grommunio Migration Documentation

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Contents

CHAPTER 1

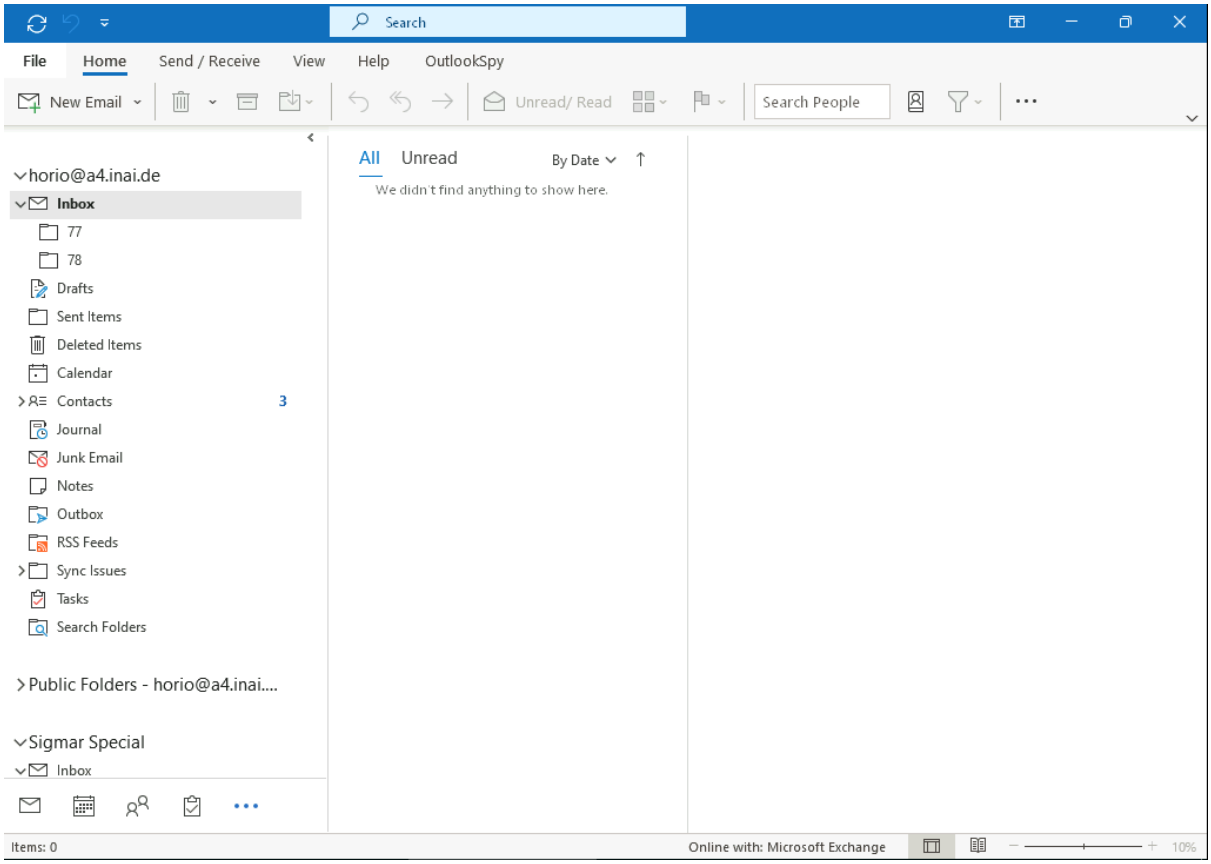
Microsoft Exchange

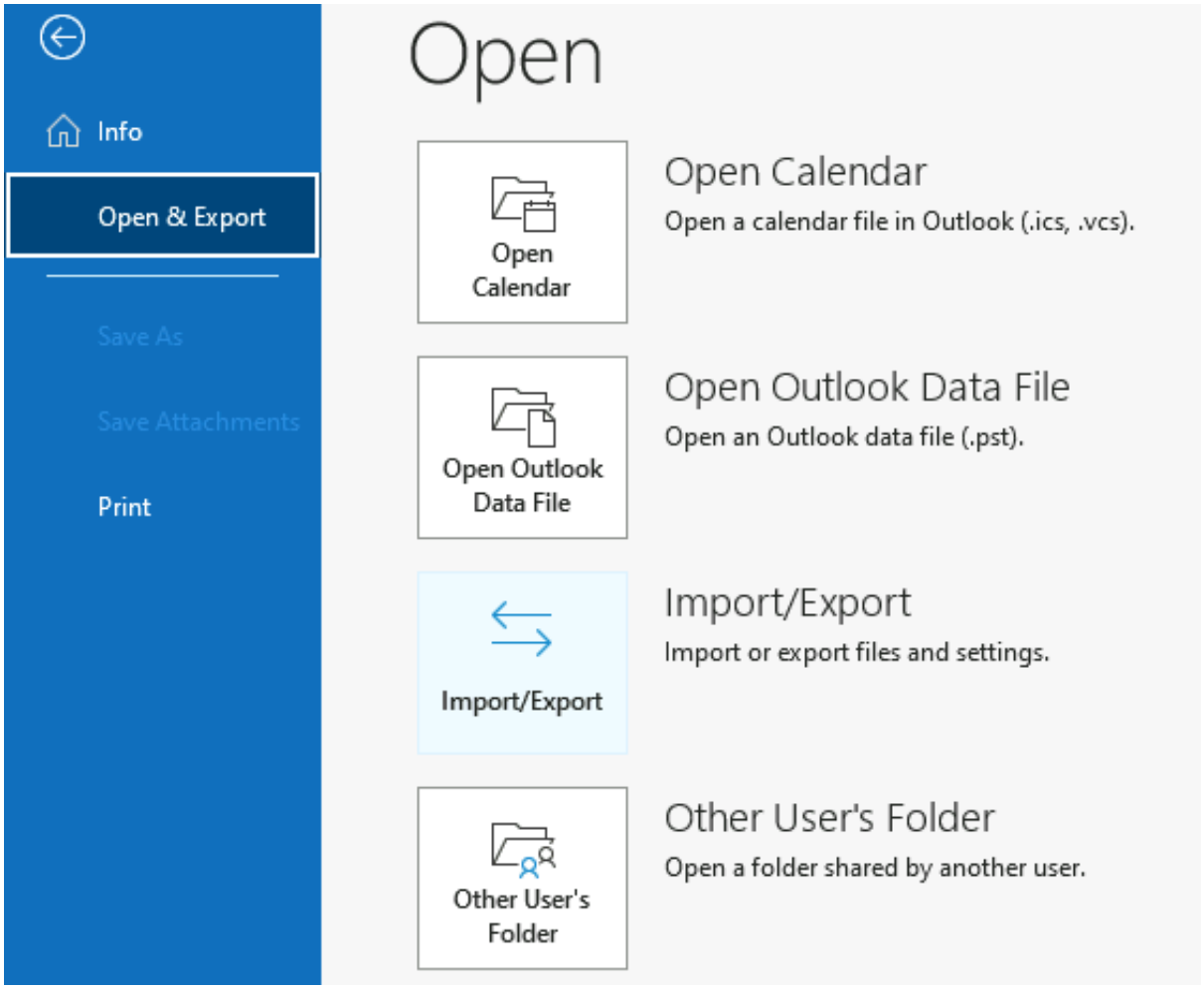
PFF (cf. summary from the Forensics Wiki) is a format exportable from Outlook and Exchange. Outlook makes use of this format for different scenarios, and calls them different names (*.pst*, *.ost*), but it is just one file type.

- *.pst* files can be generated with Outlook interactively
- *.ost* files can be taken from *C:Users...*
- *.pst* files can be also generated from an Exchange Server's PowerShell in a mostly unattended fashion

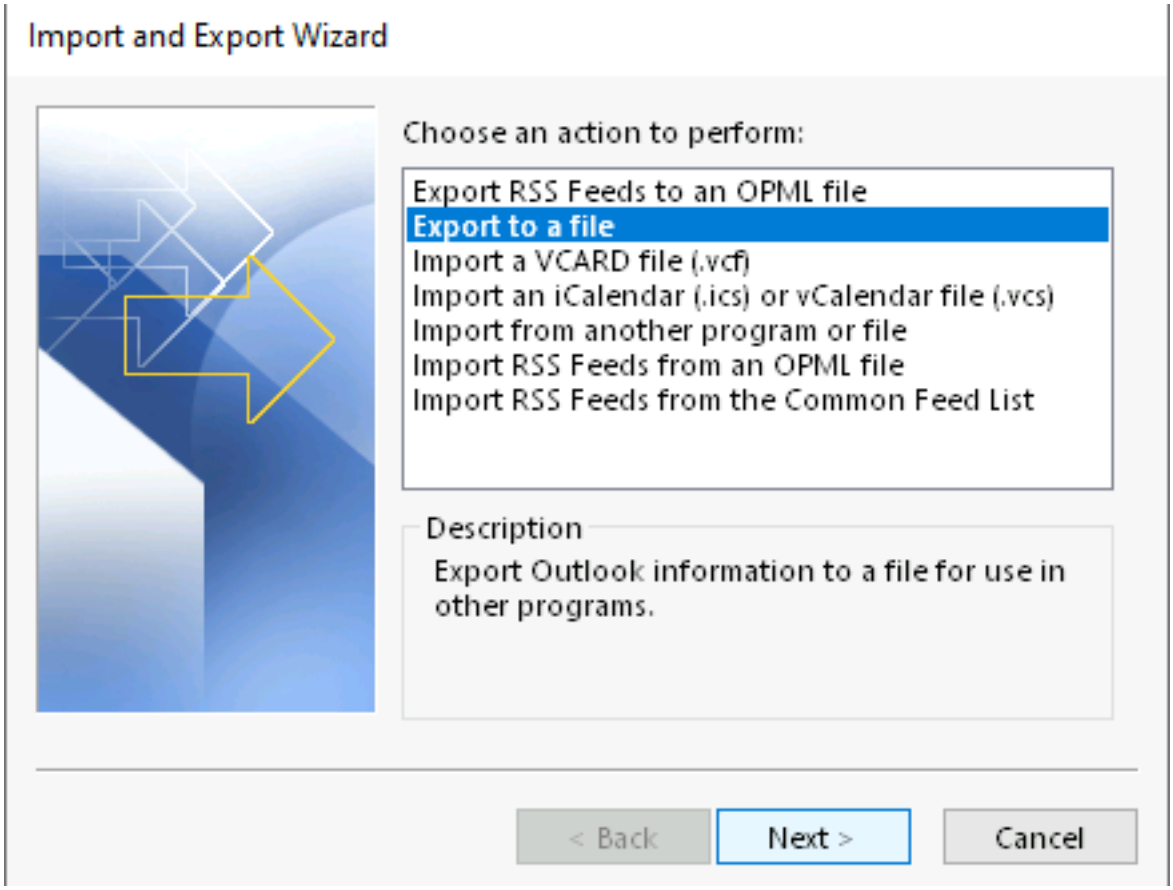
1.1 Outlook interactive export

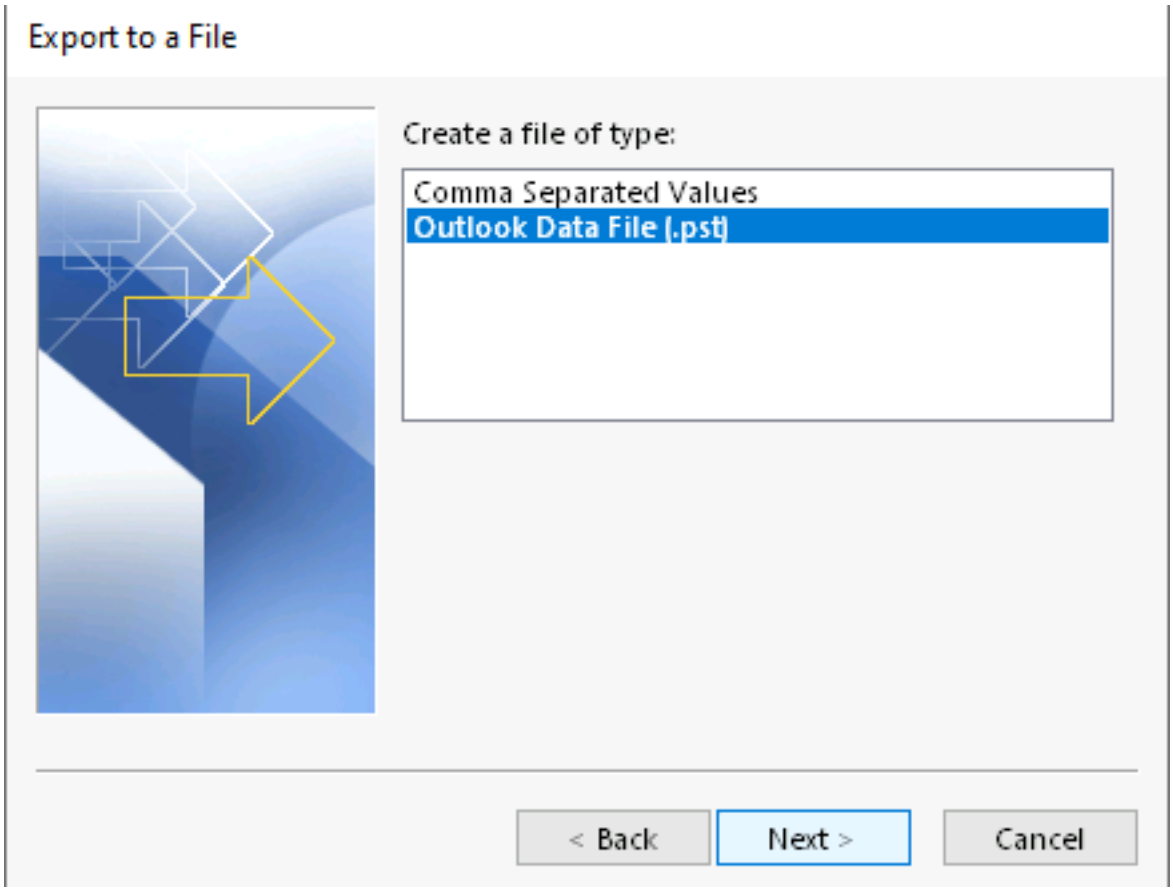
Once the Outlook main window is open, go to "File", "Open & Export", "Import/Export":

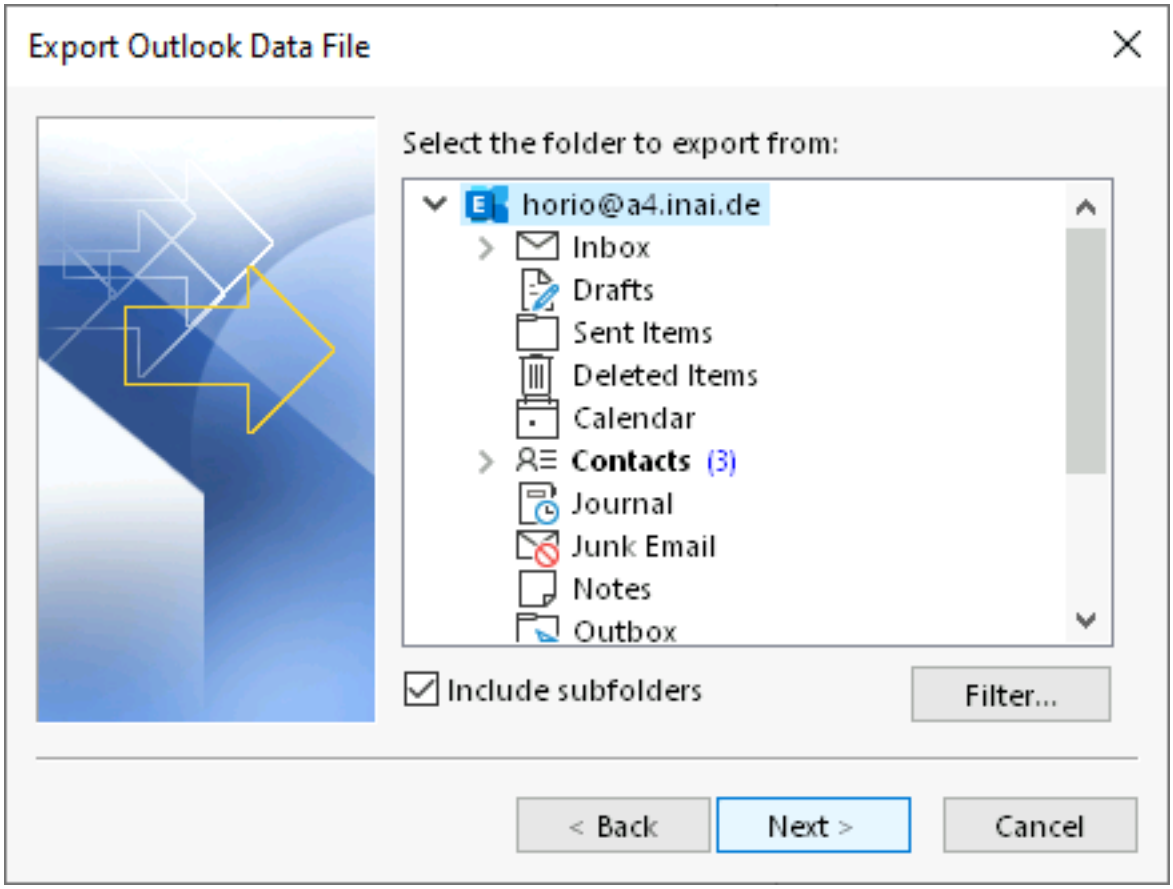

Search
File
Home
Send / Receive
View
Help
OutlookSpy
New Email
Unread/ Read
Search People
horio@a4.inai.de
Inbox
77
78
Drafts
Sent Items
Deleted Items
Calendar
Contacts
3
Journal
Junk Email
Notes
Outbox
RSS Feeds
Sync Issues
Tasks
Search Folders
Public Folders - horio@a4.inai....
Sigmar Special
Inbox
All
Unread
By Date
We didn't find anything to show here.
Items: 0
Online with: Microsoft Exchange
10%

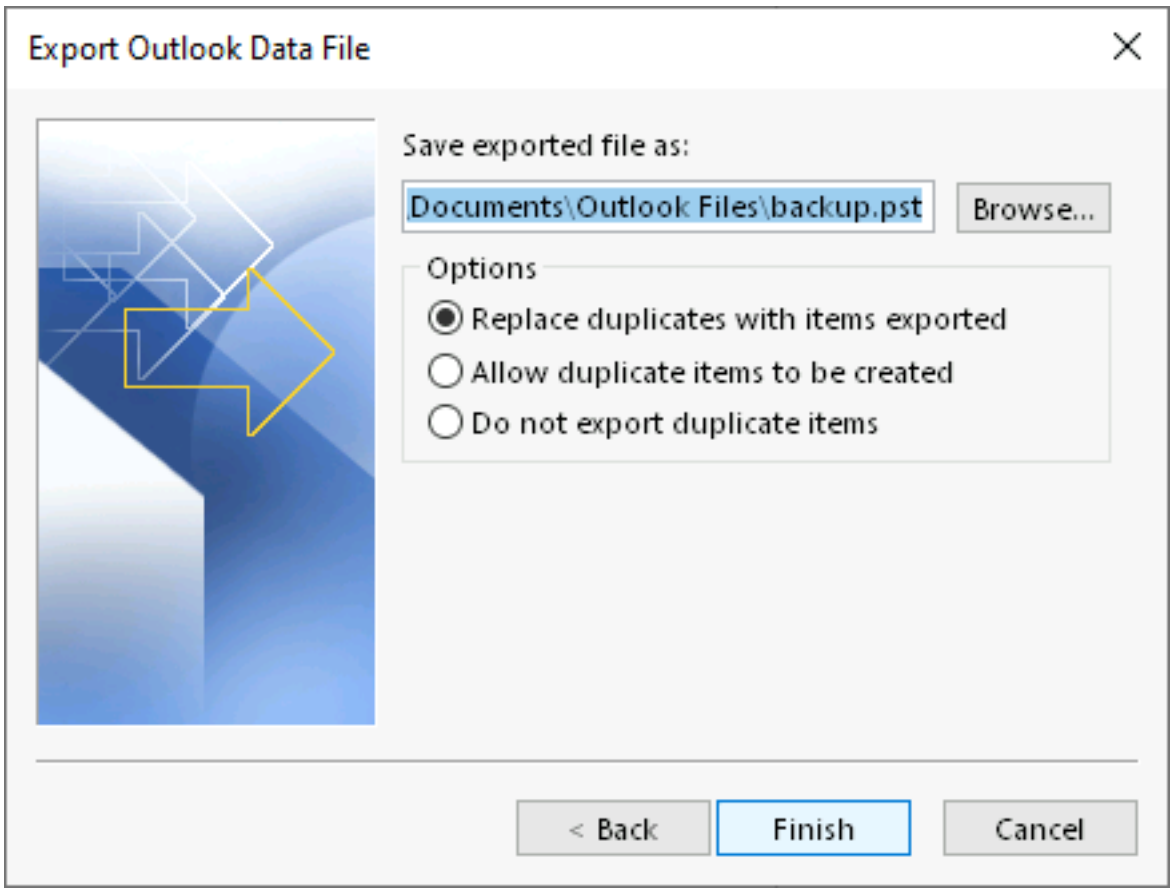

Info
Open & Export
Save As
Save Attachments
Print
Open
Open Calendar
Open a calendar file in Outlook (.ics, .vcs).
Open Outlook Data File
Open Outlook Data File
Open an Outlook data file (.pst).
Import/Export
Import or export files and settings.
Other User's Folder
Open a folder shared by another user.

Then follow the usual dialog chain.









Important: Before attempting to copy PFF files, ensure the file(s) is/are not open anywhere anymore.

Even after closing Outlook, Outlook may still execute in the background for some seconds, *in particular* when the MAPI profile used Exchange *Cached Mode*. Various failure modes trying to access active PFF files have been observed, such as:

1. Under the cmd.exe shell, the command type stillactive.pst >new.pst produces new.pst with just 512 bytes before aborting with the message The process cannot access the file because another process has locked a portion of the file.

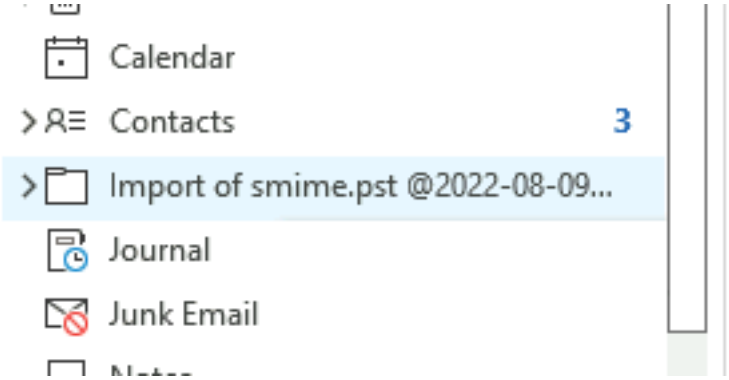
2. Under the cmd.exe shell, the command scp stillactive.pst a@b.com: can produce the file on the target, but all bytes are ASCII NUL bytes. (So observed with Powershell-OpenSSH v8.x; fixed in 9.x). A log message Domain error is output by scp.

3. PFF files contain a CRC-32 checksum, which can readily change while the file is in use. Attempts to read the file from underneath Windows (e.g. at the storage or hardware level), or attempting to use a PFF file that was not cleanly closed may result in gromox-pff2mt rejecting the input.

1.2 gromox-pff2mt import

On the grommunio system, PFF files can be imported on the command-line with gromox-pff2mt and gromox-mt2exm. These are two commands meant to be chained together by way of a pipe; tend to the linked manual pages to read about the invocation syntax.

```
08:23 a4:~ $ gromox-pff2mt ../pst/smime.pst | gromox-mt2exm -u horio@a4.inai.de
pff: Reading ../pst/smime.pst...
pff: Building list of named properties...
pff: Processing "Outlook-Datendatei"...
pff: Processing ""...
pff: Processing "SPAM Search Folder 2"...
pff: Processing "Oberste Ebene der Outlook-Datendatei"...
pff: Processing "Gelöschte Elemente"...
pff: Processing "Outbox"...
pff: Processing "ESET Antispam"...
pff: Processing "Suchpfad"...
pff: Processing "Suchpfad"...
pff: Processing "Outlook-Datendatei($686167db)/0/Outbox"...
pff: Processing "ESET Antispam"...
08:23 a4:~ $
```



1.3 Exchange PowerShell export

Contributors have written a PowerShell script for the mass export of .pst files from an Exchange Management Console (a PowerShell instance with Exchange commands loaded) with a subsequent mass import via ssh commands that it issues. Inspect the first 130 or so lines of the script for **mandatory adjustable parameters**.

CHAPTER 2

Generic Migration

This chapter covers overall migration to grommunio with generic and standardized protocols. These instructions are intentionally named generic, as these migration scenarios apply to multiple providers, installations and other communication software installations.

2.1 Individual emails

With the gromox-eml2mt, gromox-ical2mt, gromox-vcf2mt and gromox-mt2exm command-line utilities, grommunio has utilities with which individual emails, calendars or contact card files can be read and imported. Tend to the linked manual pages to read about the invocation syntax.

2.2 Migration via IMAP

As a user, you can do IMAP-to-IMAP transfers. This can be done interactively with a MUA such as Thunderbird or Alpine by having both the original and the Gromox IMAP accounts added and moving mails. Alternatively, the *imapsync* command-line utility may be used to do so non-interactively.

CHAPTER 3

Kopano

Migrating Kopano is a multi-step process which also depends on the configuration of the backend used by Kopano.

If Kopano uses LDAP, the high-level view of the migration is as follows:

- Configure grommunio appropriately to LDAP (settings user filters, etc.)
- Create stores in grommunio
- Migrating user data (which this article covers mainly)
- Switch mail-routing

This migration focusses mainly on the migration of the dataset and does not imply an active LDAP configuration.

Important: This guide is not conclusive and is provided for convenience reasons. There might be aspects of your Kopano installation which is not covered by this manual. Please refer to your partner or feel free to contact us, specifically Professional Services for extended inquiries if you are missing something relevant to your migration.

3.1 Preparation

When migrating Kopano, being well-prepared matters. For this to happen, we need to make sure that the relevant metadata for migration is prepared, ideally in a list format which we can use to create our users in the grommunio installation:

```
kopano-admin -l | sed -e '1,4d' -e '/^$/d' | awk '{ print $1 }' | sort | while read user; do kopano-admin --
↪details $user; done | egrep '^(Username|Fullname|Emailaddress|Store GUID| Warning| Soft| Hard)' | sed -e
↪'s#^ ##g' -e 's#^Username:\t*##g' -e 's#.*:[\t ]*#;#g' | sed ':a;N;$!ba;s/\n;/;/g' >> kopano-users.
↪txt
```

This (long) command executed on the Kopano system will create us a list of users with the important metadata of users which we will require in a format which can be used for further scripting.

With this list now, we can create the used domains in grommunio:

```
MAX_USERS_DOMAIN=250

cat kopano-users.txt | awk -F\; '{ print $3 }' | awk -F@ '{ print $2 }' | sort | uniq | sed '/^$/d' | while␣
↪read DOMAIN; do
        grommunio-admin domain create -u ${MAX_USERS_DOMAIN} $DOMAIN
done
```

On the grommunio system, Kopano databases can be imported on the command-line with gromox-kdb2mt and gromox-mt2exm. These are two commands meant to be chained together by way of a pipe; tend to the linked manual pages to read about the invocation syntax.

CHAPTER 4

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