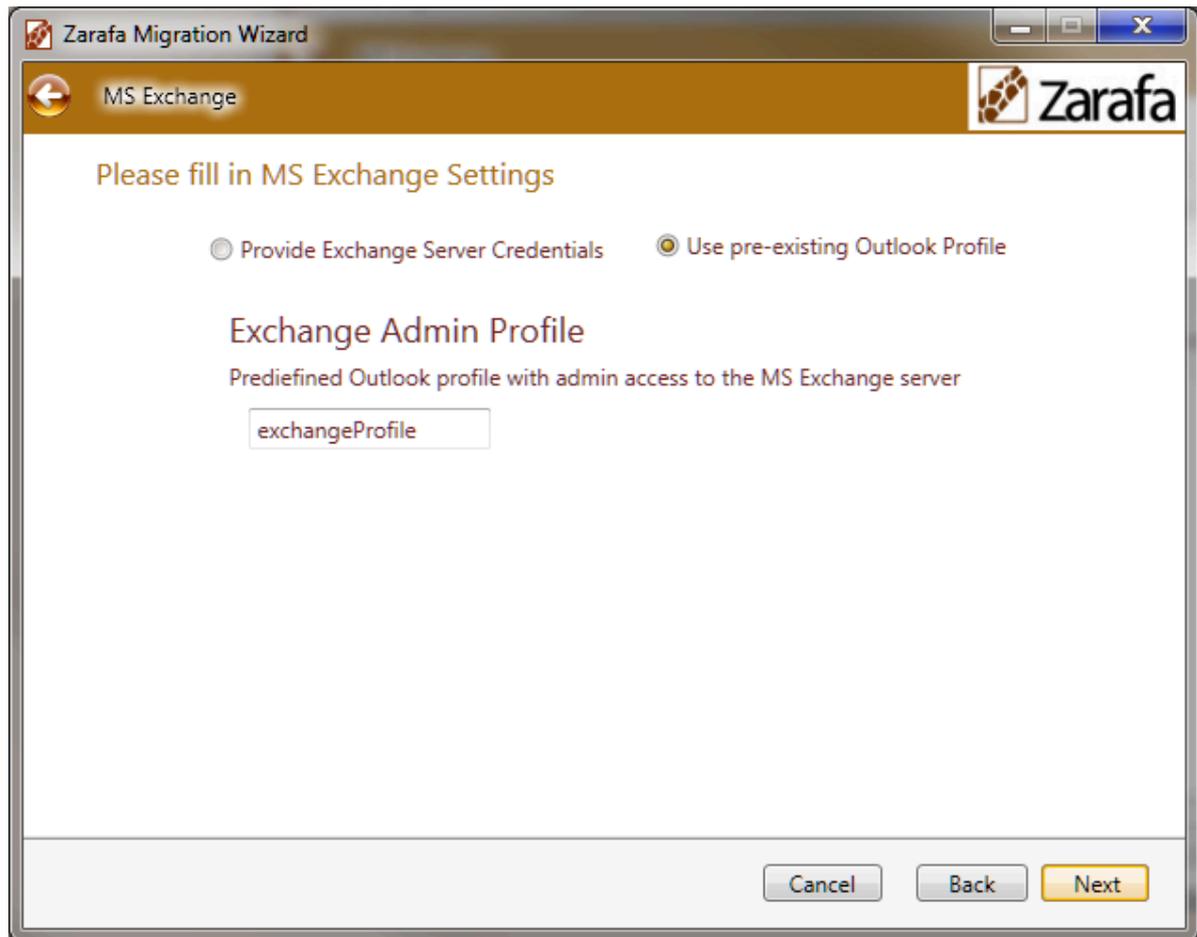
2.4.3. Zarafa To PST Migration

See *Figure 2.5, "Zarafa"*

Click next.

A connection test is performed, of which the progress is shown in status field at the bottom left. When the test is successful, the next page will be shown.

In the PST File Configuration Page click the *Browse* button and locate the location of where the `.pst` files are to be stored. If none is chosen the default location is the Migration Tool's program folder.

Figure 2.7. Zarafa

See *Figure 2.6, "PSTRead"*

If Unicode file format is to be used tick the check box. This support large files, 20GB. This option can only be used if using Outlook 2003 and higher. If not ticked a maximum size 2GB will be used. Click Next

2.5. Account User Mapping

If no `.csv` file is supplied a match on all names in data-source and data-destination will be done.
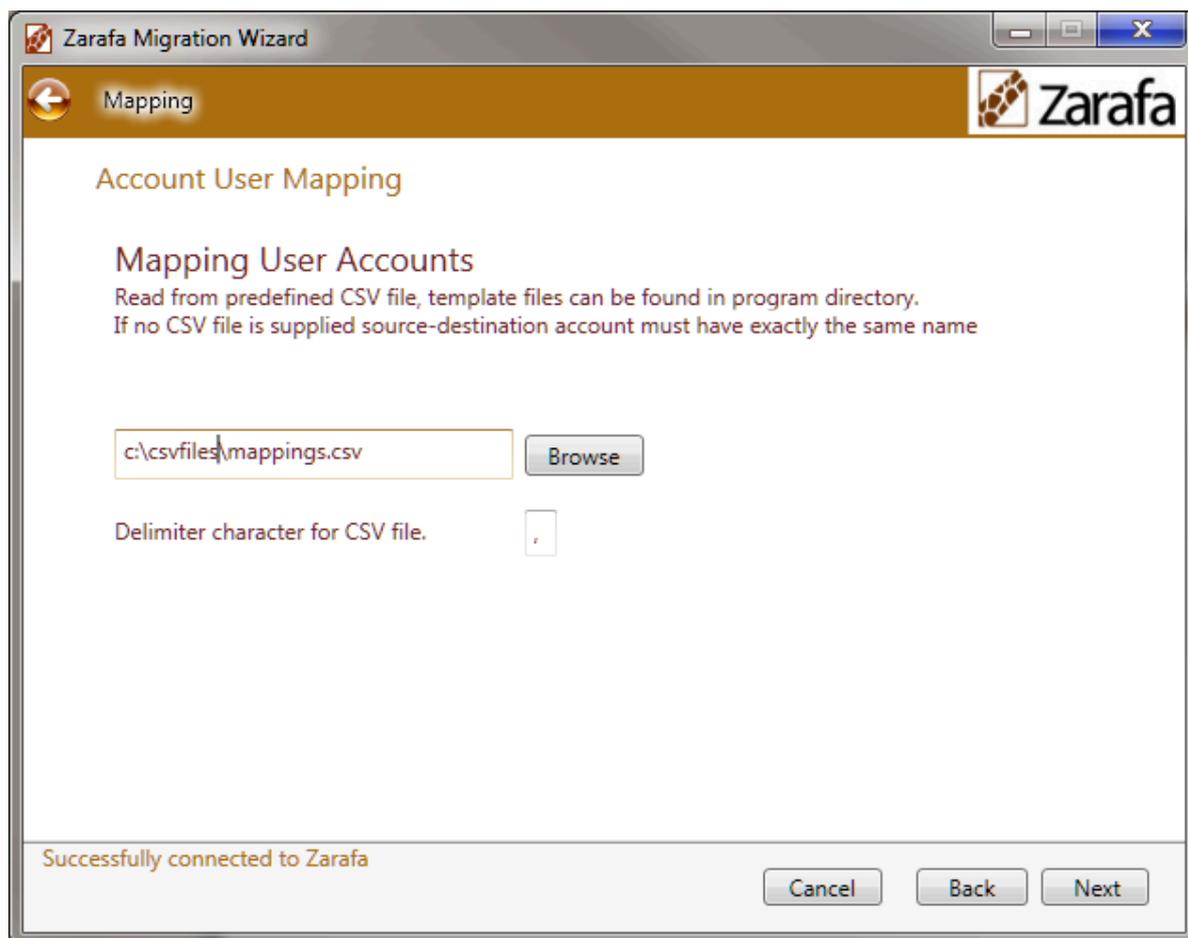
Figure 2.8. Mapping

If the **.csv** coupling is used, a comma separated value file needs to be specified. The **.csv** file should contain at least 2 colum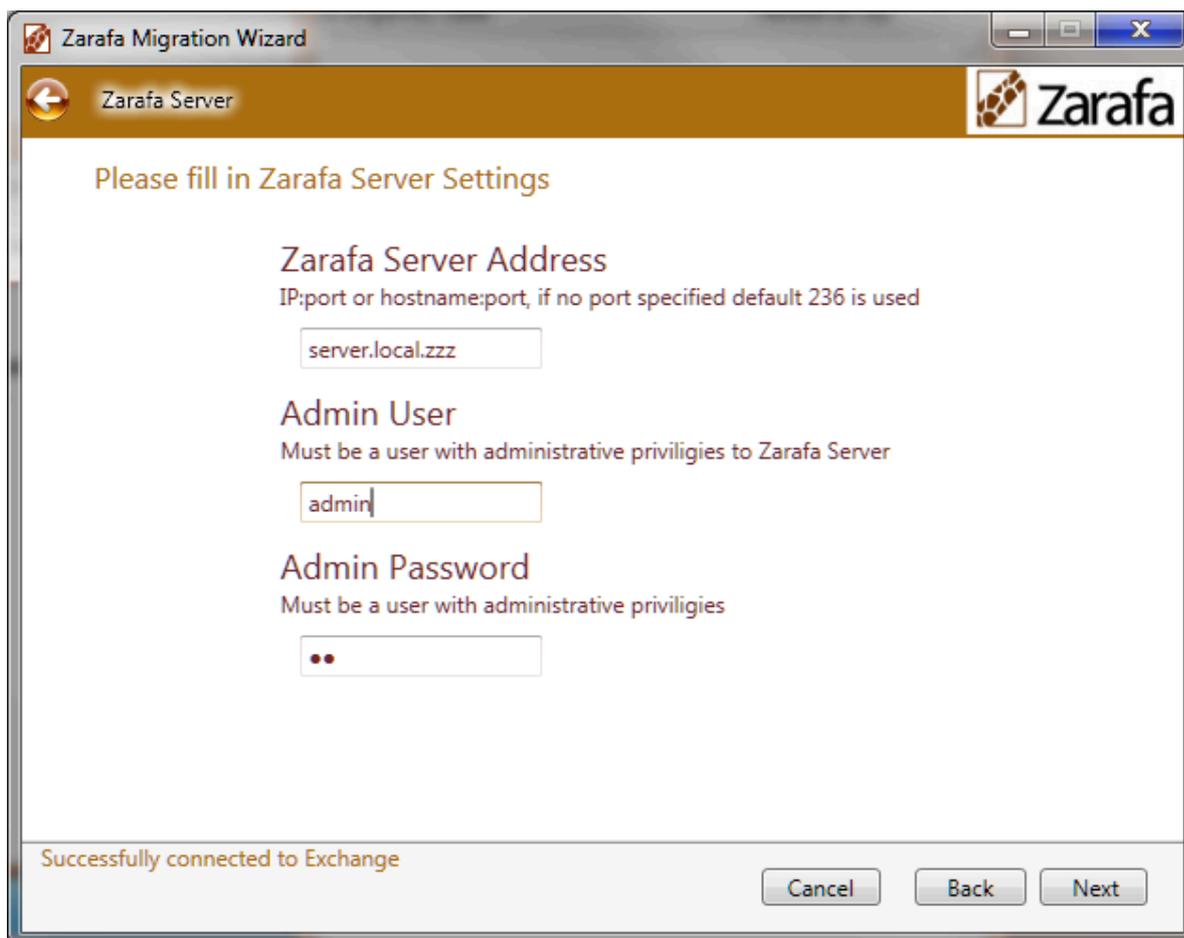ns: destination-user and filename. It is important that these 2 columns are defined with a column head on the first line of the .csv file. The column heads indicate in what order the data is presented in the rest of the file. Column heads are case sensitive. Any extra columns will be ignored. Do not include any spaces between column heads. Template files for each migration file can be found in migration tool program directory.

To find out the correct user store string for the user to be migrated, log into the MS Exchange server using an admin account. Four alternatives exist to find the info:

1. Using CSVDE:

    This is the easiest method, it allows to completely export all users into a CSV for use with the Zarafa migrator. Open a command prompt and run the following command:

    ```
    csvde -f C:\zarafa-migrator.csv -d "OU=ExchangeUsers,DC=myserver,DC=local" -r
     objectCategory=user -l "legacyExchangeDN,sAMAccountname"
    ```

    Example export:

    ```
    DN,sAMAccountName,legacyExchangeDN
    "CN=John Doe,OU=ExchangeUsers,DC=myserver,DC=local",johndoe,/o=TESTER/ou=first
     administrative group/cn=Recipients/cn=johndoe
    ```

    Now simply open it up in an editor and remove the DN column. After this change the columns to this order: legacyExchangeDN,sAMAccountname. This way it can be used with the migrator

tool. Switch explanation: -f path to save the csv, -d folder from which to export users, -r object type, -l properties to export. If desired switch **sAMAccountname** for **mail** to use the email as the username for the users.

2. Using Adsiedit:

   Open Adsiedit on the Windows server, right click on **ADSI Edit** and choose **Connect to…** now choose **Default naming context** in the second drop down box and click **Ok**. Once connected expand the **Default naming context** container until finding the container in which the users reside. Right click on the user and choose **Properties**, scroll through the list until legacyExchangeDN is shown. Double click the entry and copy the value. This value can then be used in the CSV file.

3. Using Outlook:

   Open the address book and find the user to be migrated. In the main address book view you find the store address in the field E-mail Address. Replace the line in the template file **/o=TESTER/ ou=first administrative group/cn=Recipients/cn=exchangeUser1** with the information found for the user.

4. Using Outlook Spy (Outlook add-in):

   Click **IAddrBook/GetDefaultDir/GetContentsTable**, then double-click on the user find the property "+PR_EMAIL_ADDRESS+", double-click it and copy the value. Users in the same exchange server are usually prefixed with the same default, so usually it is enough to find it out only once and then only change the last **cn** part.

Exchange to Zarafa

```
datasourceuser,destinationuser
/o=TESTER/ou=first administrative group/cn=Recipients/cn=exchangeUser1,zarafaDestinationUser1
/o=TESTER/ou=first administrative group/cn=Recipients/cn=exchangeUser2,zarafaDestinationUser2
```

Exchange to PST

```
datasourceuser,destinationuser
/o=TESTER/ou=first administrative group/cn=Recipients/
cn=exchangeUser1,pstDestinationUser1.pst
/o=TESTER/ou=first administrative group/cn=Recipients/
cn=exchangeUser2,pstDestinationUser1.pst
```

PST to Zarafa

```
datasourceuser,destinationuser
ZarafaDataSourceUser1.pst,pstDestinationUser1
ZarafaDataSourceUser2.pst,pstDestinationUser1
```

When finished click Next.

The mapping will be initialized and if successful the next page will be shown.

2.6. Migration Progress

Click start migration, the progress will be indicated by the three progress bars. Store, folder and message level.
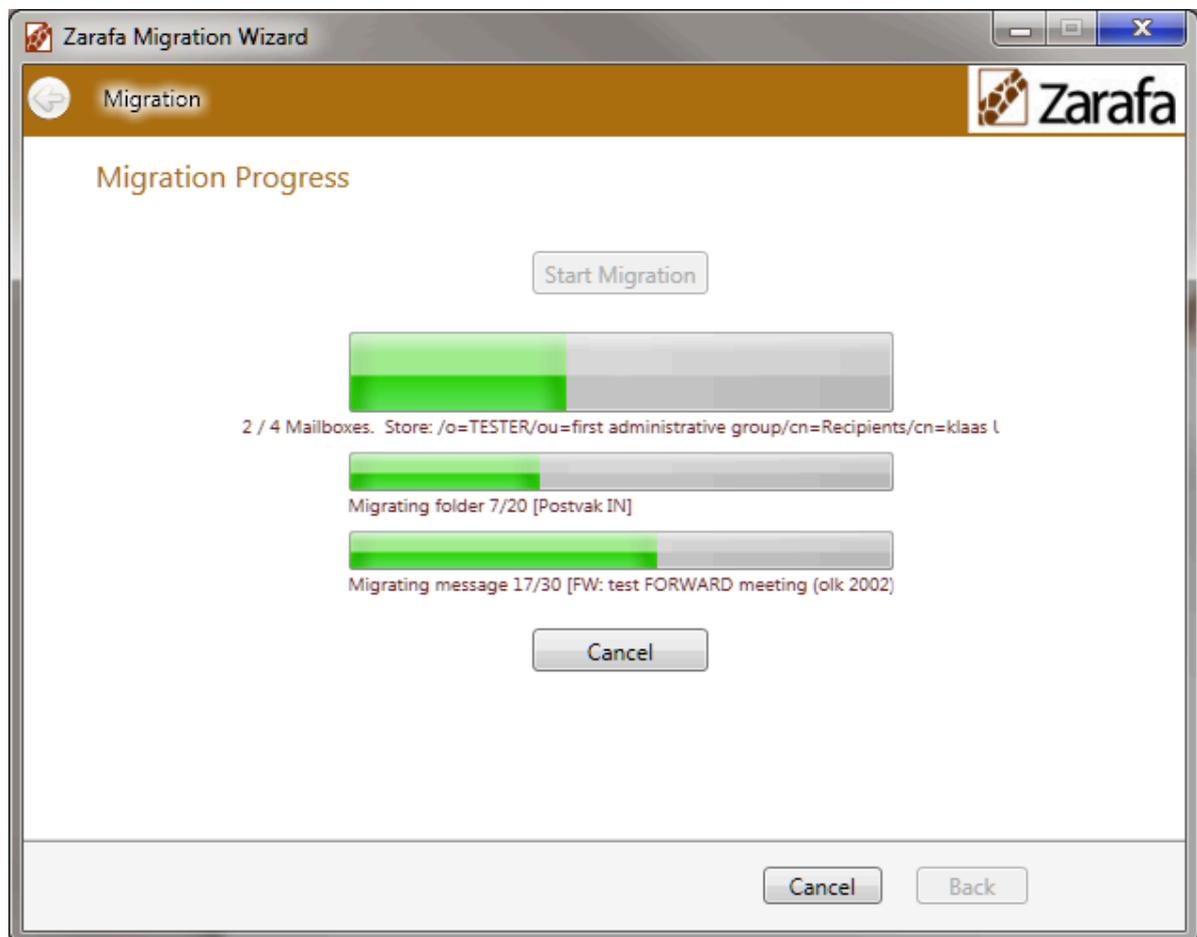
Figure 2.9. Progress

If starting migration fails it will tell in the status below Store progress bar. Check log file for hints on configuration problems, increase log level and retry to get more interesting details in log file. When finished it will be shown in the status below the progress bars and the Next button will be activated.

Click Next

2.7. Report

Here it is possible to view the generated html report (it is stored in the migrator program directory).
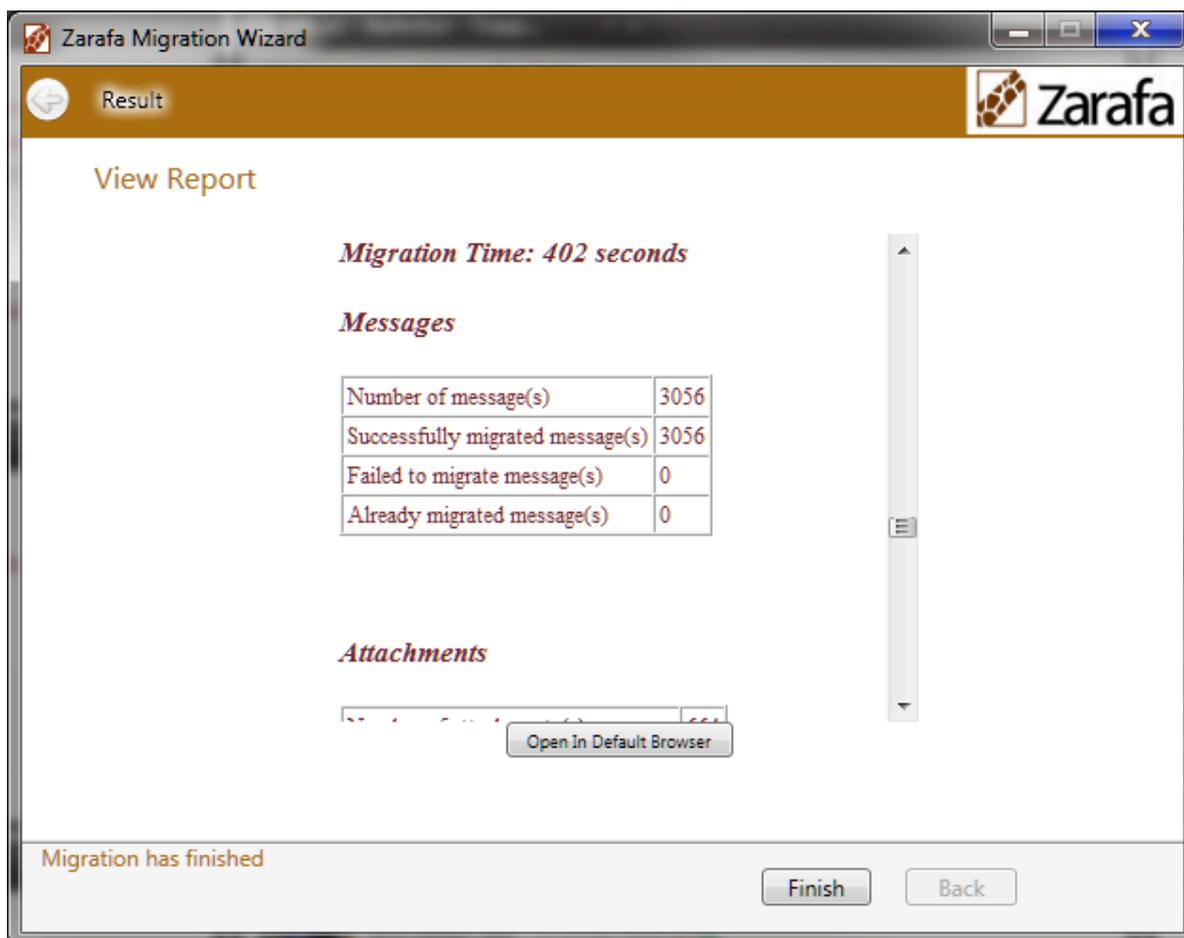
Figure 2.10. Result

It is also possible to open it in the default web-browser for better overview.

2.8. Trouble Shooting

The connection tests done after clicking next from the server configuration pages will provide an error code if failed in the bottom left status field. The field which most probably caused the error will be marked red. The error code is a MAPI error code and can be found by searching for the code on MSDN. It is also possible in first page to increase the log level and rerun connection test to get more information about the problem in the log file.

2.9. Migrating Public Folders

The migration tool does not support migration of public folders. It can instead easaly be done by exporting the public folders to PST using MS Outlook. File → Import/Export, choose Export to file, PST file format and select the public folder to be exported. Import the exported PST file using an admin account in Outlook. File → Import/Export, choose Import from another program or file, PST file and browse to the previously expoted file.

Scalix Migration

The Zarafa Migration Tool can migrate stores of premium Scalix users to Zarafa. It's important to note that it can not migrate the stores of non-premium Scalix users because Scalix doesn't allow MAPI access for those users.

3.1. Prerequisites

In order to migrate stores from a Scalix system to a Zarafa system, both the Zarafa client and the Scalix client need to be installed on the system on which the migration tool will be executed.

The scalix version must be either 11.3 or 11.4, the 11.4 version is strongly advised. Earlier and later versions contain compatibility issues and cannot be supported.

Then an admin user must be created that has the special privilege "Mboxadmin" assigned to it.

Once this is done, a special Scalix admin profile needs to be created for the migrator to use so stores of all the required users can be openend. This is done by creating a special install.ini file and passing it to sxpro.exe (this tool comes with the Scalix client connector package and can be found in the Scalix installation directory).

The install.ini file must look like this:

```
[Install Flags]
InstallLogfileUpLoadLocation=c:\\log.txt
InstallWithServerStore=1
InstallAllowSavedPassword=1
InstallAskForPSTPassword=0
InstallTrySSOFIRST=0
InstallExternalPST=0
InstallSetDefaultProfile=0
InstallLogFileLocation=c:\\temp.txt
InstallMigrateDefaultProfile=0
InstallEnableSmartCache=0
InstallUseSSL=0
InstallPassword=SU=sxadmin;PASS=scalix
InstallMailServerName=scalix.mailserver.com
InstallUsername=sxuser
InstallDefaultProfileName=migrator2
```

Some variables in this file must be changed:

- **sxadmin** in the *InstallPassword* variable must be replaced with the admin user for the Scalix system. **scalix** in the same variable must be replaced with the actual password.

- **scalix.mailserver.com** in the *InstallMailServerName* varibale must be replaced with the name of the actual Scalix system.

Some varibales in this file may be changes:

- **sxuser** in the *InstallUsername* varibale may be changed in an actual existing user. However, the migrator will update the profile with the required user for each store to migrate, overwriting this setting.

- **migrator2** in the *InstallDefaultProfileName* may be replaced with another profile name. This profile name is used when invoking the migrator when specifying which profile to use.

To create the actual Scalix profile, invoke the **sxpro.exe** tool and pass the directory in which install.ini resides:

```
sxpro.exe -i <directory_containing_install.ini>
```

3.2. Setting up the coupling CSV

The coupling CSV file for matching Scalix users to Zarafa users looks like this:

```
datasourceuser,destinationuser
scalixUser1,zarafaDestinationUser1
scalixUser2,zarafaDestinationUser2
```

3.3. Invoking the migrator

To start the migration execute the following command with the proper arguments replaced with the correct values:

- **-E**: The scalix profile created in *Section 3.1, "Prerequisites"*.

- **-a**: The Zarafa admin user.

- **-p**: The passwors for the Zarafa admin user.

- **-h**: The address or name of the Zarafa server.

```
zarafamigrationcmdline.exe -D Scalix -E migrator2 -d Zarafa -a admin -p pass -h
 zarafa.mailserver.com -c CSV -C m:\coupling.csv
```

3.4. Known issues

The following issues are only related to Scalix migration.

- Sometimes the migrator seems to get stuck during initialiazation. Cancelling the process with Ctrl-C and restarting it resolves the issue.

- It has been reported that the migrator seems to get stuck in the middle of the migration process. This issue has not been verified by Zarafa, but if it occurs, the migrator can be interrupted with Ctrl-C. Restarting the migrator will cause it to continue where it left off.

Known Issues

The migration of attachments of embedded messages from Exchange to Zarafa will fail with clients prior to 6.40.6. The attachments will be visible in the migrated message, but an error will occur when attempting to open it.

Ticket: *http://trac.zarafa.com/ticket/7059*

Appendix A; Configuration options command line tool

5.1. Config File

Use with UI

```
Rename this file to config.cfg and place in installation
directory and click tick box read from config.cfg
on first wizard page.
```

Use with CmdClient

```
Either rename to config.cfg and place in
installation directory and run CmdClient
withouth arguments.
Or run the CmdClient with option
'-f config_template.cfg'
```

config_template.cfg available in migrator installation directory:

```
################################################################################
#                    MIGRATOR SETTINGS    Template File
#
# Use with UI:         Rename this file to config.cfg and place in installation
#                      directory and click tick box read from config.cfg
#                      on first wizard page.
# Use with CmdClient:  Either rename to config.cfg and place in
#                      installation directory and run CmdClient
#                      withouth arguments.
#                      Or run the CmdClient with option
#                      '-f config_template.cfg'
#
################################################################################

# Source selection. Exchange, Zarafa, PST and Scalix are supported
datasource_type               =          Exchange
#datasource_type              =          Zarafa
#datasource_type              =          PST
#datasource_type              =          Scalix

# Exchange source settings
exchange_source_host          =          datasource.host.com
exchange_source_profile       =          adminMailProfile
#exchange_source_admin_user   =          adminUser
#exchange_source_admin_password =        adminUserPassword

# Zarafa source settings
#zarafa_source_host           =          datasource.host.com
#zarafa_source_profile        =          adminMailProfile
#zarafa_source_admin_user     =          adminUser
#zarafa_source_admin_password =          adminUserPassword

# PST source settings
#pst_source_path              =          c:\tmp\pst
#pst_source_format            =          UNICODE
```

```
# Scalix source settings
#scalix_source_profile            =            adminMailProfile



# Destination selection. Zarafa and PST are supported
destination_type                  =        Zarafa
#destination_type                 =        PST

# Zarafa destination settings
zarafa_destination_host           =        destination.mailserver.com
zarafa_destination_profile        =        adminMailProfile
#zarafa_destination_admin_user     =        adminUser
#zarafa_destination_admin_password =        adminUserPassword

# PST derstination settings
#pst_destination_path             =        c:\tmp\pst
#pst_destination_format           =        UNICODE



# Coupling settings
coupling_type               =        CSV
coupling_csv_file_path       =        mapping_exch_to_zarafa_template.csv
#coupling_csv_delimeter       =        ,


# Advanced options
migrate_junk_folder          =        FALSE
migrate_delete_folder        =        FALSE

# Log options
logging_enable               =        TRUE
logging_level                =        3
logging_file_path            =        ZarafaMigrator.log

# Data filte used to filter items older than data set
# YYYY/MM/DD-HH:MM:SS
#date_filter          =        2008/02/22-21:23:43
```

5.2. Command line parameters

```
zarafamigrationCmdLine.exe --help
```

```
Usage: -f config file -w [true|false] -d [Zarafa|PST] -D [Exchange|Zarafa|PST|Scalix]
-p 'path' -c [PST|CSV] -C 'path' -s ',' -E exchange_profile -H exchange_host
-A exchange_admin -P exchange_pass -h zarafa_host:port -a zarafa_admin -p zarafa_pass
--log 'path'

ConfigFile:
-f [config.cfg] Only file name, i.e config.cfg, using exectution directory or full path i.e
 c:\tmp\config.cfg
WriteConfigToFile -w [false]      Write configuration arguments to configuraton file.
DataSource:
 -D [Exchange]" << "\t" << "Type of data source, only Exchange, Zarafa, PST and Scalix are
 supported. [Exchange|Zarafa|PST|Scalix]" << endl;
 -E     Source profile (overrules -H and -A options)
 -H     Source server address, e.g. localhost, 10.0.0.205
 -A     Source server administrator username.
 -P     Source server administrator password.


DataDestination:
```

```
 -d [Zarafa]    Type of data destination, only Zarafa and PST are supported.[Zarafa|PST]
 -h     Destination server address, e.g. localhost:236, default port is 236.
 -a     Destination server administrator username.
 -p     Destination server administrator password.

 -F 'path'     Optional: Path to the PST folder, default is current folder. Used when PST
 type is chosen as DataSource or DataDestination

Coupling:
 -c [CSV]       Type of coupling. [PST|CSV]
 -C 'CSV path'  CSV only: Path to the CSV file.
 -s ','         Optional: CSV: seperator character in csv file, default is ','.

Date-Time filter:
 -t YYYY/MM/DD-HH:MM:SS         Date-time filter automatically excludes messages from being
 migrated that are older than the specified date.
 -o Outlook PST file format [ANSI]      The format of the PST file, only 2003 and later
 supports unicode. [ANSI|unicode].
 -l Log Level[3] 0- None, 1- Fatal, 2- Error, 3- Warning, 4- Info, 5- Any, 6- Debug [0-6].

 --log 'path'   Enable logging to file.
 --help         show this help text.
  -V            Print version info.
```