

InterMail[®]**Kx**

M I G R A T I O N G U I D E

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Preface

Welcome to InterMail Kx!

The *InterMail Kx Migration Guide* describes migration concepts and detailed instructions for transferring an existing mail system to InterMail.

Intended Audience

This guide assumes that you are experienced with the UNIX operating system at a system administration level, and that you have an understanding of databases as well as of networking protocols and related technology.

Organization

This manual is organized as follows:

- Chapter 1, Understanding Migration, provides an overview of migration, account creation, migration commands and output files.
- Chapter 2, Migrating a Mail System, provides instructions on preparing for migration, creating accounts, and moving messages.
- Chapter 3, Troubleshooting Migration, deals with problems that may occur during the migration process.

Conventions

Convention	Description	Example
\$ at the start of a string	An environment variable (set at the time of installation)	\$spoolDir
monospace type	<ul style="list-style-type: none"> • Commands • Directory and file names • Hostnames • Configuration keys and their values • Utility names 	<pre>imdbcontrol command cron utility Set this key to true.</pre>
<angle brackets> in a command	A required variable	imboxget <address>
[square brackets] in a command	An optional parameter	imctrl [-verbose]
(a vertical bar) between options in a command	Exclusive options, of which you can use only one	impwdhash -a [md5-po unix]
{braces} around options in a command	A list of options, one of which is required	immsgdelete {<msgID>... -all}
... (an ellipsis) after an optional entry in a command	An option for which you may have multiple entries	imbucketscreate [<cl...cn>]
boldface in an example	User input	venus% imservctrl stop

Related Documentation

This manual is one of a set. Other manuals in this set are:

- *InterMail Kx Reference Guide*, which contains background information about InterMail's servers and databases, configuration keys, directory management utilities, administrative utilities, APIs, and event messages.
- *InterMail Kx Operations Guide*, which provides instructions for the operation and administration of the InterMail system.
- *InterMail Kx Installation Guide*, which provides instructions for installing InterMail.

Questions and Comments

Your feedback is important to us! To suggest improvements or make comments on the content of this manual, please send e-mail to InterMail.Manual@Software.com.

1

Understanding Migration

Migration involves moving account information and mailbox data from one mail system to another. This chapter describes the concepts for migrating a Post.Office or Sendmail mail system to InterMail.

It contains the following sections:

- Migration Overview
- Migration Commands
- Output Files

Migration Overview

The process of migrating accounts involves:

1. Preparing the mail system configuration for migration (Sendmail mail systems only).
2. Identifying the accounts you want to migrate.
3. Exporting account information into a standard file format.
4. Creating new accounts and aliases in InterMail.
5. Moving mail and auto-reply messages to the InterMail accounts.

Before migrating a mail system, make sure you have installed the InterMail system as described in the *InterMail Kx Installation Guide*.

Note: It is also recommended that you do a full backup before migrating your system.

Preparing Sendmail Accounts

Before you use the Sendmail export command, you must make sure that the account information is configured as follows:

- Account information contained in the `passwd` and `aliases` file must be in one of the following locations, depending on the system configuration:

In a standard configuration the `aliases` file and account information are contained in either the `passwd` file which resides in the `/etc/directory` or the `NIS` file (according to `nsswitch.conf`).

In a customized configuration the `aliases` file and account information contained in the `passwd` file reside in an arbitrary directory.

- A forward file containing forwarding information, a vacation file containing vacation and auto-reply messages, and mailbox file containing mail messages reside in the user's home directory.

If information for a user account is not configured in one of these ways, the Sendmail export command generates an error for that account and continues exporting the remaining accounts.

Configurations that do not conform to either of these models require account and perhaps data manipulation to comply with the configuration described above.

Identifying Accounts

The first step in migration is defining which existing mail accounts you want to migrate to the InterMail system and recording them in a text file. You define the accounts to be migrated based on your business rules.

For example, you could begin migrating:

- Accounts that have been active in the last 90 days
- Users requiring early access to features not offered in the mail system they are currently using

If you intend to use multiple classes of service, export and import the accounts for one class of service at a time. The desired class of service is defined when you import accounts to the InterMail system.

Note: If you are migrating from Post.Office, use the Post.Office `listacct` utility to list the accounts you want to migrate.

Exporting Account Information

After defining the accounts you want to migrate, you are ready to export account information from the existing mail system. Account information is exported into a file in the LDAP Data Interchange Format (LDIF) and used as input into InterMail. Using an intermediate data format makes it facilitates migration from virtually any mail system.

InterMail provides commands for exporting account information from Post.Office and Sendmail. If you are migrating from a different mail system, you will need to develop an export and mail move command for your mail system using the existing commands as a guide.

For more information regarding the Perl migration modules, use the `pod2text` command:

```
pod2text <ModuleName.pm>
```

where:

`pod2text` Is the command used to display the Perl documentation.

`<ModuleName.pm>` Is the perl script you want information about.

For example:

```
pod2text SendmailAcct.pm
```

Creating New Accounts

Next, you create new accounts in InterMail's Integrated Services Directory (ISD) based on the account information described in the LDIF file. You place these accounts in Proxy status, such that mail coming to the InterMail system for new accounts is sent to the original mail system. This enables you to provide continuous service to end users during migration because they can access their email on the old system until the data is completely migrated.

After all accounts have been imported to the InterMail system, you can move existing mail messages to these accounts, which changes the accounts from Proxy to Active status. At this point the accounts are pointed to the new access servers.

Moving Mail Messages

The last phase of migration involves moving mail and auto-reply messages from the existing mail system to the newly created InterMail accounts. During this phase, the status for these accounts is changed to Maintenance.

While accounts are in Maintenance status, users are denied access to their mailboxes, and incoming mail messages are deferred for later process. For this reason, this phase of the migration process is typically performed in small increments during off-peak hours.

You can move auto-reply messages before or after moving mail messages. When you move auto-reply messages, mailboxes are created if none exist.

Upon successful migration of all mail, the migrated accounts are automatically switched to Active status. At this point, mailbox access is reinstated, and all messages that were deferred during migration are delivered to their intended recipients. If migration is not successful, the account remains in Maintenance status until you correct the error and use the `imreplymigrate` command, which moves the auto-reply messages and sets the account to Active status.

Migration Commands

This section describes the following InterMail migration commands:

- `imaccountexportpo` and `imaccountexportsm`, which exports account data from the existing mail system
- `imaccountimport`, which imports account data from an LDIF file to the InterMail mail system
- `immailmove`, which moves mailboxes and messages from the existing mail system to the InterMail system
- `immigagentpo`, which locks Post.Office accounts during migration
- `imreplymigrate`, which moves auto-reply messages from the existing mail system to the InterMail system
- `imreplydisplay`, which displays auto-reply information in the InterMail system

Note: In the `imaccountexport` command, `po` represents Post.Office, and `sm` represents Sendmail.

imaccountexportpo

Use the `imaccountexportpo` command to export mail account information from an existing Post.Office system into LDIF.

Syntax

```
imaccountexportpo [-help][-badaccts <badAcctsFile>][-outfile
<acctDataFile>][-trace][-utilsdir <poCmdUtilsDir>][-acctIDFile
<fileName>][-log <fileName>]<domain1[:domain2:...:domainN]>
```

where:

<code>-help</code>	Provides a detailed description of the various command options and arguments.
<code>-badaccts <badAcctsFile></code>	Specifies the file containing error messages for accounts that are not exported. Fix the errors, then use this file to process only accounts that had errors. If this option is missing, the default file is <code>imaccountexportpo.err</code> .
<code>-outfile <acctDataFile></code>	Specifies the output file that contains the account information in LDIF. The default file name is <code>imaccountexportpo.out</code> . Use this file as input for the <code>imaccountimport</code> command.
<code>-trace</code>	Displays informational processing messages for troubleshooting.
<code>-utilsdir <poCmdUtilsDir></code>	Specifies the path to the directory containing the Post.Office command utilities. If this path is not specified, the program locates the directory based on the information in the Post.Office configuration file, usually <code>/etc/post.office.conf</code> .
<code>-acctIDFile <fileName></code>	Specifies the file that contains the names of the Post.Office accounts to be exported. If this option is missing, all existing accounts are exported. You can use the Post.Office utility <code>listacct</code> to display the names of all existing accounts.
<code>-log <fileName></code>	Provides the full path of the log file. The default file is <code>imaccountexportpo.log</code> .
<code><domain1 [:domain2:...: domainN]></code>	A list of domain names used to fully qualified SMTP addresses in the InterMail system.

imaccountexportsm

Use the `imaccountexportsm` command to export mail account information from an existing Sendmail system into LDIF.

Syntax

```
imaccountexportsm [-help][-badaccts <badAcctsFile>][-trace][-users  
<namesFile>][-outfile <acctDataFile>][-pwdfile <pwdFormatFile>][-log  
<fileName>][-aliases <fileName>] <domain1[:domain2:..:domainN]>
```

where:

<code>-help</code>	Provides a detailed description of the various command options and arguments.
<code>-badaccts <badAcctsFile></code>	Specifies the file containing error messages for accounts that are not exported. Fix the errors, then use this file to process only accounts that had errors. If this option is missing, the default file is <code>imaccountexportsm.err</code> .
<code>-trace</code>	Displays informational processing messages for troubleshooting.
<code>-users <namesFile></code>	Specifies the text file containing the UNIX names that correspond to the accounts you want to export. If this option is not used, all accounts on the existing mail system are exported.
<code>-outfile <acctDataFile></code>	Specifies the output file that contains the account information in LDIF. The default file name is <code>imaccountexportsm.out</code> . Use this file as input for the import command.
<code>-pwdfile <pwdFormatFile></code>	Specifies the UNIX password file from which account information is extracted. As the default, this command uses the UNIX call <code>getpwent()</code> to find password entries. For example, entries can come from any of the sources for passwords specified in the <code>/etc/nsswitch.conf</code> file on the Solaris platform.
<code>-log <fileName></code>	Provides the full path of the log file. The default file is <code>imaccountexportsm.log</code> .
<code>-aliases <fileName></code>	Specifies the file containing alias information. The default file is name is <code>/etc/aliases</code> .
<code><domain1[:domain2: ..:domainN]></code>	A list of domain names used to fully qualified SMTP addresses in the InterMail system.

imaccountimport

Use the `imaccountimport` command to import account information in LDIF format to your InterMail system.

Syntax

```
imaccountimport [-help][-acctIDFile <fileName>][-badaccts
<badAcctsFile>][-outfile <mboxMigDataFile>][-trace][-log
<fileName>]<acctDataFile> <cosName> <smtpRelayHost> <popProxyHost>
```

where:

<code>-help</code>	Provides a detailed description of the various command options and arguments.
<code>-acctIDFile</code> <code><fileName></code>	Enables you to import specific accounts from the file specified by <code><acctDataFile></code> . If this option is missing, all accounts in the <code><acctDataFile></code> file are imported. Use this option if you have to reprocess a handful of accounts, such as accounts that failed migration.
<code>-badaccts</code> <code><badAcctsFile></code>	Specifies the file containing error messages for accounts that are not imported. Fix the errors, then use this file to process only accounts that had errors. If this option is missing, the default file is <code>imaccountimport.err</code> .
<code>-outfile</code> <code><mboxMigDataFile></code>	Specifies the output file containing the mailbox and account information in the format <code>uid psmtppAddr mboxlocation</code> . The default file is <code>imaccountimport.out</code> . Use this file as input for the move command.
<code>-trace</code>	Displays informational processing messages for troubleshooting.
<code>-log <fileName></code>	Provides the full path of the log file. The default file is <code>imaccountimport.log</code> .
<code><acctDataFile></code>	Specifies the LDIF file containing account information generated from <code>imaccountexportpo.out</code> or <code>imaccountexportsm.out</code> .
<code><cosName></code>	Specifies the pre-existing class of service that will be assigned to the imported accounts.
<code><smtpRelayHost></code>	Specifies the host on which the original SMTP server is running.
<code><popProxyHost></code>	Specifies the host on which the original POP server is running.

immailmove

Use the `immailmove` command to move mailboxes and messages from the existing mail system to the InterMail system.

Syntax

```
immailmove [-help][-badaccts <badAcctsFile>][-trace]
[-pwdFile <path>][-log <fileName>] PO|SM <mboxMigDataFile>
<admin_user> <admin_pwd> <source_host> <mssHost> [<poMigAgtPort>]
```

where:

<code>-help</code>	Provides a detailed description of the various command options and arguments.
<code>-badaccts</code> <code><badAcctsFile></code>	Specifies the file containing error messages for the accounts whose mail messages are not moved. Fix the errors, then use this file to process only accounts that had errors. If this option is missing, the default file is <code>immailmove.err</code> .
<code>-trace</code>	Displays informational processing messages for troubleshooting.
<code>-pwdFile <path></code>	Provides the full path of the password file. The default path is <code>/etc/password</code> . Use this option only for Sendmail systems.
<code>-log <fileName></code>	Provides the full path of the log file. The default file is <code>immailmove.log</code> .
<code>PO SM</code>	Names the existing mail system.
<code><mboxMigDataFile></code>	Names the file containing the account and mailbox directory information in the format <code>uid psmtPAddr mboxlocation</code> .
<code><admin_user></code>	Specifies the Sendmail or Post.Office administrator who has permission to read all mailbox directories.
<code><admin_pwd></code>	Specifies the password for <code>admin_user</code> .
<code><source_host></code>	Specifies the host where the Sendmail or Post.Office legacy system is running.
<code><mssHost></code>	Specifies the host running the InterMail Message Store Server (MSS) for the migrated mailboxes.
<code><poMigAgtPort></code>	Specifies the port number where the <code>immigagentpo</code> program is listening for connections. Use this argument only if the Post.Office accounts need to be locked during migration. For more information about this option, see Chapter 2.

immigagentpo

Use the `immigagentpo` command only if it is necessary to lock the Post.Office accounts during migration. For more information on `immigagentpo`, see Chapter 2.

Syntax

```
immigagentpo [-help][-allowAll][-logname <log>][-port <portNum>][-tmpdir <dir>] <PO_utilDir> <IPAllowed1[:IPAllowed2..:IPAllowedN]>
```

where:

<code>-help</code>	Provides a detailed description of the various command options and arguments.
<code>-allowAll</code>	Enables connection requests from any host.
<code>-logname <log></code>	Specifies the log file. The default file is <code>immigagentpo.log</code> .
<code>-port <portNum></code>	Specifies the listener port number for the agent. The default port number is 7007.
<code>-tmpdir <dir></code>	Specifies the directory used as a temporary area.
<code><PO_utilDir></code>	Specifies the directory where the Post.Office utilities are installed.
<code><IPAllowed1[:IPAllowed2..:IPAllowedN]></code>	Specifies one or more IP addresses that are allowed to connect to the agent.

imreplymigrate

Use the `imreplymigrate` command to move auto-reply messages from the existing mail system to the InterMail system.

Syntax

```
imreplymigrate [-help][-badaccts <badAcctsFile>][-acctIDFile  
<filename>][-trace][-log <fileName>] <acctDataFile> <mssHost>
```

where:

<code>-help</code>	Provides a detailed description of the various command options and arguments.
<code>-badaccts <badAcctsFile></code>	Specifies the file containing error messages for the accounts whose mail messages are not moved. Fix the errors, then use this file to process only accounts that had errors. If this option is missing, the default file is <code>imreplymigrate.err</code> .
<code>-acctIDFile <filename></code>	Specifies the file containing primary SMTP addresses corresponding to the specific accounts for which the auto-reply information is to be migrated. This is useful for re processing accounts that failed a previous auto-reply migration attempt.
<code>-trace</code>	Displays informational processing messages for troubleshooting.
<code>-log <fileName></code>	Provides the full path for the log file. The default file is <code>imreplymigrate.log</code> .
<code><acctDataFile></code>	Specifies the LDIF file containing account information generated from <code>imaccountexportpo.out</code> or <code>imaccountexportsm.out</code> .
<code><mssHost></code>	Specifies the host on which the InterMail MSS is running.

imreplydisplay

Use the `imreplydisplay` command to view the auto-reply information in the InterMail system.

Syntax

```
imreplydisplay [-help] <smtpAddr>
```

where:

<code>-help</code>	Provides a detailed description of the various command options and arguments.
<code><smtpAddr></code>	Specifies the primary SMTP address of the account.

Output Files

By default, output files are named with the command name and written with `.log`, `.err`, and `.out`.

Each time you run a migration command, information is written to the following output files:

- `.log`—Contains account status, such as whether an account was successfully exported or an error occurred. Log files are always opened in Append mode, so that data is never lost through accidental overwriting.
- `.err`—Lists accounts that were not successfully exported, imported, or moved. If an account error is recorded in the `.err` file, fix the error and then use this file as input to the command.
- `.out`—Contains the output of a finished process. For example, `imaccountexportpo.out` contains the output of the account export process and serves as input into the next process, such as `imaccountimport`. Use this file as input to the `import` and `move` commands.

2

Migrating a Mail System

This chapter describes the steps for migrating a Post.Office or Sendmail mail system to InterMail.

It contains the following sections:

- Task Overview
- Preparing to Migrate
- Creating Accounts
- Moving Mail Messages

Task Overview

The following list offers a brief outline of the steps involved in migration. These steps are then discussed in detail in the sections that follow.

1. Install the InterMail Software.
2. Configure your InterMail system to proxy mail to the server being replaced so that you provide continuous mail service to end users during migration.
3. Change the MX record to point to the InterMail system.
4. Record the mail accounts you want to move to the InterMail system in a text file.
5. Use the text file as input to export the account information to standard LDIF format.
6. Import account information from the LDIF file to create accounts in the InterMail system.
7. Move the mail and auto-reply messages from the existing system to the InterMail system.
8. Remove the global proxy statement after moving all accounts and messages to InterMail.

9. Shut down the old mail system to ensure correct mail delivery.

Note: Migration from a Post.Office system to InterMail Kx mail system is supported under variants of the UNIX operating system only.

Preparing to Migrate

Preparing your existing mail system for migration involves:

- Installing the InterMail software
- Proxying messages
- Changing the MX record

Installing the InterMail Software

In order to migrate accounts you must first install and the InterMail software. The instructions in this manual assume that the InterMail software has already been installed and is fully functional. To install InterMail, see the *InterMail Kx Installation Guide*.

Proxying Messages

Accounts are migrated in stages. By configuring your InterMail system to proxy messages to the existing mail server, you provide continuous mail service to end users regardless of whether their accounts reside on the new or existing mail system.

To proxy messages, use the `imconfedit` command to change the configuration database. If you are not familiar with `imconfedit`, refer to Chapter 7 of the *InterMail Kx Operations Guide*.

Setting the configuration database to proxy messages has the following effect:

If a user logs in to retrieve mail and supplies an unknown username (because that user account does not yet exist in the Integrated Services Directory (ISD)), the InterMail POP server connects to the host you have defined in `popProxyHost`, using the port defined in `popProxyPort`.

Mail messages destined for accounts that belong to a local domain known to InterMail (but that do not yet exist in the ISD) are relayed to the SMTP server defined in `relayHost`.

To configure InterMail to proxy mail messages, use the `imconfedit` command to:

1. Set the `popProxyHost` configuration key to the hostname of your existing mail system. For example:

```
/*/popserv/popProxyHost: [jupiter.accordance.com]
```

2. Verify that the `popProxyPort` configuration key is set to the port value used by the host specified in `popProxyHost`. The default value is 110.

3. Set the `relayHost` configuration key to the SMTP hostname of your existing mail system. For example:

```
/*/mta/relayHost: [venus.accordance.com]
```
4. Exit `imconfedit` and accept these changes.

Changing the MX Record

In order to migrate accounts, you must change the MX records on the DNS servers from the existing mail system pointing to the InterMail system.

Note: Do not change the MX records until you have either set up Proxy mode or provisioned all users in your Directory in proxy mode, so that InterMail knows how to handle incoming requests and email.

It is recommended to keep the TTL short so other DNS servers update their cached information frequently. This avoids connections being made to the original servers instead of the InterMail server for a while after changing the MX and POP server DNS records because the changes have not yet been updated by the other DNS servers.

Creating Accounts

Before moving your mail, you must create accounts in the InterMail system. This involves the following steps:

1. Defining accounts to migrate
2. Exporting account data
3. Importing account data

Note: To avoid losing the contents of an error file when using it as input, use the `-badaccts` option when you reprocess accounts.

Defining Accounts to Migrate

The first step in creating accounts is defining the mail accounts you want to move to the InterMail system.

If you plan to use the InterMail class-of-service option, consider the desired class of service when defining the list accounts you want to migrate. Because the `import` command allows you to import only one class of service at a time, each batch of accounts you migrate must be associated with a single class of service. If you are not familiar with class of service, refer to Chapter 5 of the *InterMail Kx Operations Guide*.

To define accounts to migrate from the existing system directory:

1. Decide which accounts you want to export.
2. Create a text file containing the names of the accounts you want to migrate:
 - For Post.Office, use the Post.Office `listacct` utility.
 - For Sendmail, compile a listing of UNIX account names.

Note: Make sure that your Sendmail mail system is configured according to the specifications described in Chapter 1.

3. Move the text file to the directory containing your InterMail system. You will use this file as input for the export command

Exporting Account Data

Accounts are created from account information exported from your existing mail system. This account information is exported into a file in LDIF format.

To export accounts from the existing mail system directory:

1. Export account information to LDAP Data Interchange Format (LDIF) using one of the following:
 - For Post.Office, `imaccountexportpo <domain1>`
 - For Sendmail, `imaccountexportsm <domain1>`

where:

`<domain1>` Is the domain that completes the address.

For a detailed description of the command arguments and options, see Chapter 1.

2. Find and fix the errors by:
 - a. Checking the directory for an error file that lists the accounts for which information could not be exported. The default error file is one of the following:
 - For Post.Office, `imaccountexportpo.err`
 - For Sendmail, `imaccountexportsm.err`
 - b. Checking the log file for the accounts listed in the error file to see why the errors occurred.
 - c. Resolving the errors.

3. After all errors are resolved, enter one of the following commands to export the accounts using the error file as input to reprocess the accounts:

- For Post.Office:

```
imaccountexportpo -users imaccountexportpo.err <domain1>
```

- For Sendmail:

```
imaccountexportsm -acctIDFile imaccountexportsm.err <domain1>
```

where:

`-users <imaccountexportpo.err>` and `-acctIDFile <imaccountexportsm.err>` export account information for the accounts in the text file that were not exported the first time.

All successfully exported accounts and mailboxes are written to the output file in LDIF format. The default file is one of the following:

- For Post.Office, `imaccountexportpo.out`
- For Sendmail, `imaccountexportsm.out`

Once all desired data is successfully exported, you are ready to import account data using the output file from the export command as input.

Importing Account Data

Accounts are imported from account information in the output file of the export command. This information is listed in LDIF format. If your existing mail system is not mounted to the InterMail system, FTP the file to the InterMail machine where the ISD is located.

To import accounts into the InterMail system directory:

1. Enter:

```
imaccountimport <acctDataFile> <cosName> <smtpRelayHost>  
<popProxyHost>
```

where:

<code><acctDataFile></code>	Specifies the LDIF file containing account information generated from <code>imaccountexportpo.out</code> or <code>imaccountexportsm.out</code> .
<code><cosName></code>	Specifies the pre-existing class of service that will be assigned to the imported accounts.
<code><smtpRelayHost></code>	Specifies the host on which the original SMTP server is running.
<code><popProxyHost></code>	Specifies the host on which the original POP server is running.

For a detailed description of the command arguments and options, see Chapter 1.

2. Find and fix the errors by:
 - a. Checking the directory for an error file that lists the accounts for which information could not be imported. The default error file is `imaccountimport.err`.
 - b. Checking the log file for the accounts listed in the error file to see why the errors occurred.
 - c. Resolving the errors.
3. After all errors are resolved, enter the following command to import the accounts using the error file as input to reprocess the accounts:

```
imaccountimport -acctIDFile imaccountimport.err <acctDataFile>  
<cosName> <smtpRelayHost> <popProxyHost>
```

where:

`-acctIDFile imaccountimport.err` imports the account information for the accounts in `<acctDataFile>` that were not imported the first time.

All successfully imported accounts are recorded in an output file. The default file is `imaccountimport.out`.

Once all desired data is successfully imported, accounts on the InterMail system have been created. The next step in the migration process is moving the messages from the existing system to the InterMail system using the output file from the import command as input.

Moving Mail Messages

If you are migrating a Post.Office mail system you may need to lock accounts before moving your messages. Otherwise you are ready to move mailboxes, messages, and auto-reply messages.

Note: Use the `-badacct`s option every time you reprocess accounts to avoid losing the contents of the error file when using it as input.

Locking Post.Office Accounts

If you are migration a Post. Office system, under the following circumstances you should lock accounts before moving messages:

- More than one machine can access the Post.Office system
- MX records do not point to the InterMail system

The `immailmove` command, includes an optional port number where `immigagentpo` listens for a connection. When you specify a number for `<poMigAgtPort>`, the `immailmove` utility instructs the agent to listen for a connection at that port number.

To lock an account:

1. Go to the directory where Post.Office is installed , and run `immigagentpo`.

```
immigagentpo <PO_utilDir> <IPAllowed1[:IPAllowed2..:IPAllowedN]>
```

where:

<PO_utilDir> Specifies the directory where the Post.Office utilities are installed.

<IPAllowed1
[:IPAllowed2..:
IPAllowedN]> Specifies one or more IP addresses that are allowed to connect to the agent.

2. Go to the InterMail system directory, and run the `immailmove` command with a port number.

For detailed instructions on using the `immailmove` command, see [Moving Messages](#).

Just before `immailmove` starts gathering information on the messages to be moved, `immigagentpo` locks the account. Once the messages are moved or the command fails, the accounts are unlocked.

Moving Messages

The mailboxes and messages moved are those associated with the accounts listed in the `imaccountimport` output file.

Note: If you stop `immailmove` while it is in process and then restart migration, previously moved mail is moved again.

To move mailboxes and messages:

1. Enter one of the following commands:

– For Post.Office:

```
immailmove PO <mboxMigDataFile> <admin_user> <admin_pwd>  
<source_host> <mssHost> <popHost> <smtpHost>[<poMigAgtPort>]
```

– For Sendmail:

```
immailmove SM <mboxMigDataFile> <admin_user> <admin_pwd>  
<source_host> <mssHost> <popHost> <smtpHost>
```

where:

<mboxMigDataFile> Names the file containing the account and mailbox directory information in the format `uid psmtppAddr mboxlocation`.

<admin_user> Specifies the Sendmail or Post.Office administrator who has permission to read all mailbox directories.

<admin_pwd>	Specifies the password for admin_user.
<source_host>	Specifies the host where the Sendmail or Post.Office legacy system is running.
<mssHost>	Specifies the host running the InterMail Message Store Server (MSS) for the migrated mailboxes.
<poMigAgtPort>	Specifies the port number where the immigagentpo program is listening for connections. Use this argument only if the Post.Office accounts need to be locked during migration.

For a detailed description of the command arguments and options, see Chapter 1.

2. Find and fix the errors by:
 - a. Checking the directory for an error file that lists the accounts for which mailboxes and messages could not be moved. The default error file is `immailmove.err`.
 - b. Checking the log file for the accounts listed in the error file to see why the error occurred.
 - c. Resolving the errors.
3. After all errors are resolved, enter one of the following command to move the messages using the error file as input to reprocess the messages:

– For Post.Office:

```
immailmove PO immailmove.err <admin_user> <admin_pwd>
<source_host>
```

– For Sendmail:

```
immailmove SM immailmove.err <admin_user> <admin_pwd>
<source_host>
```

where:

<code>immailmove.err</code>	Contains account information for the mailboxes and messages in <code><mboxMigDataFile></code> that did not move.
-----------------------------	--

Moving Auto-Reply Messages

The auto-reply messages that are moved are those associated with the accounts listed in the LDIF file created by `imaccountexportpo` and `imaccountexportsm`.

Note: Use the `imreplydisplay` utility to display the auto-reply information in the InterMail system. For more information on the `imreplydisplay` utility, see Chapter 1.

To move auto-reply messages:

1. Enter:

```
imreplymigrate <acctDataFile> <mssHost>
```

where:

<acctDataFile> Specifies the LDIF file containing account information generated from `imaccountexportpo.out` or `imaccountexportsm.out`.

<mssHost> Specifies the host on which the InterMail MSS is running.

For a detailed description of the command arguments and options, see Chapter 1.

2. Find and fix the errors by:

- a. Checking the directory for an error file. The default error file is `imreplymigrate.err`.
- b. Check the log file for the accounts listed in the error file to see why the errors occurred.
- c. Resolving the errors

3. After all errors are resolved, enter the following command to move the auto-reply messages using the error file as input to reprocess the messages:

```
imreplymigrate -acctIDFile imreplymigrate.err <acctDataFile>  
<mssHost>
```

where:

`-acctIDFile imreplymigrate.err` moves the auto-reply messages for the accounts in `<acctDataFile>` that did not move the first time.

All accounts and mail messages are moved. You can now decommission the old mail server.

3

Troubleshooting Migration

This section deals with problems that may occur during the migration process. The chapter is broken down into sections for each migration command described in Chapter 1:

- `imaccountexportpo`
- `imaccountexportsm`
- `imaccountimport`
- `immailmove`
- `immigagentpo`

imaccountexportpo

The `imaccountexportpo` command exports mail account information from an existing Post.Office mail system into LDAP Data Interchange Format (LDIF). For more information on `imaccountexportpo`, see Chapter 2.

Error Messages

Can't call method "autoflush" without a package or object reference
at ./imaccountexportpo line 332.

Cause You are not logged in as the Post.Office administrative user.

Action Switch your current user to the Post.Office administrative user, which is usually `mta` or `root`.

```
Error; Cannot locate program /opt/post.office/cmdutils/getacct
Make sure that the -utilsdir command line option is pointing to the
right location at ../imaccountexportpo line 337
```

Cause You are unable to access Post.Office command utilities. To run `imaccountexportpo`, you must have access to the Post.Office command utilities.

Action Do any of the following:

- Log in to the machine on which Post.Office was installed and make sure you can see the command utilities directory (the default location is `/opt/post.office/cmdutils`).
- Mount the command utilities directory from your machine.
- If the Post.Office installation is in a non-default location, use `imaccountexportpo -utilsdir` to point to the correct location.

Output File Errors

The LDIF `dc` fields in the output file (`imaccountexportpo.out` by default) have the following incorrect value:

```
dn: uid=somebody@somewhere.com, dc=somewhere, dc=com
```

Cause The value of the command line parameter *domain* is used as the domain of the new InterMail system and to complete the `dc` fields for each user in the LDAP database.

Action Run `imaccountexportpo` again, specifying the domain of the new InterMail system.

imaccountexportsm

The `imaccountexportsm` command exports mail account information from an existing Sendmail mail system into LDIF format. For more information on `imaccountexportsm`, see Chapter 2.

Error Messages

```
Can't call method "autoflush" without a package or object reference
at ./imaccountexportsm line 335.
```

Cause You are not logged in as the Sendmail administrative user.

Action Switch your current user to the Sendmail administrative user, which is usually `root`.

Output File Errors

In the output file (`imaccountexportsm.out` by default) you notice:

```
Tue Mar 30 11:08:36 1999; Warn; Cannot find mailbox location for
john
Tue Mar 30 11:08:36 1999; Note; Account: john successfully exported.
```

Cause The LDIF file does not include mailbox information and the export command cannot determine the mailbox location based on the entries in the `passwd` file. `imaccountexportsm` expects a user's mailbox to be:

- Located in the user's home directory
- Named `mbox`

Action

1. Make a copy of the suspect `passwd` file.
2. Change the location of the user's home directory to the directory that contains that user's mailbox.
3. Use this modified `passwd` file as input to `imaccountexportsm`.

The generated LDIF file is empty.

Cause The LDIF file is generated by either the contents of the `passwd` file entered as a parameter or the results of the system call `getpwent`. InterMail cannot access the Sendmail `passwd` file either because the `passwd` file is empty or because the system cannot make the `getpwent` system call.

Action Do any of the following:

- Make sure that the entries in the `passwd` file are properly formatted.
- Ensure that the Sendmail system administrator can access the password entries.

imaccountimport

The `imaccountimport` command imports account information in the InterMail system. For more information on `imaccountimport`, see Chapter 2.

Error Messages

You receive the following error message while running `imaccountimport`:

```
On Apr 5 05:29:31 1999; Error; No Such COS[000007d0]. Program aborted.
```

- | | |
|---------------|---|
| Cause | In the <code>cosName</code> parameter, you specified a class of service (COS) that does not exist. |
| Action | <ol style="list-style-type: none">1. Use the <code>imdbcontrol listcosnames</code> command to determine the classes of service that exist.2. If no classes of service exist, create one with default values using the <code>imdbcontrol createcos basic</code> command.3. Rerun the <code>imaccountimport</code> command with an existing class of service as the <code>cosName</code> parameter. |

Relay Errors

After accounts have been successfully imported but before the mail is migrated, mail is not being relayed to the legacy system.

- | | |
|---------------|---|
| Cause | There are invalid parameters in <code>imaccountimport</code> . |
| Action | Point the InterMail <code>smtpRelayHost</code> and <code>popProxyHost</code> to the legacy system. Accounts are created in proxy mode so inbound mail and incoming POP requests are then diverted to <code>smtpRelayHost</code> and <code>popProxyHost</code> , respectively. |

immailmove

The `immailmove` command moves mailboxes and messages from the existing mail system to the InterMail system. For more information on `immailmove`, see Chapter 2.

Log File Errors

The log file (`immailmove.log` by default) shows:

```
Mon Apr 5 11:43:16 1999; Note; Log Opened
Mon Apr 5 11:43:16 1999; Error; Cannot create client socket: Bad
file number
Mon Apr 5 11:43:16 1999; Error; Make sure that PO agent is listening
on dunkel.somewhere.com:7007
```

Cause Mail is not being migrated because the `immigagentpo` server is not running on the port specified by the optional parameter at the end of `immailmove`. Normally `immailmove` does not use `immigagentpo`, but if a port number is specified, `immailmove` locks each user's Post.Office account while mail is migrated.

Action This locking requires that `immigagentpo` be run on the legacy system. If you do not wish to lock mailboxes, run both `immigagentpo` and `immailmove` using the default port numbers.

Mismatch Errors

The migrated InterMail mailboxes are bigger than the corresponding Post.Office mailboxes.

Cause InterMail mailboxes may contain extra information, making a direct comparison inaccurate.

Action None. An InterMail mailbox should contain at least the same number of bytes as the corresponding Post.Office mailbox.

The reply information that was migrated to the InterMail system for a user does not match the settings in the legacy mail system.

Cause `imreplymigrate` is run after `imaccountimport` and `immailmove` using the reply information stored during account migration. Between the time when the user's accounts were generated and the time of reply migration, the user changed his or her reply information.

Action Rerun `imaccountexportpo` or `imaccountexportsm` to generate new reply information.

immigagentpo

The `immigagentpo` command locks Post.Office accounts during migration. For more information on `immigagentpo`, see Chapter 2.

Error Messages

You receive the following error message while running `immigagentpo`:

```
ERROR: Cannot create socket: Bad file number
```

Cause The port number that the server is trying to start up on is already in use.

Action(s) 1. Enter the following command to confirm that the port number is being used:

```
netstat -a | grep <portnum>
```

where:

<portnum> is the number used (7007 by default).

2. Check your system processes to determine if `immigagentpo` was previously started. Then do one of the following:

- Stop the first process.
- Specify an alternate port with the `-port` parameter. If you specify a port number with `-port` on the legacy system, be sure to specify this when running `immilmove` on the InterMail system.

A

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