IceWarp Unified Communications

Integrated Migration Tool

Version 10.4

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Integrated Migration Tool

Probably the biggest challenge for email system administrators when considering a new email server is figuring out a way to simply, and safely, migrate current users and mail to the new server.

The classic approach is to create a custom program or programs to extract the data from the old server's data store and put it to the new server's data store. This method is prone to problems and errors and the diversity of email systems that exist mean that a simple resolution is not readily available.

All that is a thing of the past if you are considering IceWarp Server.

IceWarp Server includes an integrated Migration Tool right out of the box, allowing you to seamlessly migrate your user's data with minimal service interruption.

IceWarp Server does this by using a smart proxy approach and gathering all user and mail information directly from the user.

As the user logs on to IceWarp Server for the first time, the provided user/password information is used to create the user and then the old server is interrogated to retrieve the users old messages.

Effectively IceWarp Server sits between the users and your old server and the migration tool takes care of everything for you.

Original messages are not deleted from the old server so you can be confident that your users will lose no data.

In This Chapter

How It Works

The following describes the process that your users will go through once you have set IceWarp Server up to automatically migrate user data.

1. A user attempts to log in using a POP3 or IMAP connection.

    This logon attempt will be to your IceWarp Server but your user will not be aware of that unless you have specifically informed him.

2. If the user already exists in the IceWarp Server then he has already been migrated and he is allowed access as normal.

3. If the user does not exist in the IceWarp Server then the IceWarp Server attempts to access the old server using the same user/password combination, and the same protocol (POP3/IMAP).

4. If authentication is successful then the user is sent an informational message that his mailbox is temporarily unavailable. If authentication fails then the login attempt is failed.

5. Once a valid user/password combination is found it is automatically added to the Migration Tool processing queue. This queue is processed by IceWarp Server in the background.

6. When the Migration Tool is ready to process our user's queue request, it accesses the old server using the user/password supplied and downloads all messages for that user and stores them in IceWarp Server. If the access is IMAP, then the whole mailbox, including any sub-folders and message flags (read, unread, priority).

7. Once the migration is complete for a user he is allowed normal access to his messages at the next login attempt.

Once you have set IceWarp Server up for migration, any incoming messages are forwarded to the old server unless the user/mailbox exists on IceWarp Server.

Some messages can arrive whilst Migration is in progress - these are dealt with by you, the administrator, choosing to "finish" the migration, when a final sweep of all mailboxes is done to search for new messages. If any new messages are found they are immediately downloaded.

NOTE - that there is also an option to perform a manual migration of a user, or list of users. see *Manual tab* (on page 12).

Performing Migration

The following gives an example of how you would migrate to IceWarp Server from a server called mail.MyDomain.com

You should be aware of how many users you have on your old server so you can monitor progress and know when migration is complete.

In This Chapter

Set up the Domain in IceWarp Server

First, you must set up the Domain mail.mydomain.com within IceWarp Server.

In the Administrator GUI, select **Domains & Accounts -> Management**.

Right-click in the folder-type display area of the Management area and select **New Domain** from the menu that appears

A blank definition sheet will display for your new domain which should be completed as described below:

Field	Details
Name	Enter the hostname of the server that you want to migrate. In this example mail.mydomain.com
Description	Enter a freeform description of this domain.
Type	Select Backup Domain
Value	Enter a value that you will use for the Old Server's hostname. Make a note of this as you will need to create and modify DNS records for the Old and New server. NOTE - you could also put an IP address here if it is static. This would mean that the old server is accessible by IceWarp Server even before the DNS MX records are updated.
Verification	Leave as Default
Default Alias	n/a
email	n/a
Action	n/a
email	n/a

Press **Save** at the top of the screen to save this domain.

You now have your domain set up and ready for use within IceWarp Server.
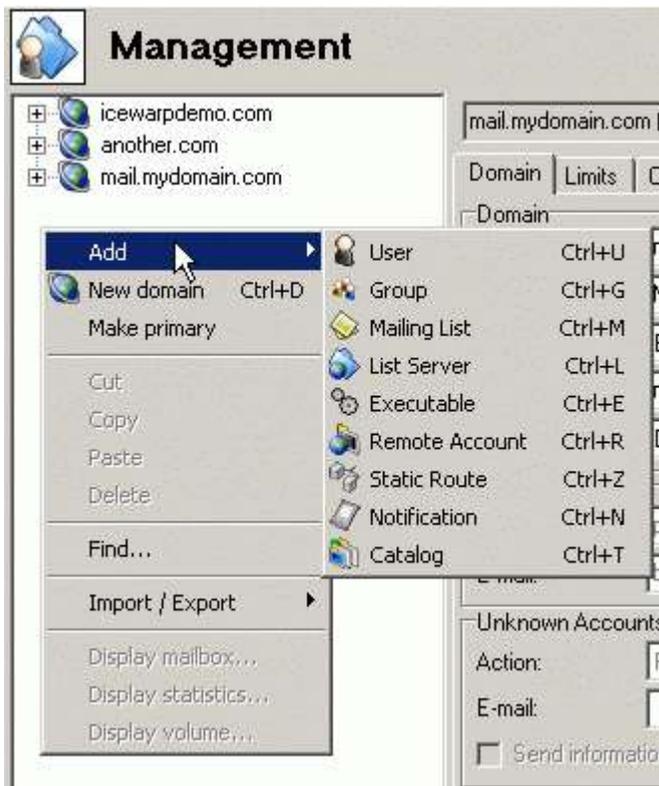
Create Migrator Email Account

Next, you need to set up a "migrator account" within your new domain.

This account will be used to send informational messages to your user's as they log on for the first time.

In the Administration GUI select **Domains & Accounts**.

Select your migration domain - in this example mail.mydomain.com.

Right-click on the domain name and select **Add->User** from the menu.

A blank user sheet opens which should be filled out as follows:

Field	Details
Alias	Enter a name for the migrator account.
	Keep a note of this as you will need to configure the Migration tool to use it.
Phone #	Can be left blank.
Username	Make the same as Alias.

Name	A descriptive or your own name.
Password	Enter a password for the userid (or accept the generated one).
Confirm	Confirm the password you entered (if you entered one).
Mode	Select Standard.

Press **Save** at the top of the screen to save the new user account.

And you now have your migrate user set up and you are almost ready to switch to your new server.

Configure Migration Tool

Next, you need to configure and start the Migration Tool.

In the Administration GUI select **System->Tools->Server Migration**.
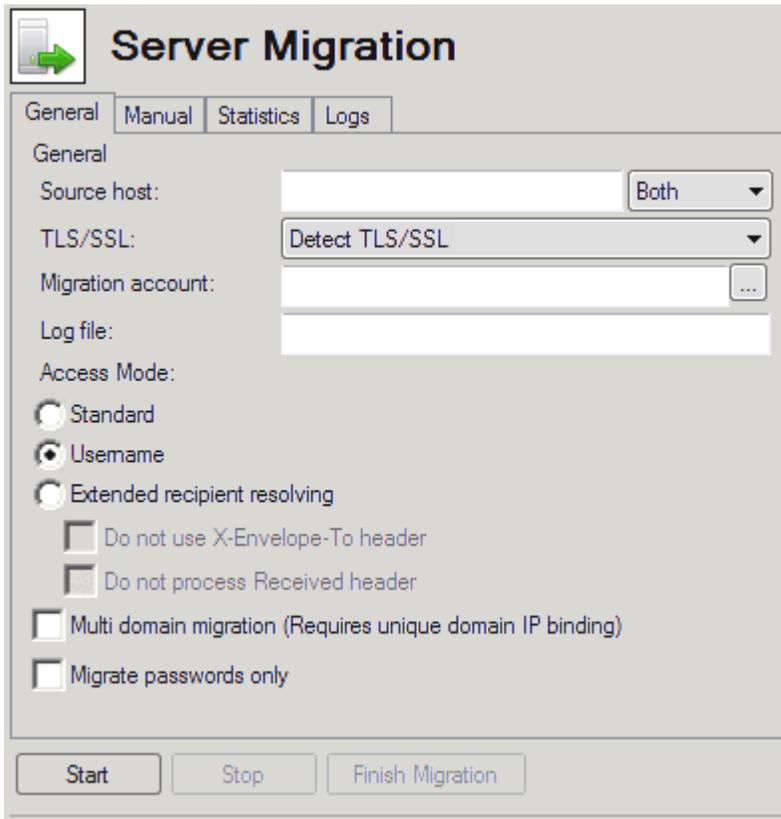
Field	Description
Source host	Defines the source for migration and the type(s) of account: *Both* – POP3 & IMAP Accounts. *POP3* – Only POP3 Accounts.

	IMAP – Only IMAP Accounts. NOTE: POP3 does NOT bring a read/unread status, only IMAP migration does. Also POP does not preserve original date/time of messages (instead, it puts time when it was downloaded).
TLS/SSL	Select from the following options: **Detect TLS/SSL** First attempt to establish connection is done by usual (non-encrypted) communication. After connection is established, encrypted communication is used. **Direct TLS/SSL** Whole communication is encrypted. **Disable TLS/SSL** Whole communication is non-encrypted.
Migration account	Specify the Account you created for the migrator informational messages.
Log file	Specify a full path and file name where the migration log will be saved.
Access Mode	Select one of: **Standard** This mode will create one alias per account, based on the *To:* header of received messages. **Username** This mode does not parse messages at all and the alias of the New Account is the same as the login name. This is the recommended option. **Extended recipient resolving** This mode will parse received messages for all possible aliases for the new Account and will create those aliases with the Account. This option has two further sub-options: **Do not use X-Envelope-To header** Check this option if you are sure that all old messages have strictly correct MIME headers. If they have not, this option will cause the migration to fail. **Do not process Received header** Check this option to prevent this header migration.
Multi domain migration (Unique IP binding)	Use this option with care. A description is included here for completeness but is not considered as part of this document, as we are only describing how to migrate one domain. Use this option only with care. It enables the multi domain migration where you can migrate more domains at once. This feature however requires certain rules. Every domain to be migrated requires a virtual IP binding. This is done by the Virtual IP Binding button on the domain property in IceWarp Server. All domains must have a unique IP set. Now all your email login attempts must come directly to the correct IP. The migration will then exactly know the domain name the new account belongs to and will create it in that particular domain *Example*: 2 domains to be migrated. foo1.com - IP Binding - 192.168.0.1 foo2.com - IP Binding - 192.168.0.2

	The actual Backup Domain settings can be set to the same mail server. The incoming mail server still has to be the only one.
	Now for your foo1.com users you give them an incoming mail server host name that points to 192.168.0.1. It can be mail.foo1.com.
	foo2.com will get also a host name mail.foo2.com that points to 192.168.0.2.
	By this you should be all set. Now when somebody connects to server to either of those IPs IceWarp Server already knows what domain the account belongs to thus it will migrate all users to proper domains.
	The advantage of this feature is that it does not require that you previously had IP bindings on the old mail server.
	NOTE: Migration tool needs to have domains pre-created in IceWarp Server prior to migration. You may create a list of domains and use the following command line tool command: ***tool import domain domains.txt*** In the list, use one line for each domain.
Migrate passwords only	Leave unchecked, this option is for special purposes or recovery. If enabled, it is resetting passwords on migrated accounts and doesn't load any user data.

Press the **Start** button to activate the migration process.

You now have IceWarp Server set up and ready to start migration of your users.

Modify Your DNS Records

Next, we need to add and modify DNS MX records for the old server and the new server.

1. Modify the record for the new server.

    You should modify the MX record for mail.mydomain.com to point at your NEW server's IP address.

2. Add a record for the old server.

    Add an MX record for mail.olddomain.com, pointing at the IP address of your OLD server.

So now, when any messages are sent to mail.mydomain.com they will be sent to your new server and the following will happen:

-   If the recipient account exists then the message is delivered to the mailbox on the new server.

-   If the recipient account does not exist then the message is passed directly to the old server for storage.

NOTE - that this behaviour is a function of a Backup Domain. Mail is forwarded to the domain unless the recipient account exists on the domain.

And when any of your users try to access mail.mydomain.com they will access your new server and the following will happen:

-   If the user is already defined then access is allowed as normal.

-   If the user is not defined -

    Access is rejected.

    An informational email is sent (as defined by yourself).

The user/password is stored in the Migration Tool processing queue for later migration.

NOTE - the actual mailbox migration is performed as a background task so as not to overuse server resources. The Processing queue entries are processed one at a time by the new server accessing the old server using the stored user/password combination and downloading all messages and folders.

Stop and Finish Migration

You can monitor the migration process by accessing the **Statistics** tab of the Migration Tool:
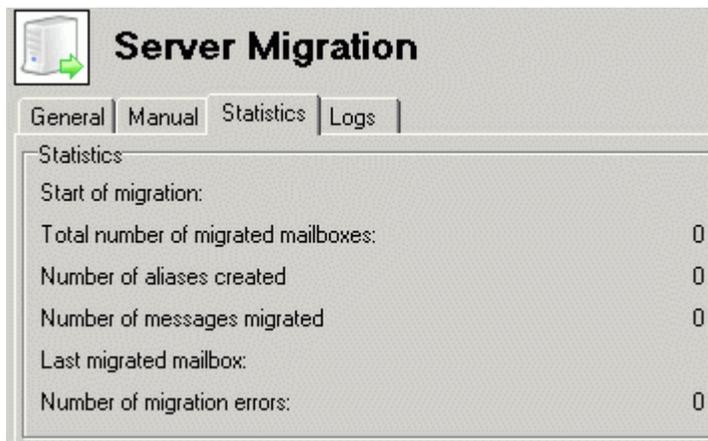
Of particular interest are the values at **Total number of migrated mailboxes** and **Number of migration errors**.

The **Total** number will give you an indication of how close to completion the migration is. If the number of mailboxes reaches the number that you were expecting then you are ready to **Finish** the migration. However, if there are are any **migration errors** listed you should check the **Logs** tabs to investigate those errors.

NOTE that automatic session recovery ensures that when an error occurs during a connection to the old server, the session is resumed and the migration attempted again. UIDL file containing the already downloaded message IDs is shared across concurrent sessions, making sure that e-mails that were already downloaded before the error will not be downloaded again.

Once you are satisfied that all your users have been migrated you should press the **Finish** button to tell IceWarp Server to finish the migration. This causes a final sweep of all the migrated mailboxes on the OLD server looking for missed messages. If any are found, they are immediately downloaded to the new server.

NOTE - it is a rare occurrence that messages are missed. This is caused when a message comes in for a user while his mailbox is being migrated.

Modify IceWarp Server's Domains

And finally, in the Administration GUI **Domains & Accounts** you should change the **Domain type** to **Standard** from Backup.

And your users have been migrated to your new server with minimal downtime and effort.

Other Features

There are a couple of useful features that can be used alongside the process to speed up the migration.
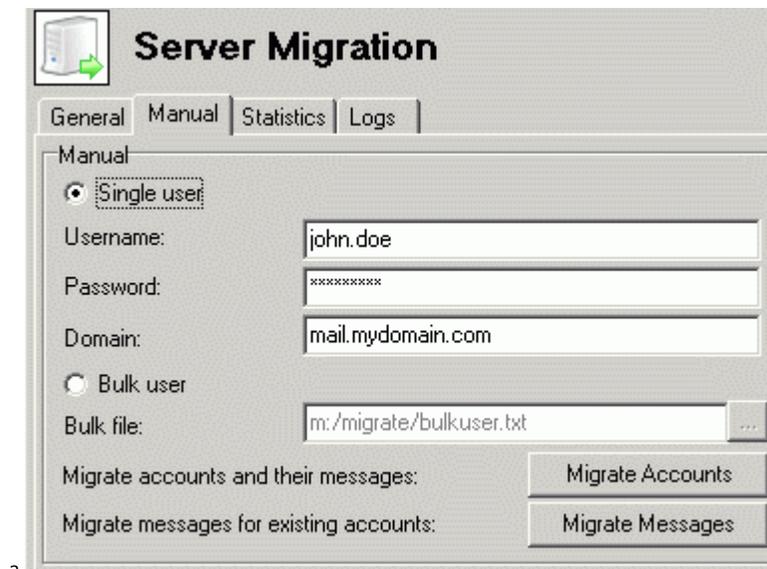
In This Chapter

Manual Tab

Selecting the **Manual** tab in the Migration tool allows you to add items to the migration processing queue.

NOTE: The options on the **Manual** tab are only available once you have started the migration process.
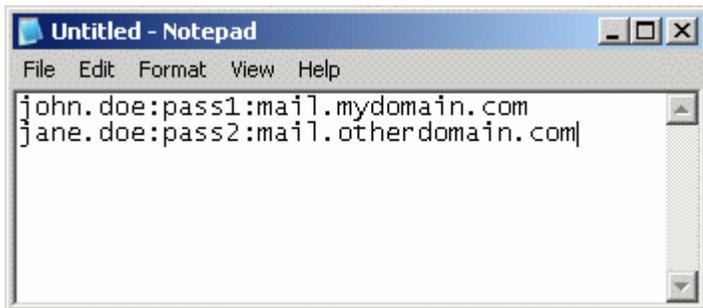

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You can choose to migrate a single user or a set of users (defined in a plain text file).

- For single user:

  Select **Single user**.

  Enter the **Username**, **Password** and **Domain**.

- For multiple users:

  Select **Bulk user**.

  Enter a fully qualified path to a plain-text file. the file should contain a list of users to migrate, one per line, in the format **user:password** or **user:password:domain**

e.g.
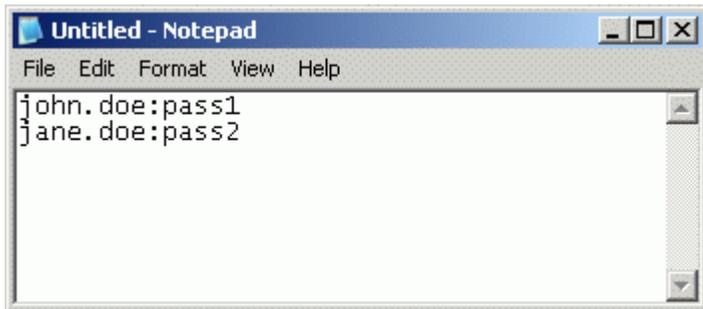
or

NOTE: The user field can contain the domain name, i.e. john.doe@domain1.com:pass1 or john.doe@domain1.com:pass1:domain1.com. This format has to be used to migrate multiple domains when your login policy is not set to ***Users login with their email addresses***.

Once you have selected **Single** or **Bulk** you have two migration methods you can invoke:

▪   **Migrate Accounts**

This method will cause IceWarp Server to create the accounts and download messages.

Press the **Migrate Accounts** button and the Account(s) will be added to the migration processing queue.

If an account already exists an error will be reported and no migration of data will be attempted.

```
[00001228] Tue, 29 Jul 2008 14:02:43 +0200 Local account 'eee@foo1.com' already
exists, cannot migrate
```

▪   **Migrate Messages**

This method should be used when the accounts are already created on the new server and only messages are downloaded.

Press the **Migrate Messages** button to add the account(s) to the processing queue.

If an account does not exist then an error will be reported and no migration will be attempted.

```
[00001A0C] Tue, 29 Jul 2008 14:04:16 +0200 Could not migrate 'eeexxx' from the
remote server
```