



audriga
DIGITAL MOVERS

User's Guide

audriga Groupware Migration

from Google Workspace

to Amazon WorkMail

Version 1.5

Date 25.04.2023

Contact <https://www.audriga.com/en/Contact>

Table of contents

audriga migration Service for emails and groupware.....	2
Data migration.....	2
What data can be migrated	2
What data cannot be migrated	2
Limitations.....	3
EWS Limitations	3
Amazon WorkMail specific limitations	3
General limitations.....	3
Preparation.....	3
Create new Amazon WorkMail mailboxes	4
Prepare access to source and destination	6
Access to Google Workspace using Admin Scopes	6
Access to Amazon WorkMail using admin credentials	8
Configure a migration with audriga migration service	9
Select current and new Provider	9
Add accounts for migration.....	10
Add single Google Workspace accounts.....	10
Add single Amazon WorkMail Accounts	12
Add multiple Accounts	12
Start the Migration.....	14
Free Trial	14
Monitor Migration Status.....	15
Delta Migration for Domain Transfer	17

audriga migration Service for emails and groupware

audriga's Migration Service migrates the **content of mailboxes** from your current hosting provider to a new hosting provider in an easy, fast, and secure way. A migration can be configured on our self-service website, which can be accessed with most common web browsers (e.g. IE, Firefox, Safari or Chrome). No software needs to be installed on your machine. The service connects to your mailbox similarly to the way as your e-mail client does. Emails, attachments, folders and depending on the involved systems also contacts, task, and calendar data are being copied to the destination account. The data in the source mailbox will not be deleted or altered in any way. To configure a migration, only three simple steps in our self-service portal have to be completed. After the migration has started, its status can be continuously monitored on the website.

It may not be possible to complete especially large or complex migrations with only this guide. If you identify issues related to I/O issues, bandwidth, timeline constraints, or anything else that makes the migration more complicated than you feel comfortable handling, you may need more than audriga's self-service level. If you find that you need a higher level of support, please contact audriga at support@audriga.com.

Data migration

What data can be migrated

- Emails
- Contacts
- Calendars
- Tasks

What data cannot be migrated

- Public folders
- Archives
- Journals
- Filters (Inbox Rules)
- Signatures
- User Configuration
- Distribution Lists
- Permissions

Limitations

EWS Limitations

- The owner of the mailbox will become the organizer for each of his appointments
- Meeting participant status (accepted or declined) will not be migrated
- The service tries to resolve system internal addresses e.g. X500 addresses and replace them with valid email addresses. If it is not possible, the addresses will be removed.
- The service also filters invalid entries like non-valid URLs in Website fields which are not accepted by the destination platform.

Amazon WorkMail specific limitations

- Emails with attachments can only be migrated when attachment size is smaller than 23 Mbytes.
- Contact profile pictures will be copied as attachments of contacts but will not be shown as profile picture.
- Distribution lists cannot be migrated.
- No duplicate detection for note items.

General limitations

Certain limitations may apply due to the specific combination of the source and the destination. This includes:

- Display of certain email messages (special MIME formats) may differ on the destination side
- Mapping of item properties (e.g., if not supported by the destination)
- Mapping of folder permissions

If in doubt, we recommend migrating a few mailboxes initially to check the results.

Preparation

Before the migration you need new (or already provisioned) **Amazon WorkMail mailboxes**. Make sure you have the access credentials (login names and passwords) of the mailboxes, which should be migrated for both Google Workspace and Amazon WorkMail. We recommend that you assign temporary passwords for the migration. When migrating multiple mailboxes, the best practice is to start with one mailbox first and migrate the remaining ones afterwards.

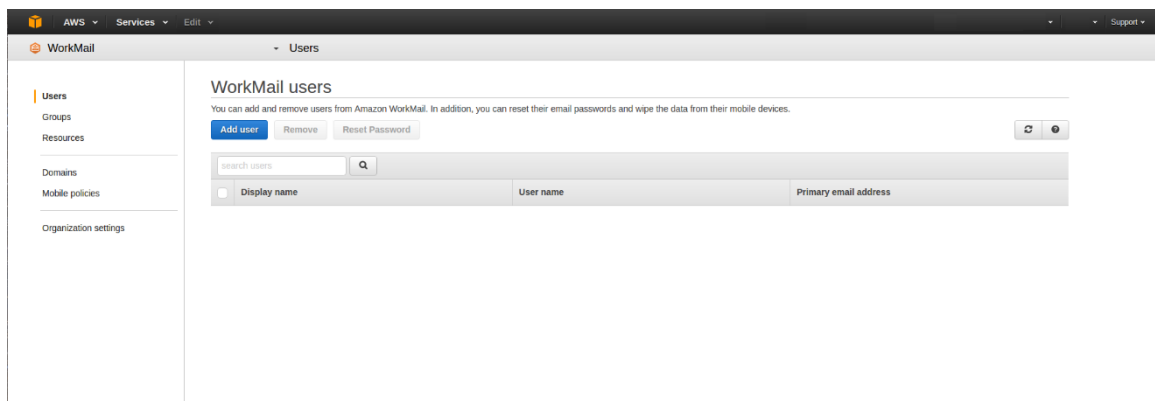
Create new Amazon WorkMail mailboxes

You can add a new mailbox to Amazon WorkMail by doing the following steps:

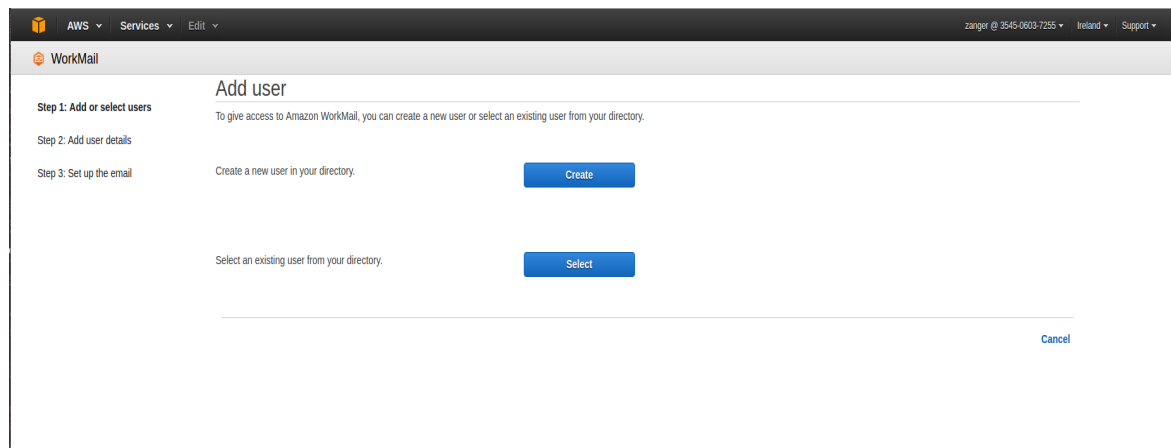
Note: You may also refer to the admin guide for Amazon WorkMail:

http://docs.aws.amazon.com/workmail/latest/adminguide/add_new_user.html

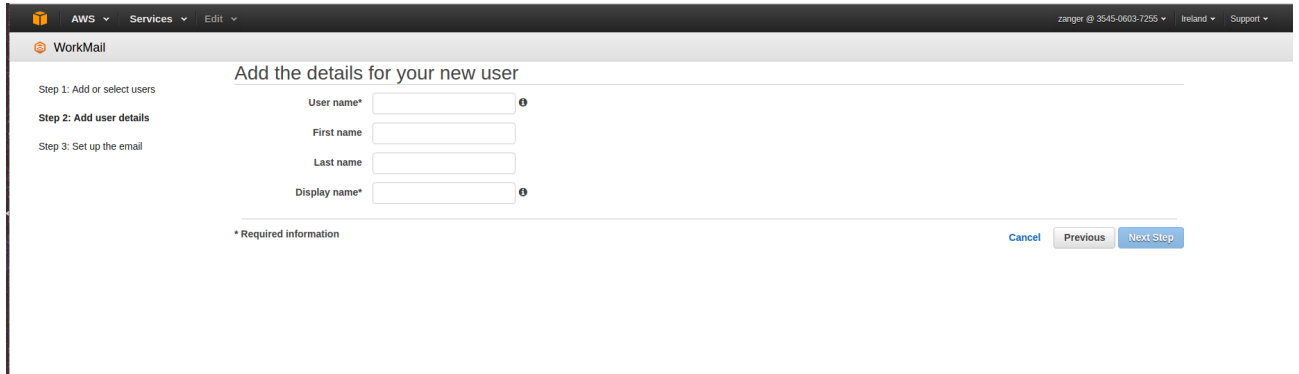
1. Enter the **Admin Console** of Amazon WorkMail and go to **Users**. Click on **Add user** to start creating a new user:



2. Proceed by clicking on **Create**.



3. Enter the details for the new user and click on **Next step**:



WorkMail

Add the details for your new user

Step 1: Add or select users
Step 2: Add user details
 Step 3: Set up the email

User name* ⓘ

First name

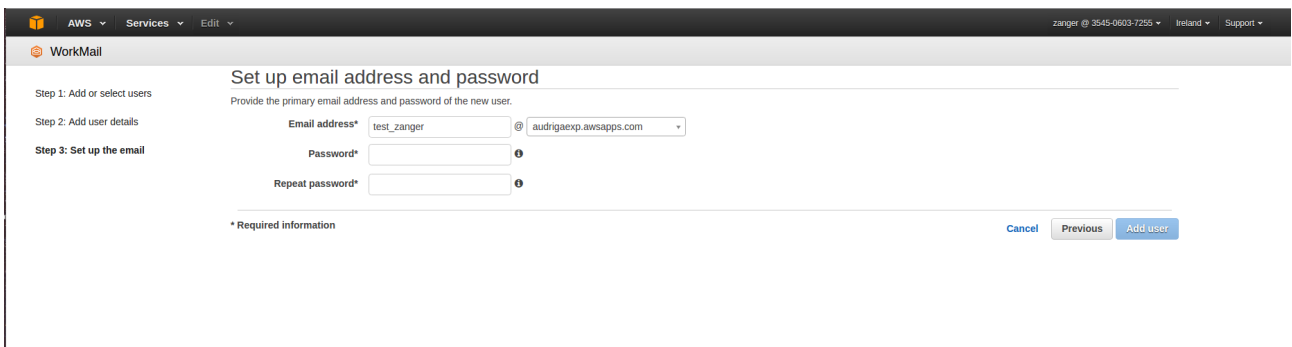
Last name

Display name* ⓘ

* Required information

[Cancel](#) [Previous](#) [Next Step](#)

4. Enter a **password** for the user and click on **Add user** to complete the process. We suggest that you choose a **temporary password**, which the user can change after the migration.



WorkMail

Set up email address and password

Provide the primary email address and password of the new user.

Email address* @

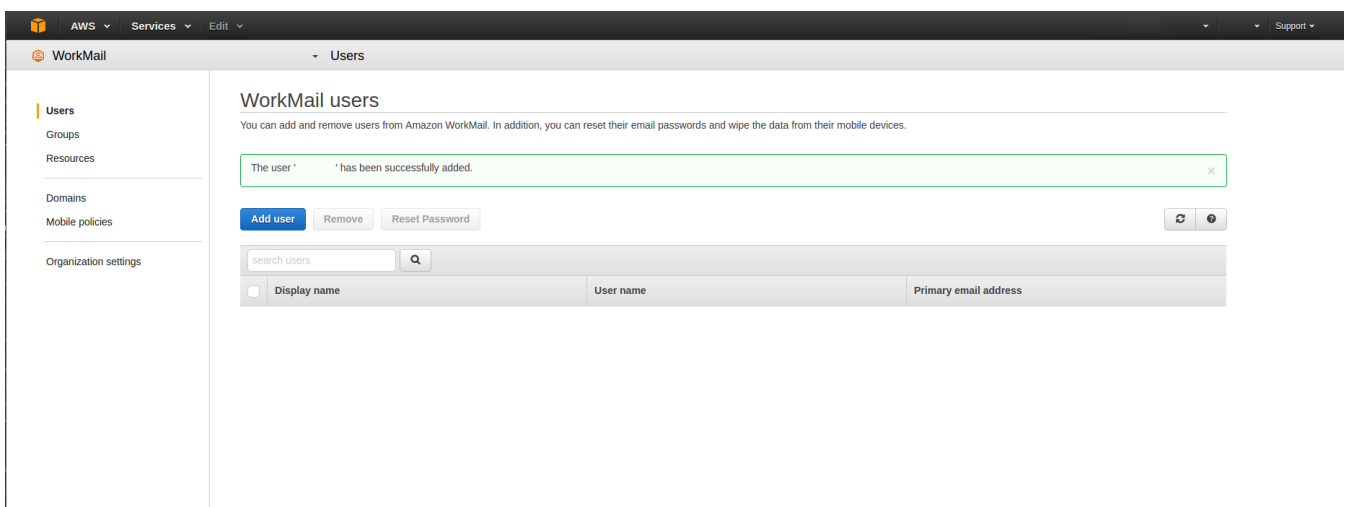
Password* ⓘ

Repeat password* ⓘ

* Required information

[Cancel](#) [Previous](#) [Add user](#)

5. Click on **Add user** to finish the process. The user has now been successfully added:



WorkMail

Users

You can add and remove users from Amazon WorkMail. In addition, you can reset their email passwords and wipe the data from their mobile devices.

The user 'test_zanger' has been successfully added. ✕

[Add user](#) [Remove](#) [Reset Password](#)

search users

<input type="checkbox"/> Display name	User name	Primary email address
---------------------------------------	-----------	-----------------------

Prepare access to source and destination

Access to Google Workspace using Admin Scopes

audriga Migration Service uses the OAuth 2.0 protocol to access to data in Google services like mails, contacts or calendars.

You can read more about OAuth 2.0 here:

<https://developers.google.com/identity/protocols/OAuth2>

You have to authorize audriga API client to access your user data without your users having to individually give consent or their passwords. In addition to that our service needs you to create a special email group.

Both steps need to be completed before starting the migration and are explained now.

Authorize audriga API client

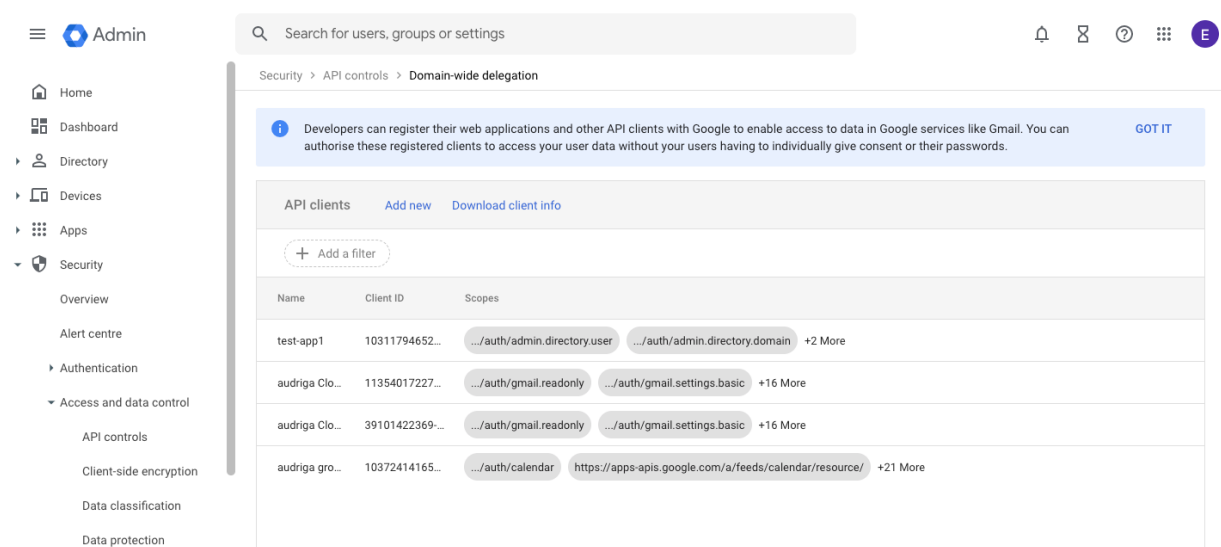
1. Log-in to your Google Workspace Admin console (<https://admin.google.com>)
2. Go to Security -> API controls -> Manage domain-wide delegation -> **Add new**
3. Click the button **add new**. Into the client ID enter: 113540172277121928717
4. Copy and paste these scopes into the field OAuth scopes (separating them with a comma):

<https://www.googleapis.com/auth/gmail.readonly>,
<https://www.googleapis.com/auth/gmail.settings.basic>,
<https://www.googleapis.com/auth/gmail.settings.sharing>,
<https://apps-apis.google.com/a/feeds/emailsettings/2.0/>,
<https://www.google.com/m8/feeds>,
<https://www.googleapis.com/auth/contacts.readonly>,
<https://www.googleapis.com/auth/calendar.readonly>,
<https://www.googleapis.com/auth/tasks.readonly>,
<https://www.googleapis.com/auth/drive.readonly>,
<https://www.googleapis.com/auth/admin.directory.user.readonly>,
<https://www.googleapis.com/auth/admin.directory.userschema.readonly>,
<https://www.googleapis.com/auth/admin.directory.group.readonly>,
<https://www.googleapis.com/auth/admin.directory.orgunit.readonly>,

<https://www.googleapis.com/auth/admin.directory.domain.readonly>,
<https://www.googleapis.com/auth/admin.directory.resource.calendar.readonly>,
<https://www.googleapis.com/auth/apps.groups.settings>,
<https://www.googleapis.com/auth/userinfo.email>,
<https://www.googleapis.com/auth/userinfo.profile>

5. Click on **Authorize** to complete the process.

You should now see something like this:



Create special email group

For security reasons an email group must be created containing "j3dwmd" or "audriga" plus any secret. This group email address is used as the password in the audriga Migration Service.

Group email address must contain "j3dwmd" or "audriga"

1. Log-in to your Google Workspace Admin console (<https://admin.google.com>)
2. From the dashboard, click **Groups** (If not available, click on MORE WIDGET)
3. Click at the bottom of the page
4. Enter the following details in the **Create new group box**.
 - o A **name** for the group.
 - o An **email address** for your new group. If your organization's Google Workspace account has multiple domains, select the appropriate domain from the drop-

down list. Group email address must contain "j3dwmd" or "audriga" + any additional secret e.g. audriga-test@my-domain.com

5. Click **Create**. You'll be taken to the group's page in the Admin console.
6. Click on **Save** to complete the process. The user will now be listed under Mailbox permissions.

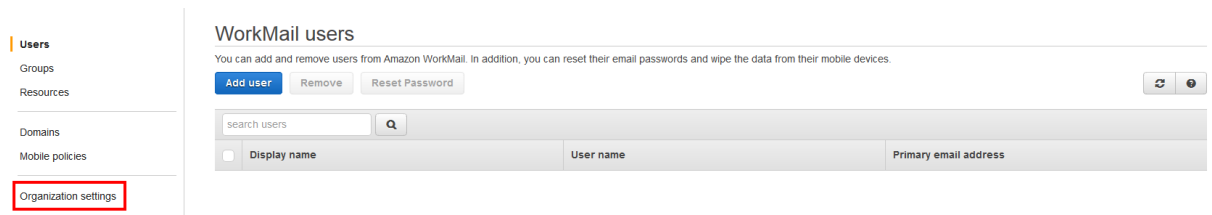
You can read more about Google Groups here:

<https://support.google.com/a/answer/33343?hl=en>

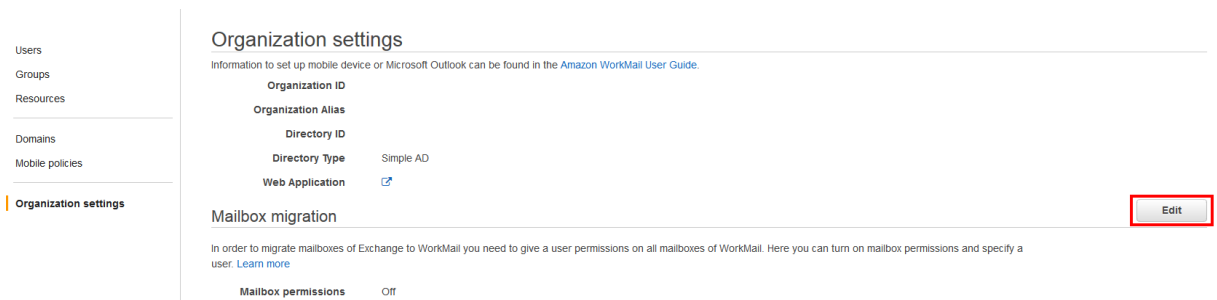
Access to Amazon WorkMail using admin credentials

For your Amazon WorkMail mailboxes you can either use the **username** and **password** of each **user** or you can use a single **admin user** to access all of them. Keep reading this chapter if you wish to set up an admin account for the migration. If you however want to use credentials of each user, just skip to the next chapter.

1. Log-in to your Amazon WorkMail Admin Console and go to **Organization settings**:



2. Under **Mailbox migration** click on **Edit** to grant a user with admin access for the migration:



- Click on **Select user** and a list with your users will pop up. Select the user, which will be used as Admin during the migration and click on **Select user** to close the window:

Select WorkMail user

Select the user mailbox you want to provide mailbox permissions to.

« < 1 to 3 of 3 > »

	Display name	User name
<input checked="" type="checkbox"/>	migadmin	migadmin
<input type="checkbox"/>	wuser1	wuser1
<input type="checkbox"/>	wuser2	wuser2

- Click on **Save** to complete the process. The user will now be listed under **Mailbox permissions**:

The migration administrator has been successfully saved.

Organization settings

Information to set up mobile device or Microsoft Outlook can be found in the [Amazon WorkMail User Guide](#).

Organization ID
 Organization Alias
 Directory ID
 Directory Type Simple AD
 Web Application

Edit

Mailbox migration

In order to migrate mailboxes of Exchange to WorkMail you need to give a user permissions on all mailboxes of WorkMail. Here you can turn on mailbox permissions and specify a user. [Learn more](#)

Mailbox permissions

migadmin

This user now has access to all mailboxes in your organization. You can download the [WorkMail migration tool](#) to start migrating your mailboxes.

Configure a migration with audriga migration service

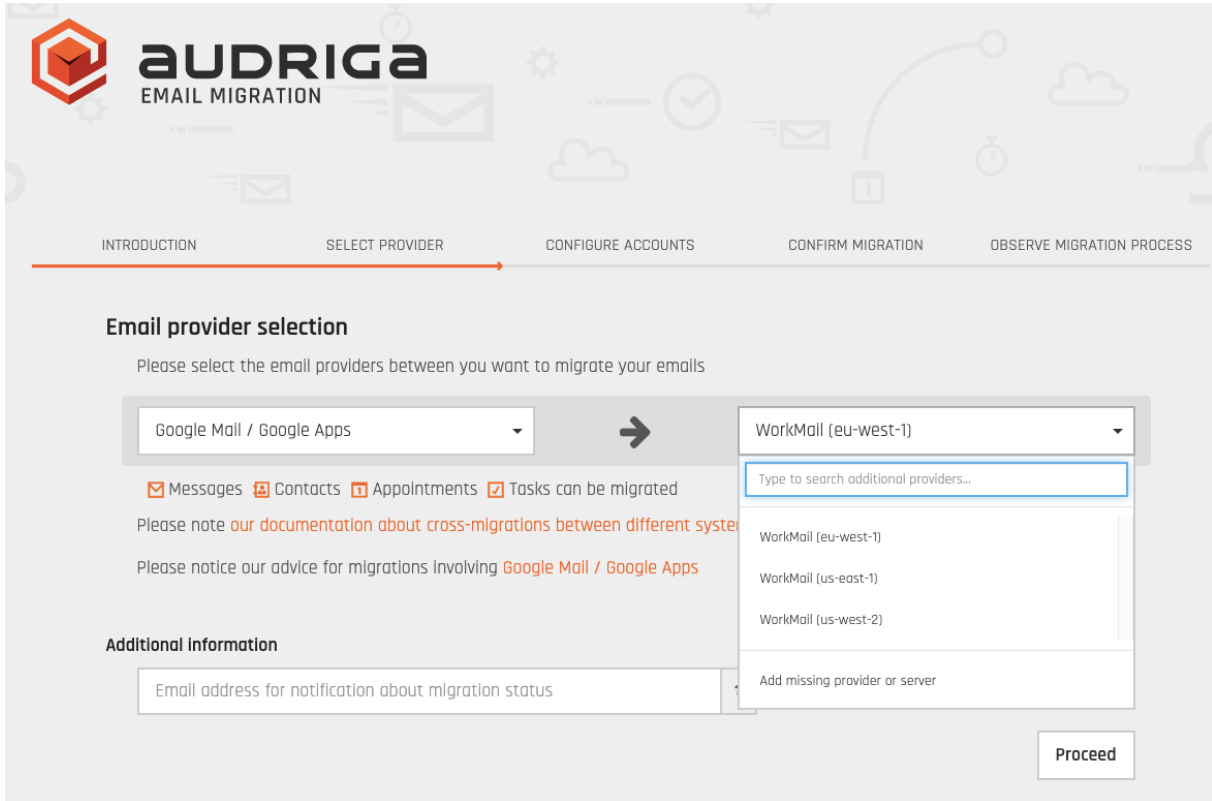
Select current and new Provider

Go to the *Provider selection* screen.

Choose **Google Mail** as your current / source provider.

Hint: you may need to start typing **Google** for it to appear in the list.

On the destination side choose **WorkMail** as your new provider.



AUDRIGA
EMAIL MIGRATION

INTRODUCTION SELECT PROVIDER CONFIGURE ACCOUNTS CONFIRM MIGRATION OBSERVE MIGRATION PROCESS

Email provider selection

Please select the email providers between you want to migrate your emails

Google Mail / Google Apps → WorkMail (eu-west-1)

☒ Messages
 ☒ Contacts
 ☒ Appointments
 ☒ Tasks can be migrated

Please note [our documentation about cross-migrations between different systems](#)

Please notice our advice for migrations involving [Google Mail / Google Apps](#)

Additional Information

Email address for notification about migration status

WorkMail (eu-west-1)
 Type to search additional providers...
 WorkMail (eu-west-1)
 WorkMail (us-east-1)
 WorkMail (us-west-2)
 Add missing provider or server

Proceed

Add accounts for migration

You have two possibilities of adding users. You can add **single accounts** one by one or you can add **multiple accounts** using a **CSV-File**.

Add single Google Workspace accounts

tab *Add account*

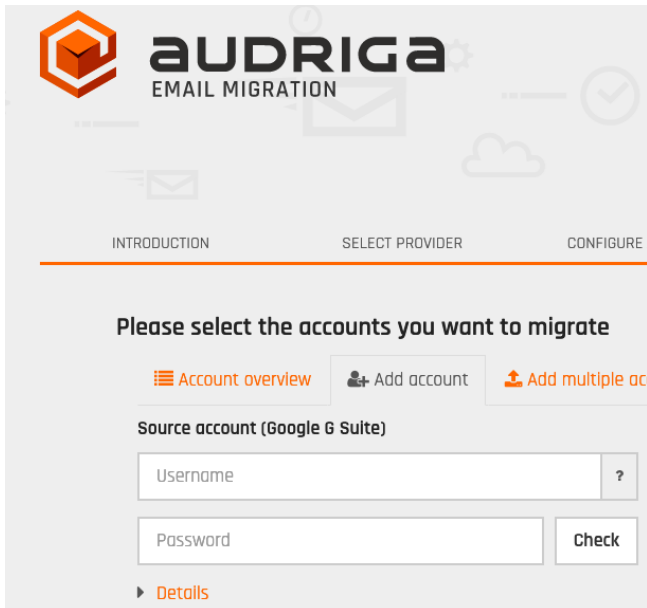
Source account (GMail / Google...)

admin@my-domain.com ?

●●●●●●●● check

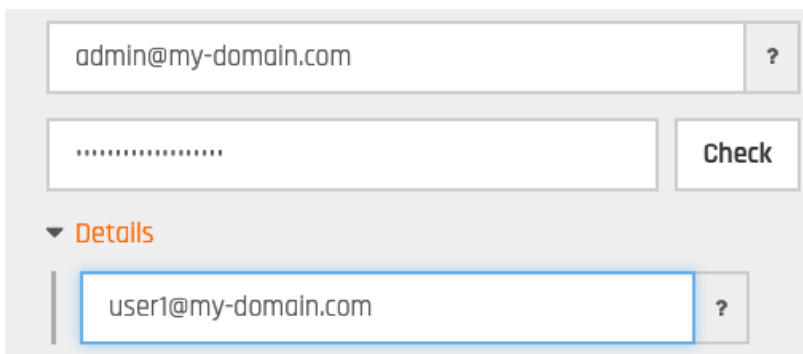
▼ Details



user1@my-domain.com ?



Google Workspace

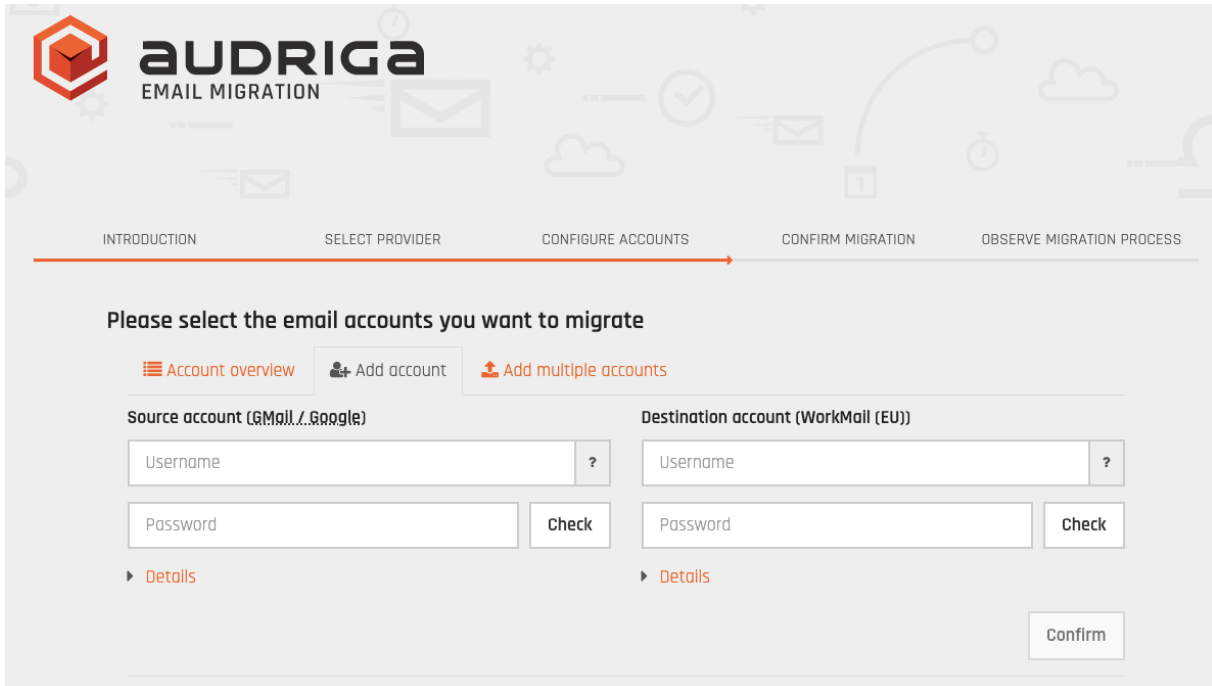
- Username:*** enter the username of the admin
- Password:*** enter the special **group email address**
(e.g. test-audriga@my-domain.com from the example above)
- Details:*** enter the user's mailbox you want to migrate



Click on **check** to verify the credentials. If the data is correct, a green check will appear  .
If the credentials are incorrect, a red cross will be displayed .

Add single Amazon WorkMail Accounts

Enter the username and password of the mailbox. In case you choose to use an **admin account**, enter the **admin credentials** in the corresponding fields and a **user mailbox id** (under details).




The screenshot shows the AUDRIGA EMAIL MIGRATION interface. At the top, there is a progress bar with five steps: INTRODUCTION, SELECT PROVIDER, CONFIGURE ACCOUNTS (current step), CONFIRM MIGRATION, and OBSERVE MIGRATION PROCESS. Below the progress bar, the heading reads "Please select the email accounts you want to migrate". There are three tabs: "Account overview" (selected), "Add account", and "Add multiple accounts". The "Add account" tab is active, showing two columns: "Source account (GMail / Google)" and "Destination account (WorkMail (EU))". Each column has fields for "Username" and "Password", with a "Check" button next to the password field. Below the password fields, there is a "Details" link. At the bottom right, there is a "Confirm" button.

Add multiple Accounts

Choose tab ***add multiple accounts*** if you want to add users using a CSV-File.

Add a maximum of 50 mailboxes per CSV-File for an optimal performance.

Prepare and upload a **text file** with all of the account credentials. An **example file** is provided in the dialog.


aUDRIGA
 EMAIL MIGRATION

INTRODUCTION
 SELECT PROVIDER
 CONFIGURE ACCOUNTS
 CONFIRM MIGRATION
 OBSERVE MIGRATION PROCESS

Please select the accounts you want to migrate

[Account overview](#)
[Add account](#)
[Add multiple accounts](#)

Upload CSV file

Prepare a CSV file containing access data for source and destination accounts and use the upload form below ?

No file chosen

[Example file](#)

The correct file format is demonstrated in the following example file:

[Download: CSV example file](#)


Note: Please edit the file with a plain text editor. If using a spreadsheet application, make sure to save the file in raw text format.

Authentication with WorkMail users credentials

admin@googleddomain,group@googleddomain,user1@googleddomain,user1@workmail,user1passw,
 admin@googleddomain,group@googleddomain,user2@googleddomain,user1@workmail,user2passw,

Authentication with WorkMail admin credentials

admin@Googledomain,group@Googledomain,user1@Googledomain,admin@workmail,adminpass,user1@workmail
 admin@Googledomain,group@Googledomain,user2@Googledomain,admin@workmail,adminpass,user2@workmail


aUDRIGA
 EMAIL MIGRATION

INTRODUCTION
 SELECT PROVIDER
 CONFIGURE ACCOUNTS
 CONFIRM MIGRATION
 OBSERVE MIGRATION PROCESS

Please select the accounts you want to migrate

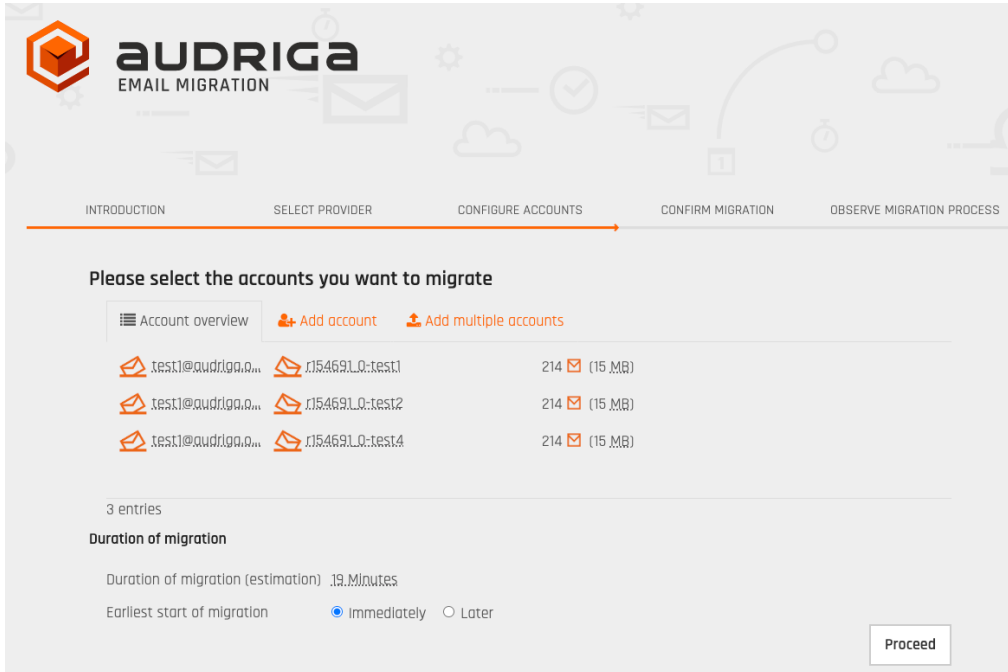
[Account overview](#)
[Add account](#)
[Add multiple accounts](#)

Check account data

EmailSource account	StatusDestination accountStatus
<input checked="" type="checkbox"/> test1@audriga.onmicrosoft.com ✓	r154691_0-test1 ✓
<input checked="" type="checkbox"/> test1@audriga.onmicrosoft.com ✓	r154691_0-test2 ✓
<input checked="" type="checkbox"/> test1@audriga.onmicrosoft.com ✓	r154691_0-test4 ✓

All accounts entered will be listed.

The migration service will try to check the capacity in the WorkMail destination accounts. This check may take a while for larger mailboxes. If you do not want to wait, you can proceed.



The screenshot shows the AUDRIGA EMAIL MIGRATION web interface. At the top, there's a navigation bar with five steps: INTRODUCTION, SELECT PROVIDER, CONFIGURE ACCOUNTS (which is the active step), CONFIRM MIGRATION, and OBSERVE MIGRATION PROCESS. Below the navigation bar, the main heading is "Please select the accounts you want to migrate". There are three tabs: "Account overview" (selected), "Add account", and "Add multiple accounts". Under "Account overview", there is a table with three rows of account information. Each row shows an email address, a provider icon, a name, and a size. Below the table, it says "3 entries". Under "Duration of migration", there is a section for "Duration of migration (estimation)" showing "19 Minutes" and a section for "Earliest start of migration" with two radio buttons: "Immediately" (selected) and "Later". At the bottom right, there is a "Proceed" button.

Email Address	Provider	Name	Size
test1@audriga.com	Exchange	1546910-test1	214 MB (15 MB)
test1@audriga.com	Exchange	1546910-test2	214 MB (15 MB)
test1@audriga.com	Exchange	1546910-test4	214 MB (15 MB)

3 entries

Duration of migration

Duration of migration (estimation) 19 Minutes

Earliest start of migration ☒ Immediately ☐ Later

Proceed

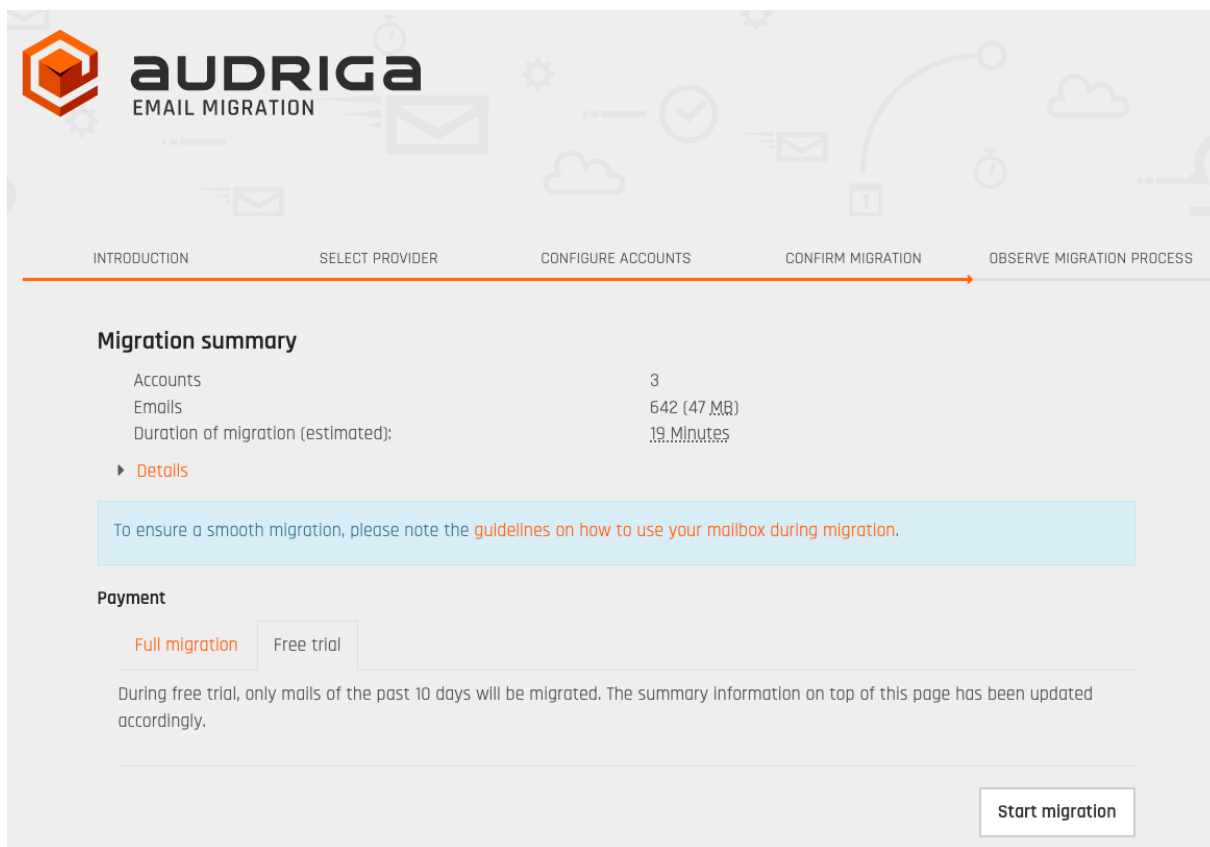
Start the Migration

You will see a summary of the migration, including the number of accounts and the amount of data. Even if the analysis of the Exchange account is not yet completed you can proceed. In order to **start the migration**, you will need to provide a **valid migration voucher code** if this voucher was not part of the URL you called to start this website.

Press **Start Migration** to proceed.

Free Trial

The UI provides the option to set up a free trail migration. This transfers the email and groupware data from the **last 10 days**. To start a trial migration, please click on **Free trail**.



The screenshot shows the Audriga Email Migration interface. At the top, there's a navigation bar with five steps: INTRODUCTION, SELECT PROVIDER, CONFIGURE ACCOUNTS, CONFIRM MIGRATION, and OBSERVE MIGRATION PROCESS. The 'CONFIRM MIGRATION' step is currently active. Below the navigation bar, the 'Migration summary' section displays the following information:

Accounts	3
Emails	642 (47 MB)
Duration of migration (estimated):	19 Minutes


Below the summary, there is a link to 'Details'. A light blue box contains a note: 'To ensure a smooth migration, please note the [guidelines on how to use your mailbox during migration](#).' Under the 'Payment' section, there are two buttons: 'Full migration' (highlighted in orange) and 'Free trial'. A note below the buttons states: 'During free trial, only mails of the past 10 days will be migrated. The summary information on top of this page has been updated accordingly.' At the bottom right, there is a 'Start migration' button.

The migration summary will be adjusted. To start the trial migration, click on ***Start migration***.

Monitor Migration Status

It may take some time until the migration process starts. A migration may take a couple of hours for large amounts of data.

We are going to send you **status emails** for your migration job **submission**, the migration job's **start**, and the migration job's **end**. For this, we use the email address you have entered during the configuration. Those mails include a **link to the status website**, so that you can easily keep track and monitor your migration. Once the migration has been started, you can safely close the status website and shut down your computer – the migration will continue to run. You can open the status website anytime by clicking on the link.


AUDRIGA
 EMAIL MIGRATION

INTRODUCTION
 SELECT PROVIDER
 CONFIGURE ACCOUNTS
 CONFIRM MIGRATION
 OBSERVE MIGRATION PROCESS

You can close this window at any time - the migration will continue automatically. We also sent you an email with a link that allows you to re-open this page at any time.







Migration progress

Migration task created [?](#)

Details

Migration start: -
 Migration finished (estimate): 18.10.2022 14:42
 Accounts 3
 Emails 642 (47 MB)
 Order number 431a856a-c662-4594-9ef4-f6eb82d5b741

Account status

 test1@audriga.o...	 r154691_0-test1	<div></div> 15 MB Protocol
 test1@audriga.o...	 r154691_0-test2	<div></div> 15 MB Protocol
 test1@audriga.o...	 r154691_0-test4	<div></div> 15 MB Protocol

▶ [Delta migration](#)

Click on **Details** to get further information about the migration.

For each account, you can access a detailed log. Click **Protocol** on the right hand side. Detected duplicates or encountered errors (e.g., if e-mails cannot be transferred due to size limitations of your provider) are listed here.

Protocol

Log summary

Progress (E-Mail)

Job:

test1@audriga.onmicrosof → undefined ⓘ

Status

Migrating

Migration start:

19/10/2022 08:54

Migration finished (estimate):

19/10/2022 09:01

Data:

15 MB

Emails migrated:

0

General errors:

0 ⓘ


Refresh

Close

Delta Migration for Domain Transfer

When you transfer a domain to your new provider or update the MX record to point to your new provider, emails may still be routed to the old provider for some time, this is most probably due to DNS caching issues. In order to transfer these mails into your new account we offer a **delta migration feature** which can be used **after** the initial migration has finished **and after** the domain transfer/DNS change is effective.

Allow some time for the DNS cache propagation (recommended: 24 h - 48 h). To start a delta migration, click then **start delta migration**. All emails which arrived in the old account after the initial migration finished will now be copied. Again, you will receive notification emails about the status of your delta migration.


aUDRIGA
 EMAIL MIGRATION

INTRODUCTION
 SELECT PROVIDER
 CONFIGURE ACCOUNTS
 CONFIRM MIGRATION
 OBSERVE MIGRATION PROCESS

This is a free trial migration which moves only a subset of your data







Migration progress

Migration task finished ⓘ ?

Details

Migration start:	19.10.2022 08:54
Migration finished:	19.10.2022 08:59
Accounts	3
Emails	-
Order number	431a856a-c662-4594-9ef4-f6eb82d5b741

Account status

 test1@audriga.com	 r1546910-test1	<div></div> 15 MB	✓ Protocol
 test1@audriga.com	 r1546910-test2	<div></div> 15 MB	✓ Protocol
 test1@audriga.com	 r1546910-test4	<div></div> 15 MB	✓ Protocol

Delta migration

After this migration has finished, you can start a second pass "delta migration" which copies all emails that have been arriving in the source mailbox since the migration had started ⓘ

Start delta migration

Note:

In order to allow running a delta migration the migration service still needs access to the mailboxes at your Exchange provider after the domain is transferred. This is not possible with all providers. Please check with your provider for further details.

Please note that a delta migration is neither intended nor capable of correcting any errors that may have occurred in the main job.