

# Migration from Metalogix Archive Manager (MAM) to Enterprise Vault (EV)



**FEBRUARY 29, 2016**

TECH-ARROW a.s.  
KAZANSKÁ 5, 821 06 BRATISLAVA, SLOVAKIA  
All Rights Reserved



## Table of contents

|                                                                                           |           |
|-------------------------------------------------------------------------------------------|-----------|
| <b>Introduction.....</b>                                                                  | <b>3</b>  |
| <b>Source and target environment.....</b>                                                 | <b>3</b>  |
| Source side .....                                                                         | 3         |
| Target side .....                                                                         | 3         |
| <b>contentGATE installation.....</b>                                                      | <b>4</b>  |
| <b>Installation of EV Importer service .....</b>                                          | <b>4</b>  |
| Starting and configuring the EV Importer service .....                                    | 6         |
| Specifying new EV Importer service port.....                                              | 8         |
| <b>Configuration .....</b>                                                                | <b>10</b> |
| Create a migration instance .....                                                         | 10        |
| Configure your source (MAM) and target (EV) archive .....                                 | 12        |
| Configure your Enterprise Vault settings.....                                             | 23        |
| User mapping and retention category mapping.....                                          | 25        |
| User mapping .....                                                                        | 25        |
| Retention category mapping.....                                                           | 26        |
| Migration groups .....                                                                    | 27        |
| <b>Running the migration .....</b>                                                        | <b>29</b> |
| Data migration .....                                                                      | 30        |
| Shortcut discovery (shortcut scan) .....                                                  | 32        |
| Message categorization (shortcut scan + compare).....                                     | 33        |
| Message transformation and PST export (shortcut scan, compare + PST export) .....         | 34        |
| Import PST files to the target archive ((shortcut scan + compare + PST export and import) | 35        |
| .....                                                                                     |           |
| Shortcut cleanup (shortcut scan + compare + PST export + import + shortcut cleanup) .     | 35        |
| Migrate active/inactive documents.....                                                    | 36        |



|                                                                                                               |           |
|---------------------------------------------------------------------------------------------------------------|-----------|
| <b>Log files .....</b>                                                                                        | <b>42</b> |
| contentGATE logging .....                                                                                     | 42        |
| EV Importer service logging .....                                                                             | 43        |
| EVPM logging.....                                                                                             | 46        |
| <b>FAQ (what to do with failures).....</b>                                                                    | <b>48</b> |
| Shared folder not reachable.....                                                                              | 48        |
| Incorrect server name for EV Importer service.....                                                            | 48        |
| EV Importer server is not running or incorrect communication Port number for the EV<br>Importer service ..... | 49        |
| The contentGATE Importer service started with wrong account.....                                              | 51        |
| Finish file does not contain response that the import was successfully finished .....                         | 51        |



## Introduction

This guide will explain how contentGATE migrates data from MAM to EV archive and the required settings before starting the migration process.

## Source and target environment

### Source side

Windows server with **MAM**

### Target side

- Windows server with **Enterprise Vault** (this computer will host the EV Importer service).  
The mailboxes must be already provisioned in Enterprise Vault.

The source (MAM) and target (EV) users are mapped in contentGATE, therefore it is necessary to configure the users who will be migrated in EV.

**Note:** Both the source and the target side can host the contentGATE application.

## contentGATE installation

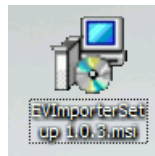
Installation of contentGATE is common for all migration types and is described on [this](#) page.

### Installation of EV Importer service

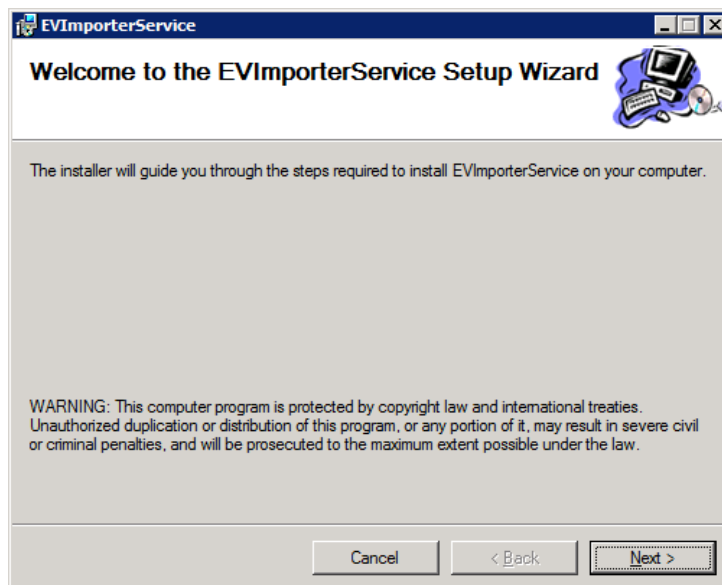
**Install the service on the target archive machine (Enterprise Vault).**

If there are more EV servers, it needs to be installed on one of them. contentGATE can communicate with one EV server at a time. Start the .msi installer:

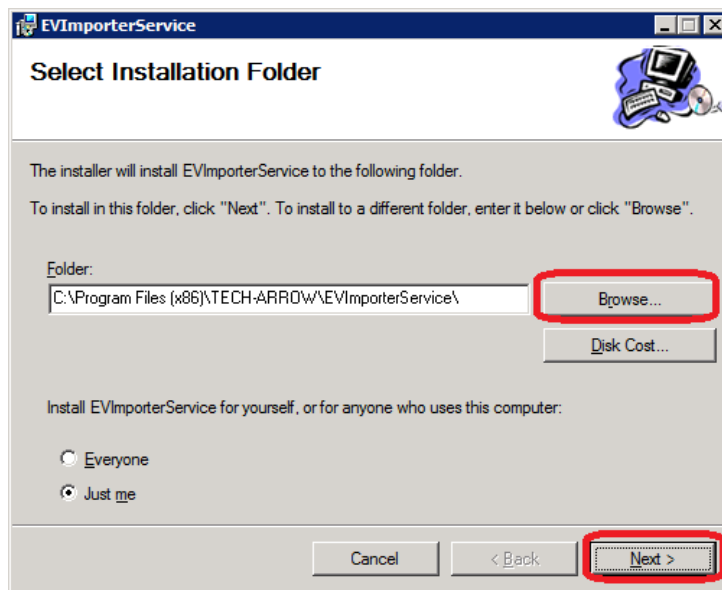
**Hint:** This is a 32-bit setup. .NET 3.5 will be needed to run the service.



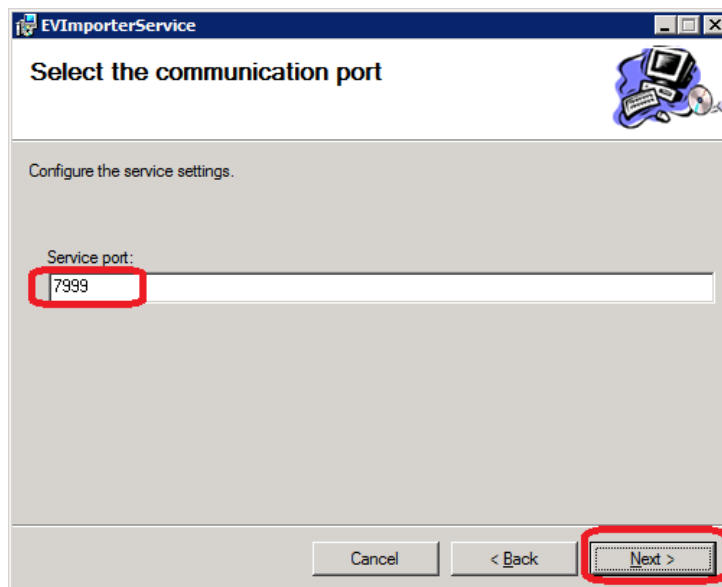
Click on the “Next” button.



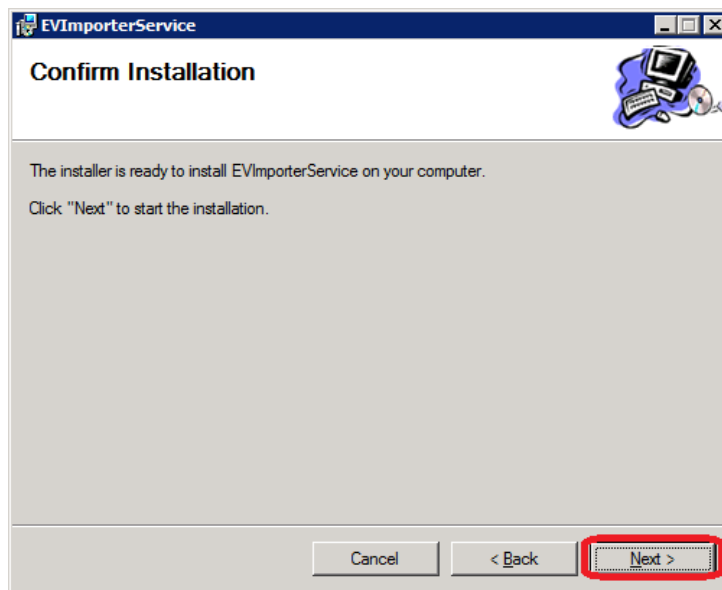
Type or browse the install folder. Click on the “Next” button.



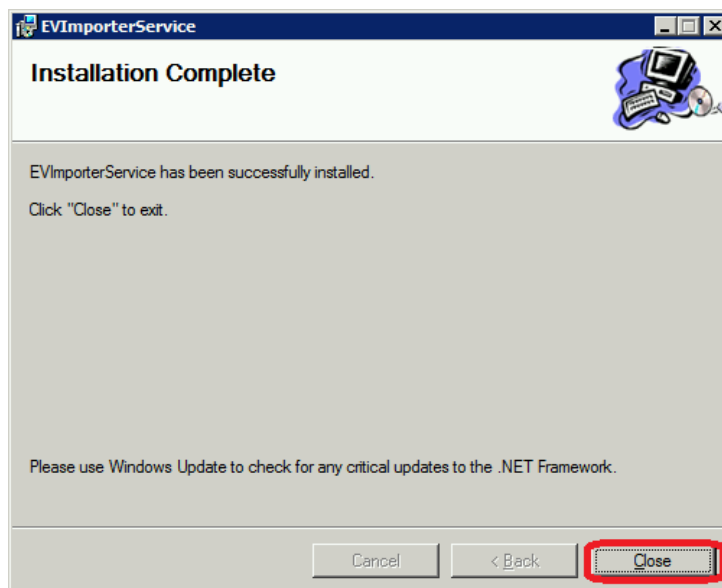
Select the communication port and Click on the “Next” button.



Confirm installation:

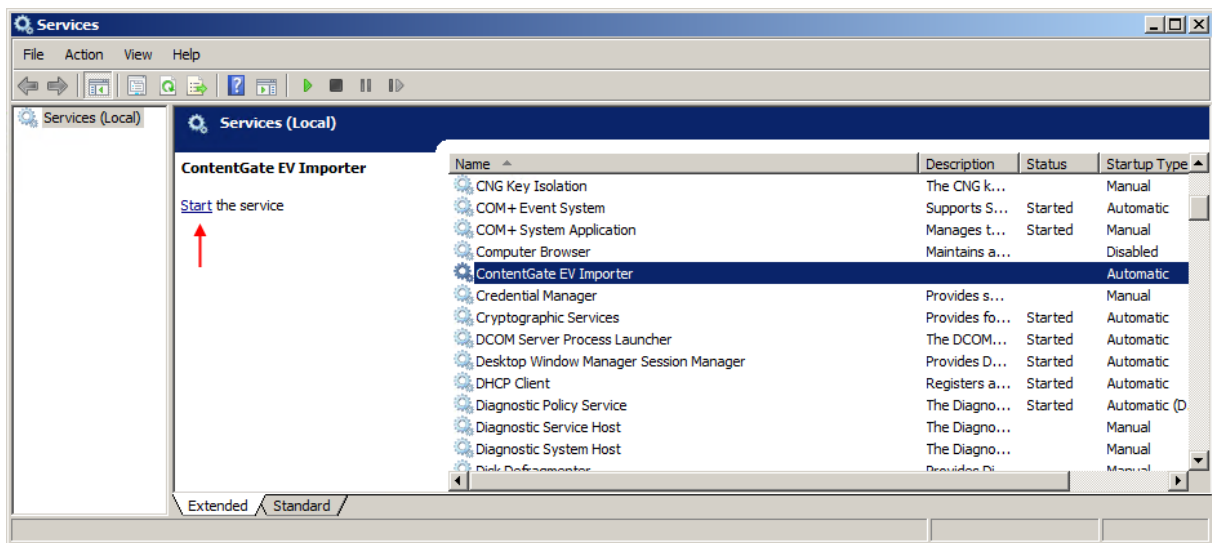


Close the installer.

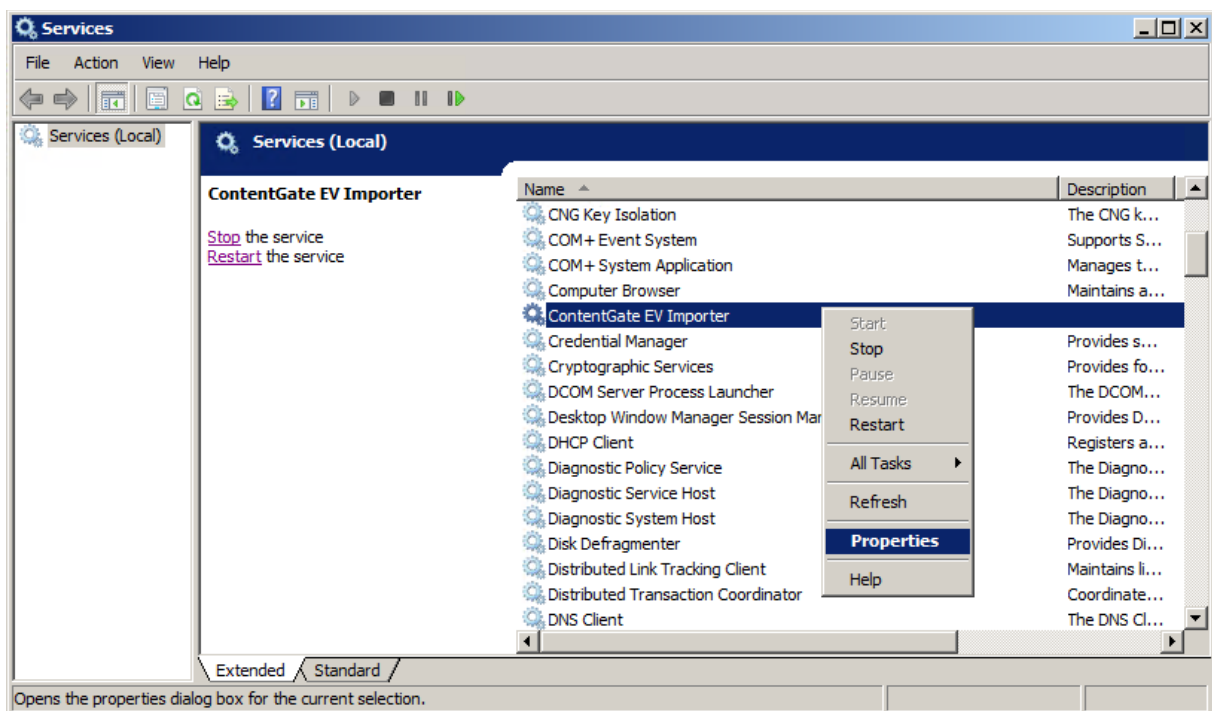


## Starting and configuring the EV Importer service

The service can be started from **Start** menu → **Services** → **contentGate EV Importer**:

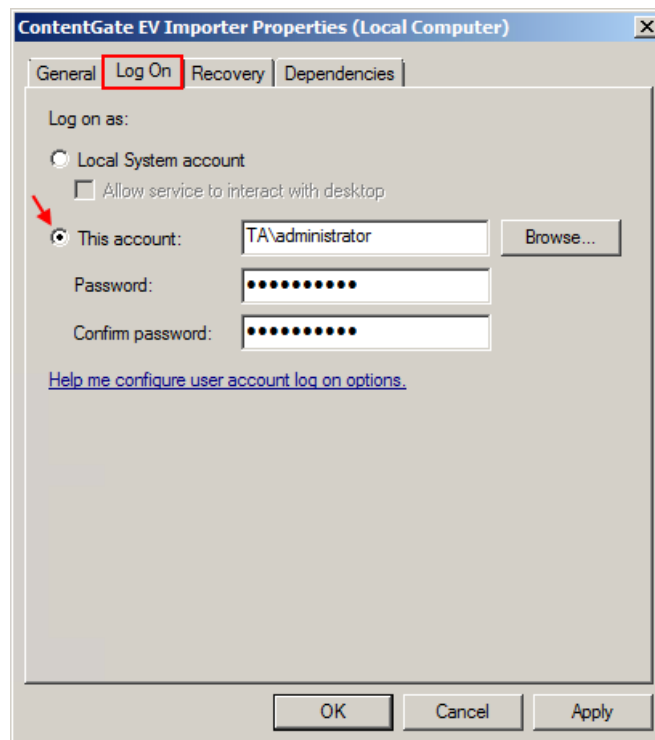


By default, the EV Importer service installs with the Local System account. This account cannot access the EV shared folder where all files (XML, PST, log files) are stored, so an applicable user must be configured. In the service context menu click on “Properties”:

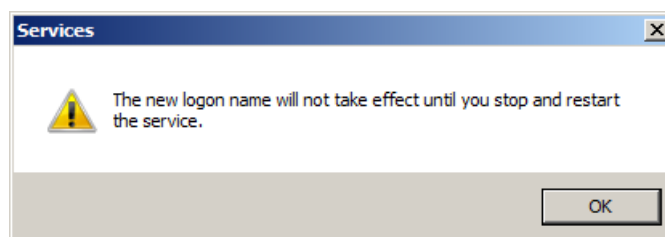


In the show-up dialog open the “Log On” tab and switch to option “This account”. Specify the applicable user and his credentials and click on “Apply”.





You will be prompted to stop and restart the service to apply the new user account:



## Specifying new EV Importer service port

In case that the initially set service port needs to be changed, it can be done in the config file:

1. Locate the config file:

*c:\Program Files (x86)\TECH-ARROW\EVImporterService*

2. Open the config file (*ContentGateEVImporterSv.exe.config*), change the port and save it.



```

ContentGateEVImporterSv.exe - Notepad
File Edit Format View Help
<?xml version="1.0"?>
<configuration>
  <appSettings>
    <add key="evpm" value="" />
    <add key="ClientSettingsProvider.ServiceUri" value="" />
  </appSettings>
  <runtime>
    <generatePublisherEvidence enabled="false" />
  </runtime>
  <system.runtime.remoting>
    <application name="ContentGateEVImporter">
      <service>
        <wellknown type="ContentGate.EVImporter.Importer, ContentGateEVImportersv" objec
      </service>
      <channels>
        <channel ref="tcp" name="ContentGateEVImporter" port="7999" secure="true" />
      </channels>
    </application>
    <customErrors mode="off" />
  </system.runtime.remoting>
  <startup>
    <supportedRuntime version="v2.0.50727" />
  </startup>
  <system.web>
    <membership defaultProvider="ClientAuthenticationMembershipProvider">
      <providers>
        <add name="ClientAuthenticationMembershipProvider" type="System.Web.ClientService
      </providers>
    </membership>
    <roleManager defaultProvider="ClientRoleProvider" enabled="true">
      <providers>
        <add name="ClientRoleProvider" type="System.Web.ClientServices.Providers.ClientR
      </providers>
    </roleManager>
  </system.web>

```

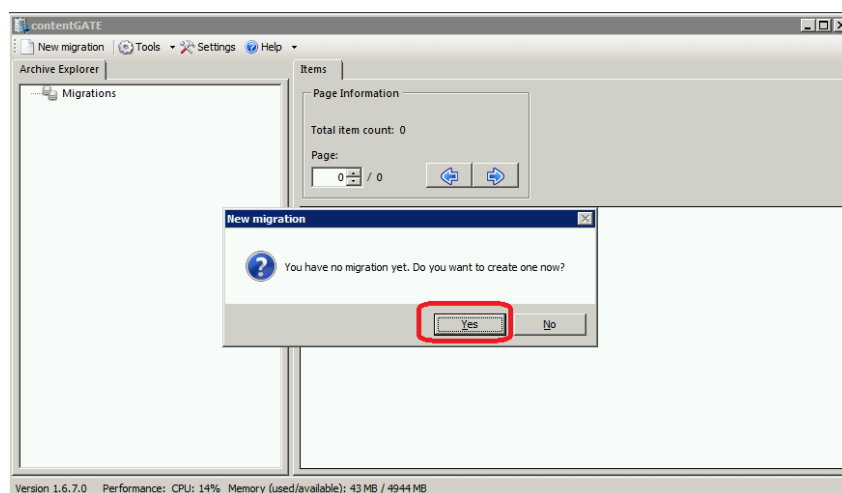
## Configuration

If the applications are installed on the source and the target side, you can start contentGATE. It can be started either with a

- a. double-click on the icon on the Desktop or
- b. from the Start menu (Start → All programs → TECH-ARROW → contentGATE)

If you have no migration created yet, this question will appear: “Do you want to create now?”

Click on the “Yes” button.

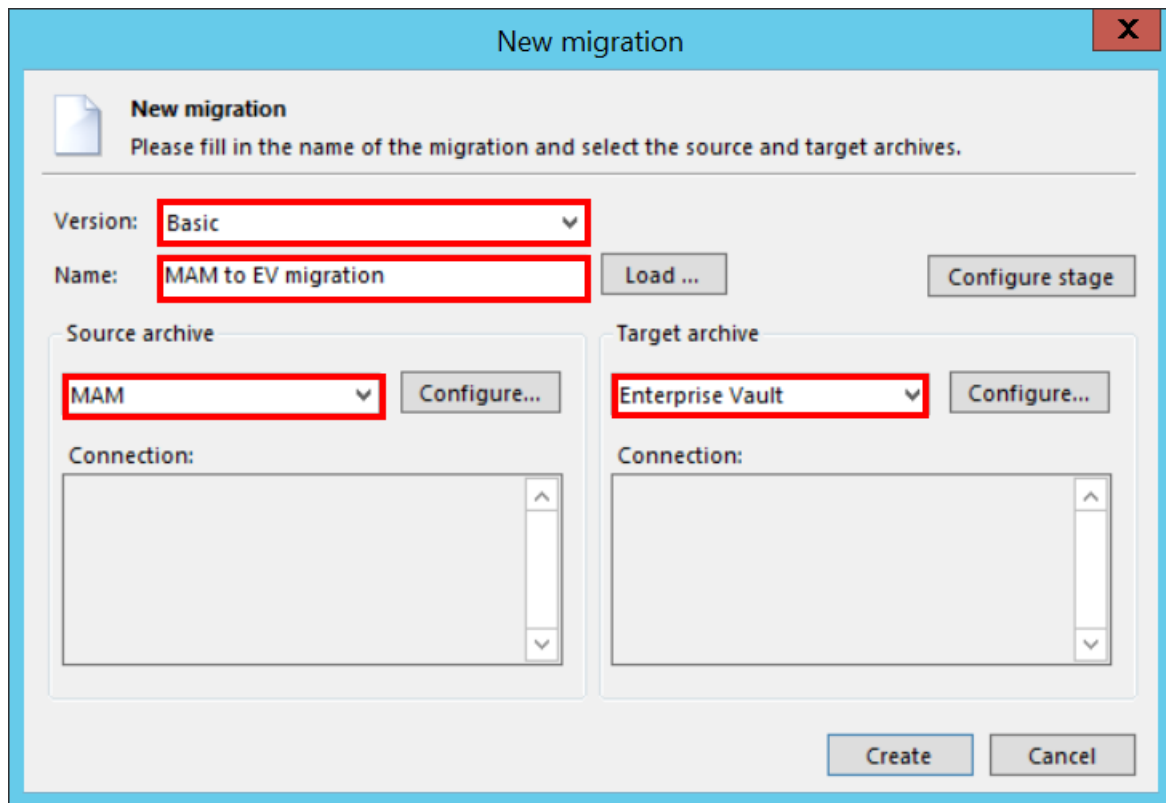


## Create a migration instance

On the new migration window choose the Basic migration version from the dropdown list, enter the name of the migration and select the source and target archive from the list:

**Source archive:** MAM

**Target archive:** Enterprise Vault

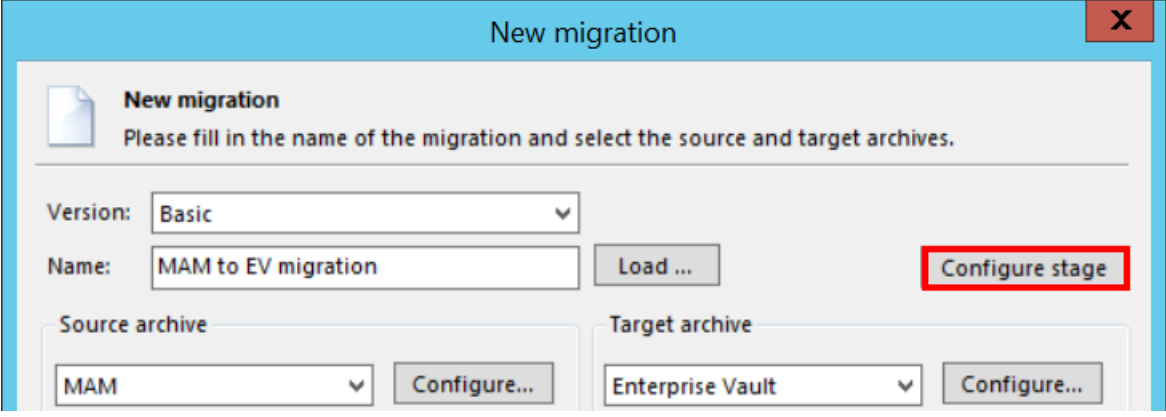


**Configure stage:** On the right side of the “New migration” dialog click the “Configure stage” button to set the migration date range. The migration will process only documents archived in this date range.

**Note:** The range depends on whether the source archive (MAM) is still archiving or is stopped. If it is already stopped, the default end date can be used. If there is still archiving going on, then choose today.

**Important:** The date range cannot be modified after the migration is created.

Click on the “OK” button to confirm your settings.

**New migration** [X]

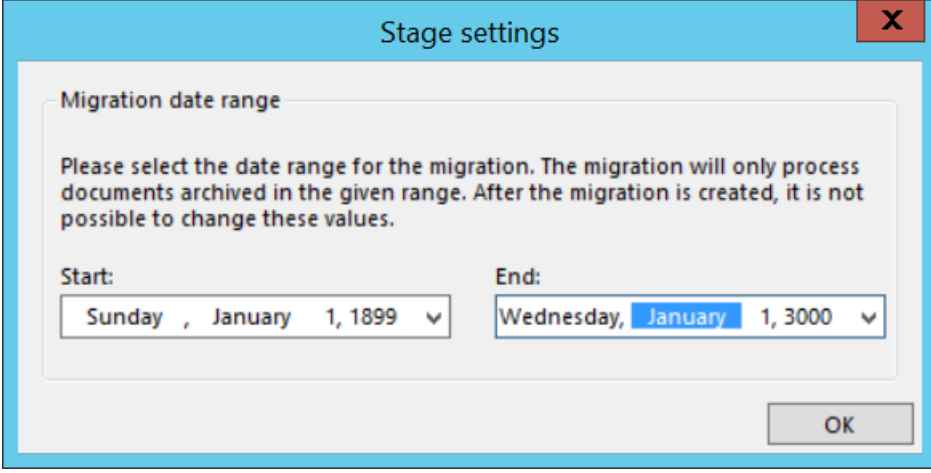
**New migration**  
Please fill in the name of the migration and select the source and target archives.

Version: Basic [v]

Name: MAM to EV migration [Load ...] **Configure stage**

Source archive: MAM [v] [Configure...]

Target archive: Enterprise Vault [v] [Configure...]



**Stage settings** [X]

**Migration date range**

Please select the date range for the migration. The migration will only process documents archived in the given range. After the migration is created, it is not possible to change these values.

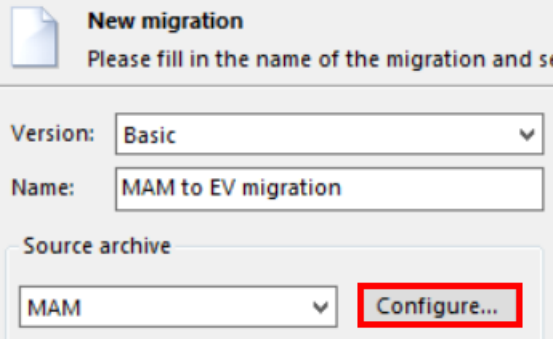
Start: Sunday, January 1, 1899 [v]

End: Wednesday, January 1, 3000 [v]

[OK]

## Configure your source (MAM) and target (EV) archive

Now configure the Source archive (click on the “Configure...” button on the Source side):



**New migration**

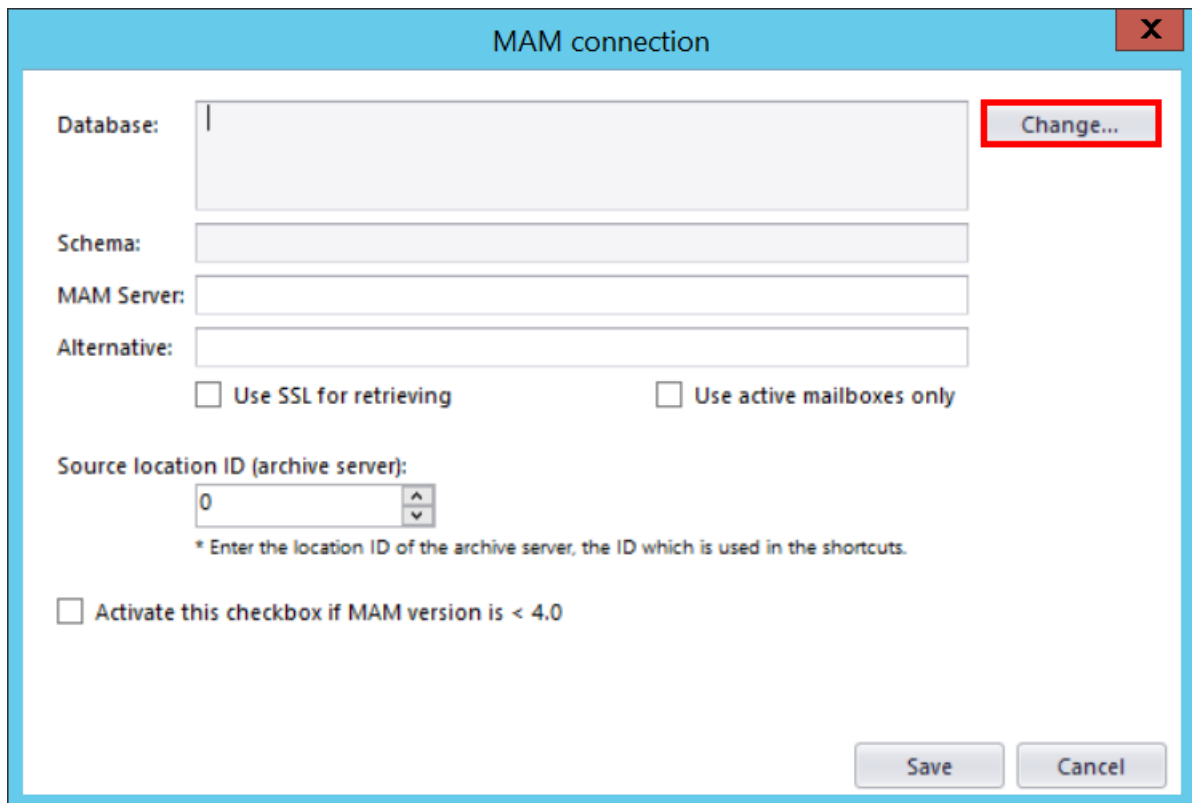
Please fill in the name of the migration and select the source and target archives.

Version: Basic [v]

Name: MAM to EV migration

Source archive: MAM [v] **Configure...**

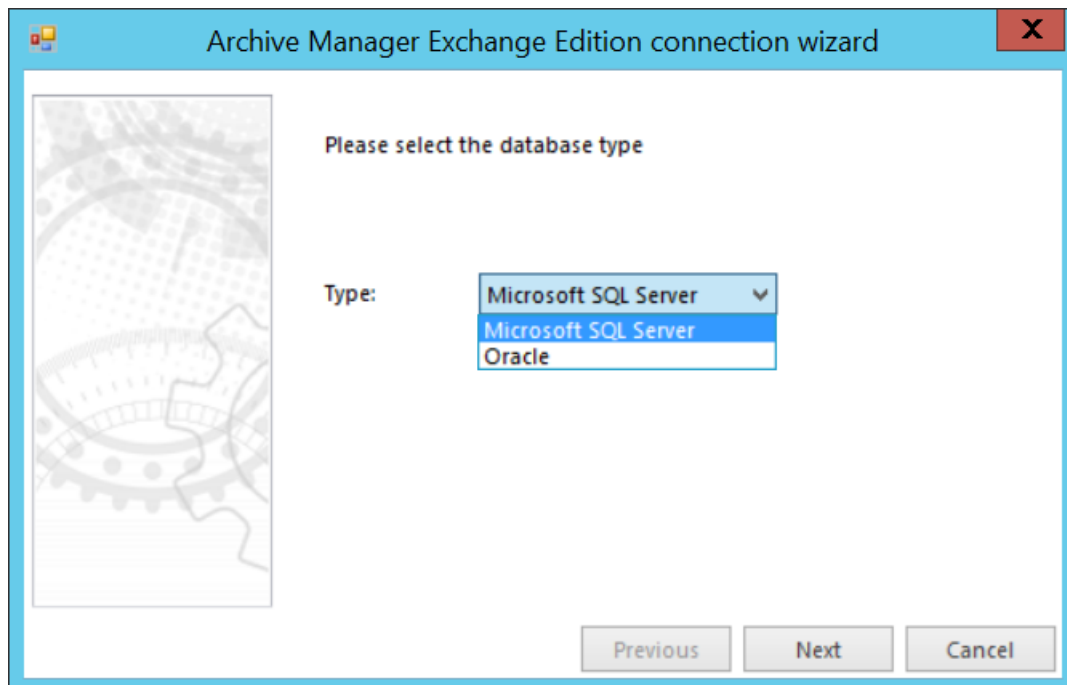
In the new “MAM connection” window click on the “Change...” button:



The 'MAM connection' dialog box contains the following fields and controls:

- Database:** A text input field with a 'Change...' button to its right.
- Schema:** A text input field.
- MAM Server:** A text input field.
- Alternative:** A text input field.
- ☐ Use SSL for retrieving
- ☐ Use active mailboxes only
- Source location ID (archive server):** A spinner box showing the value '0'.
- \* Enter the location ID of the archive server, the ID which is used in the shortcuts.
- ☐ Activate this checkbox if MAM version is < 4.0
- Buttons:** 'Save' and 'Cancel' at the bottom right.

Select the database type from the dropdown list. Click **Next**.



The 'Archive Manager Exchange Edition connection wizard' dialog box contains the following elements:

- Title:** Archive Manager Exchange Edition connection wizard
- Text:** Please select the database type
- Type:** A dropdown menu with the following options: Microsoft SQL Server (selected), Microsoft SQL Server, and Oracle.
- Buttons:** 'Previous', 'Next', and 'Cancel' at the bottom right.

Specify the database server and the applicable database user credentials. You may use either Windows integrated authentication or specify an explicit user. The **Database** list lists all



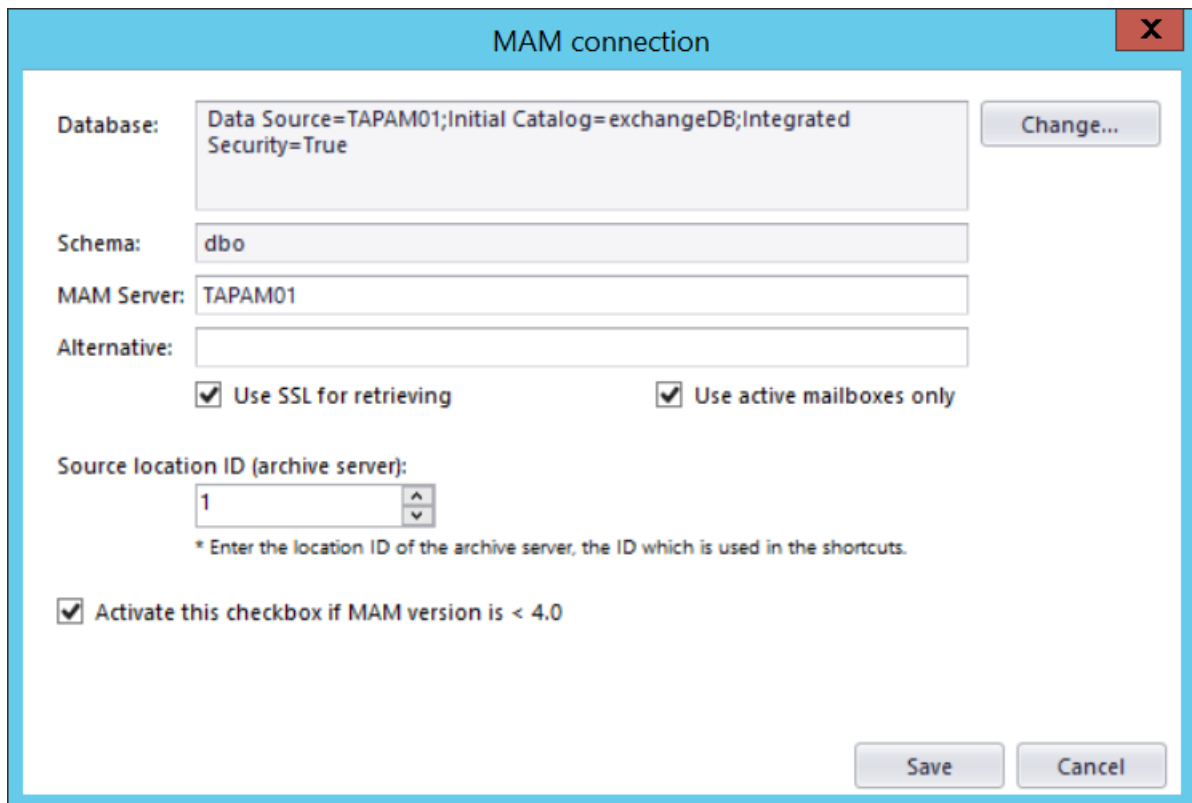
databases on the selected server. Pick the one where you have your desired data. Enter the scheme and click **Finish**.

Back in the initial dialog specify the source **MAM server**. It is highly recommended to specify here the MAM retrieve server name. Use “localhost” if the MAM retrieve server is on the local server, where also contentGATE is installed. If you want to use SSL for retrieving or use only active mailboxes for the migration, check the respective checkboxes.

**Source location ID** must be defined due to shortcut retrieve. The location ID of MAM can be found in MAM.

**Note:** Please ignore the text written with small letters.

If MAM version is lower than 4, the **Activate this checkbox if MAM version is < 4.0** checkbox must be activated. Click **Save** to save your settings.

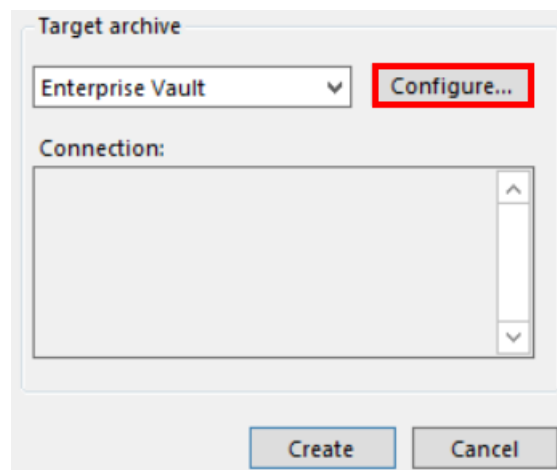


The "MAM connection" dialog box is shown. It has a title bar with a close button (X). The dialog contains the following fields and controls:

- Database:** A text box containing "Data Source=TAPAM01;Initial Catalog=exchangeDB;Integrated Security=True" and a "Change..." button to its right.
- Schema:** A text box containing "dbo".
- MAM Server:** A text box containing "TAPAM01".
- Alternative:** An empty text box.
- Use SSL for retrieving:** A checked checkbox.
- Use active mailboxes only:** A checked checkbox.
- Source location ID (archive server):** A spinner box set to "1". Below it is a note: "\* Enter the location ID of the archive server, the ID which is used in the shortcuts."
- Activate this checkbox if MAM version is < 4.0:** A checked checkbox.
- Buttons:** "Save" and "Cancel" buttons at the bottom right.

Now configure the **Target archive**.

Back in the "New migration" window, click on the "Configure..." button on the Target side:

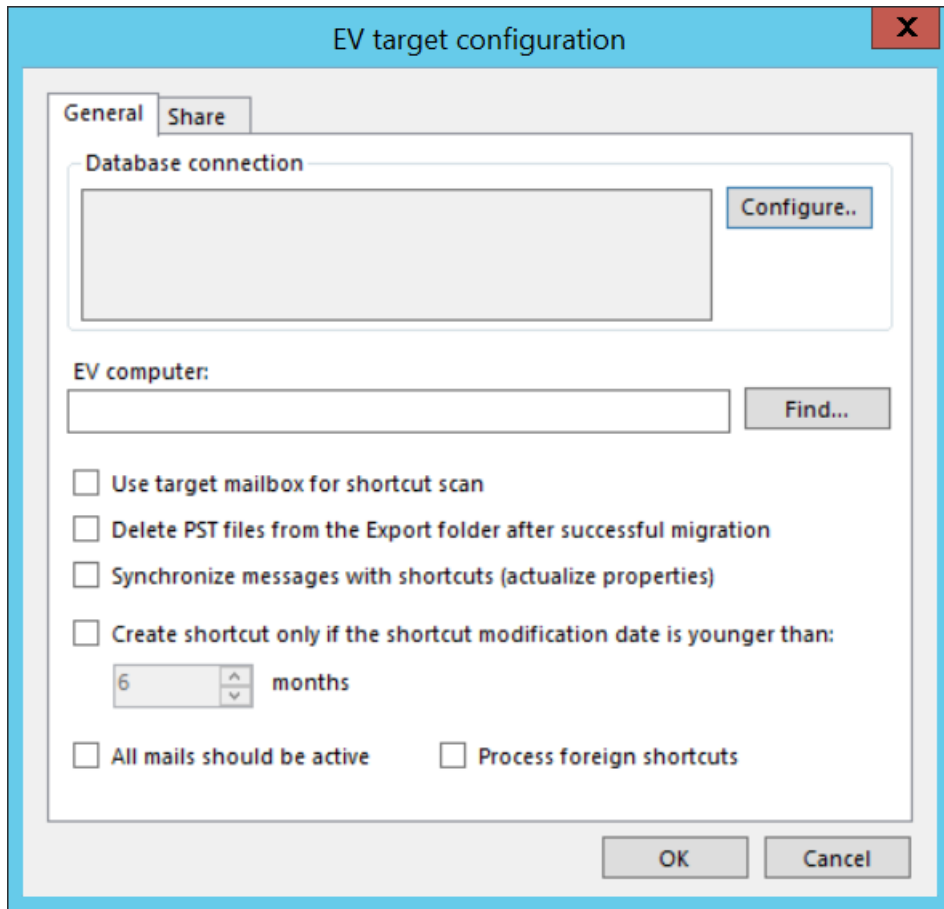


The "Target archive" dialog box is shown. It has a title bar. The dialog contains the following fields and controls:

- Enterprise Vault:** A dropdown menu with "Enterprise Vault" selected.
- Configure...:** A button highlighted with a red border.
- Connection:** A large empty text area with a vertical scrollbar on the right.
- Buttons:** "Create" and "Cancel" buttons at the bottom.

The "EV target configuration" dialog will be opened.





EV target configuration

General Share

Database connection

Configure..

EV computer:

Find...

☐ Use target mailbox for shortcut scan

☐ Delete PST files from the Export folder after successful migration

☐ Synchronize messages with shortcuts (actualize properties)

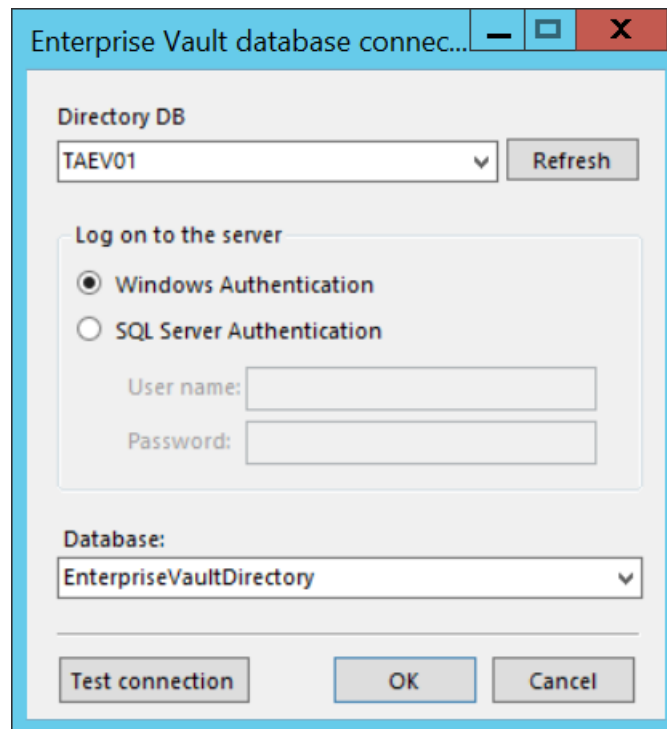
☐ Create shortcut only if the shortcut modification date is younger than:

6 months

☐ All mails should be active ☐ Process foreign shortcuts

OK Cancel

The **Database connection** must be defined, since other options might rely on it. Configure the database connection string using the “Configure...” button:



The dialog box is titled "Enterprise Vault database connection". It contains the following fields and controls:

- Directory DB:** A dropdown menu showing "TAEV01" and a "Refresh" button.
- Log on to the server:** A section with two radio buttons: "Windows Authentication" (selected) and "SQL Server Authentication". Below these are text boxes for "User name:" and "Password:".
- Database:** A dropdown menu showing "EnterpriseVaultDirectory".
- Buttons:** "Test connection", "OK", and "Cancel" at the bottom.

contentGATE requires access to the directory database of Enterprise vault. If Windows Authentication will be used, the user running contentGATE will need access to the database. Further click on the "OK" button.

Back in the "EV target configuration" dialog (General tab), go to section "**EV computer**". Select the ID of the target EV computer.

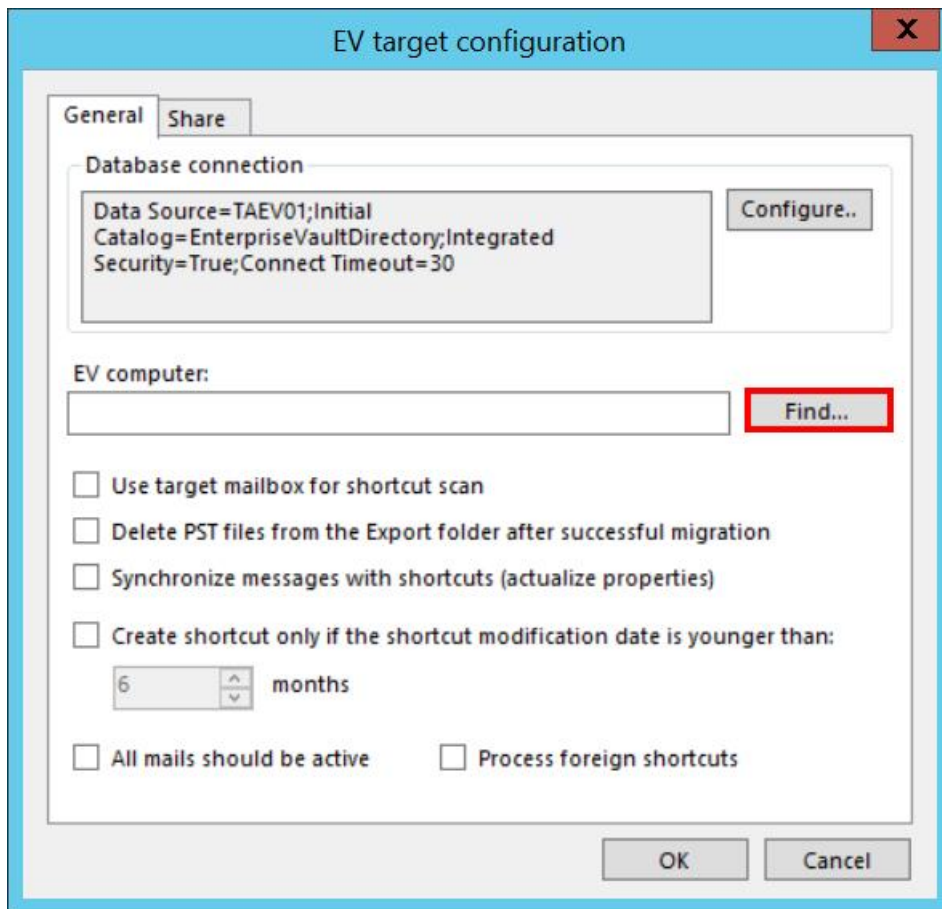
#### Technical details:

The value format: <ComputerEntryID>|<ComputerName>

Example:

1B6B2657A4E6804468B235072FB0ED1851410000EV-TEST.TESTDOMAIN.INTERNAL|EV-TEST.TESTDOMAIN.INTERNAL

contentGATE is working with exactly one EV server at a time. If multiple EV servers need to be targeted, a second migration object needs to be created. Clicking on the "Find..." button lists all the available EV computers from the database:



**EV target configuration**

General | Share

Database connection

Data Source=TAEV01;Initial Catalog=EnterpriseVaultDirectory;Integrated Security=True;Connect Timeout=30 Configure..

EV computer:

Find...

☐ Use target mailbox for shortcut scan

☐ Delete PST files from the Export folder after successful migration

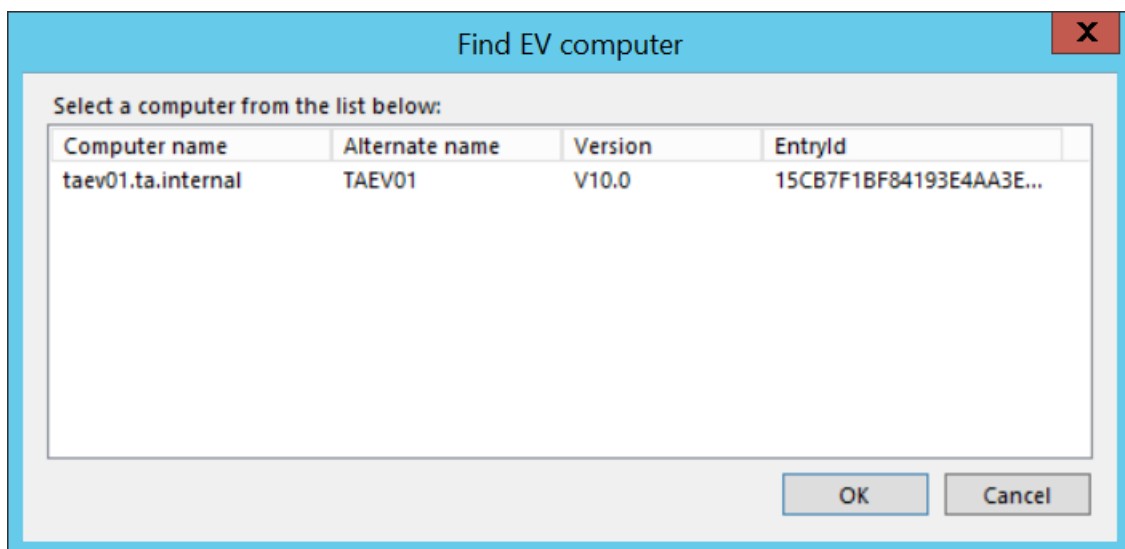
☐ Synchronize messages with shortcuts (actualize properties)

☐ Create shortcut only if the shortcut modification date is younger than:

6 months

☐ All mails should be active ☐ Process foreign shortcuts

OK Cancel



**Find EV computer**

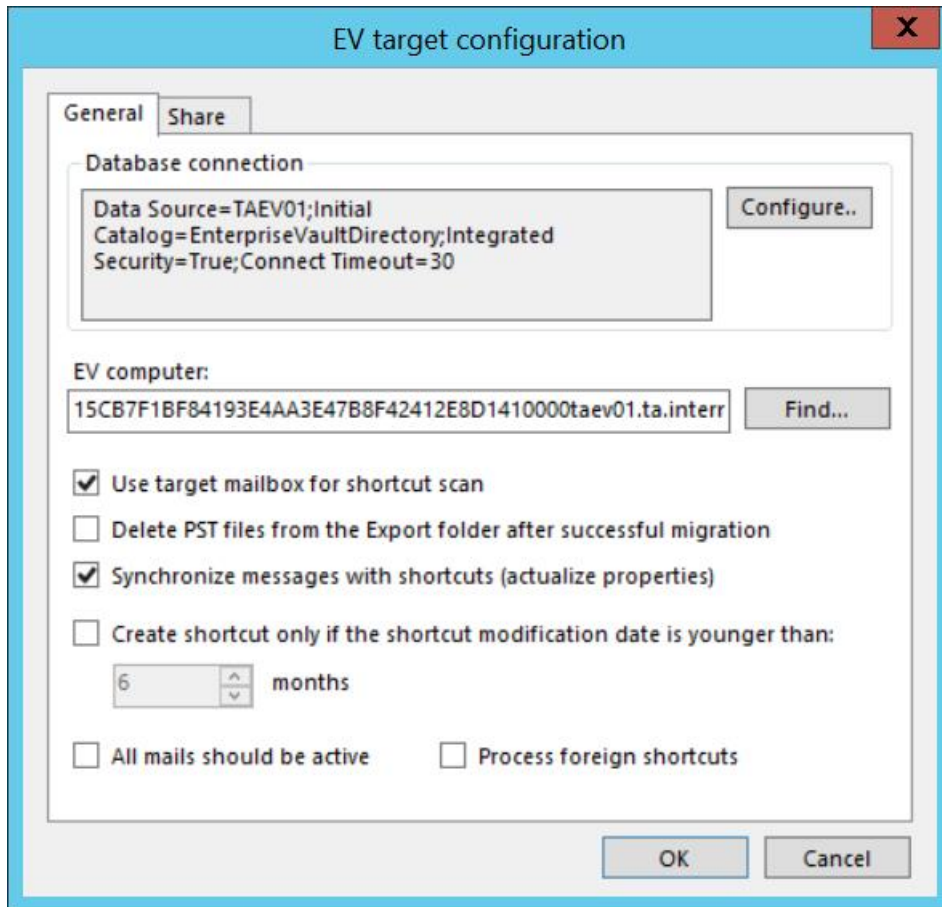
Select a computer from the list below:

| Computer name      | Alternate name | Version | EntryId                 |
|--------------------|----------------|---------|-------------------------|
| taev01.ta.internal | TAEV01         | V10.0   | 15CB7F1BF84193E4AA3E... |

OK Cancel

Select the correct record and click “OK”.

Back in the initial “EV target configuration dialog” on the “General tab”, specify the following settings:



EV target configuration

General Share

Database connection

Data Source=TAEV01;Initial Catalog=EnterpriseVaultDirectory;Integrated Security=True;Connect Timeout=30

Configure..

EV computer:

15CB7F1BF84193E4AA3E47B8F42412E8D1410000taev01.ta.interr

Find...

☒ Use target mailbox for shortcut scan

☐ Delete PST files from the Export folder after successful migration

☒ Synchronize messages with shortcuts (actualize properties)

☐ Create shortcut only if the shortcut modification date is younger than:

6 months

☐ All mails should be active ☐ Process foreign shortcuts

OK Cancel

**Use target mailbox for shortcut scan:** this option should be allowed. When allowed, the target mailbox information (of the user mapping) will be used to access the mailbox and read MAM shortcuts.

**Delete PST files from the Export folder after successful migration:** If allowed, the PST files are immediately deleted once the file is successfully imported to EV. We recommend to leave this option unchecked – during the import process the mails from the PST file are removed, so there is no need to delete the files. Please keep in mind that if a mail is refused by EV, that mail remains in the PST file and therefore it can be used later to manually import it into the mailbox.

**Synchronize messages with shortcuts (actualize properties):** Allow this option if it is necessary to actualize the migrated emails with the latest changes in the shortcut. A selected set of properties is taken from the shortcut and is stored in the contentGATE database. Then, during the migration, the MSG file is updated with these properties. Please consider that this may slow down the migration process.



**Create shortcut only if the shortcut modification date is younger than:** use this option only if you want to remove the old shortcuts during the migration. Enter the number of months. The target Enterprise Vault shortcut is created only if the MAM document was archived not earlier than the entered value.

**All mails should be active:** use this option if you want to process only active mails

**Process foreign shortcuts:** use this option if you want to process shortcuts that don't belong to the mailbox

**Further configure the share (share = share folder = base folder).** Back in the dialog, switch to the "Share" tab and specify the following settings:



This section defines the communication with the EV server, where the contentGATE EV import service is installed (please note that the service must be installed and started on the selected EV server).

**contentGATE EV Service:** The IP or name of the server where the EV Importer Service is installed.

**Port:** The communication port number (default 7999), used between the contentGATE and the EV Importer Service. It has to be the same port as you have entered at the EV Importer Service installation (section [Installation of EV Importer service](#))

**Shared export folder (UNC share):** This is the shared folder path in UNC format on the Enterprise Vault server as seen from contentGATE. It will contain all migration data. (It is called: <BASEFOLDER>)

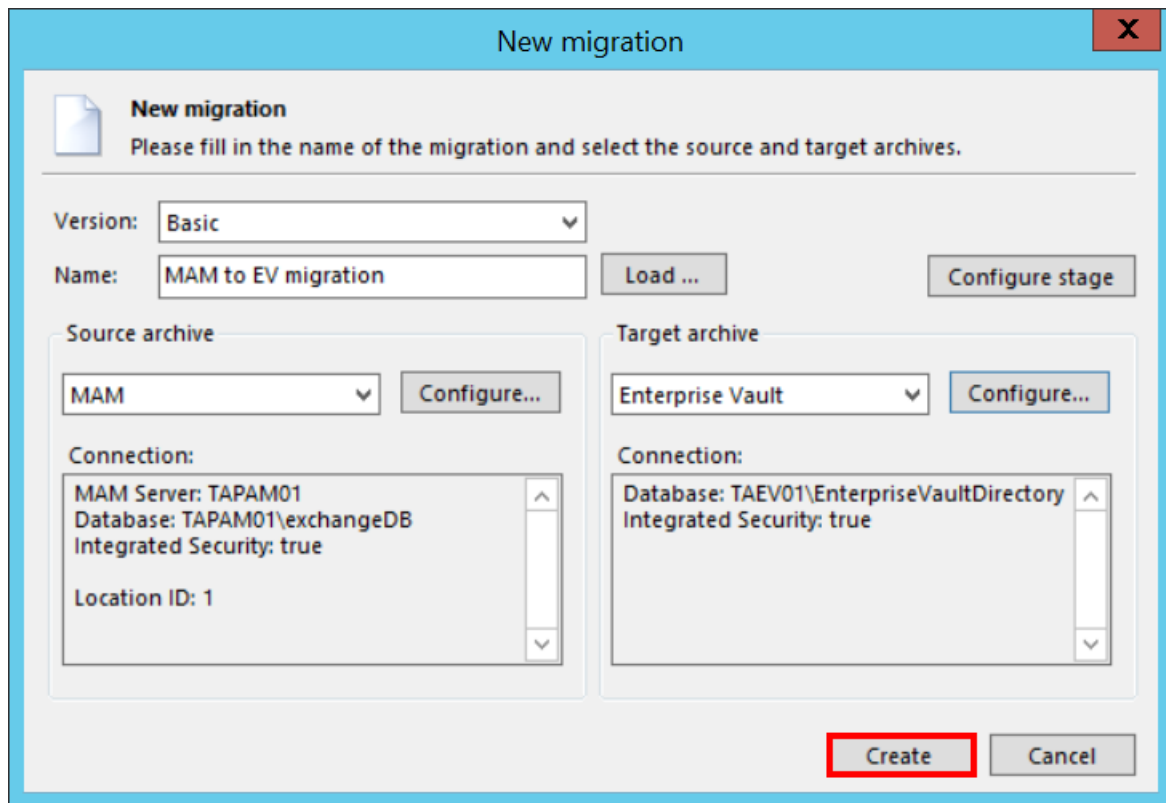
**Local path of the export folder (on EV server):** The UNC path (or local path) of the same share as seen from the EV server. This will be used for storing the intermediate XML and PST files.

Usually, these 2 paths are looking the same.

**Maximum number of allowed errors in PST:** If the number of errors exceeds this number, the PST file will be marked as failed.

Click "OK".

Now everything is configured. Close the "New migration" window by clicking on the "Create" button.



**New migration**

Please fill in the name of the migration and select the source and target archives.

Version: Basic

Name: MAM to EV migration

Load ... Configure stage

**Source archive**

MAM

Configure...

**Connection:**

MAM Server: TAPAM01  
Database: TAPAM01\exchangeDB  
Integrated Security: true  
Location ID: 1

**Target archive**

Enterprise Vault

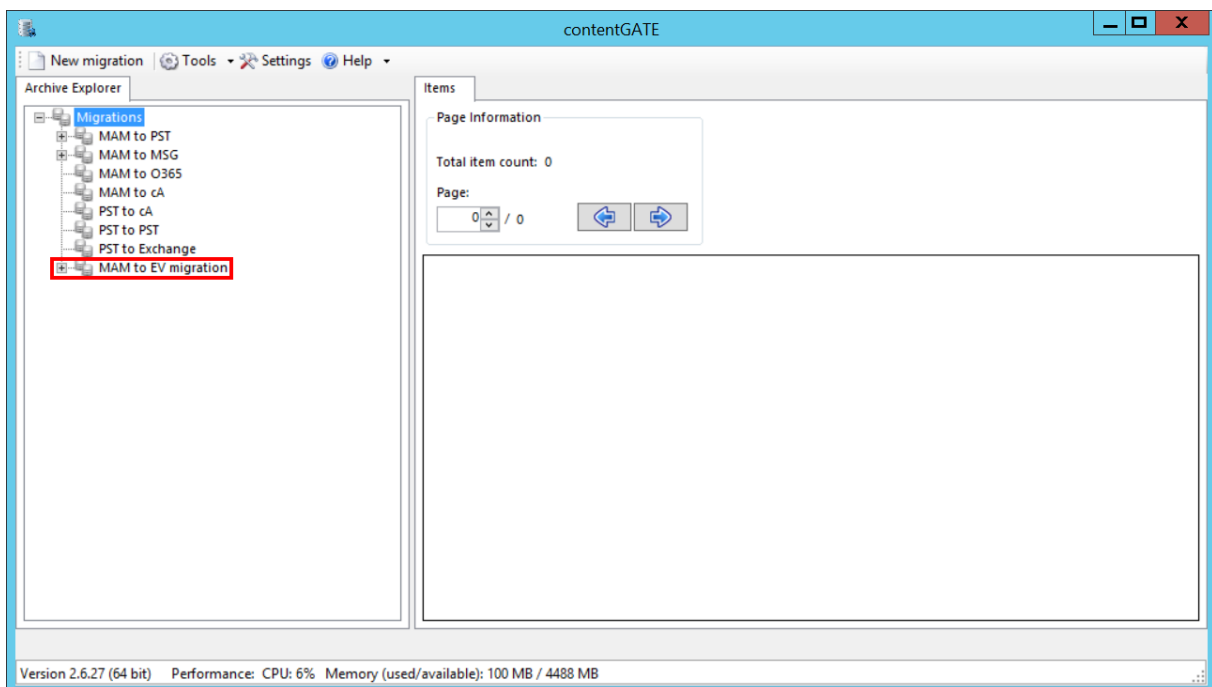
Configure...

**Connection:**

Database: TAEV01\EnterpriseVaultDirectory  
Integrated Security: true

Create Cancel

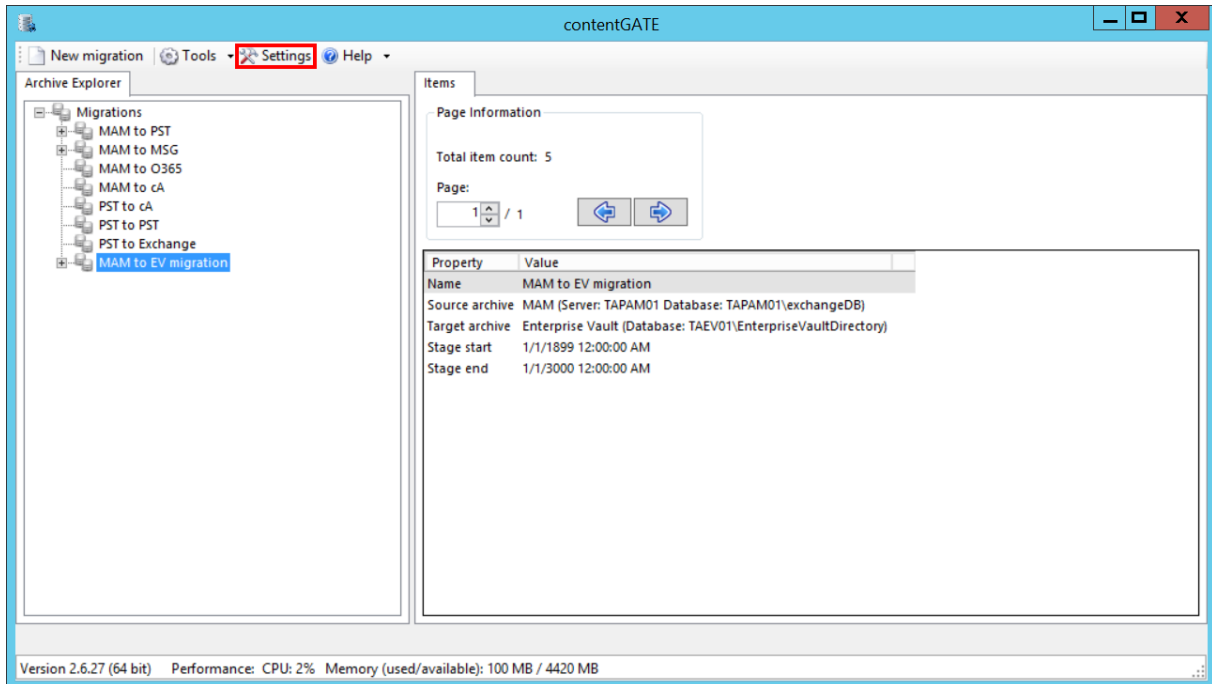
The new migration was successfully created and appears in the Archive Explorer pane of contentGATE.



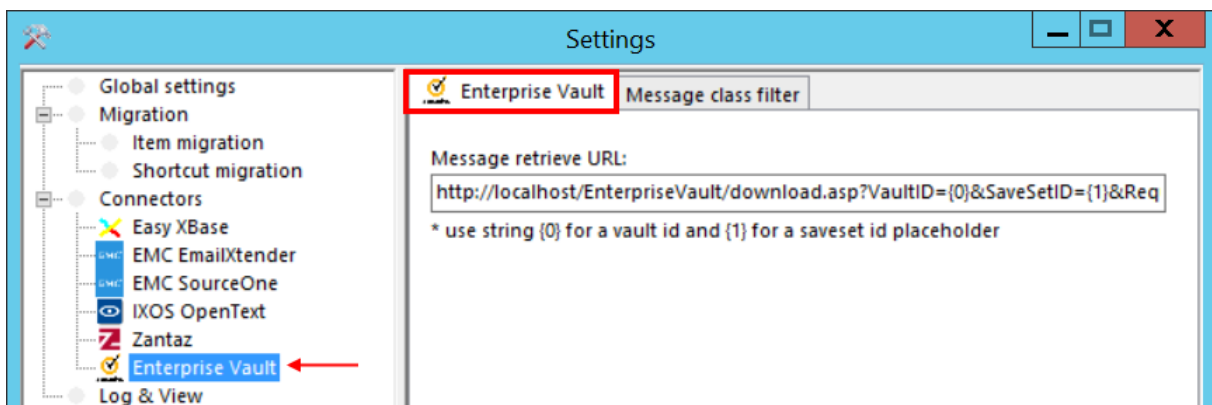


## Configure your Enterprise Vault settings

Further you need to configure the general Enterprise Vault settings. Click on “Settings” in the toolbar (see below):



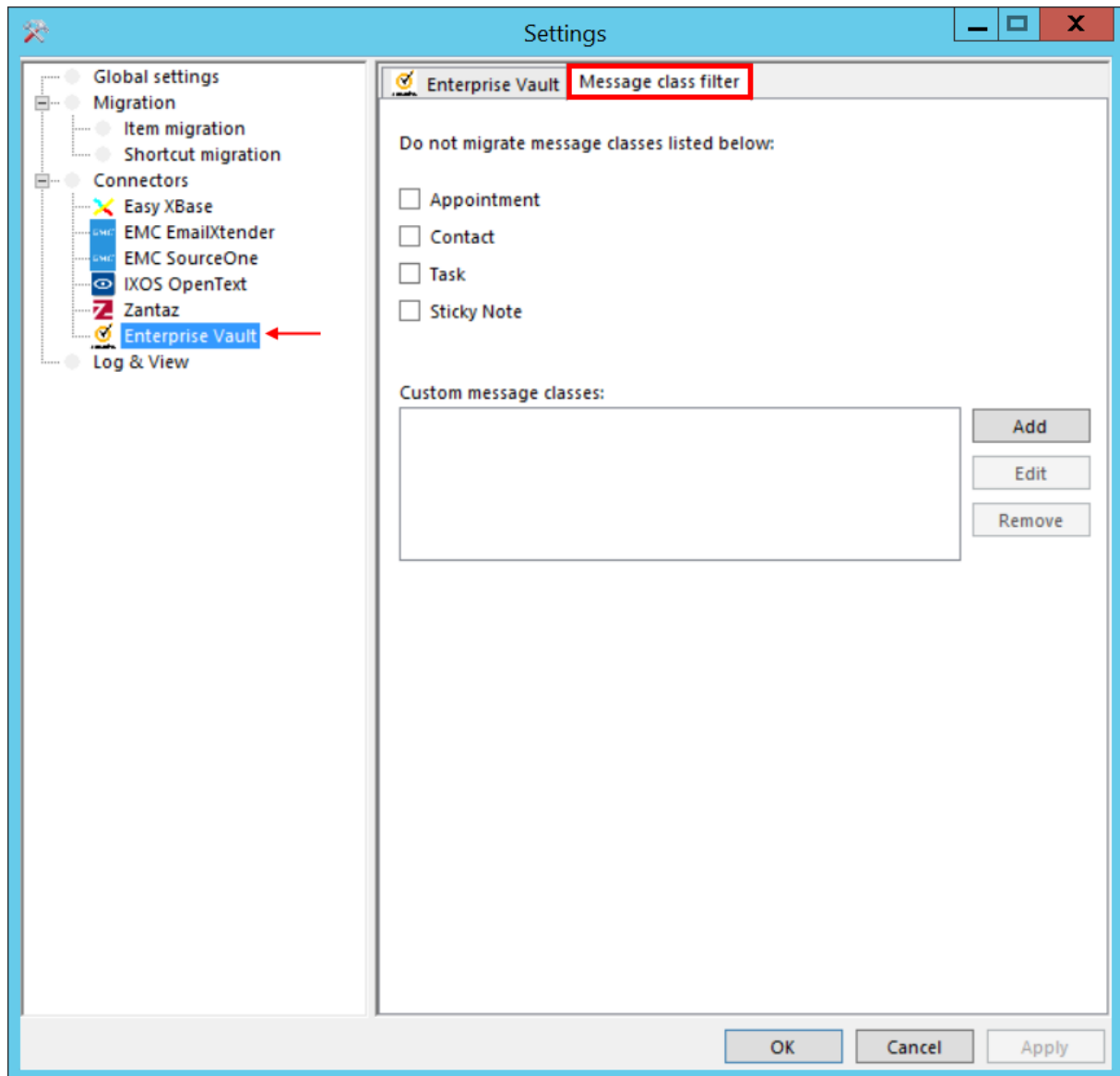
Select “Enterprise Vault” in the tree view on the left side. The “Enterprise vault” tab of the right pane features the message retrieve URL.







Switch to “Message class filter” tab. Here you can exclude some message types from the scope of migration. Define the excludable message classes.



It is possible to add custom message classes.

The documents with these message classes are excluded from the migration, they do not get into the created PST files. You do not have to specify the exact message classes, you can use simple wildcards, too.

Custom message class format:

simple text – the message class contains the entered text

\*whatever - the message class ends with the entered text



whatever\* - the message class starts with the entered text

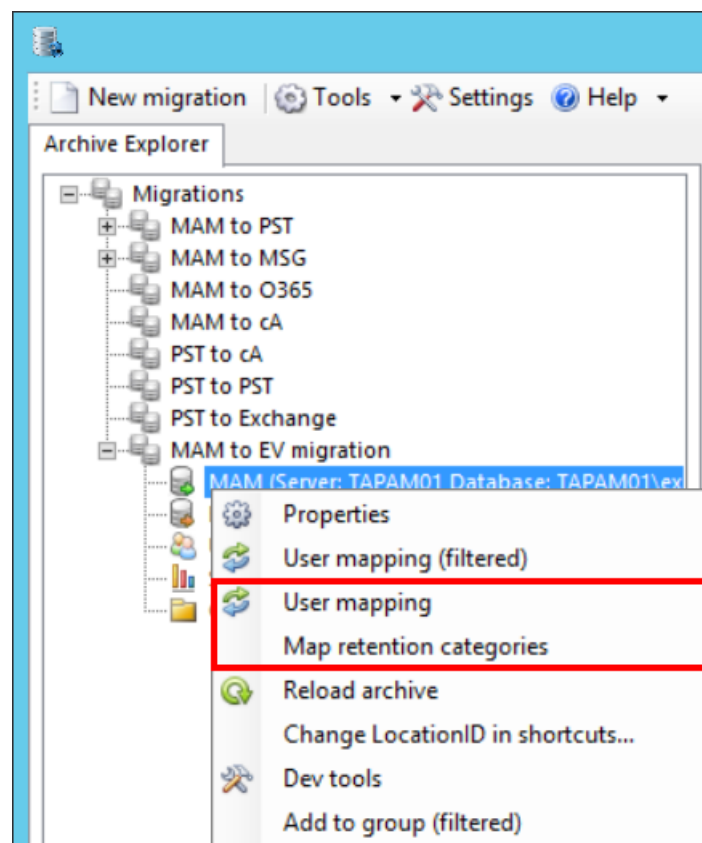
'whatever' – message classes exactly matching the text between quotation marks will be excluded

## User mapping and retention category mapping

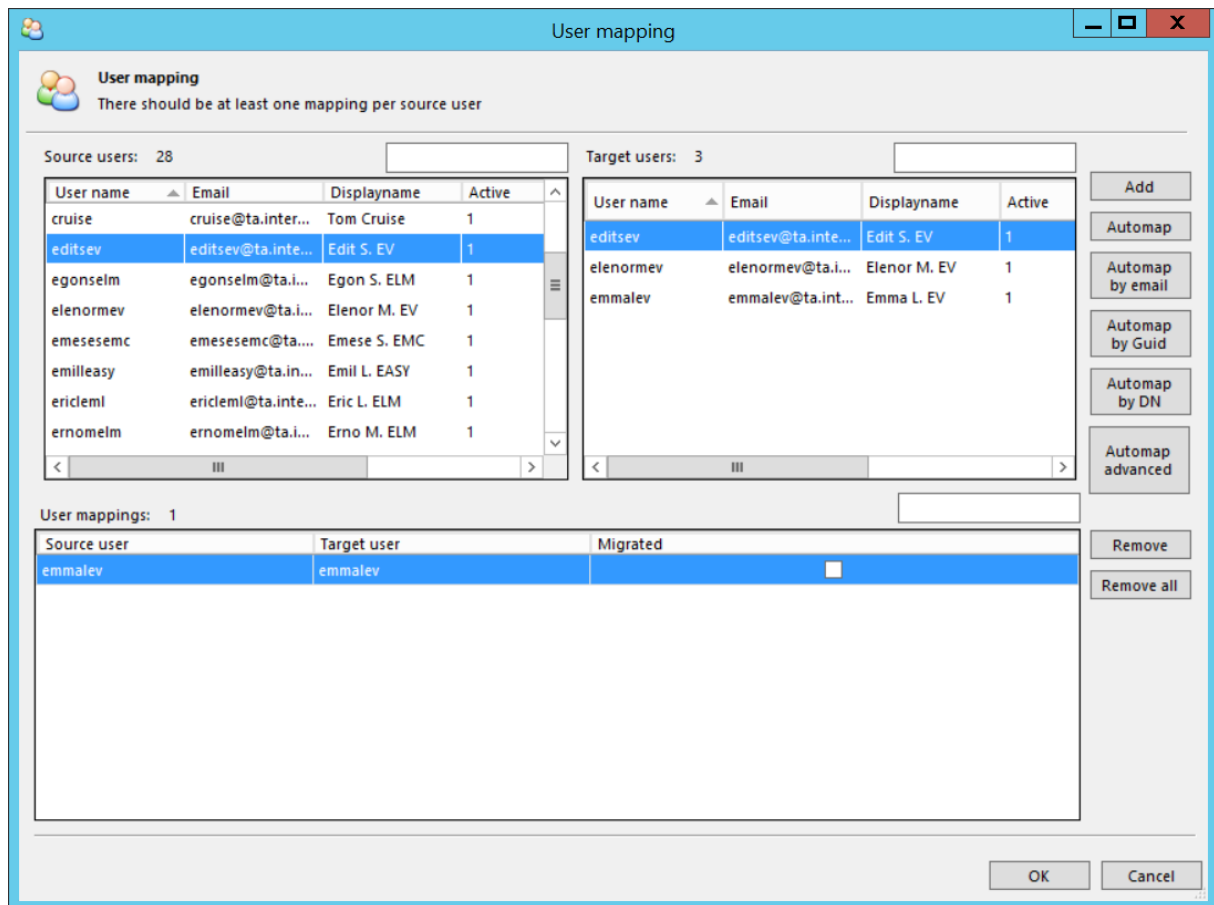
It is necessary to map the users from MAM to EV users. Open the

- c. User mapping and
- d. Retention category mapping

dialog from the MAM archive context menu in the Archive Explorer pane:



### User mapping



The left side column shows the not mapped MAM users, the right column shows all EV users. The list below shows the list of already mapped users.

Hint: the user names in MAM might have been changed over time. It means that contentGATE will display 2 different users for the same Active Directory user – these users need to be mapped to the same target EV user (if necessary). This is a manual process.

### Retention category mapping

It is necessary to map the MAM retention categories to EV retention category. contentGATE creates 2 retention categories and both must be mapped to something.

**Retention category mapping**

Please map the retention categories. All source retention categories must be mapped in order to migrate correctly.

| Source retentions: |             |                       | Target retentions:     |                        |                       |
|--------------------|-------------|-----------------------|------------------------|------------------------|-----------------------|
| Name               | Description | Retention Category ID | Name                   | Description            | Retention Category ID |
| Normal             |             | 3                     | 5 years                | Delete after 5 years   | 19CDFAC3AE0EA314...   |
|                    |             |                       | Default Retention C... | Default Retention C... | 16811B4DFD4506A4...   |

Buttons: Add, Automap

| Mapped retention categories: |                            |
|------------------------------|----------------------------|
| Source retention name        | Target retention name      |
| Backup                       | 5 years                    |
| Default                      | Default Retention Category |

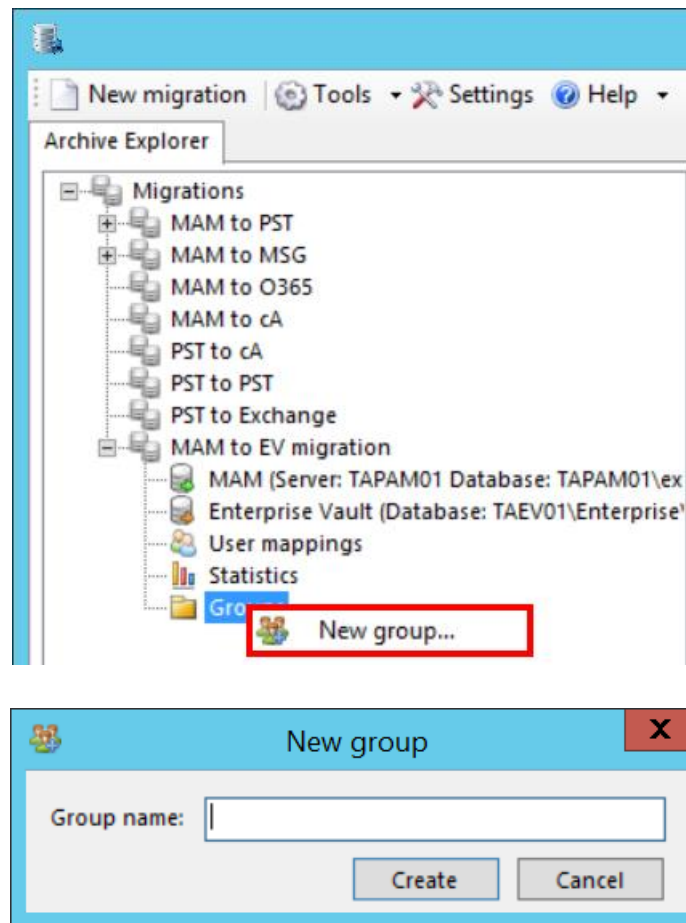
Buttons: Remove, Remove all

Buttons: OK, Cancel

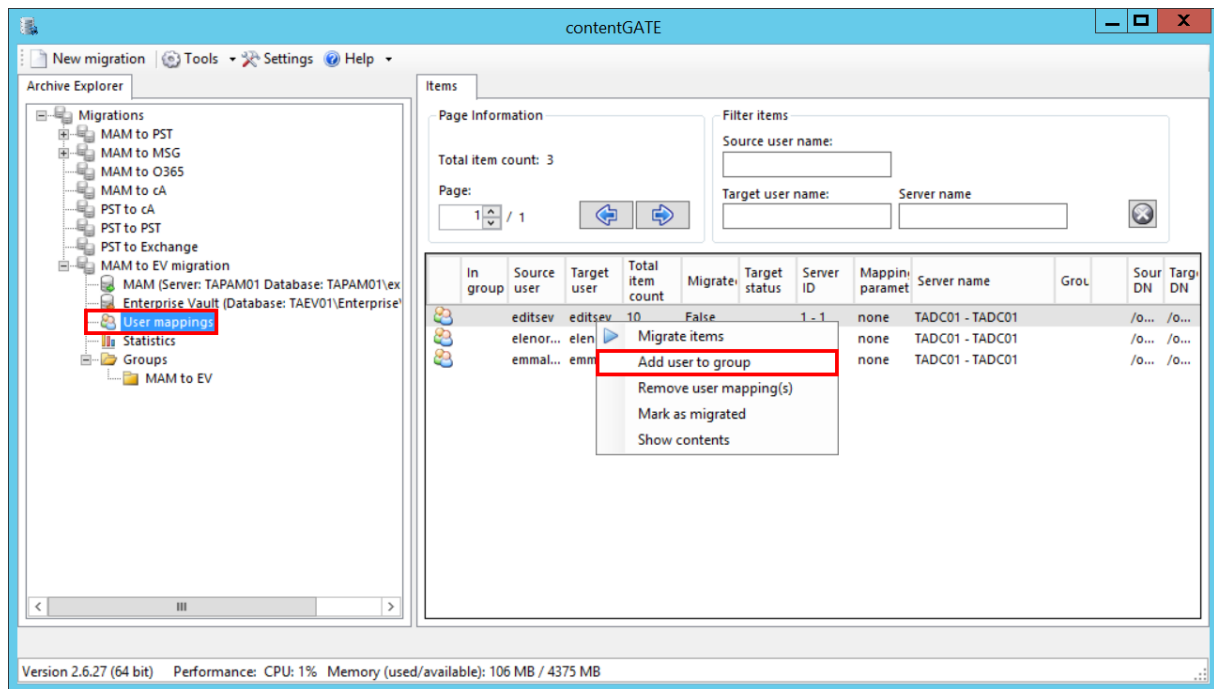
Example: the above picture shows 2 EV retention categories: 5 years and Default Retention Category. The “Default” category from MAM is mapped to EV category “Default Retention Category” and the MAM “Backup” category is mapped to EV “5 years”.

## Migration groups

User mappings can be assigned to migration groups. To create a new group, open the “Groups” context menu and click on “New group”.



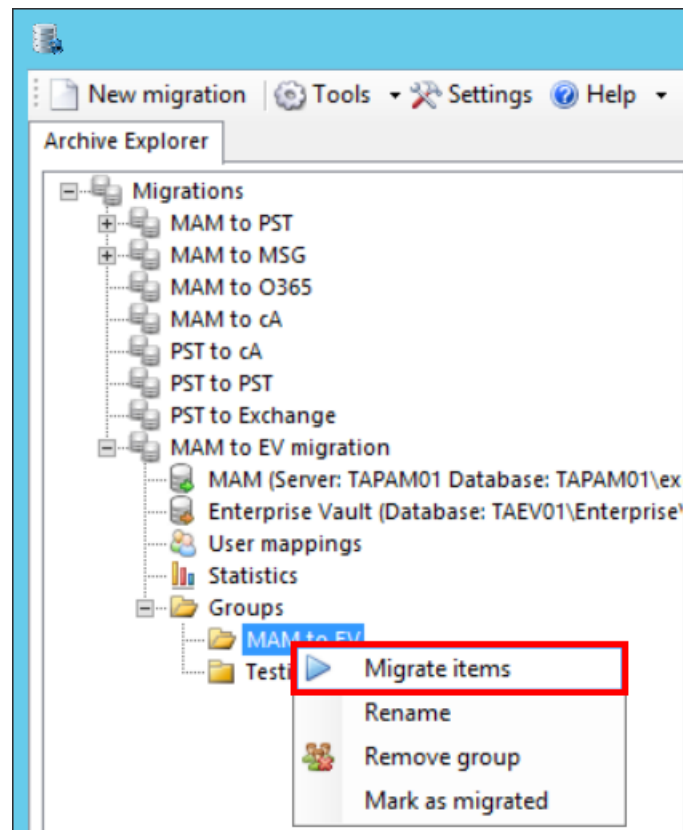
New members can be added to a group from the **Items** pane, from the source user's context menu:



## Running the migration

In this section you can read about starting the migration and the migration steps to be defined before starting the migration. Provided that the users from MAM are mapped to the EV users, the users are assigned to the desired group and all necessary settings have been configured, you can start the migration process.

Expand the **Groups** node in the Archive Explorer pane and open the desired group's context menu. Click "Migrate items". The "Migration start" dialog will show-up. Here you can define the migration flow of the selected migration group.

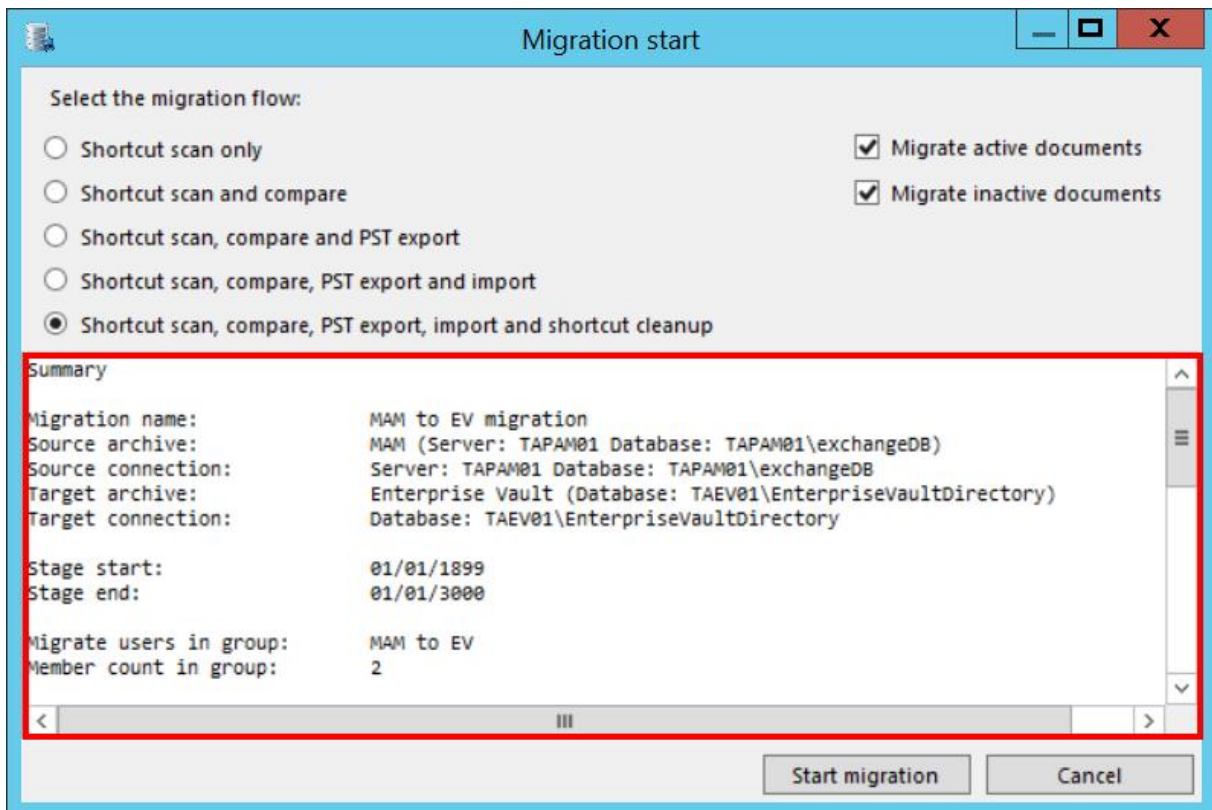


**Note:** The migration can be started not only from the level of groups, but also from the migration instance (1st node in the Archive Explorer pane; “MAM to EV migration” on the picture above). In this case all user mailboxes will be migrated, regardless of their group membership.

In the next chapter the steps of the migration flow will be described in more details.

## Data migration

Before you start the process, you can check again the migration settings summary in the „Migration start“ window.



There are 5 steps to complete the migration.

- **Shortcut discovery** (shortcut scan)
- **Message categorization** (shortcut scan and compare)
- **Message transformation and export** (shortcut scan, compare and PST export)
- **Import** (shortcut scan, compare, PST export and import)
- **Shortcut cleanup** (shortcut scan, compare, PST export, import and shortcut cleanup)

Before the migration starts, it is possible to select the steps to be taken by marking the appropriate radio button in the dialog. These steps are performed for each mailbox separately and are performed sequentially.





Migration start

Select the migration flow:

- ☐ Shortcut scan only
- ☐ Shortcut scan and compare
- ☐ Shortcut scan, compare and PST export
- ☐ Shortcut scan, compare, PST export and import
- ☒ Shortcut scan, compare, PST export, import and shortcut cleanup

☒ Migrate active documents  
☒ Migrate inactive documents

Summary

Migration name: MAM to EV migration  
Source archive: MAM (Server: TAPAM01 Database: TAPAM01\exchangeDB)  
Source connection: Server: TAPAM01 Database: TAPAM01\exchangeDB  
Target archive: Enterprise Vault (Database: TAEV01\EnterpriseVaultDirectory)  
Target connection: Database: TAEV01\EnterpriseVaultDirectory

Stage start: 01/01/1899  
Stage end: 01/01/3000

Migrate users in group: MAM to EV  
Member count in group: 2

Start migration Cancel

#### Technical details:

All files (xml, PST, log, etc.) used in the migration process are stored in a user-defined EV shared folder and its subfolders.

The EV shared folder is configurable in EV target configuration (described in section [Configure your source and target archive](#)) and called as <BASEFOLDER>

Example: [\\ev-test\CGShared\](#).

#### Shortcut discovery (shortcut scan)

Before data are exported, the message status needs to be found out: active or inactive. This is achieved by **scanning the mailbox of the respective user and collecting information about MAM shortcuts.**

**Note:** During this scan, contentGATE also collects the properties of the shortcut and stores them in the contentGATE database. This information is later used in the export phase, where the message can be modified if the shortcut is newer than the archived message. This feature is optional and can be specified during the EV target configuration [chapter [Configure your](#)



[source \(MAM\) and target \(EV\) archive](#), option “Synchronize messages with shortcuts (actualize properties)”].

#### Technical details:

In this stage the application creates the XML file containing all necessary information about the shortcuts and the belonging documents in the archives.

The XML file is stored in subfolder: `<BASEFOLDER>\user email\<STAGEDATE>`

File name: *user email.xml*

Example:

[\\ev-test\CGShared\test30@testdomain.internal\2012.10.05T23.59.59\test30@testdomain.internal.xml](#)

#### Message categorization (shortcut scan + compare)

**All the documents (messages) are read in the source archive and are categorized by:**

- Retention category
- Status (active and inactive)

Based on the documents retentions categories (in the source archive) and the results of the shortcut scan (active vs. inactive documents), the documents are split to several packages. Based on this categorization, multiple export packages are created for the user. An export package is a set of PST files.

The message is active if it is available in MAM and the user has a shortcut (one or more) in its mailbox pointing to the document. The message is inactive if it has no shortcut. The message status decides in which export package (PST) the message will be included: active messages will be exported/imported to include shortcuts; inactive messages will be exported/imported without shortcuts in the target archive.

#### Technical details:

The split documents (messages) are stored in subfolders like the following:

`<BASEFOLDER>\user email\<STAGEDATE>\retention category\document type`

Example:

[\\ev-test\CGShared\test30@testdomain.internal\2012.10.05T23.59.59\Default\Normal](#)



### Message transformation and PST export (shortcut scan, compare + PST export)

The following processes are involved in this migration step:

- Downloading message files from MAM
- Applying transformation on message files
- Exporting to PST

The export package might contain multiple PST files – the PST files are limited in size. If the data volume does not fit into one PST file, multiple files are created. The default size of a PST file is 10 GB.

Optionally, transformations can be run on the message files by using the information from the “shortcut discovery” phase (refer to the *note* in step 1). If the transformation is enabled, the message file is updated with the latest changes from the shortcut. The transformed message is then exported to the export package.

Once the export packages are ready, the import phase can take place.

#### Technical details:

The next step is collecting the necessary information for the INI file creation.

The standard Enterprise Vault tool, EVPM needs this file that can import PST files to the EV.

The INI file is created in the same folder (where's the PST created).

File name: *mailboxID*

Extension: *.ini*

#### Example:

[Directory]

DirectoryComputerName = EV-TEST

SiteName = ExchangeTest

[PSTDefaults]

CancelMbxAutoArchive = True

IncludeDeletedItems = True

MigrationMode = Process

PSTLanguage = Western European

ServerComputerName = EV-TEST

[PST]

ShortcutMode = NoShortcuts



FileName = C:\CGShared\test30@testdomain.internal\2012.10.05T23.59.59\Default\Deleted\exported.pst  
MailboxDN = /o=First Organization/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=test30  
RetentionCategory = 1E02B91FC8E7766448245A5E5A55E638E1b10000EV-TEST.TESTDOMAIN.INTERNAL

### *Import PST files to the target archive ((shortcut scan + compare + PST export and import)*

contentGATE uses the EVPM application of Enterprise Vault to inject data into the email archive. The export packages prepared in the previous phase are transferred (or mapped) to the Enterprise Vault server and then EVPM is invoked on the PST files. The active messages are injected with the option to create shortcut, the inactive messages are injected without shortcuts.

The import is running asynchronously and no specific order is defined. The mailbox is considered as imported if all export packages of the mailbox are successfully imported. After a mailbox is completely exported, the shortcut cleanup phase follows.

#### **Technical details:**

contentGATE is calling the EV Importer service and passes the created INI file to service. After importing the PST, the EV Importer service creates file '.finished'. (Location info in section [EV Importer service logging](#))

The EVPM creates a log file, too. (see the details in section [EVPM logging](#))

More information about these files in section [Log files](#).

If contentGATE is aborted during the import, the import continues on the EV server. Next time the migration is started, contentGATE checks the readiness using the finished file. If the finished file indicates that the import is ready, the migration continues with the next phase. If it is not ready, contentGATE tries to import it again (might lead to an error, in this case retry later).

### *Shortcut cleanup (shortcut scan + compare + PST export + import + shortcut cleanup)*

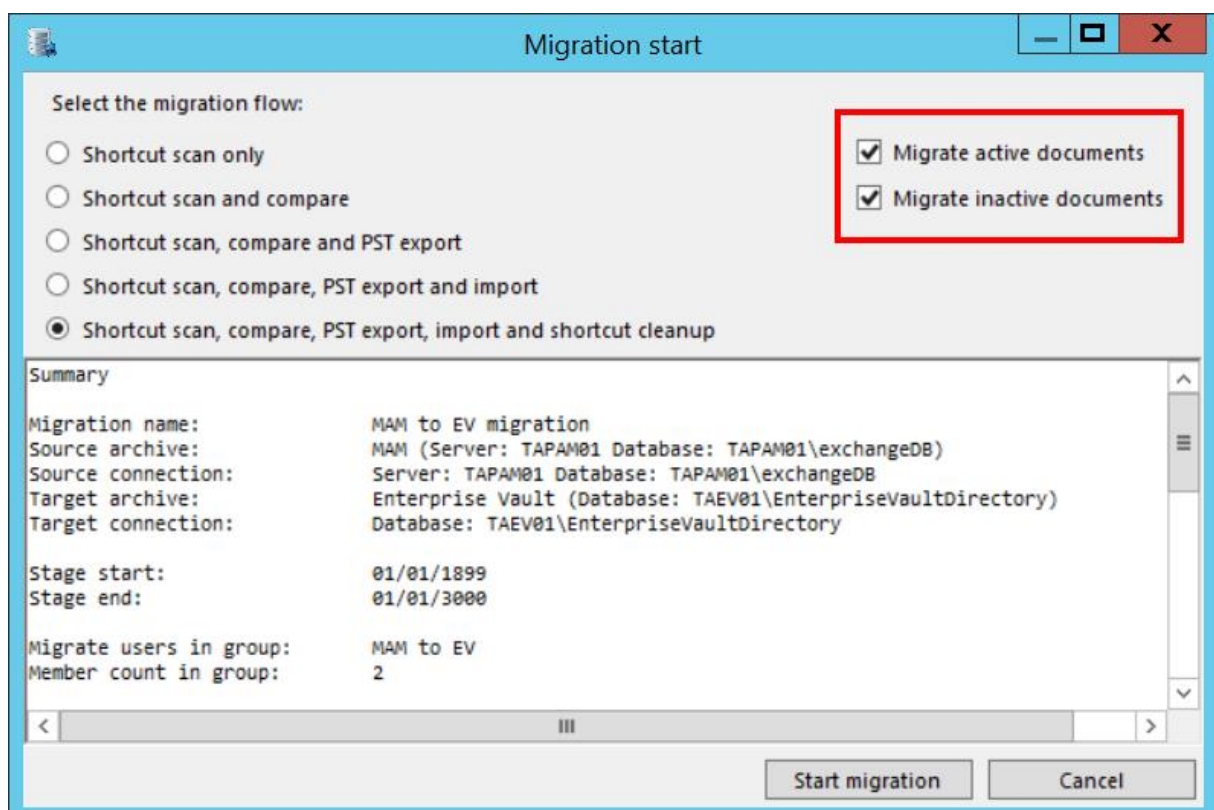
The mailbox is opened again, but this time it's not scanned. The MAM shortcuts, which were gathered during the shortcut discovery phase and were successfully exported and then imported, are deleted from the mailbox. Since Enterprise Vault has already created EV shortcuts for these mails, there will be duplicate mails in the mailbox until the cleanup phase is finished.

**Note:** If a MAM shortcut was moved between the shortcut discovery and shortcut cleanup phases, the MAM shortcut will not be deleted. Therefore, it is not recommended to move the MAM shortcuts during these phases.

### *Migrate active/inactive documents*

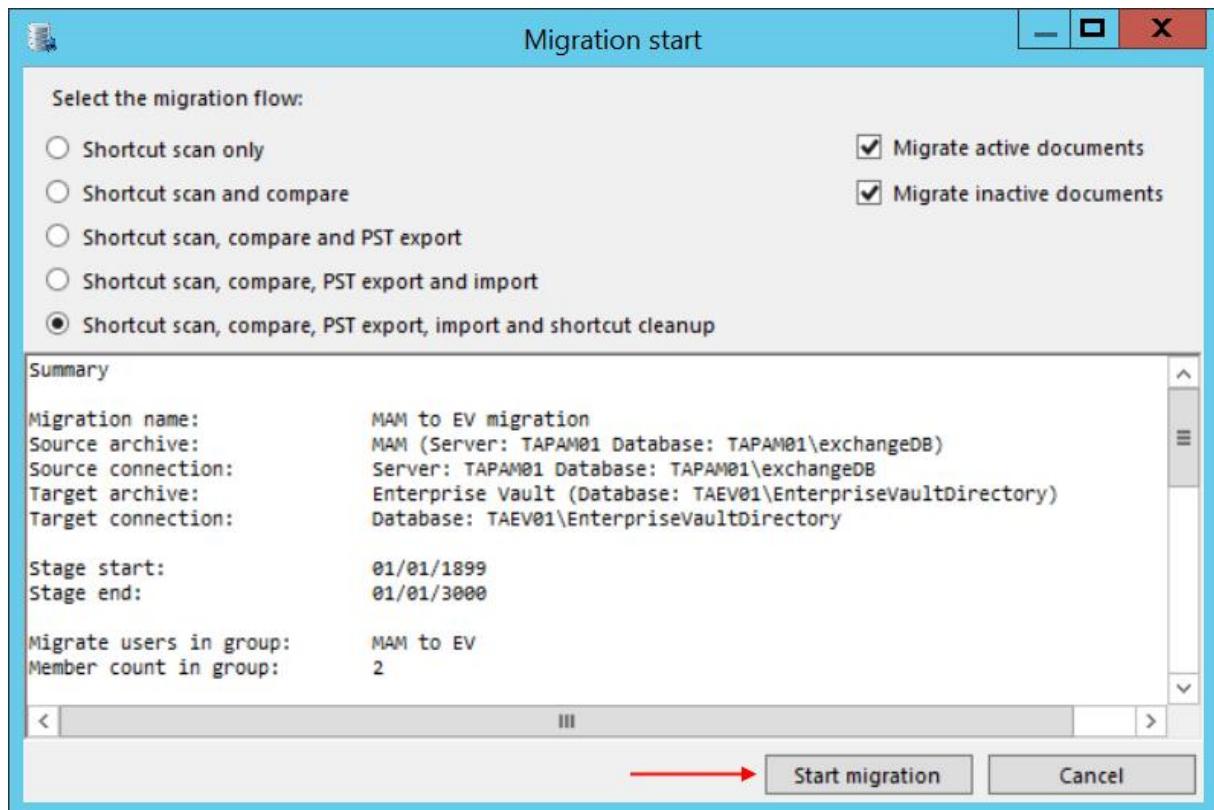
**Migrate active documents:** select this check box if only documents with associated shortcuts in the mailbox should be migrated into the target archive

**Migrate inactive documents:** select this check box if only documents without shortcuts in the mailbox should be migrated



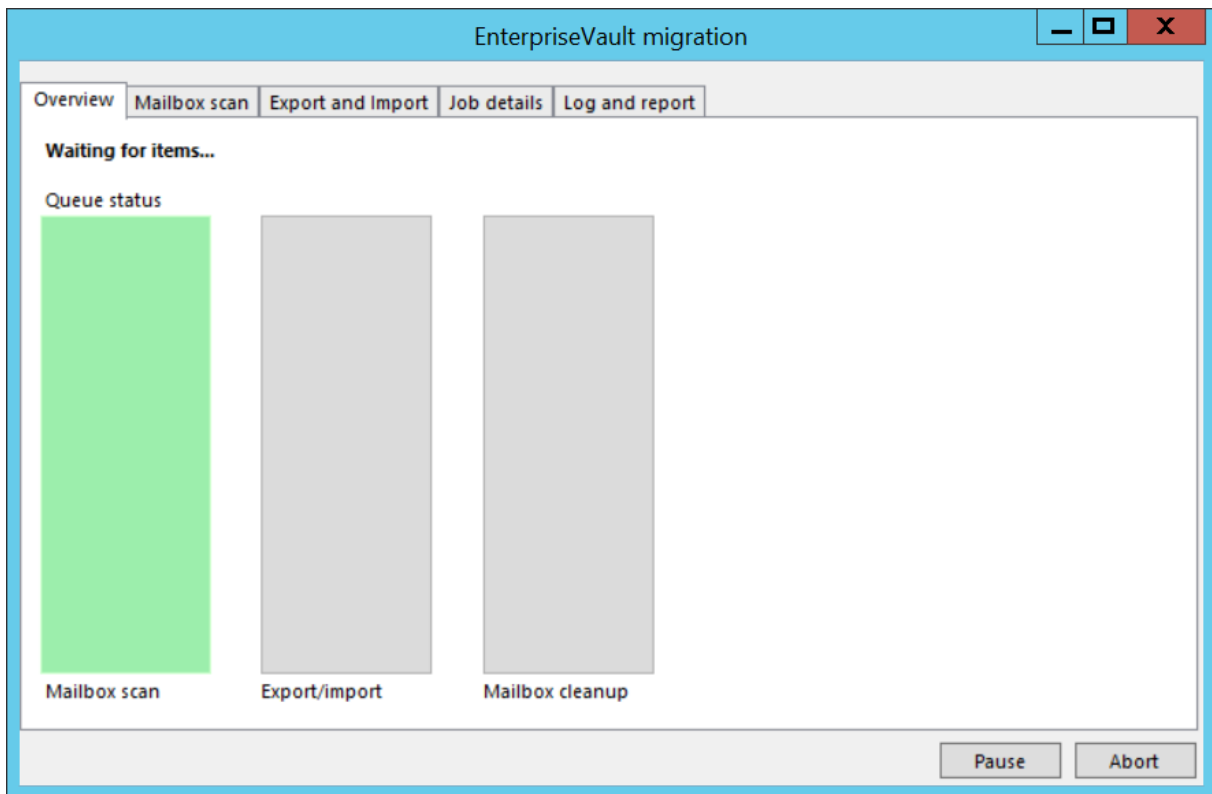
Click the “Start migration” button in the dialog. The migration process will be started for the users involved in the selected migration group.

The migration is fully automatized. If you abort the migration, the software will continue the migration process from the point where it was aborted at the next start.

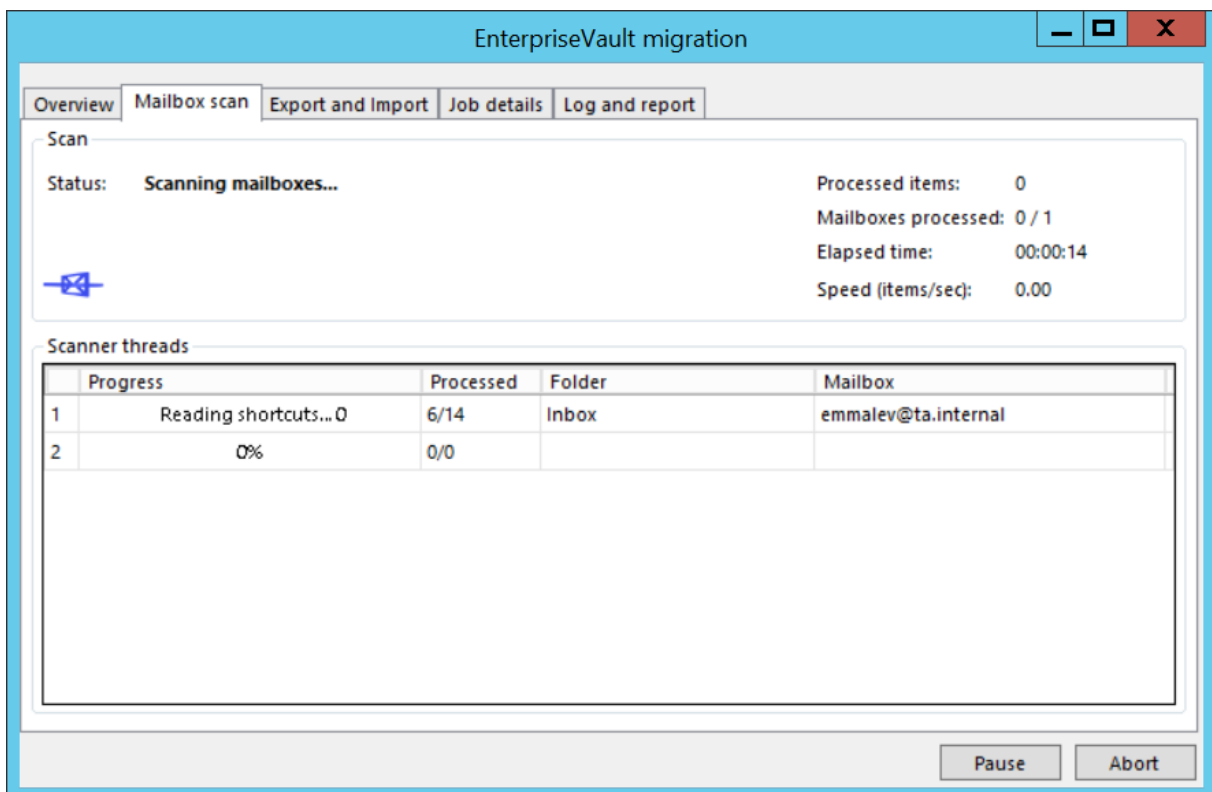


There are 5 tab pages.

The first is the Overview, which shows what part of the migration process is currently running.



The second is the Mailbox scan, which shows what mailboxes are crawled at the moment. This process starts several threads, which are processing the mailboxes parallelly.

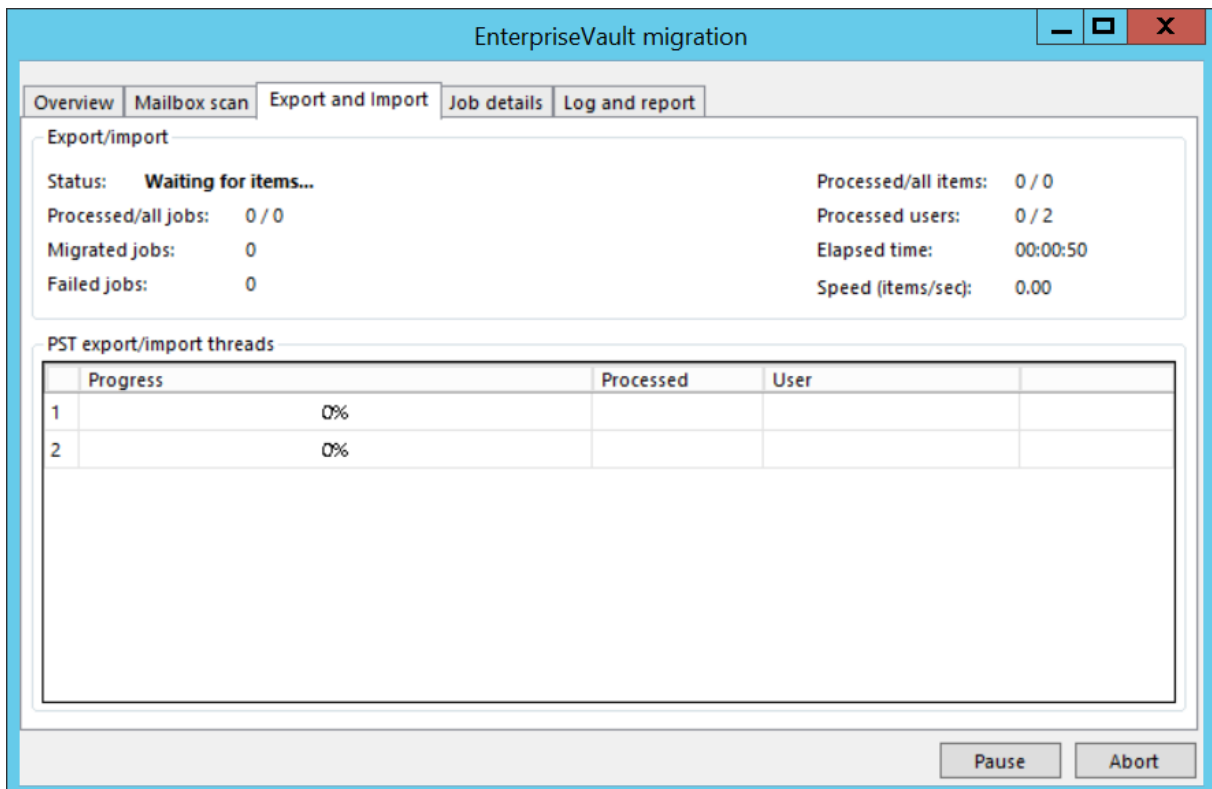




The third tab page shows the Export and Import process. Two migration steps are shown here, exporting the data from MAM and importing it to EV. For all PSTs you can see:

- ✓ First, how many percents of the data have been exported from MAM
- ✓ Second, an indication that the EVPM does the importing and also that it is finished.

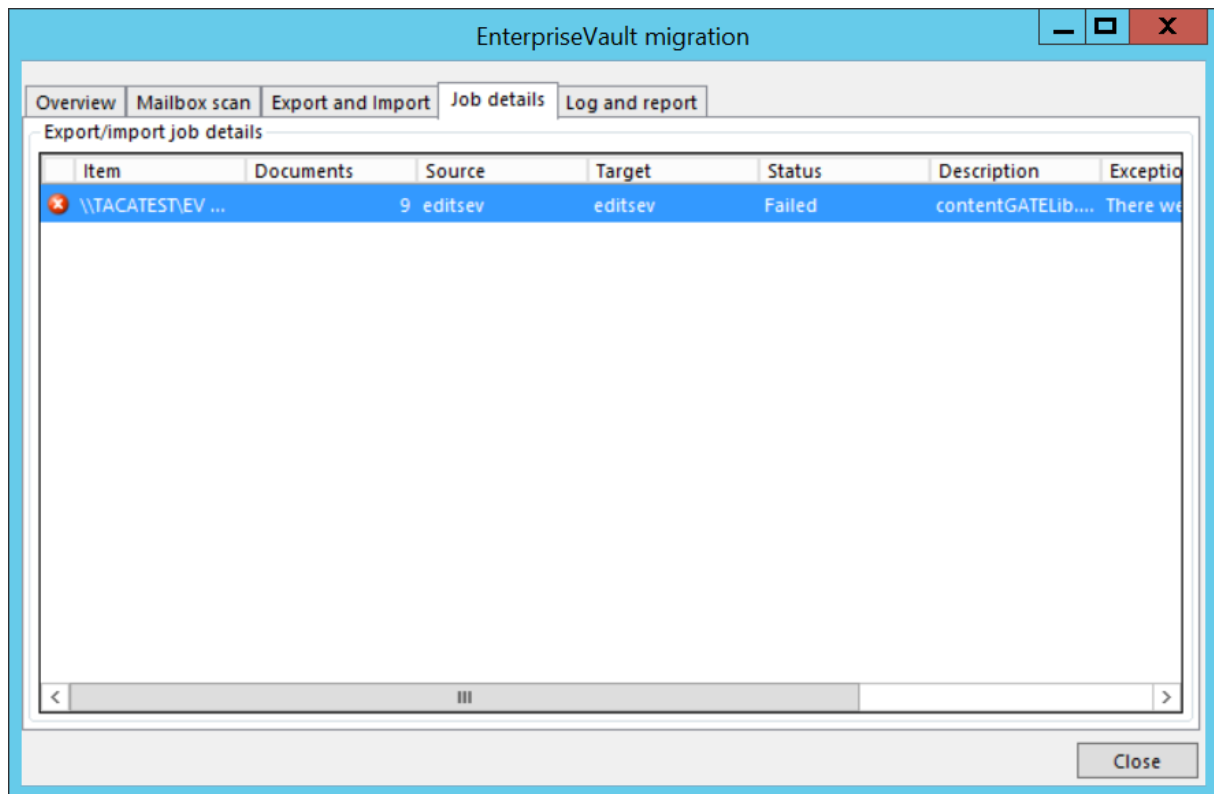
Once a thread finishes processing a PST, it will create and import the next one.



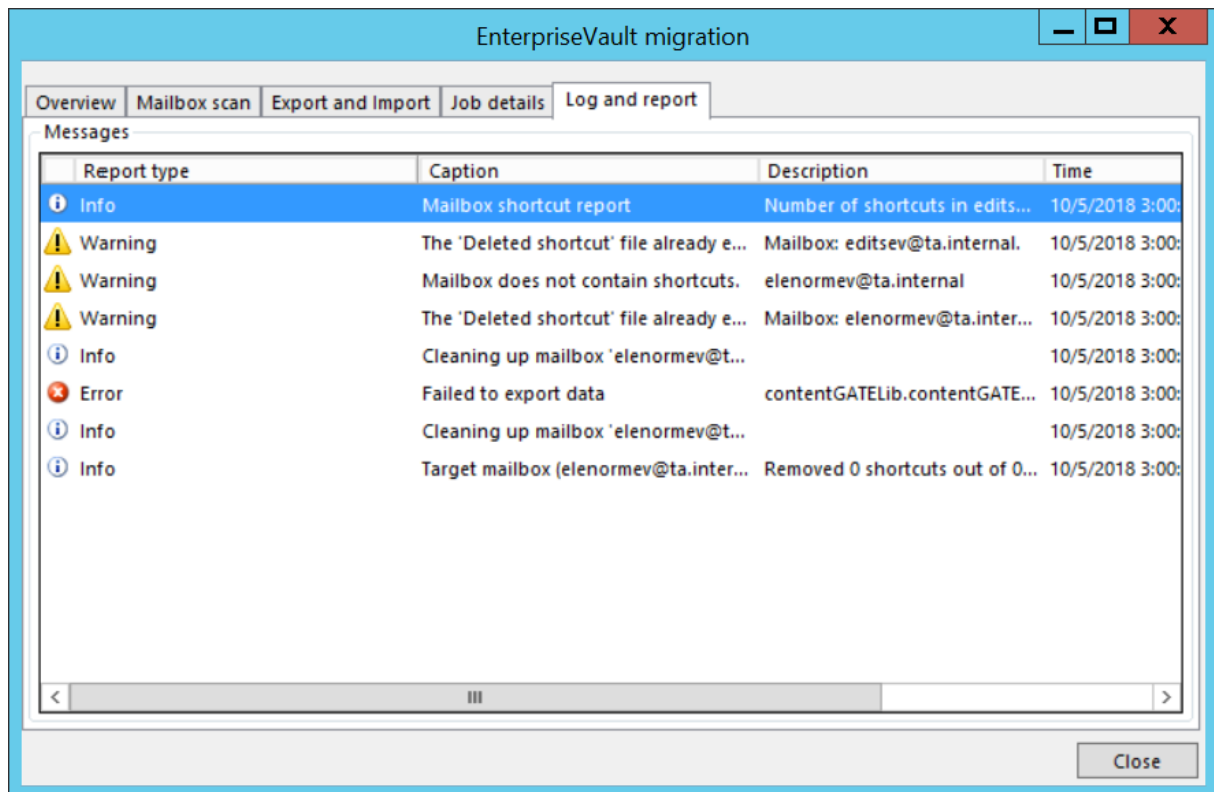
The “Job Details” page contains information about the migrated job status.

Double click on the selected job will open the jobs folder. Remember, one job = the migration of a single PST file.





The “Log and report” page contains information about the migration process. For example: how many shortcuts were found in a mailbox, PST file status, job status. If the “Description” contains a log file name, then the double click on the selected log report will open it.





## Log files

We have several different log files created by the application.

### *contentGATE logging*

#### contentGATE log

Contains information about the application run from the beginning till the end.

Location:

Folder: configured in *log4net.xml* (default: *<application startup>\log*)  
 Log type: debug output, file, rolling log file  
 File name: *contentGATE.log*

Example:

```
2012-10-26 12:57:30,102 [1] INFO contentGATE [(null)] - contentGATE >> String >> ----- START -----
2012-10-26 12:57:30,118 [1] INFO contentGATE [(null)] - contentGATE >> String >> Application path: C:\Program Files (x86)\TECH-ARROW\contentGATE
2012-10-26 12:57:30,118 [1] INFO contentGATE [(null)] - contentGATE >> MainForm>> Application started. Version: 1.6.0.0
2012-10-26 12:57:45,988 [11] INFO contentGATE [(null)] - contentGATE >> EVTargetArchive>> StartFullMigration>> Retention mapping:
2012-10-26 12:57:45,988 [11] INFO contentGATE [(null)] - contentGATE >> EVTargetArchive>> StartFullMigration>> 4 =
1DCB9FD43C36D9343B6D0343A354D58F11b10000EV-TEST.TESTDOMAIN.INTERNAL
2012-10-26 12:57:45,988 [11] INFO contentGATE [(null)] - contentGATE >> EVTargetArchive>> StartFullMigration>> 3 =
19BA67C8CFDEDF148A0498E7D7321BB051b10000EV-TEST.TESTDOMAIN.INTERNAL
2012-10-26 12:57:45,988 [11] INFO contentGATE [(null)] - contentGATE >> EVTargetArchive>> StartFullMigration>> 1 =
1E02B91FC8E7766448245A5E5A55E638E1b10000EV-TEST.TESTDOMAIN.INTERNAL
2012-10-26 12:57:46,020 [6] DEBUG contentGATE [(null)] - contentGATE >> EVTargetArchive>> CreateShortcutLogFile>> LogFilename: C:\Log\contentGATE
ShortcutMigrationLog(0) (26. 10. 2012)-(12.57).csv
2012-10-26 12:57:46,020 [7] DEBUG contentGATE [(null)] - contentGATE >> EVTargetArchive>> UIRefreshThread started
2012-10-26 12:57:46,035 [6] INFO contentGATE [(null)] - contentGATE >> EVTargetArchive>>
=====
2012-10-26 12:57:46,035 [6] INFO contentGATE [(null)] - contentGATE >> EVTargetArchive>> EVComputerEntryID:
1B6B2657A4E6804468B235072FB0ED1851410000EV-TEST.TESTDOMAIN.INTERNAL
2012-10-26 12:57:46,035 [6] INFO contentGATE [(null)] - contentGATE >> EVTargetArchive>> EVCreateShortcutsOnlyMonths: 6
2012-10-26 12:57:46,035 [6] INFO contentGATE [(null)] - contentGATE >> EVTargetArchive>> DefaultExchangeServer: VMBREX01
2012-10-26 12:57:46,035 [6] INFO contentGATE [(null)] - contentGATE >> EVTargetArchive>> Admin mailbox: kpu@testdomain.internal
2012-10-26 12:57:46,035 [6] INFO contentGATE [(null)] - contentGATE >> EVTargetArchive>> Stage start: 1. 1. 1980 0:00:00
2012-10-26 12:57:46,035 [6] INFO contentGATE [(null)] - contentGATE >> EVTargetArchive>> Stage end: 5. 10. 2012 23:59:59
2012-10-26 12:57:46,254 [6] INFO contentGATE [(null)] - contentGATE >> EVTargetArchive>> Job processing threads were started: 6
2012-10-26 12:57:46,254 [6] INFO contentGATE [(null)] - contentGATE >> EVTargetArchive>> MigrationThread>> Starting shortcut scan
2012-10-26 12:57:46,254 [13] INFO contentGATE [(null)] - contentGATE >> EVTargetArchive>> JobProcessingThread>> Started 0
2012-10-26 12:57:46,254 [14] INFO contentGATE [(null)] - contentGATE >> EVTargetArchive>> JobProcessingThread>> Started 1
2012-10-26 12:57:46,254 [15] INFO contentGATE [(null)] - contentGATE >> EVTargetArchive>> JobProcessingThread>> Started 2
2012-10-26 12:57:46,254 [16] INFO contentGATE [(null)] - contentGATE >> EVTargetArchive>> JobProcessingThread>> Started 3
2012-10-26 12:57:46,254 [16] DEBUG contentGATE [(null)] - contentGATE >> EVTargetArchive>> JobProcessingThread>> Waiting for a job... ThreadID: 3
```



```

2012-10-26 12:57:46,254 [15] DEBUG contentGATE [(null)] - contentGATE >>EVTARGETARCHIVE>>JobProcessingThread>> Waiting for a job... ThreadID: 2
2012-10-26 12:57:46,254 [13] DEBUG contentGATE [(null)] - contentGATE >>EVTARGETARCHIVE>>JobProcessingThread>> Waiting for a job... ThreadID: 0
2012-10-26 12:57:46,254 [14] DEBUG contentGATE [(null)] - contentGATE >>EVTARGETARCHIVE>>JobProcessingThread>> Waiting for a job... ThreadID: 1
2012-10-26 12:57:46,598 [17] INFO contentGATE [(null)] - contentGATE >>EVTARGETARCHIVE>>JobProcessingThread>> Started 4
2012-10-26 12:57:46,598 [17] DEBUG contentGATE [(null)] - contentGATE >>EVTARGETARCHIVE>>JobProcessingThread>> Waiting for a job... ThreadID: 4
2012-10-26 12:57:46,723 [6] INFO contentGATE [(null)] - contentGATE >>EVTARGETARCHIVE>>ShortcutScanThread>> Shortcut scan threads were started: 6
2012-10-26 12:57:46,723 [6] INFO contentGATE [(null)] - contentGATE >>EVTARGETARCHIVE>>MigrationThread>> WAITING...
2012-10-26 12:57:47,098 [18] INFO contentGATE [(null)] - contentGATE >>EVTARGETARCHIVE>>JobProcessingThread>> Started 5
2012-10-26 12:57:47,098 [18] DEBUG contentGATE [(null)] - contentGATE >>EVTARGETARCHIVE>>JobProcessingThread>> Waiting for a job... ThreadID: 5
2012-10-26 12:57:47,614 [19] INFO contentGATE [(null)] - contentGATE >>EVTARGETARCHIVE>>ShortcutScanThread>> Mailbox maintenance entered.
2012-10-26 12:57:47,724 [19] INFO contentGATE [(null)] - contentGATE >>EVTARGETARCHIVE>>ShortcutScanThread>> Start maintenance.
2012-10-26 12:57:48,099 [19] INFO contentGATE [(null)] - contentGATE >>EVTARGETARCHIVE>>ShortcutScanThread>> Maintenance finished.
2012-10-26 12:57:48,099 [19] DEBUG contentGATE [(null)] - contentGATE >>EVTARGETARCHIVE>>FinishFileExists>> Finish file already exists (Step1) '\\ev-
test\CGShared\kpu@testdomain.internal\2012.10.05T23.59.59\kpu@testdomain.internal.xml'
2012-10-26 12:57:48,099 [19] INFO contentGATE [(null)] - contentGATE >>EVTARGETARCHIVE>>Processing mailbox: kpu@testdomain.internal, ID: 39
2012-10-26 12:57:48,099 [19] DEBUG contentGATE [(null)] - contentGATE >>EVTARGETARCHIVE>>ShortcutScanThread>> Migration folder: '\\ev-
test\CGShared\kpu@testdomain.internal\2012.10.05T23.59.59
2012-10-26 12:57:48,099 [19] DEBUG contentGATE [(null)] - contentGATE >>EVTARGETARCHIVE>>Processing mailbox (2/5): (kpu@testdomain.internal)
2012-10-26 12:57:48,208 [20] DEBUG contentGATE [(null)] - contentGATE >>EVTARGETARCHIVE>>FinishFileExists>> Finish file already exists (Step1) '\\ev-
test\CGShared\nagyjani@testdomain.internal\2012.10.05T23.59.59\nagyjani@testdomain.internal.xml'
2012-10-26 12:57:48,208 [20] INFO contentGATE [(null)] - contentGATE >>EVTARGETARCHIVE>>Processing mailbox: nagyjani@testdomain.internal, ID: 42
2012-10-26 12:57:48,208 [20] DEBUG contentGATE [(null)] - contentGATE >>EVTARGETARCHIVE>>ShortcutScanThread>> Migration folder: '\\ev-
test\CGShared\nagyjani@testdomain.internal\2012.10.05T23.59.59
2012-10-26 12:57:48,208 [20] DEBUG contentGATE [(null)] - contentGATE >>EVTARGETARCHIVE>>Processing mailbox (2/5): (nagyjani@testdomain.internal)
2012-10-26 12:57:48,599 [21] DEBUG contentGATE [(null)] - contentGATE >>EVTARGETARCHIVE>>FinishFileExists>> Finish file already exists (Step1) '\\ev-
test\CGShared\p.csaba@testdomain.internal\2012.10.05T23.59.59\p.csaba@testdomain.internal.xml'
...

```

## EV Importer service logging

During migration, the EV Importer service is creating files with extension “finished”, which contain the input parameters for the EVPM tool and the full output of the command prompt.

The file is created in the shared EV folder and the filename is the same as the INI file.

The migration was successful if the file contains text: “**PST Migration completed successfully**”

### Location:

Root folder: <BASEFOLDER> on EV server

Sub folder: *\user email\<STAGEDATE>\retention category name\type of PST*

File name: *mailboxID*

Extension: .finished

### Example:

Arguments:

Exchange Server: VMBREX01

SystemMailbox: Administrator@testdomain.internal

INI filename: C:\CGShared\test06@testdomain.internal\2012.10.04T14.55.15\Default\ForeignNotDeleted\11\_test06\_1\_Default.ini

contentGATE Manual | ALL RIGHTS RESERVED

TECH-ARROW, a. s. | Kazanská 5B, 821 06 Bratislava, Slovakia, EU | E-mail: sales@tech-arrow.com | [www.tech-arrow.com](http://www.tech-arrow.com)



CMD args:

Command arguments: -e VMBREX01 -m Administrator@testdomain.internal -f  
 "C:\CGShared\test06@testdomain.internal\2012.10.04T14.55.15\Default\ForeignNotDeleted\11\_test06\_1\_Default.ini"

Output:

Creating privileged MAPI session ...

Parsing input file: C:\CGShared\test06@testdomain.internal\2012.10.04T14.55.15\Default\ForeignNotDeleted\11\_test06\_1\_Default.ini  
 Processing input file

\*\*\* Migration started...  
 Ctrl-C to quit migration

03:01:01 Processing PST file: C:\CGShared\test06@testdomain.internal\2012.10.04T14.55.15\Default\ForeignNotDeleted\exported.pst

=====

=====

03:01:01 Processing PST file: C:\CGShared\test06@testdomain.internal\2012.10.04T14.55.15\Default\ForeignNotDeleted\exported.pst

PST migration option settings:

PST File: C:\CGShared\test06@testdomain.internal\2012.10.04T14.55.15\Default\ForeignNotDeleted\exported.pst

Vault: 1B552C64C506C5A4FB0BC77A85C065C0A1110000EV-TEST.TESTDOMAIN.INTERNAL

Exchange Mailbox: /o=First Organization/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=test06

Retention Category: 19BA67C8CFDEDF148A0498E7D7321BB051b10000EV-TEST.TESTDOMAIN.INTERNAL

Mailbox Folder:

Server Computer Name: EV-TEST

Shortcut Mode: MAILBOXSHORTCUTS

Merge PST Folders: 1

Include Deleted Items: 1

Set PST Hidden: 0

Set PST ReadOnly: 0

Compact PST: 0

Delete PST: 0

Cancel Mailbox AutoArchive: 1



PST Language: WESTERN EUROPEAN

03:01:07 PST Migration completed successfully

PST migration summary:

PST File: C:\CGShared\test06@testdomain.internal\2012.10.04T14.55.15\Default\ForeignNotDeleted\exported.pst

Number of folders processed: 9

Number of items archived to vault: 0 of 25

- Number of items not eligible for archiving because of PST Migration Policy setting: 25

Number of items moved to mailbox: 25 of 25

- Number of archived items moved to mailbox: 0

- Number of other items moved to mailbox: 25

=====

=====

Summary:

Number of PST migrations performed: 1

Number of PST migrations completed successfully: 0

Number of PSTs partially processed: 1

Number of PST migrations failed: 0

Number of PST migrations unprocessed: 0

Number of PST migrations processing incomplete: 0

New initialization file generated: C:\CGShared\test06@testdomain.internal\2012.10.04T14.55.15\Default\ForeignNotDeleted\11\_test06\_1\_Default\_1.INI

Review the new file, fix any problems and run Policy Manager with this new initialization file.



## EVPM logging

Enterprise Vault creates LOG files containing detailed information about the imported PST file. The LOG file is created in the shared EV folder and the filename is the same as the name of the INI file.

### Location:

Root folder: <BASEFOLDER> on EV server  
 Sub folder: \user email\<STAGEDATE>\retention category name\type of PST  
 File name: mailboxID  
 Extension: .log

(\\ev-test\CGShared\p.csaba@testdomain.internal\2012.10.05T23.59.59\Default Retention Category\Deleted)

### Example:

\*Start Time : 10/4/2012 3:01:03 PM

Initialization File : C:\CGShared\test12@testdomain.internal\2012.10.04T14.55.15\Default\ForeignNotDeleted\17\_test12\_1\_Default.ini  
 =====

03:01:03 Processing PST file: C:\CGShared\test12@testdomain.internal\2012.10.04T14.55.15\Default\ForeignNotDeleted\exported.pst

#### PST migration option settings:

PST File: C:\CGShared\test12@testdomain.internal\2012.10.04T14.55.15\Default\ForeignNotDeleted\exported.pst  
 Vault: 1D2FC6CF264C3CE4FB626490DC496A42A1110000EV-TEST.TESTDOMAIN.INTERNAL  
 Exchange Mailbox: /o=First Organization/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=test12  
 Retention Category: 19BA67C8CFDEDF148A0498E7D7321BB051b10000EV-TEST.TESTDOMAIN.INTERNAL  
 Mailbox Folder:  
 Server Computer Name: EV-TEST  
 Shortcut Mode: MAILBOXSHORTCUTS  
 Merge PST Folders: 1  
 Include Deleted Items: 1  
 Set PST Hidden: 0  
 Set PST ReadOnly: 0  
 Compact PST: 0  
 Delete PST: 0  
 Cancel Mailbox AutoArchive: 1  
 PST Language: WESTERN EUROPEAN

03:01:07 PST Migration completed successfully

#### PST migration summary:

PST File: C:\CGShared\test12@testdomain.internal\2012.10.04T14.55.15\Default\ForeignNotDeleted\exported.pst  
 Number of folders processed: 5  
 Number of items archived to vault: 4 of 5  
   - Number of items not eligible for archiving because of PST Migration Policy setting: 1  
 Number of items moved to mailbox: 5 of 5  
   - Number of archived items moved to mailbox: 4



- Number of other items moved to mailbox: 1

=====

Summary:

Number of PST migrations performed: 1  
Number of PST migrations completed successfully: 0  
Number of PSTs partially processed: 1  
Number of PST migrations failed: 0  
Number of PST migrations unprocessed: 0  
Number of PST migrations processing incomplete: 0

New initialization file generated: C:\CGShared\test12@testdomain.internal\2012.10.04T14.55.15\Default\ForeignNotDeleted\17\_test12\_1\_Default\_1.INI

Review the new file, fix any problems and run Policy Manager with this new initialization file.

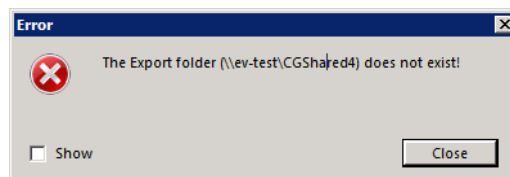
End Time : 10/4/2012 3:01:08 PM"



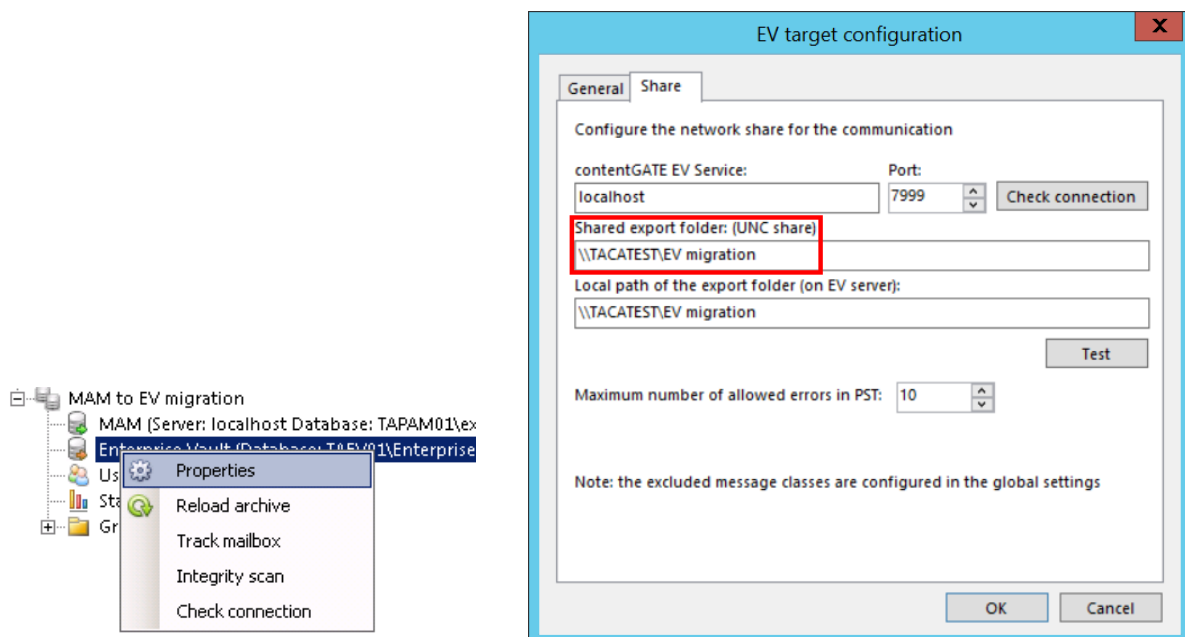
## FAQ (what to do with failures)

### Shared folder not reachable

- The Export folder does not exist



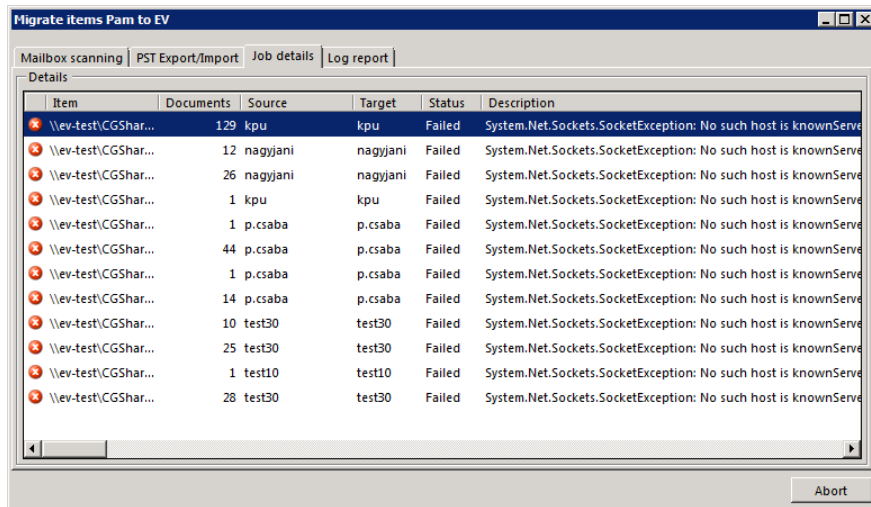
**Solution:** check that the path to Shared folder is correctly configured in the **EV target configuration** dialog. The dialog can be opened from the EV node's context menu in the Archive Explorer pane (via **Properties**):



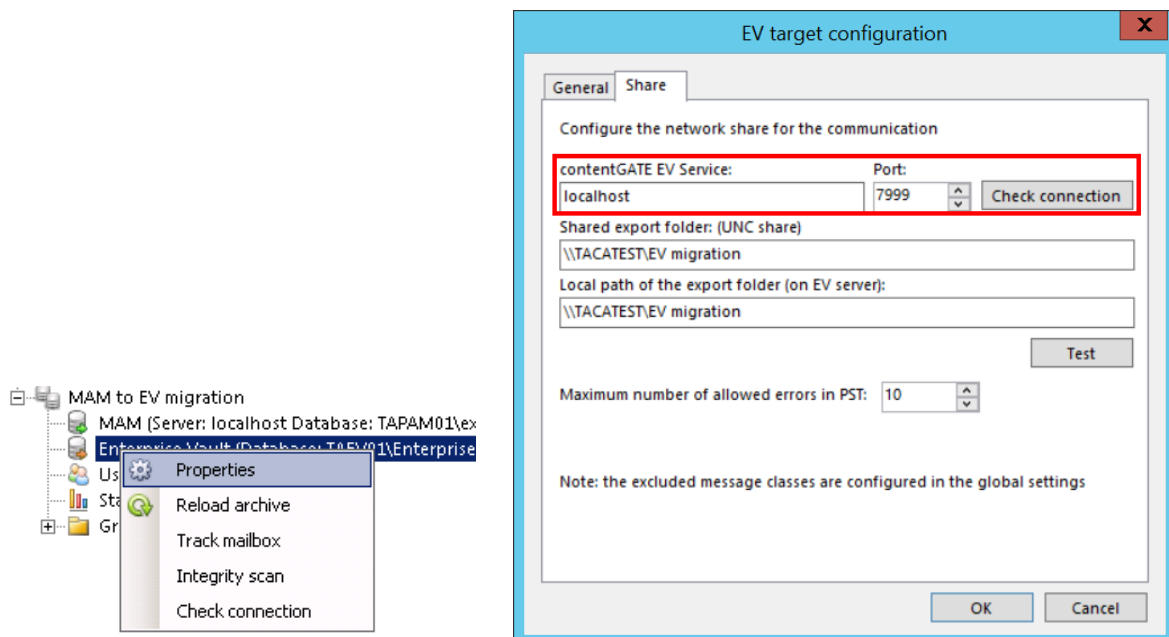
Try to open the shared folder from the contentGATE computer. Check the access rights on the EV server.

### Incorrect server name for EV Importer service

- No such host is known

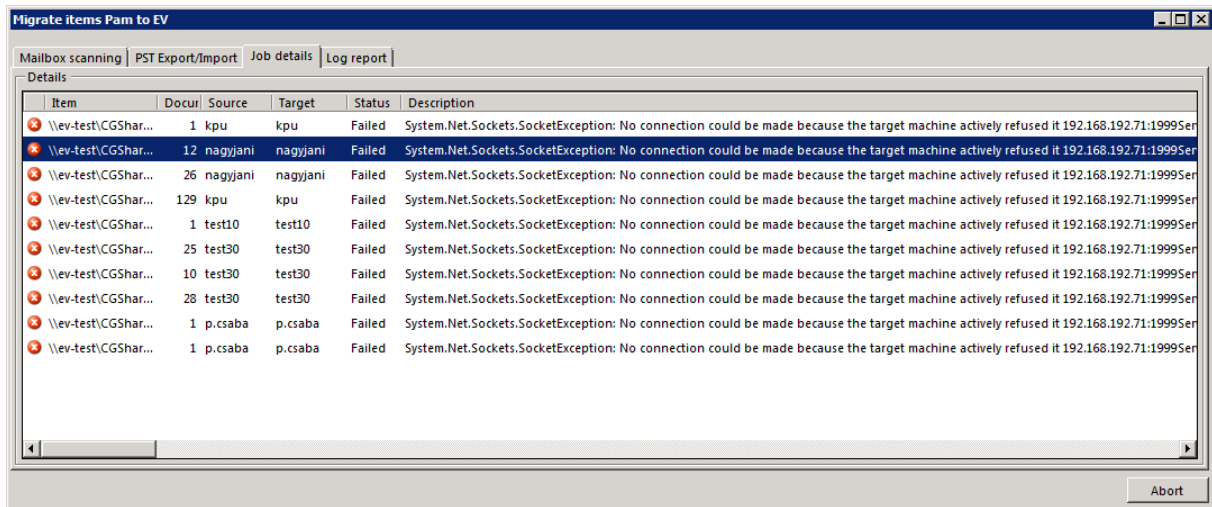


**Solution:** check whether the Server name is correctly configured in the **EV target configuration** dialog and the server is accessible. The dialog can be opened from the EV node's context menu in the Archive Explorer pane (via **Properties**):

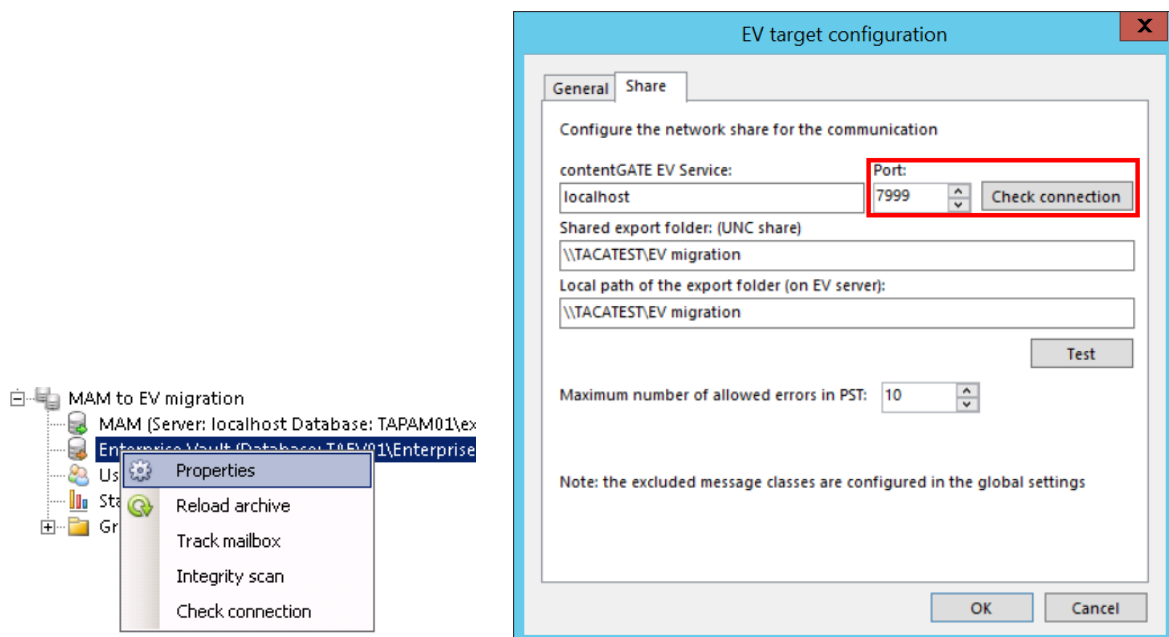


*EV Importer server is not running or incorrect communication Port number for the EV Importer service*

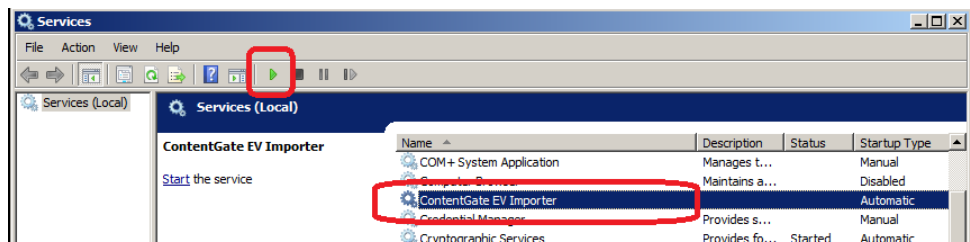
- No connection could be made, because the target machine actively refused it



**Solution:** check if the “Port” is correctly configured and not blocked in Firewall. The dialog can be opened from the EV node’s context menu in the Archive Explorer pane (via **Properties**):

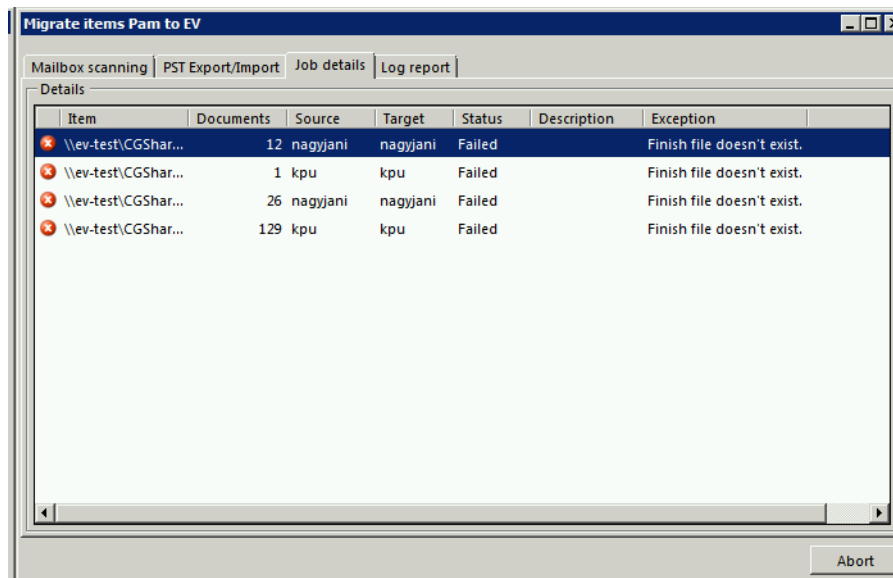


Check the EV Importer service state on the EV server. Start it if it is not running.



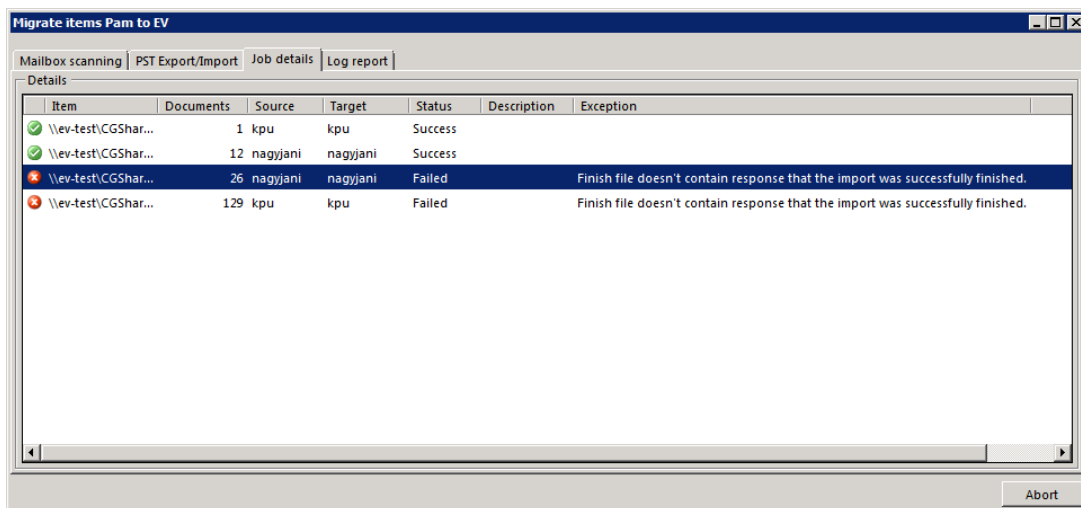
### *The contentGATE Importer service started with wrong account*

Usual symptom is that the “finish” file doesn’t exist.

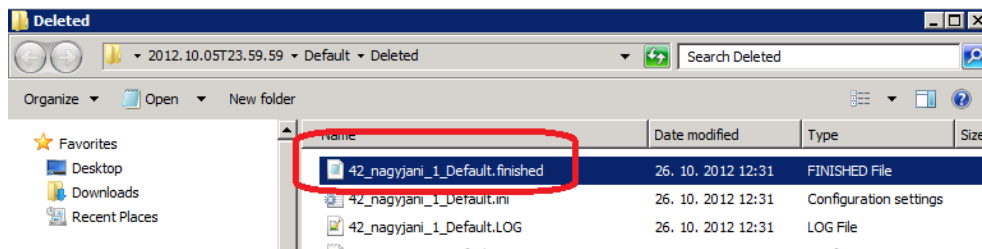


**Solution:** change the account of the “contentGATE Importer service” and restart the service. The account needs to have permission to run EVPM and import the PST files into Enterprise Vault.

### *Finish file does not contain response that the import was successfully finished*



**Solution:** double-click on the failed row, it will open the job's folder.



Open the file with extension “.finished”. It contains the output of the EVPM process and the error description why the EVPM can't import the PST file. Restart the migration after fixing the error.

### Examples:

Description: 12:31:26 PST Migration(s) interrupted due to Storage Service shutdown

Solution: start the EV storage service.

### Description:

“Creating privileged MAPI session ...

```
Parsing                                input                                file:
C:\CGShared\test10@testdomain.internal\2012.10.05T23.59.59\Default\ForeignNormal\15_test10_1_Default.ini
Error                                parsing                                command                                file:
C:\CGShared\test10@testdomain.internal\2012.10.05T23.59.59\Default\ForeignNormal\15_test10_1_Default.ini, error follows:
```

Line number in error: 3

Section in error: Directory

Attribute in error: SiteName



Value in error: ExchangeTest"

**Solution:** probably one or more EV services are stopped. Check and start the services on the EV machine.

