Docusnap X - Inventorying Microsoft Exchange

Alternatives for Microsoft Exchange Inventory

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1. Introduction

This document describes the inventory possibilities of Microsoft Exchange and possible error sources.

Docusnap offers appropriate scripts for the local inventory of mailboxes and public folders.

The basics and data sources of Exchange inventory are explained. Solutions for frequently occurring problems are also shown.

2. Basics

2.1 Parts of the inventory

The information about Microsoft Exchange that can be inventoried by Docusnap is located at different points in the IT infrastructure.

Until Exchange 2010, part of the information will be stored in Active Directory, the other part in Exchange databases, as shown in the following graphic:

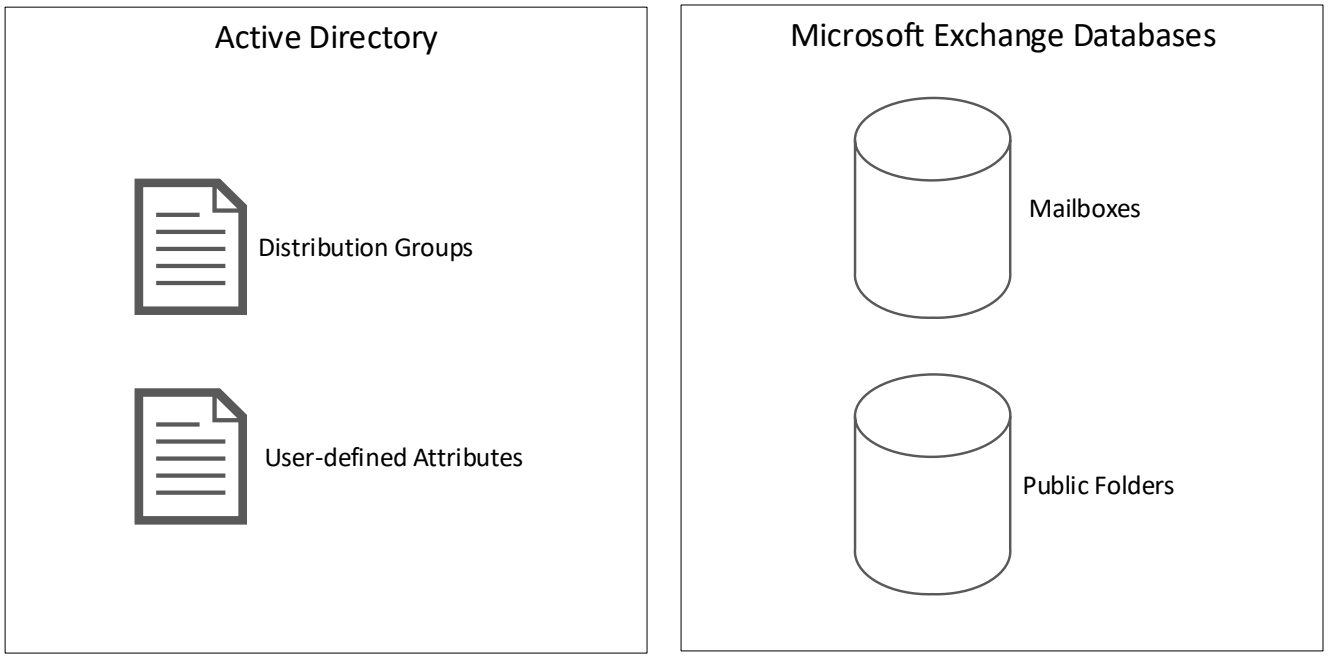

Fig. 1 - Storage location using Exchange 2010 as an example

As of Exchange 2013, part of the information will still be stored in Active Directory, but the other part will now be stored on a single Exchange database, as shown in the graphic below:

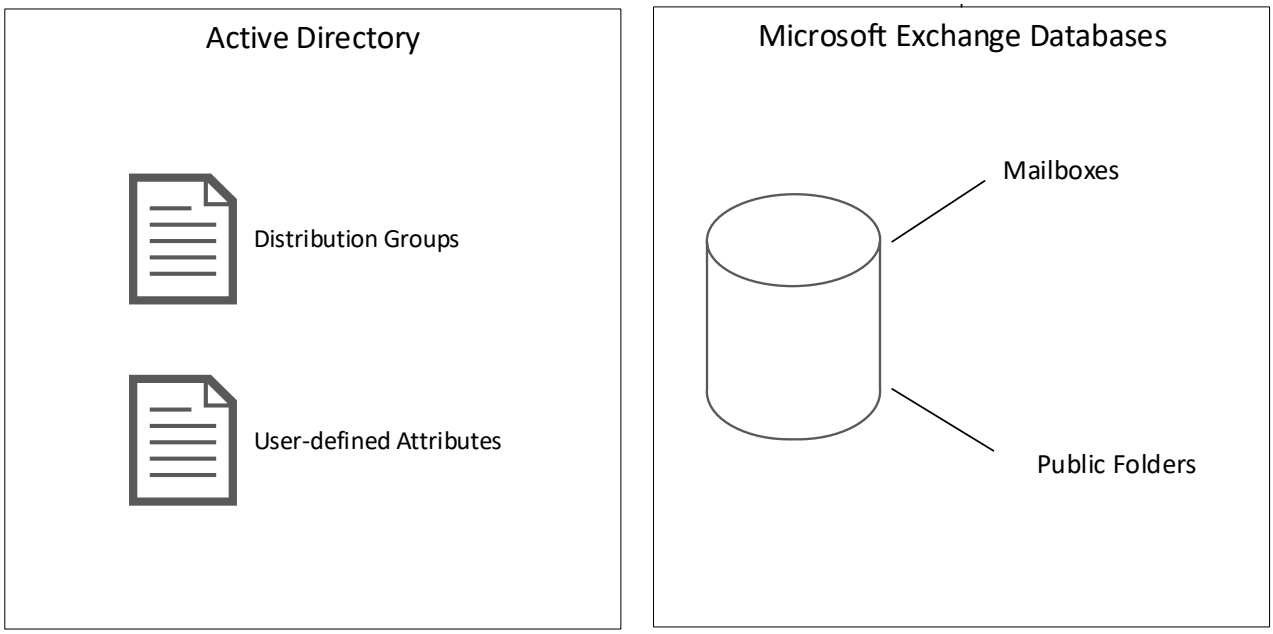

Fig. 2 - Storage location using Exchange 2013 as an example

Depending on the Microsoft Exchange version used, the storage location of the data varies.

2.2 Required permissions

During the inventory it can happen that you use a user account for the inventory, which does not have sufficient permissions in both areas (Active Directory & Exchange).

> It is therefore recommended to use an Exchange organization administrator for the inventory.
>
> A member of the Domain Administrators group is not automatically a member of that group.

If there should be problems with the inventory despite the use of a user account with sufficient authorizations, the following procedures can help.

2.3 Carrying out the inventory

The Exchange inventory in Docusnap is performed using PSExec. PSExec is a Windows Sysinternals tool that allows you to run programs on remote systems. In addition, a WMI connection to the Exchange Server is required.

PSExec is classified as "dangerous" by some anti-virus products, which is why execution is not allowed by default. PSExec would have to be classified as "secure" in this case - or you would perform the Exchange inventory using Exchange script.

Check PSExec connection:

- Open command line as administrator and change to following path
  - C:\Program Files\Docusnap X\Bin
- Now run PSExec with the following parameters
  - psexec.exe \\hostname cmd
    - using the parameter -u domain\username - another user can be specified for the connection

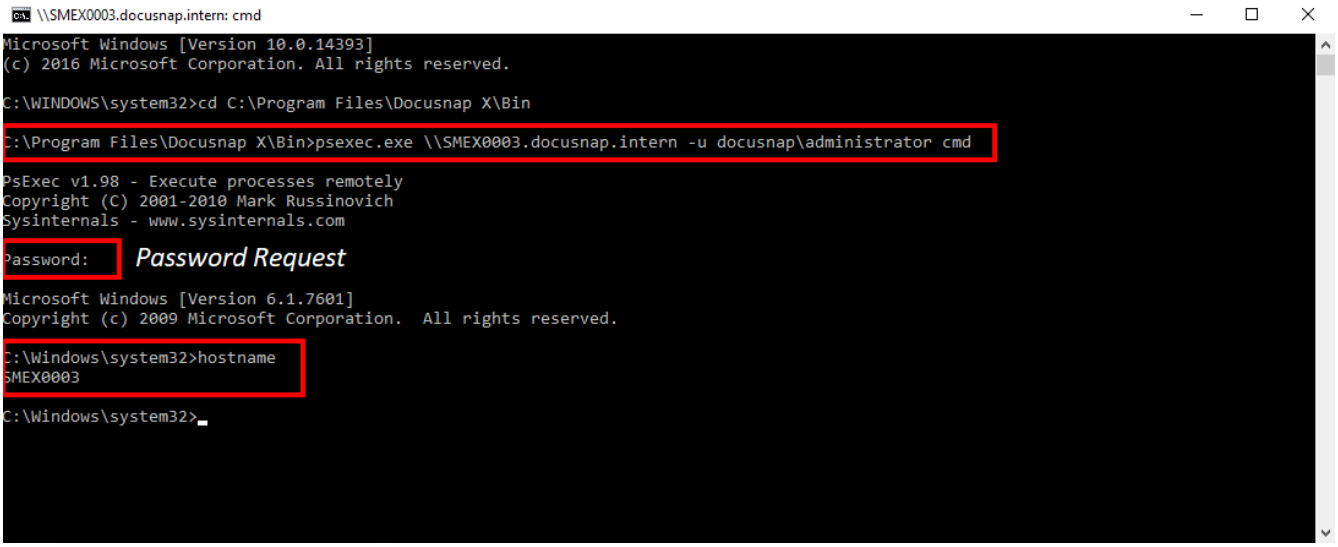

Fig. 3 - Check PSExec Connection

If this connection cannot be successfully established, the anti-virus product on the target computer should be deactivated as a test. If the connection is now successful, PSExec must be released or allowed to run within the anti-virus product.

Check WMI connection:

In most cases, a WMI connection is blocked by a firewall. A detailed HowTo for troubleshooting WMI connection problems can be found in our Knowledge Base.

3. Alternatives to network inventory

3.1 Integrated authentication

If the user session is started in Docusnap with a different user account than the user account specified in the Exchange inventory, the use of the integrated authentication can solve an existing problem.

For this Docusnap is executed via the function "Run as another user" (CTRL+SHIFT and right mouse button) with the Exchange inventory user.

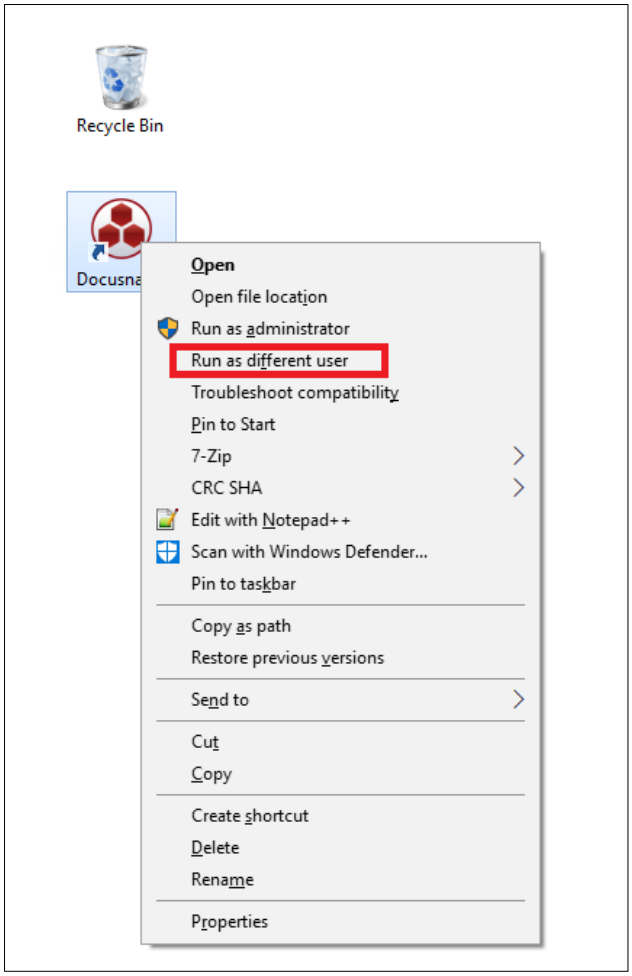

Fig. 4 - Run as another user

Please note that Docusnap may have to be reconfigured for this user at the first start. The settings should be noted in advance from the Docusnap installation already configured.

Alternatively, a central configuration file can be used for Docusnap.

Refer to the User Manual for more information:
https://www.docusnap.com/help/docusnap-x/user/docusnap-advanced-topics-options-configuration-file.html

The Exchange Inventory wizard does not specify a username and password, so Docusnap automatically uses the security context of the logged-on user or the user that started Docusnap.

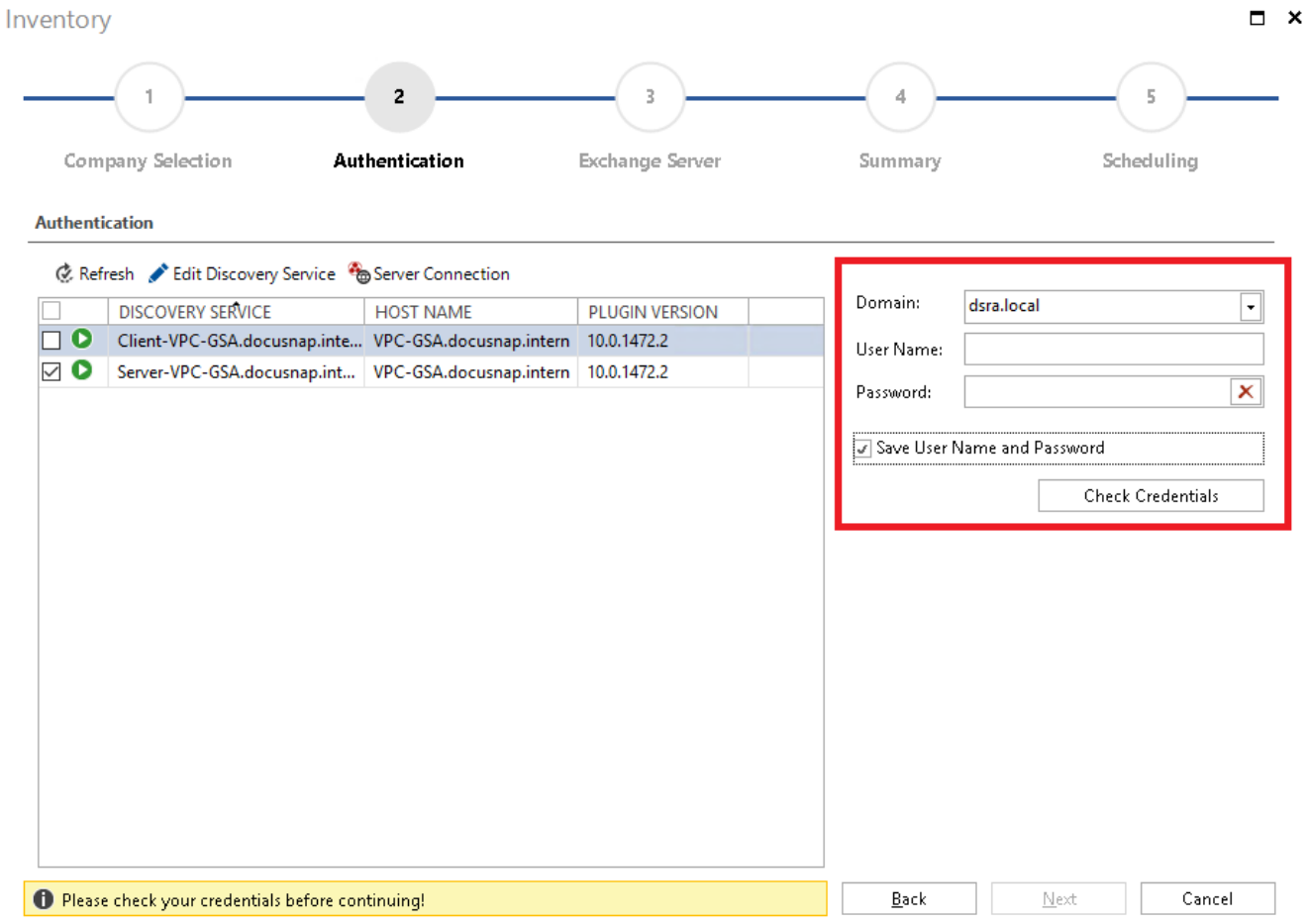

Fig. 5 - Integrated authentication

The Exchange Inventory Wizard can then be used as usual.

3.2 Script inventory

Docusnap offers the possibility that the mailboxes and public folders can be inventoried locally on the Exchange system.

Two executable files exist for this purpose:

- DocusnapExchange.exe for the inventory of Exchange 2007 / 2010
- DocusnapEX13.exe for the inventory of Exchange 2013

Note: In addition to the two files, you will find an XML configuration file in the Tools folder for the respective script. This enables AES encryption when FIPS (Federal Information Processing Standards) is enabled. If an inventory is made via script, it must also be transferred, if required. If script and XML configuration file exist in the same folder, it will be used automatically. No additional parameter is required.

In the following, only the DocusnapExchange.exe for an Exchange 2010 is specified.

3.2.1 Storage location

When Docusnap is installed, the files are stored in the application directory in the *Tools* folder. This folder can be opened using the "*Docusnap Tools*" *via the* user interface:

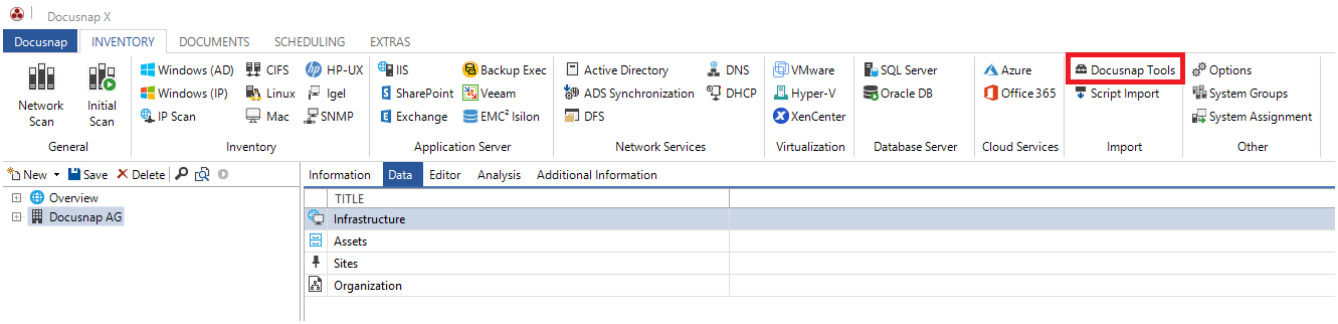

Fig. 6 - Calling the directory via Docusnap

3.2.2 Function

DocusnapExchange.exe creates several files when called, in which the inventory information of the local Exchange system is contained.

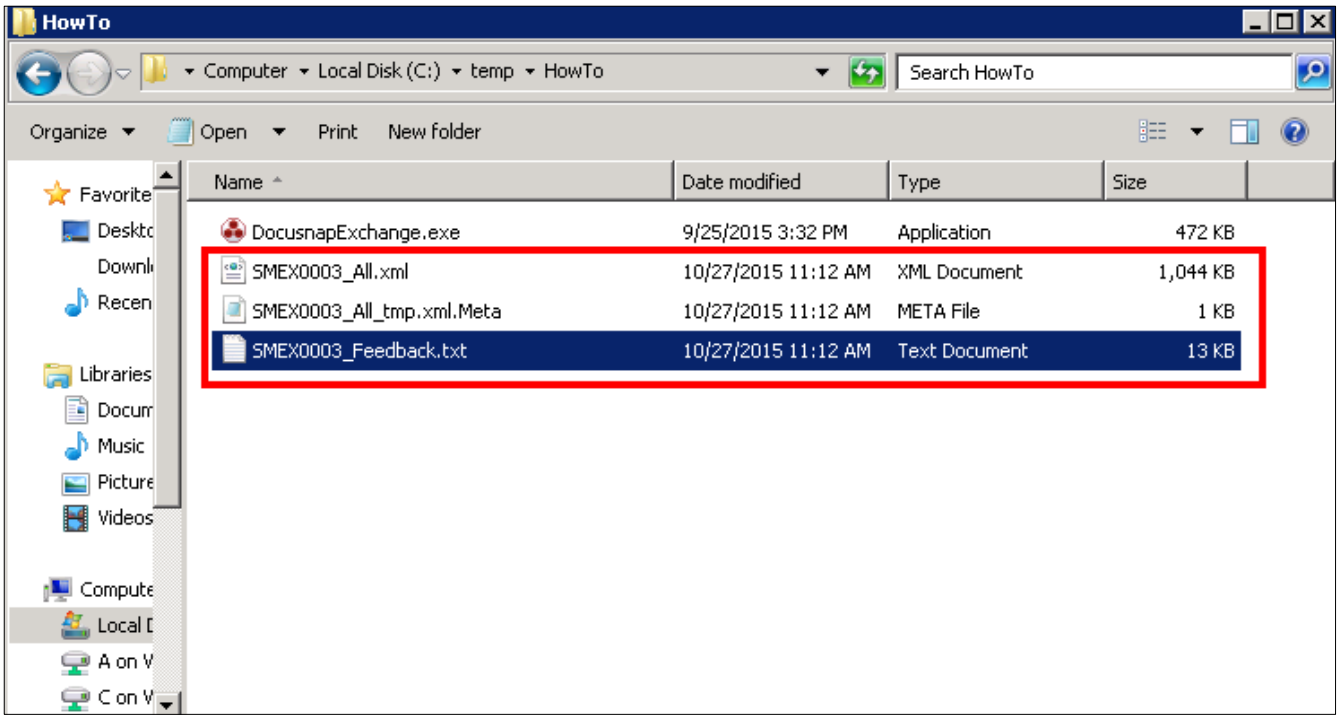

Fig. 7 - Files generated by DocusnapExchange.exe

The XML files can then be imported into Docusnap.

For more information, see theImport chapter.

3.2.3 Automation

It is also possible to run DocusnapExchange.exe automatically. The generated XML files can be stored in a central network share via the **`-outputdir`** parameter and then imported automatically at specified times via the Docusnap server.

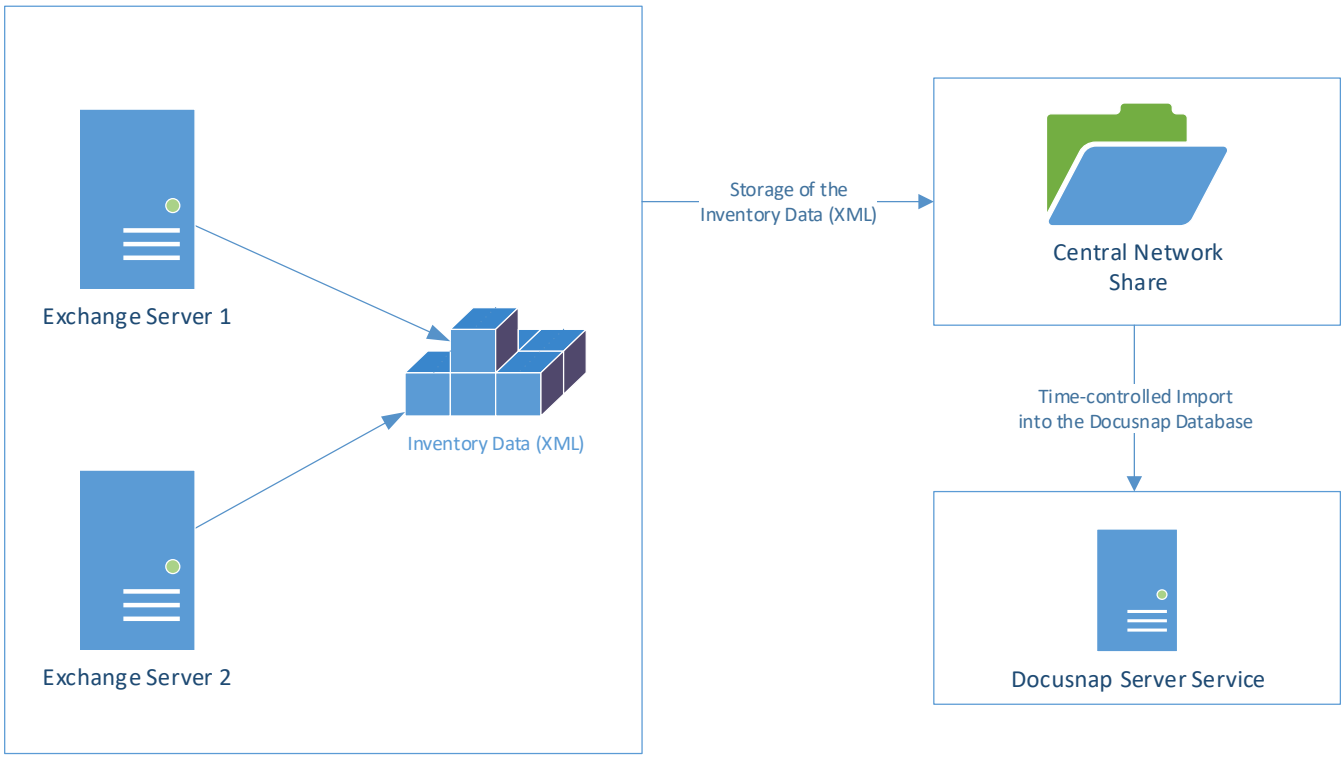

Fig. 8 - Automatic import procedure

Exchange Inventory execution can be scheduled using Windows Task Scheduling.

> The scheduled task must be performed with a user,
> who is authorized to write to the central network path.

3.2.4 Parameter

The DocusnapExchange.exe has extensive parameters with which the behaviour of the inventory can be controlled.

These can be viewed in the user manual:

https://www.docusnap.com/help/docusnap-x/user/docusnap-inventory-scripting-exchange.html

3.2.5 Implementation

Log on to the Exchange server to be inventoried using a remote session or locally.

The DocusnapExchange.exe suitable for the respective Exchange version must be copied to the system to be inventoried.

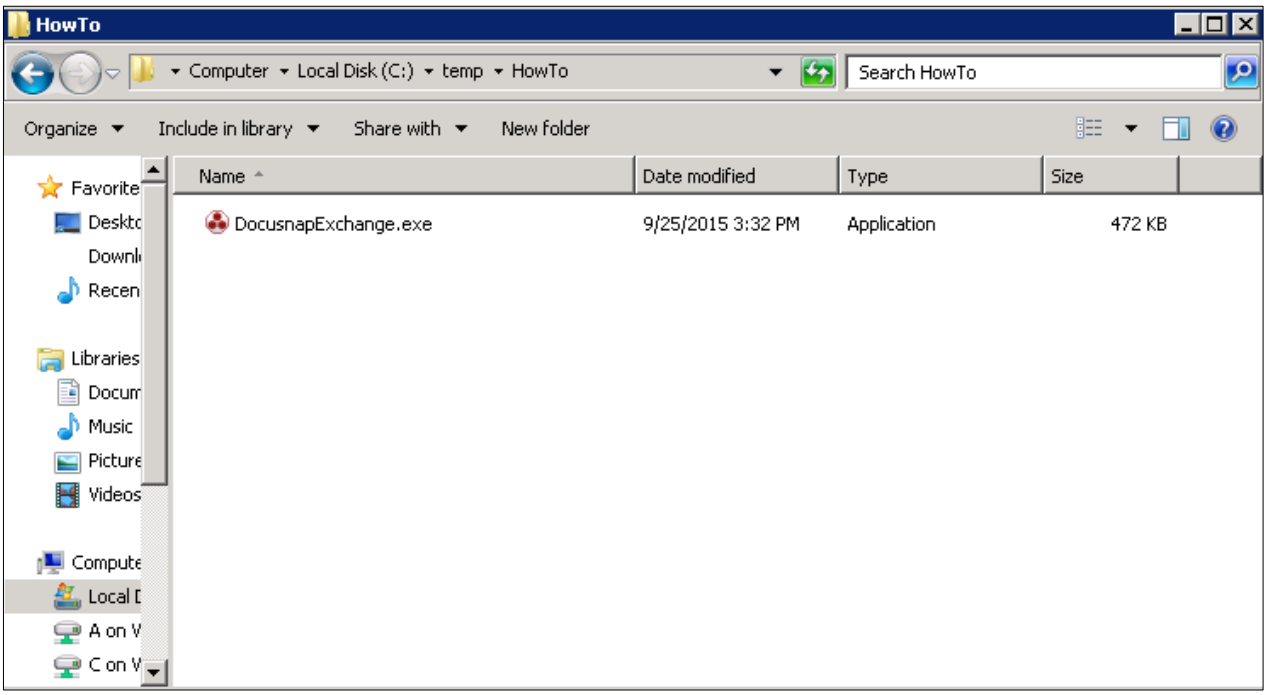

Fig. 9 - Copying DocusnapExchange.exe to the system

Open an administrative command prompt, navigate to DocusnapExchange.exe and run it.

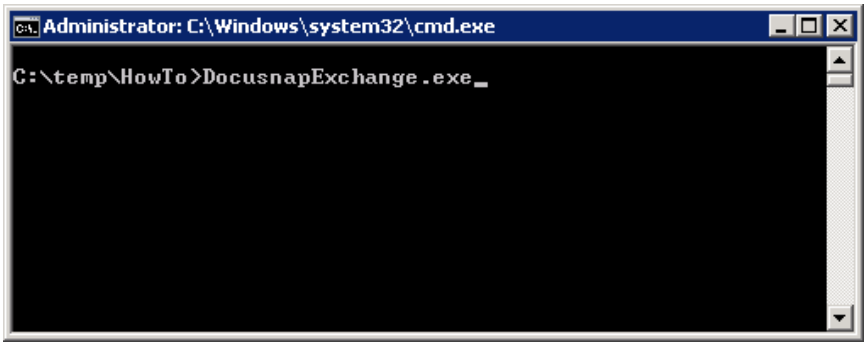

Fig. 10 - Administrative Command Prompt

By default, DocusnapExchange.exe would use all available system resources. In order not to impair the function of productive systems too much, it is recommended to start DocusnapExchange.exe by specifying a thread number.

Example: **`DocusnapExchange.exe -threads 2 -outputdir "C:\temp\HowTo"`** starts DocusnapExchange.exe with only 2 threads and returns the result files to the defined directory.

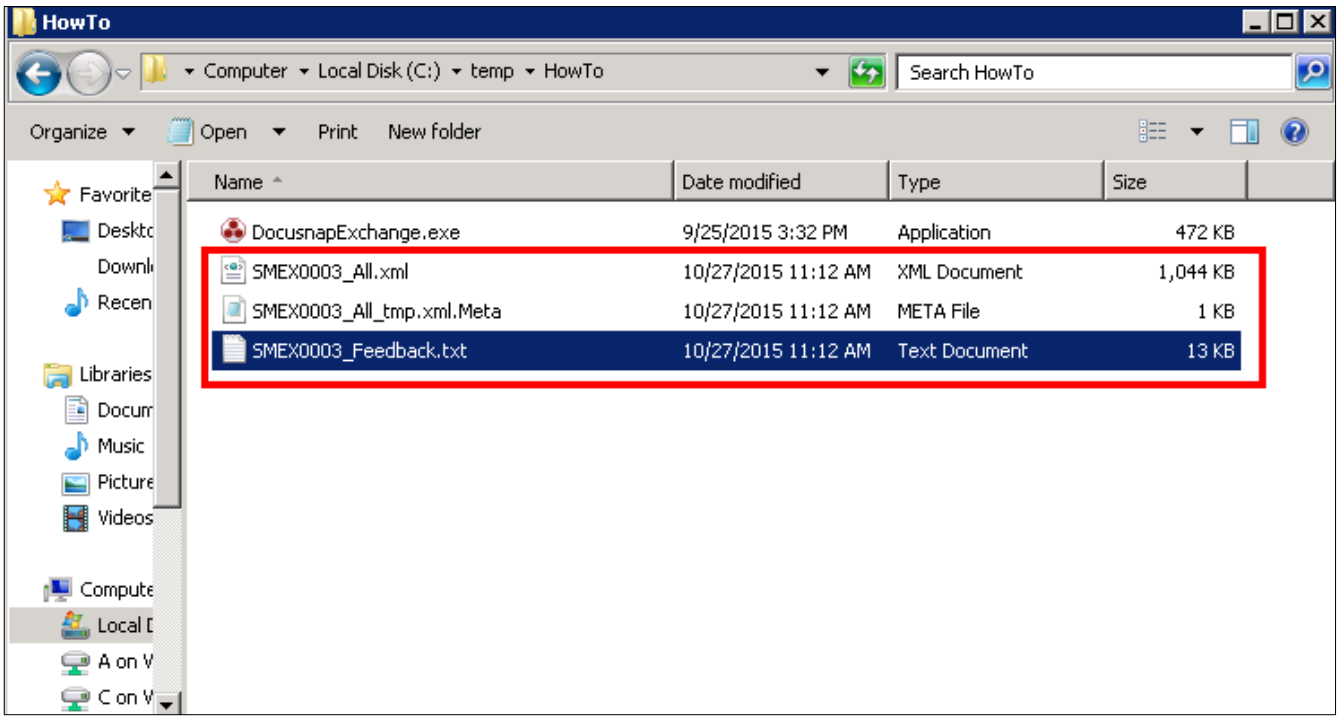

Fig. 11 - Created files

The DocusnapExchange.exe creates an XML file with all information about this Exchange server.

The _Feedback.txt file contains log data from the execution of DocusnapExchange.exe. For large Exchange databases, the inventory may take longer. The status of the inventory can then be checked in this file.

3.2.6 Import

3.2.6.1 Preparations for the import

Before the XML file can be imported, you must inventory the information for the Exchange environment from Active Directory. The Exchange environment stores information both on the corresponding Exchange server and in Active Directory - see chapter 2.1.

To inventory Exchange information from Active Directory, the Exchange Inventory Wizard is started. Perform the authentication and finally for step 3 - Exchange Server - do not perform any selection.

Please note that only this part of the inventory creates a new snapshot. The results of the import file are automatically appended to the last snapshot. If data already exists, it is not overwritten. If you want to import a current script inventory, this process must be repeated. This creates a new snapshot.

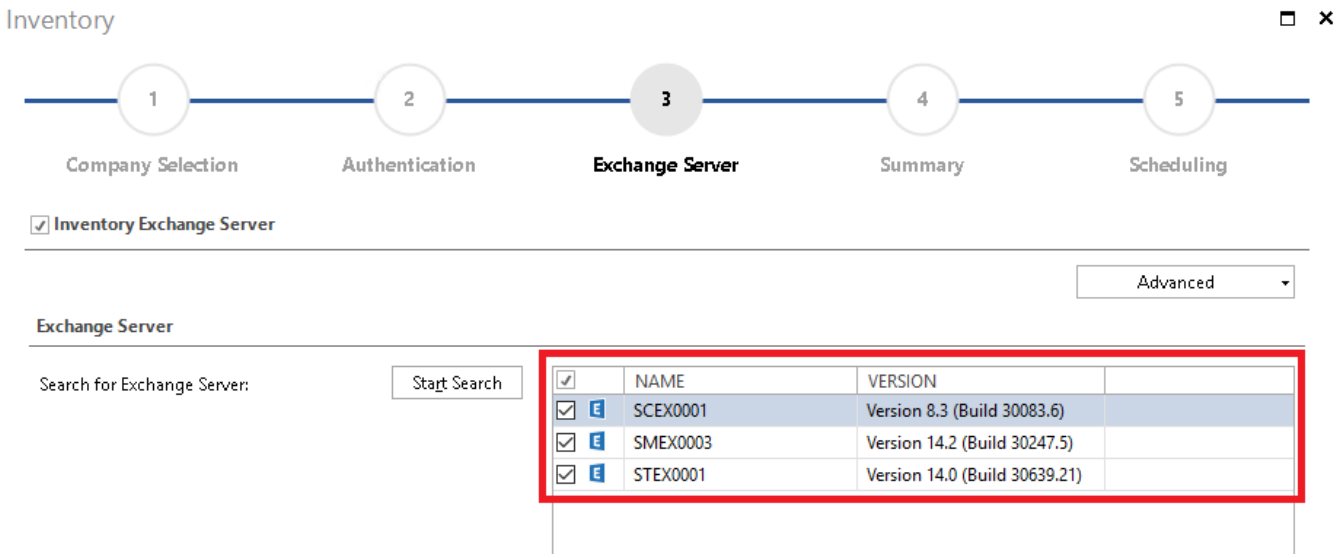

Fig. 12 - Inventory Exchange information from the ADS

3.2.6.2 Import Exchange XML

In order to import the XML file created by Docusnap, this can be done using the "*Script Import*" wizard.

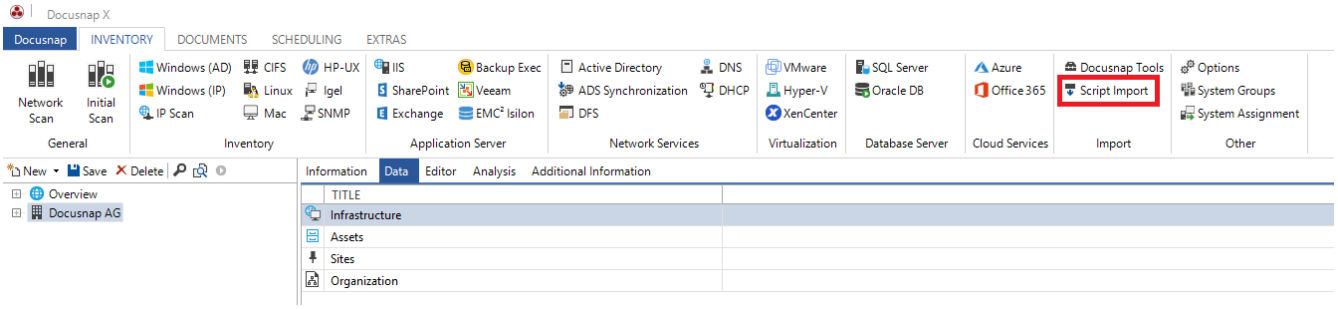

Fig. 13 - Importing the XML file

In step 3 - Directory selection - the folder / share is selected where the XML file was stored.

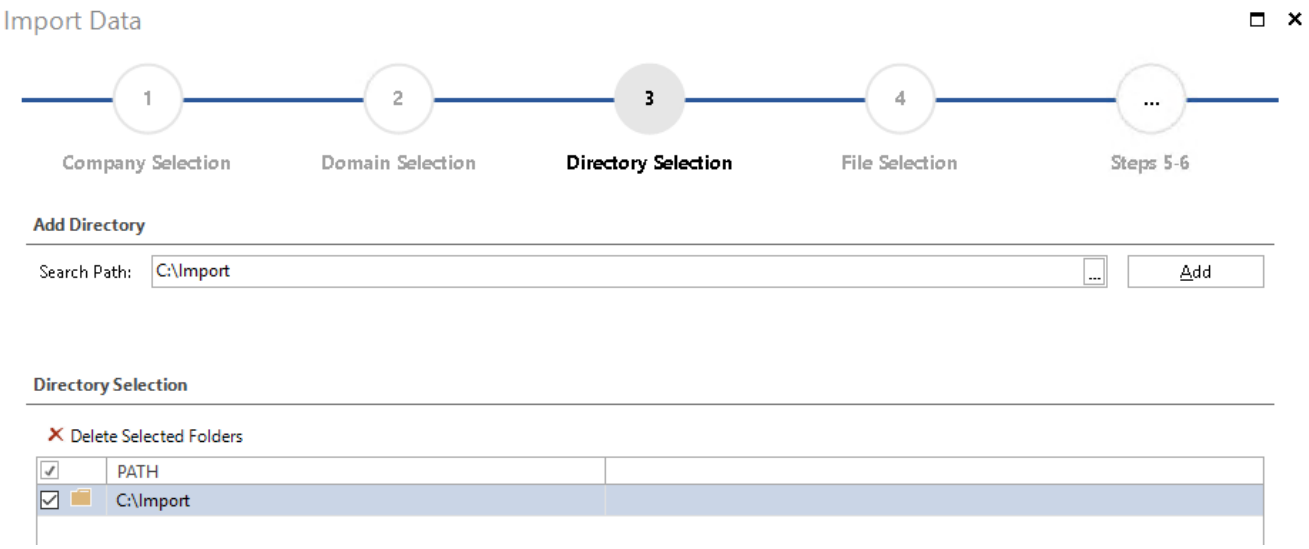

Fig. 14 - Selecting the storage location of the XML file

In step 4 - File selection - the XML file is imported - the import is started via the button "Start search for files":

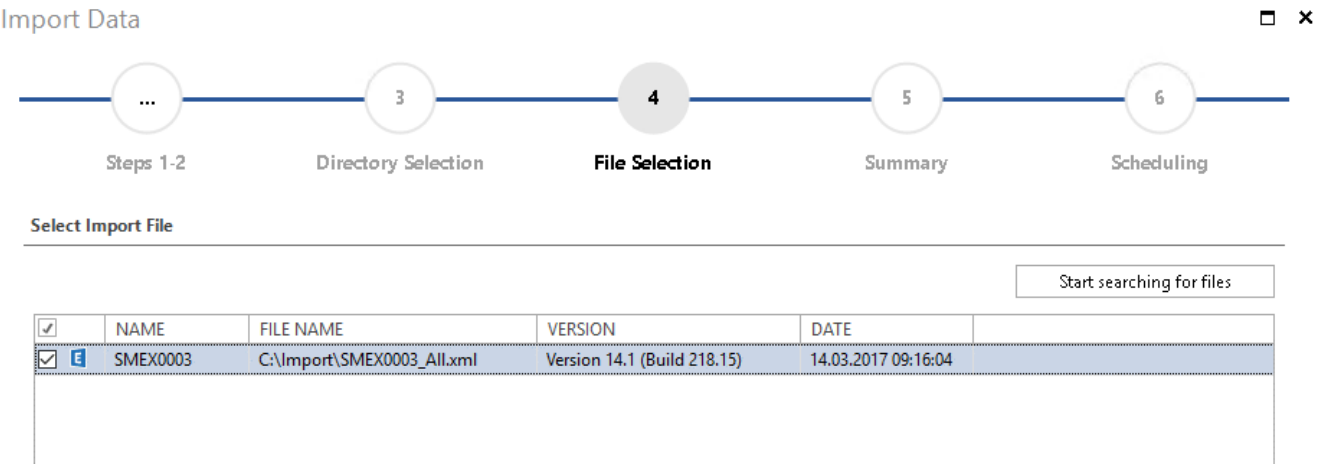

Fig. 15 - Selecting the XML File to Import

Information: If you use DocusnapScript.exe or the DSLinux script to inventory Windows and Linux systems and these files are also stored in the previously selected folder, these XML files would also be available for selection here.

4. Exchange 2003 Inventory

With the Docusnap X version no Microsoft Exchange Server 2003 can be inventoried. If a one-time inventory is required, it must be carried out with the Docusnap 6.3 version and then it must be carried out with the database import or export.

Please note that the database import / export is only possible with a multi-client capable license.

Under the following manual entry you will find the description of the database Import / Export:
https://www.docusnap.com/help/docusnap-x/user/docusnap-data-organization-and-analysis-database-export.html

LIST OF FIGURES

VERSION HISTORY

Date	Description
05/10/2016	HowTo created
10/24/2018	Screenshots updated; New wizard for script import, customize parameter information
07/18/2019	Screenshots updated. FIPS note added, permissions updated