VMware Zimbra

VMware Zimbra Collaboration Server Migration Wizard for Microsoft Exchange

ZCS 8.0

August 2012

Legal Notices

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1   Using the ZCS Migration Wizard

The VMware Zimbra Collaboration Server Migration Wizard for Exchange (ZCS Migration Wizard) is used to migrate Microsoft® Exchange server email accounts to the VMware Zimbra Collaboration Server (ZCS) and to import the email, calendar, and address book information for the selected Exchange users. The import process replicates the user's Outlook® folder hierarchy, importing email messages, calendars, filter rules, address books, and distribution lists from the Exchange server. Any keywords are converted to tags in ZCS.

Accounts from Microsoft Exchange 2003, 2007, and 2010 can be migrated.

During the migration, the ZCS Migration Wizard performs the following tasks:

■ Creates the user account on the ZCS server, if it does not already exist

■ Imports email messages, attachments, calendars, and address books

■ Creates a log file for troubleshooting any import errors or warnings

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Note: Email messages, calendars, filter rules, and address books (including distributions lists) are imported from the Outlook server. Other Outlook types, including notes and alerts, are not imported. Unless the ZCS Migration Wizard is run on a machine with Outlook 2003, Outlook 2007 or Outlook 2010, tasks are not imported.

Note: 64-bit operating system is supported if the system running the migration tools has a 32-bit version of the email client installed.

Note: If you set your computer's regional settings to a language other than English (United States), the migration tool might fail. Your regional settings are located on your computer at Control Panel>Regional and Language Options.

Planning the Migration from Exchange to ZCS

Before you attempt to migrate from the Exchange server, create a communication plan to notify users about the new ZCS email program and to provide users with the new mail access information (ZCS URL, login name, and password to use).

It is recommended that you plan to perform the migration during off-peak use times. The Exchange server does not need to be stopped in order to migrate accounts. Any emails that are sent to or delivered from Exchange after the account is migrated are not saved in the ZCS mailbox.

Two options are available for you to migrate from Exchange to ZCS:

- The ZCS Migration Wizard asks you questions in a series of dialog boxes about how to set up the new accounts. Before you start, you should determine:

  • Which domain the users' accounts will migrate to.

  • Whether to select individual accounts or select groups of accounts to import.

  See Using the ZCS Migration Wizard on page 5.

- The **One Step Migration** option from the ZCS Migration Wizard lets you use an XML file that you create with the user data needed for migration. No other configuration options are required. See Using the One Step Migration Option on page 18.

If Running Zimbra Proxy

If you are running Zimbra Proxy, and the **ZimbraPublicServiceHostName** has been set to proxy, you must change the local hosts file at the Windows machine that is running the Migration Wizard to point to the mailbox node where the admin user resides.

1. Go to the hosts file, which is usually located at **C:\WINDOWS\system32\drivers\etc**

2. Open the hosts file and add the following line:

   x.x.x.x <your ZimbraPublicServiceHostName value here>

   Where **x.x.x.x** is the IP address of the mailbox store with the admin user.

3. Save the file.

Considerations for Retaining Domain Name when Migrating

If your users use the Calendar application, and you are not migrating all users to ZCS at the same time, configure ZCS with the same domain name as used on the Exchange server. When ZCS is configured with the same domain name, a user's existing email address will be retained when the account migrates to ZCS.

Meeting requests and appointments contain recipient information in the form of email addresses. After migration, if the organizer of an appointment updates an existing appointment or if recipients reply to an invitation, the email address of the original message receives the notification. If the email address has been changed, the notification is not received.

Configuring Migration Options

If using the ZCS Migration Wizard, after the accounts are created on the ZCS server the email messages, calendar entries, and contact information are imported. You then configure the following options for accounts being imported during the migration process:

■ Import the content of **Junk Mail**? (yes or no)

■ Import email messages received after <date>

■ Should the new email address replace the Exchange email address in all meetings organized by the user? <check box>

■ Number of mailboxes to import simultaneously.

■ Maximum attachment size. The maximum message size to be imported can be configured. The message size includes the message and attachments. If you do not configure a value here, the ZCS server setting for maximum message size is used. If you set a value from the migration wizard, this value cannot be larger than the global MTA setting for maximum size of a message.

> *Note:* *You can view and change the ZCS server **Maximum size of a message** value from the Administration Console **Global Settings>MTA** tab.*

The import process contains a few assumptions regarding naming:

■ Imports are by a single domain. For example, you might import users from **marketing.domain.com** on your Exchange server to **marketing.zimbra.domain.com** on your ZCS server.

■ The local part of the user's SMTP address in Exchange becomes the first portion of the email address on the ZCS server. To continue the above example, a user who has an account for joe@marketing.domain.com on Exchange would become joe@marketing.zimbra.domain.com on your ZCS server.

Using the ZCS Migration Wizard

Even though the ZCS Migration Wizard can be run from start to finish without stopping, Zimbra recommends that after the accounts are migrated you stop. Before proceeding, change the mail relay information to point to the Zimbra server instead of the Exchange server. This will prevent any lost mail while the files are being imported.

> *Note:* *After the files have been imported to the Zimbra server, you should verify that the import was successful before deleting the* Exchange *accounts.*

Migrating Accounts and Importing Email

The ZCS Migration Wizard can be downloaded from the Zimbra Administration
Download page on the Zimbra administration console.

Note: *If you want to use the One Step Migration tool which uses an XML file*
         for migrating your information, go to Using the One Step Migration
         Option.

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1. From the Zimbra Administration Downloads page click the **ZCS Migration
    Wizard for Exchangelink to** download the ZCS Migration Wizard
    executable file to your computer.

2. Double-click on the ZCS Migration Wizard executable file. The **Welcome**
    dialog appears. Click **Next** to continue.

3. The **Import Destination** dialog displays. Enter Import Destination
    information.

    To connect and authenticate to the server, enter:

    • **Host name**. This is the host name of the Zimbra server.

    • **Admin Port**. The default admin services port is 7071.

    • **Use Secure Connection** (SSL) is checked to establish a secure
      connection to the server port.

    • **Username and Password**. This is the name and password of the
   administrator account on the Zimbra server.

    Click **Next**.

4. In the **Destination Domain** dialog, select the Zimbra domain name where accounts will migrate to.
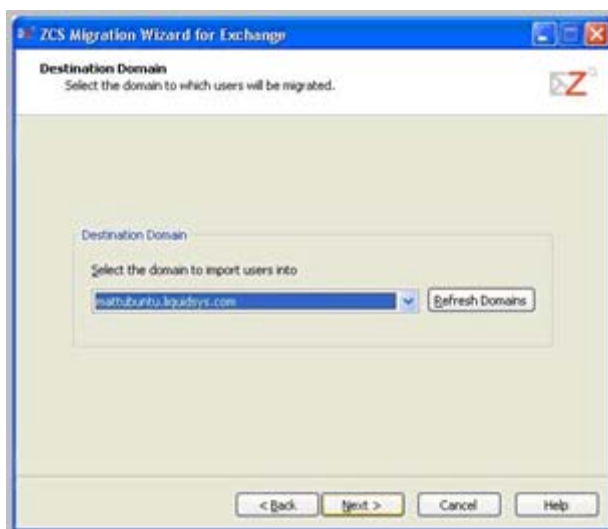
Note: *If you create the domain name after you started the ZCS Migration Wizard, click* **Refresh Domains** *to update the list from the Zimbra server.*

Click **Next**.

5. To continue and begin the import, in the **MAPI Logon** dialog identify the MAPI profile you created for use with the ZCS Migration Wizard to conduct the migration.
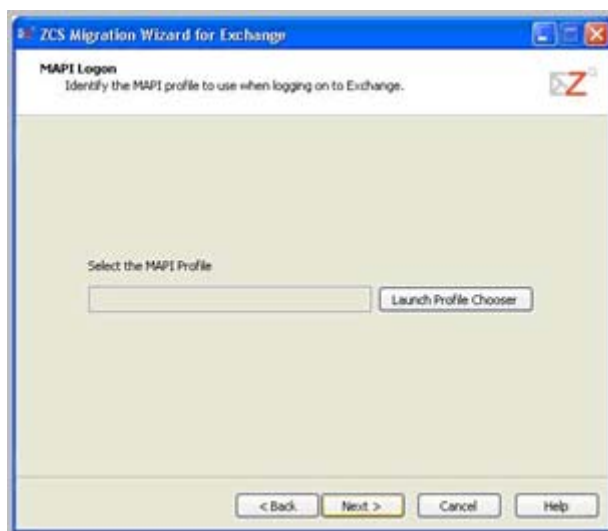
Click **Launch Profile Chooser,** to launch a standard Windows dialog box from which you can either choose an existing MAPI profile, or create a new one, as described in the Microsoft Office documentation. This profile should be created before the migration tool is executed.

Once you have chosen a profile, click **Next**.

6. In the **Source and Destination Mailboxes** dialog, define the users to be migrated to the Zimbra server. Choose one of the following ways to select users:

    •   **Object Picker**, to select specific users to migrate. Go to step a.

    •   **Query Builder**, to select groups of users to migrate. Go to step b.

    •   **User Map,** to select an XML file with data that defines the mapping between Exchange user IDs and the corresponding user IDs on ZCS. Go to step c. See "Mapping Exchange User IDs to ZCS User IDs" on page 17 about how to create the XML file.
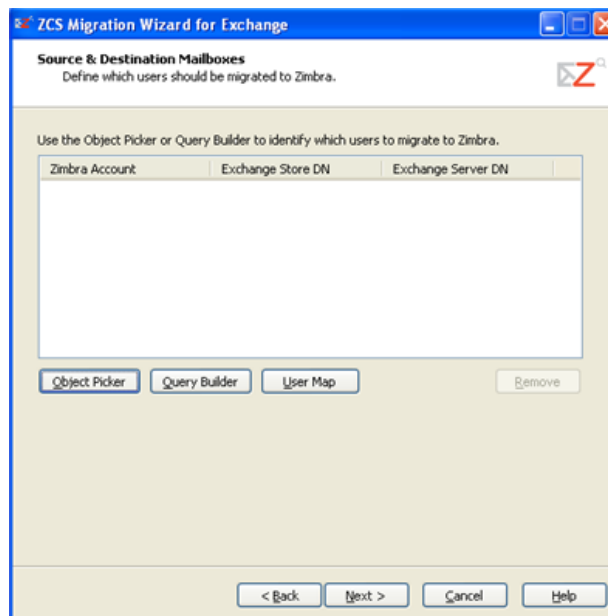
    a. Click **Object Picker** to select specific accounts to migrate.

        In the dialog, the Object Type is preconfigured with **Users**. This cannot be changed.

        Click **Locations** to select the domain from which to select the accounts.

        In the **Enter object names** text box, type the user names or partial user names and click **Check Names**. Separate the names with a comma. For example, if you type Jo, all names that begin with Jo are displayed, i.e., Joe Smith, Joseph Flanders, Joanna Writh.

        Click **Advanced** to specify a more detailed search (optional).

When the object names have been typed, click **OK**. The **Source & Destination Mailboxes** dialog displays again with your selections listed in the box. Go to step 7.
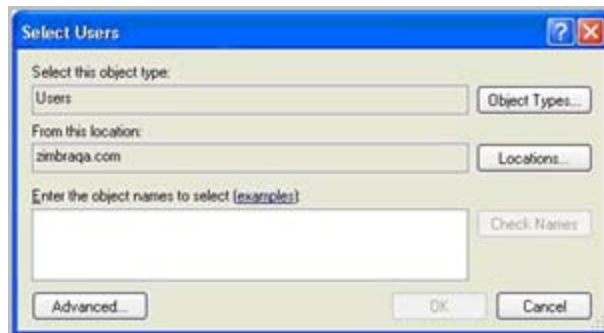

b. Click **Query Builder,** to select groups of accounts to migrate.

In the **Active Directory Query Builder** dialog, click **Browse** to select the base distinguished name (DN) of the container to be used as the root for the search. If you want all folders under the selected DN base to be included in the migration, check **Subtree**.

Create a filter to identify which mailboxes to import.

Click **OK**. The **Source & Destination Mailboxes** dialog refreshes with your selections listed in the box.
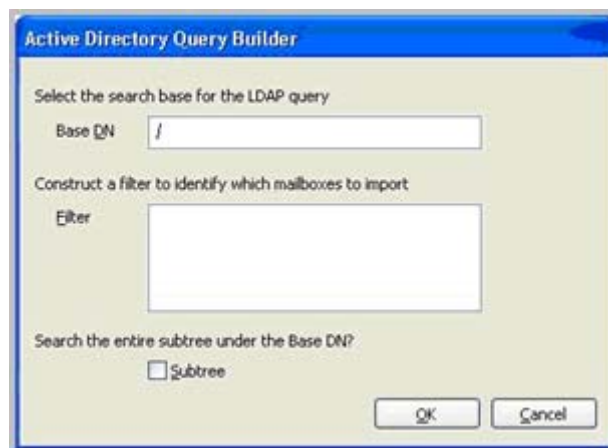
c. Click **User Map** and in the dialog that opens, browse to the XML file created with the user mapping. Click **OK**.

7. The **Source & Destination Mailboxes** dialog now displays the Zimbra account name, the Exchange Store DN information and the Exchange DN information for accounts to be migrated. Review the information.

If any accounts should not be migrated, select the account and click **Remove**, otherwise click **Next** to continue.

8. The ZCS Migration Wizard now checks to see if these accounts exist on the Zimbra server. After checking all the accounts, the **Target Account Verification** dialog displays the number of accounts that exist and the number of accounts that do not exist on the Zimbra server. The accounts with the status of **No such account** will be created. Click **Next**.
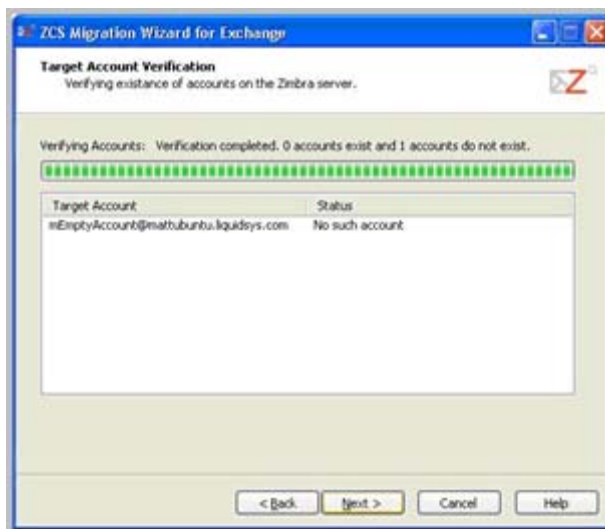

9. The **Account Provisioning** dialog displays. All accounts with the status of **No such account** are shown in the **Unprovisioned Accounts** list box. Before creating these accounts, select the Class of Service (COS) that these accounts will be assigned and enter the default password for the accounts.

The COS defines the features and preferences for these accounts. Classes of Service that have been configured on the Zimbra server are listed. If you recently created a COS and it is not listed, click **Refresh COS**. New COSs are added to the list.

Important: Included in this list are two COSs called **default** *and* **None**.*The COS named* **default** *refers to the default COS that was automatically created when Zimbra Collaboration Server is installed. The COS named* **None** *is used to represent a COS configured for the domain that is being migrated. Configuring a domain COS is optional. Select* **None** *to provision the accounts with the COS assigned to the domain. If* **None** *is selected and the domain has not been configured with a specific COS, the COS named* **default** *is automatically assigned.*
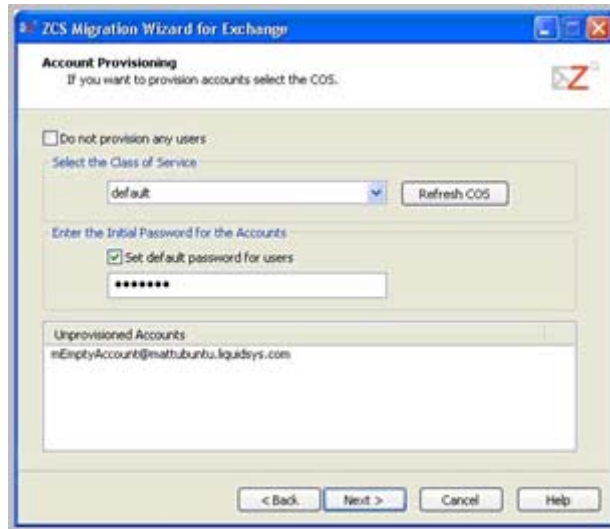
In the **Initial Password** field, enter a default password. This is the password for every account that is created.

- If password is not specified at the time of provisioning, after the migration you can either:

    - Create passwords for each account using either the administration console or the zmprov CLI utility.

    - Configure ZCS authentication to be external against the LDAP directory. Users can continue to use their existing password.

Click **Next**. The listed accounts are provisioned.

Note: *If you do not want to create any of the accounts from this list, check* **Do not provision any users***, and click* **Next***. No accounts are created on the Zimbra server.*

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10. You can view the results of account provisioning in the Provisioning Accounts dialog. The Provisioning Result column shows the status of account creation. Any account not created is shown as **Unable to create account**.
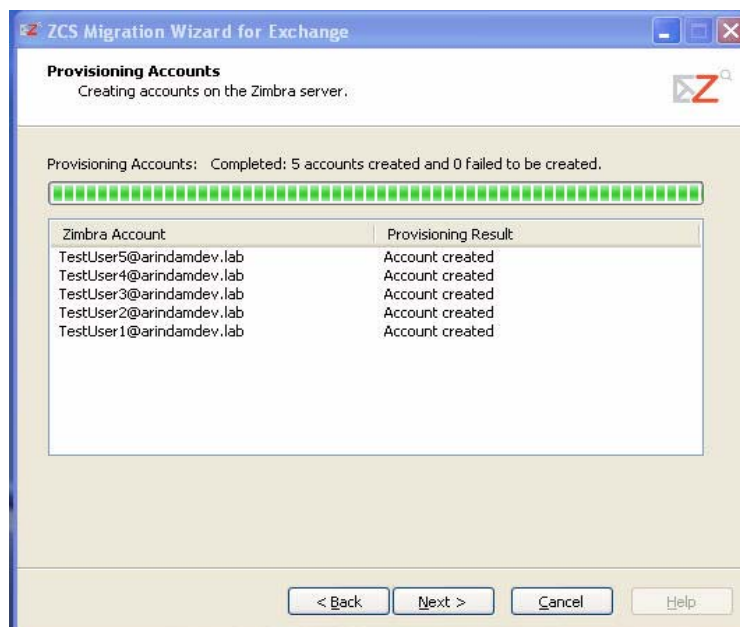
The provisioning of email accounts on the Zimbra server is complete. Before proceeding you should change the mail relay information for these users to point to the Zimbra server instead of the Exchange server. Any new email messages are sent to the Zimbra mailboxes.

11. The **Import Items** dialog is used to select which parts of users accounts should be imported.
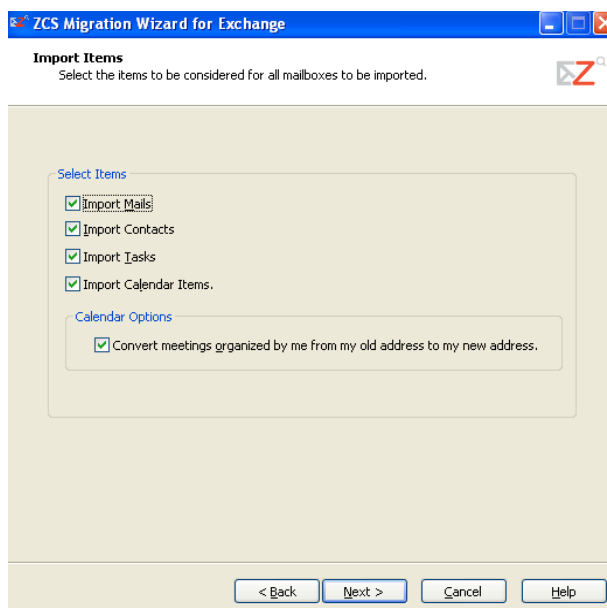
- **Import Mails**. Select this item to import users' mail.

- **Import Contacts**. Select this item to import users' contact folders.

- **Import Tasks.** Select this item to import users' task folders.

- **Import Calendar**. Select this item to import users' calendars.

    - **Calendar Options**. If you chose to import users' calendars, you can specify whether to convert meetings organized by users to their new addresses.

- **Import Public Folders**. Select this item to import users' public folders.

12. The **Import Options** dialog is used to set rules about what files should be imported.
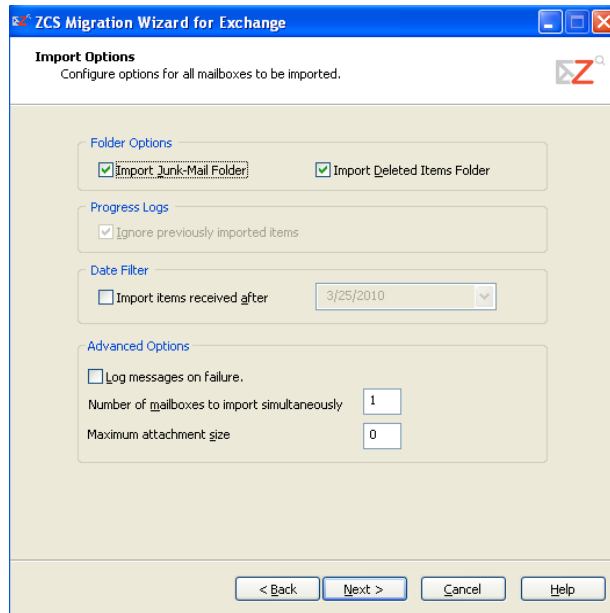
- **Folder Options:** The checkboxes for **Import Junk-Mail Folder** and **Import Deleted Items Folder** determine whether or not to import mail currently in those Junk Mail and Trash folders respectively.

- **Progress Log:** The checkbox for **Ignore previously imported items** can be used in cases where an earlier import operation was interrupted. If checked, the import process picks up where it left off, rather than importing duplicates.

    The wizard prevents import of duplicates by checking the progress logs for every user's mailbox that has been imported before. If the message ID in the progress log matches an existing message, that message is not imported, hence preventing duplicate import of messages.

- **Date Filter:** Check the **Date Filter** checkbox to import mail only after a certain date. This lets you discard old messages.

- In the **Advanced Options** field:

- Set the number of accounts to import simultaneously. Since the import is likely to happen while both servers continue to service other mail accounts, you should use caution when increasing this number, because setting this number too high may affect server performance.

- Set the maximum attachment size. The message size includes the message and attachments. The default is 0, which means there is no limit to the size.

-

Click **Next**. A confirmation dialog appears. Click **OK** to begin the migration process.

Important: Users can continue to work in Outlook while their mail is being imported, although any operation they do after that mailbox folder has been imported will not be picked up by the Zimbra server. To ensure that the imported mailbox is consistent with the old mailbox, we recommend informing users that their mailboxes will be unavailable over some scheduled downtime period.

The **Import In Progress** screen displays the import progress.
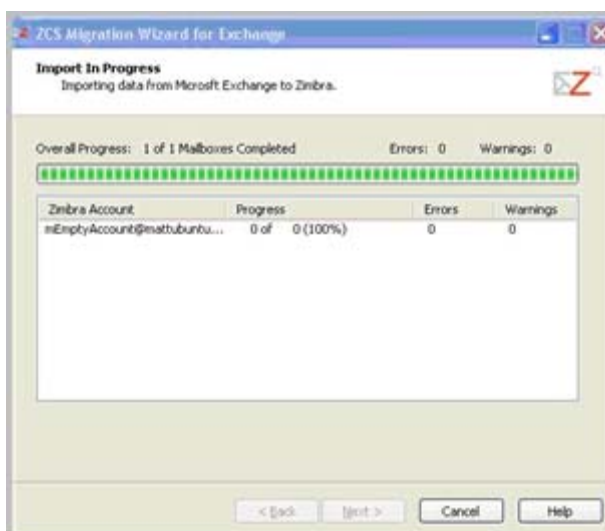
13. When the import is complete, the **Import Completed** dialog displays any errors. If errors or warnings appear, review the **Description** column and take appropriate action.

    • For details about the migration process, click **Open Log File** to view details. See "More Information about Migration Logs" on page 15.
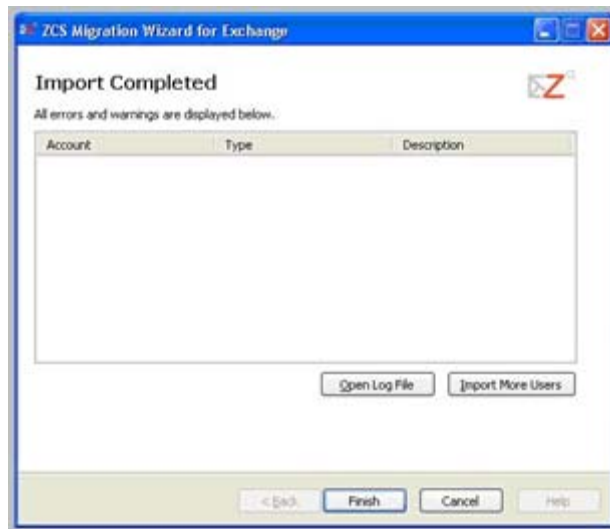
    Note: You can also view this log file later in the temp folder of the user used to run the migration tool. The file name appears as m2l.log.

    • Use **Import More Users** to re-run the import on a different batch of users. You might do this to import users from another domain, for example.

- Click **Finish** to close the ZCS Migration Wizard.

More Information about Migration Logs

■ A migration log gives you detailed information about the account import process from Outlook to ZCS. Statistical details like the number of errors, number of migrated users, duration of migration, and amount of data transferred is logged, among other details.The first line of the migration log shows the version of the ZCS Migration Wizard used.

```
05-09-2012 16:38:27 [964]: ZCSExchangeMigrationWizard-8.0.0_GA_2544
Version x.0
```

■ RPC errors that occur during the connection to the Zimbra server or the MS Exchange system are captured in the log. The SOAP block is stored as an XML file in the folder containing this log.

```
05-09-2012 16:40:04 [964]: RPC Error:- WinHttpSendRequest failed.
The RPC request is logged as
C:\DOCUME~1\MIGRAT~1\LOCALS~1\Temp\ZCSExchangeMigrationWizard-
8.0.0_GA_2544\2-RPCErrorRequest.xml

05-09-2012 16:40:04 [964]: RPC Error: One or more errors were found
in the Secure Sockets Layer (SSL) certificate sent by the server.
```

■ Every account that is migrated is logged in a separate section in the log starting with Work arrived... **<User Exchange Store DN><User Zimbra Account>** and ending with **Import Complete... Deleting MAPI folder list**.

```
05-09-2012 17:32:54 [972]: Work arrived.../o=First Organization/
ou=First Administrative Group/cn=Recipients/cn=TestUser1
TestUser1@arindamdev.lab
```

```
05-09-2012 17:32:56 [972]: Import complete
05-09-2012 17:32:56 [972]: Deleting mapi folder list
05-09-2012 17:32:56 [972]: Waiting for work
```

■ Each such log section contains major migration actions, including errors
  and warnings. When migration is complete, you can view detailed
  information about statistics of the migration process.

```
05-09-2012 17:32:56 [972]: (MI): Import stats
05-09-2012 17:32:56 [972]: (MI): ----------------------------------
05-09-2012 17:32:56 [972]: (MI): ----------------------------------
05-09-2012 17:32:56 [972]: (MI): Number of items attempted : 1 items
05-09-2012 17:32:56 [972]: (MI): Number of Errors : 0
05-09-2012 17:32:56 [972]: (MI): Number of Warnings : 0
05-09-2012 17:32:56 [972]: (MI): Import duration : 0 seconds
05-09-2012 17:32:56 [972]: (MI): Import Throughput : 0 msgs/sec
05-09-2012 17:32:56 [972]: (MI): Total data bytes transferred 1199
bytes
05-09-2012 17:32:56 [972]: (MI): Data throughput : 0 bits/sec
05-09-2012 17:32:56 [972]: (MI): Number of batches : 1 batches
05-09-2012 17:32:56 [972]: (MI): Avg num items per  batch : 1 items
05-09-2012 17:32:56 [972]: (MI): Min num items in a batch : 1 items
05-09-2012 17:32:56 [972]: (MI): Max num items in a batch : 1 items
05-09-2012 17:32:56 [972]: (MI): Avg bytes per  batch : 1199 bytes
05-09-2012 17:32:56 [972]: (MI): Min bytes in a batch : 1199 bytes
05-09-2012 17:32:56 [972]: (MI): Max bytes in a batch : 1199 bytes
05-09-2012 17:32:56 [972]: (MI): Quickest batch request : 216 ms
05-09-2012 17:32:56 [972]: (MI): Slowest  batch request : 216 ms
```

Registry Keys for the ZCS Migration Wizard

Below is a list of all the registry keys for the ZCS Migration Wizard.

*Important: Before you change any registry key values, be sure to create a
backup of the original registry key values.*

Key Name	Value Type	Description
The following keys are located under **HKCU\Software\Zimbra**\ExchMigration		
HostName	REG_SZ	Default host name of the mailbox server.
Port	REG_DWORD	Default port on which the administrator and non-administrator services run.
SecureCon	REG_DWORD	Default status for using a secure connection.

Key Name	Value Type	Description
The following keys are located under **HKCU\Software\Zimbra**:		
MaxAttachSizeMB	REG_DWORD	By default, messages larger than 10 MB will not be imported. The limit can be changed by modifying the registry. The key value should be specified in megabytes (MB). A value is zero, there is no limit to the size of message attachments.
ErrorThreshold	REG_DWORD	By default, after three consecutive errors the ZCS Migration Wizard will stop. The limit can be changed by modifying the registry. If the value is zero, the ZCS Migration Wizard will not stop.

Mapping Exchange User IDs to ZCS User IDs

You can create an XML file that maps the user's common name on the Exchange server to the user's common name to be used on the ZCS server. When you run the migration wizard and prepare the source and destination mailboxes, you select **UserMap** and select the XML file to be used.

The format for the XML configuration file is a follows.

```
<ImportUsers>
    <Server>
        <Name></Name>
    </Server>
    <User>
        <ExchangeMail></ExchangeMail>
        <ZimbraAccount></ZimbraAccount>
    </User>
    <User>
        <ExchangeMail></ExchangeMail>
        <ZimbraAccount></ZimbraAccount>
    </User>
</ImportUsers>
```

Element	Description
<Server>	The Exchange server from where the user account information is extracted.
<User>	This is user information. **<ExchangeMail>**. This element is user address ("mail" attribute) of the Exchange user that is being migrated. **<ZimbraAccount>**. This element is the account on the ZCS server where the user mailbox would be migrated.

Example of the <User> element:

```
<User>
        <ExchangeMail>exchangeexample1@exchange.com</ExchangeMail>
        <ZimbraAccount>zimbraexample1</ZimbraAccount>
    </User>
```

The destination ZCS domain is configured on the **Destination Domain** dialog. During the migration, the destination account ID is created by appending this domain name to the <ZimbraAccount> value. For example, if the destination domain name is **zimbradomain.com**, the above XML data would create an account ID called **zimbraexample1@zimbradomain.com**, and the user's Exchange mailbox is migrated.

Using the One Step Migration Option

The ZCS Migration Wizard for Exchange one-step migration option allows you to perform the same tasks as the migration wizard.

You can use the one-step migration option by:

■ First, creating an XML file with the migrating accounts data. See Creating an XML File for One Step Migration.

■ Running the one step migration option using the XML file data to create accounts and import account content. See Performing a One Step Migration.

Creating an XML File for One Step Migration

You can create an XML configuration file containing data and use the file to migrate users from Exchange to ZCS using the one-step migration option.

The format for the XML configuration file is a follows.

```
<ZCSImport>
  <Options>
    <importMails>1</importMails>
    <importContacts>1</importContacts>
    <importTasks>1</importTasks>
    <importCalendar>1</importCalendar>
    <importDeletedItems>1</importDeletedItems>
    <importJunk>1</importJunk>
    <ignorePreviouslyImported>0</ignorePreviouslyImported>
    <InvalidSSLOk>1</InvalidSSLOk>
  </Options>
<ZimbraServer>
  <serverName>zmtest.zm-train.com</serverName>
  <port>7071</port>
  <adminUserName>admin</adminUserName>
  <password>P@ssw0rd</password>
  <adminSSLEnabled>1</adminSSLEnabled>
  <domain>zm-train.com</domain>
</ZimbraServer>
<MapiProfile>
  <profile>ExchAdmin</profile>
  <server>VNDC01.zm-train.com</server>
  <logonUserDN>CN=Exch Admin,OU=AllUsers,DC=zm-train,DC=com</
logonUserDN>
</MapiProfile>
<ImportUsers>
  <User>
    <ExchangeMail>green@zm-train.com</ExchangeMail>
    <password></password>
    <zimbraPasswordMustChange></zimbraPasswordMustChange>
  </User>
  <User>
    <ExchangeMail>white@zm-train.com</ExchangeMail>
    <password></password>
    <zimbraPasswordMustChange></zimbraPasswordMustChange>
  </User>
  <User>
    <ExchangeMail>blue@zm-train.com</ExchangeMail>
    <password></password>
    <zimbraPasswordMustChange></zimbraPasswordMustChange>
  </User>
</ImportUsers>
<UserProvision>
  <provisionUsers>0</provisionUsers>
  <COS>default</COS>
  <initialPassword>Test123</initialPassword>
  <zimbraPasswordMustChange>0</zimbraPasswordMustChange>
</UserProvision>
</ZCSImport>
```

For more information about elements used in the XML file creation, see
Understanding the XML Elements on page 21.

Performing a One Step Migration

1. From the Zimbra Administration Download page click the **ZCS Migration Wizard for Exchange link to** download the ZCS Migration Wizard executable file to your computer.

2. Double-click on the ZCS Migration Wizard executable file. The **Welcome** dialog appears. Click **Next** to continue.

3. The **Import Destination dialog displays**. Check the **One Step Migration** box if accounts are being created from XML data and browse to the XML file's location. Click **Next**.

   The one-step migration process begins.
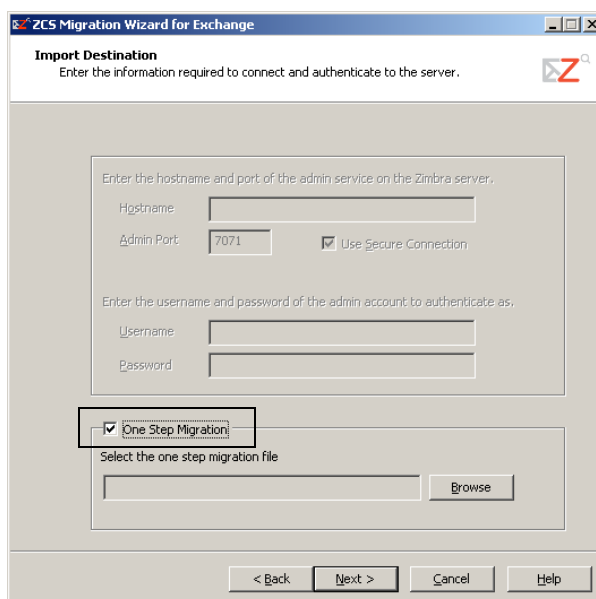
4. When the **Import Completed** dialog displays, click **Finish**.

   For information about how to create the XML file, see Creating an XML File for One Step Migration on page 18.

Understanding the XML Elements

Element	Description
<Options>	The <Options> element sets the following migration option values ■ Import mail, contacts, tasks, calendar items, deleted items (Trash), and junk ■ Ignore or not ignore previously imported items ■ **Invalid SSLOk**. Set this value to 1 if you do not install a valid commercial SSL certificate on ZCS before the migration. The ZCS Migration Wizard accepts the ZCS server's SSL certificate even if it is not a valid commercial certificate. The ZCS Migration Wizard does not proceed with the migration if the SSL certificate is invalid. The value for elements under <Options> can be set as **1** (TRUE) or **0** (FALSE). If no value is entered for an element, the value is considered as **1 (TRUE)**.
<ZimbraServer>	The <ZimbraServer> element contains all the Zimbra server details. These values are used by the ZCS Migration Wizard to log in to the ZCS server and execute the provisioning tasks. ■ **<serverName>**. The host name of the ZCS server ■ **<port>**. The default admin services port, usually 7071 ■ **<adminUserName>**, **<password>**. ZCS administrator's name, password ■ **<adminSSLenabled>** This value is set to 1 ■ **<domain>**. The ZCS domain name where account are migrating to. This domain must already exist on the ZCS server

Element	Description
<MapiProfile>	The values in the <MapiProfile> elements are the following: ■ **<profile>**. Outlook profile name ■ **<server>**. Exchange server name ■ **<logonUserDN>**. Logon DN used to access the Exchange server for the migration. When you run one-step migration, the ZCS Migration Wizard automatically creates a migration account on the Exchange server and generates a MAPI profile. When the migration is completed, the account and MAPI profile are deleted.

<ImportUser>	The <ImportUser> value is the names of accounts on the Exchange Server that are migrating.
	
	■ **<user>**. N number of users are added under this element <User>name</User. The following are subset elements for <User>
	
	  • **<ExchangeMail>.** This is the user's Exchange email address.
	
	  • **<password>**. The user password.
	
	  • **<zimbraPasswordMustChange>**. Whether this password must be changed on the ZCS server. **TRUE** or **FALSE**. Default is **TRUE**.

<UserProvision>	The <UserProvision> elements describe default and general options for account provisioning. ■ **<provisionUsers>**. To provision accounts on ZCS set this to **1**. If this is set to **0**, when the ZCS Migration Wizard runs, no accounts are created. ■ **<COS>**.(optional) Specify the Class of Service to assign to the accounts being migrated. If a COS is not specified, the default COS for the domain specified in <domain> is used. ■ **<initialPassword>**. This value is the default password to be set for user accounts. This value is used only when the <User> element does not contain the <password> element. ■ **<zimbraPasswordMustChange>**. Whether the <initialPassword> value must be changed on the ZCS server. **TRUE** or **FALSE**. Default is **TRUE**.