Docusnap

Docusnap X – Installing and Configuring

Installing and Configuring Docusnap X

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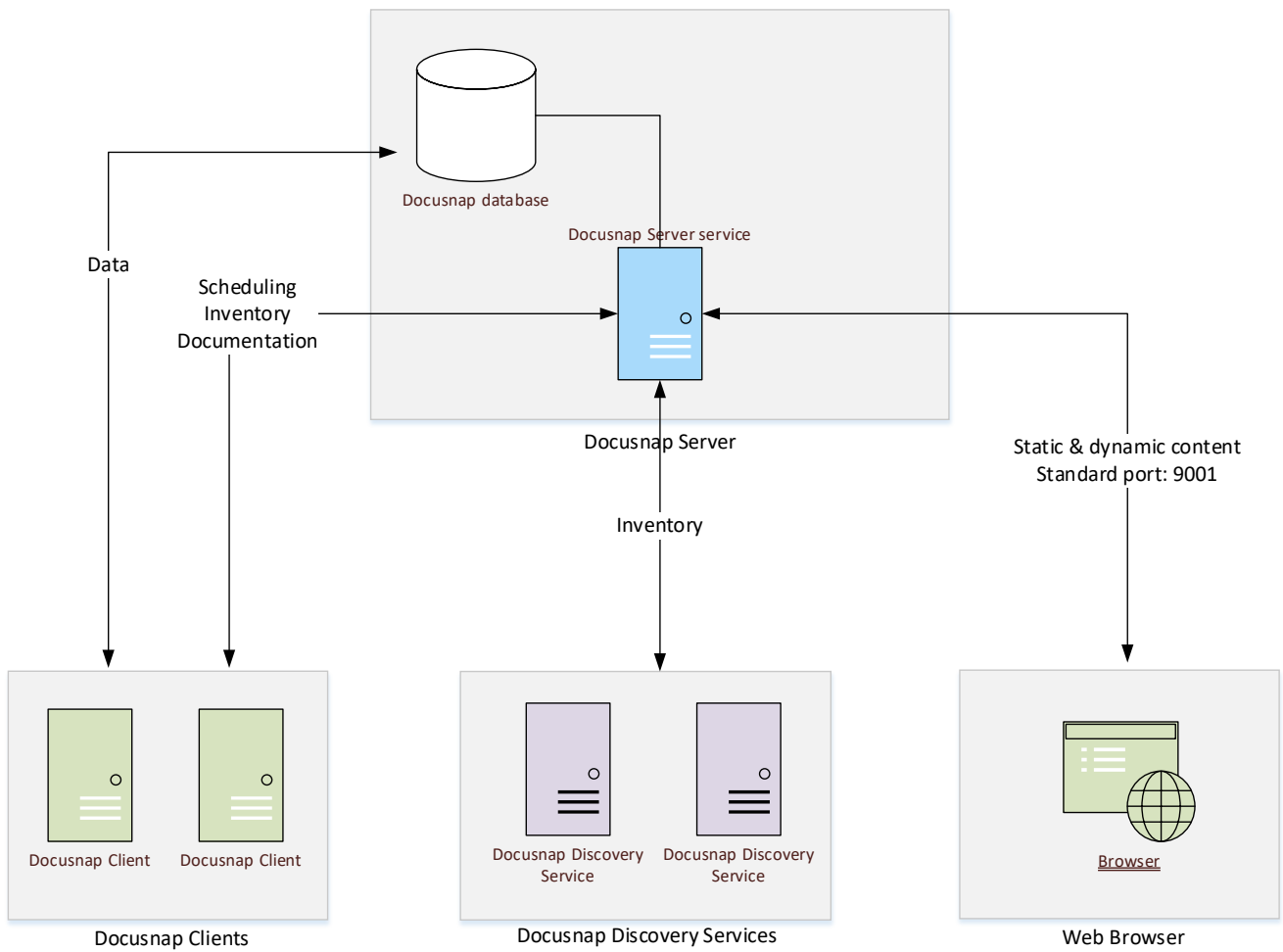
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1. Introduction

The installation and configuration of Docusnap includes the following points:

- Installation and configuration of the **Docusnap Client**
- Configuration of the **Docusnap X Server Service**

You will also need a **Microsoft SQL Server instance to** run Docusnap.

This HowTo guides you through the entire installation and configuration process of Docusnap X and a Microsoft SQL Server Express instance.

It also describes how to use a **central configuration file.** This file contains all necessary Docusnap configurations and is set up so that every Docusnap user uses this configuration file.

You can also use the configuration file to make Docusnap available via a **terminal server, for** example.

1.1 The Architecture of Docusnap X

Fig. 1 - Overview of the Docusnap X Architecture

2. Basic Installation of Docusnap

2.1 System Requirements

- Minimum Microsoft Windows 7 SP1 or Windows Server 2008 R2 SP1
    - **Recommended is Windows 10 / Windows Server 2016**
- Recommended min. 4 GB RAM or more
- Recommended at least 2 CPU cores or more
- .NET Framework 4.6.1 or higher

2.2 Preparing the Database Server

A database system is required to store the data in Docusnap. As database system the Microsoft SQL Server Express LocalDB, Microsoft SQL Server Express (from version 2012) or a full Microsoft SQL Server (from version 2012) can be used.

In order to be able to use the full range of functions in Docusnap (including Docusnap Connect V2), a Microsoft SQL Server Express or a full SQL Server from Version 2012 is required.

Microsoft SQL Server Express LocalDB is recommended for testing purposes only. If this is used, the Docusnap server service (scheduled execution of tasks), the Docusnap web client and the Docusnap discovery services (decentralized inventory of remote locations) cannot be used.

If the Microsoft SQL Server Express LocalDB has been used for test purposes, the Docusnap database created there can be added to a Microsoft SQL Server Express or full Microsoft SQL Server.

For the productive use of Docusnap we recommend the use of the latest Microsoft SQL Server Express version. This is a free solution which has the following limitations compared to a full Microsoft SQL Server:

- SQL Server Express from 2012 (recommended is always the latest supported version, 2017, 2019)
    - Support for one processor, but up to four processor cores
    - Maximum use of 1 GB of memory
        - From version 2016 it is 2 GB
    - Database size maximum 10 GB
    - No SQL Server Agent (automation, e.g. data backup)
    - As of version 2017, full text search is not supported in the Express version.

The Installation and Configuration of SQL Server chapter describes the installation and configuration of Microsoft SQL Server Express. It is recommended to install and configure it **before** the Docusnap basic installation.

2.3 Basic Installation

Open the Docusnap installation file. On the Welcome screen, click Next.
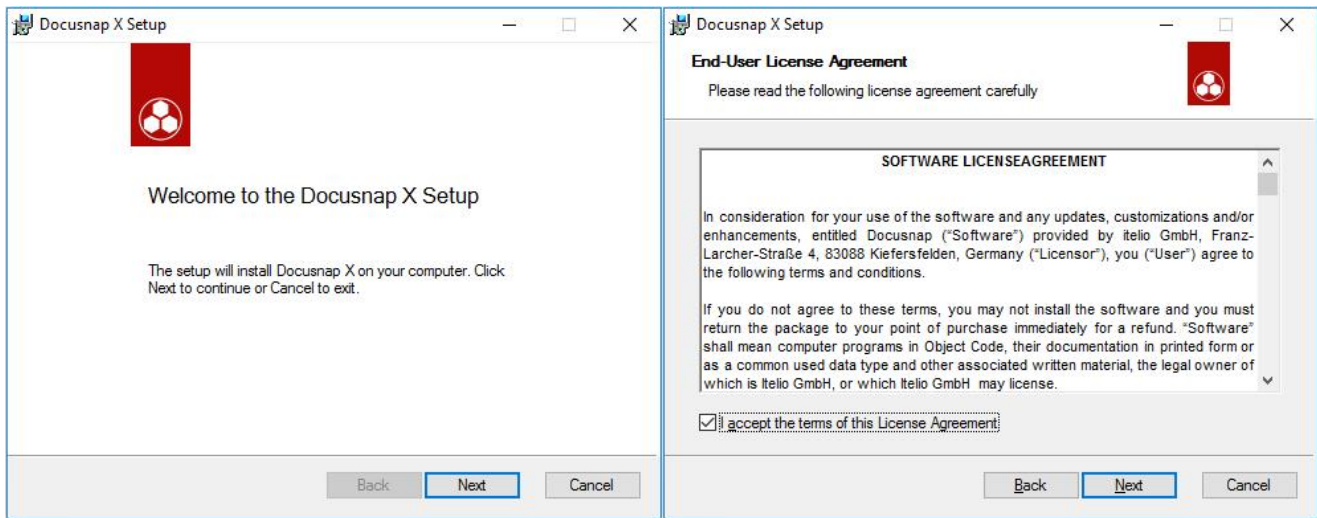
Fig. 2 - Basic Installation - Welcome screen and End-User License Agreement

Read the End-User License Agreement. To continue with the basic installation, you must **accept** it.

Specify the target directory in which Docusnap is to be installed.

Next, you must specify whether you want to use an existing SQL Server (Express) or create a local database. As already mentioned, we recommend the use of an existing Microsoft SQL Server (Express).
If a Microsoft SQL LocalDB has already been installed, this step is skipped.
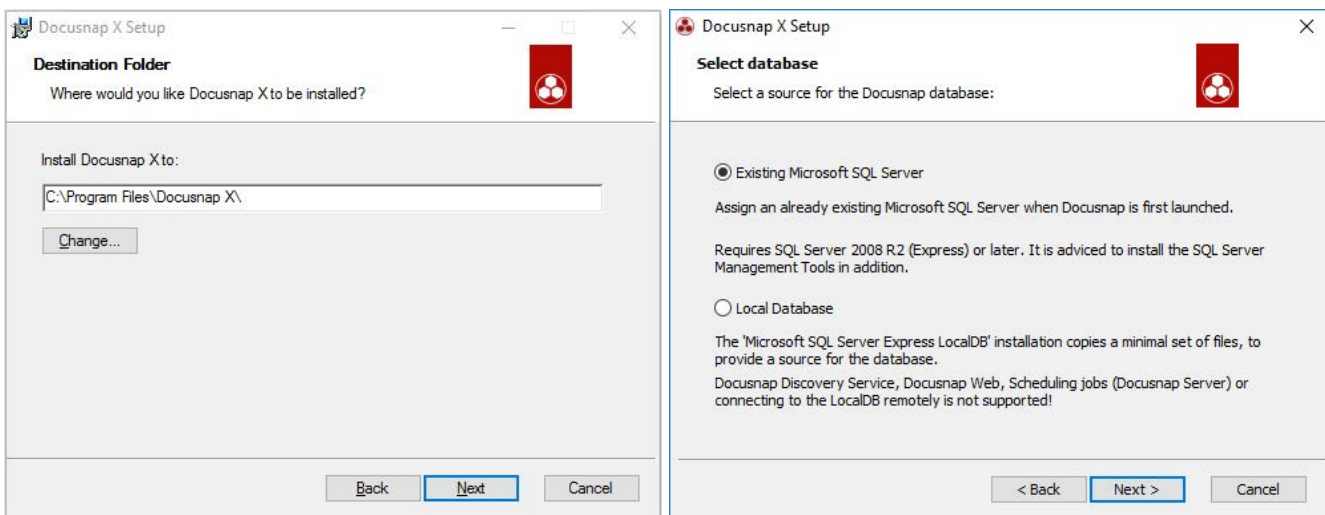
Fig. 3 - Basic Installation - Destination folder and Database

Activate the option to install the NPCAP driver. This is a prerequisite for an extended IP scan. You can also install the NPCAP driver manually if necessary, the setup is located at:
%ProgramFiles%\Docusnap X\MSI\npcap-oem.exe
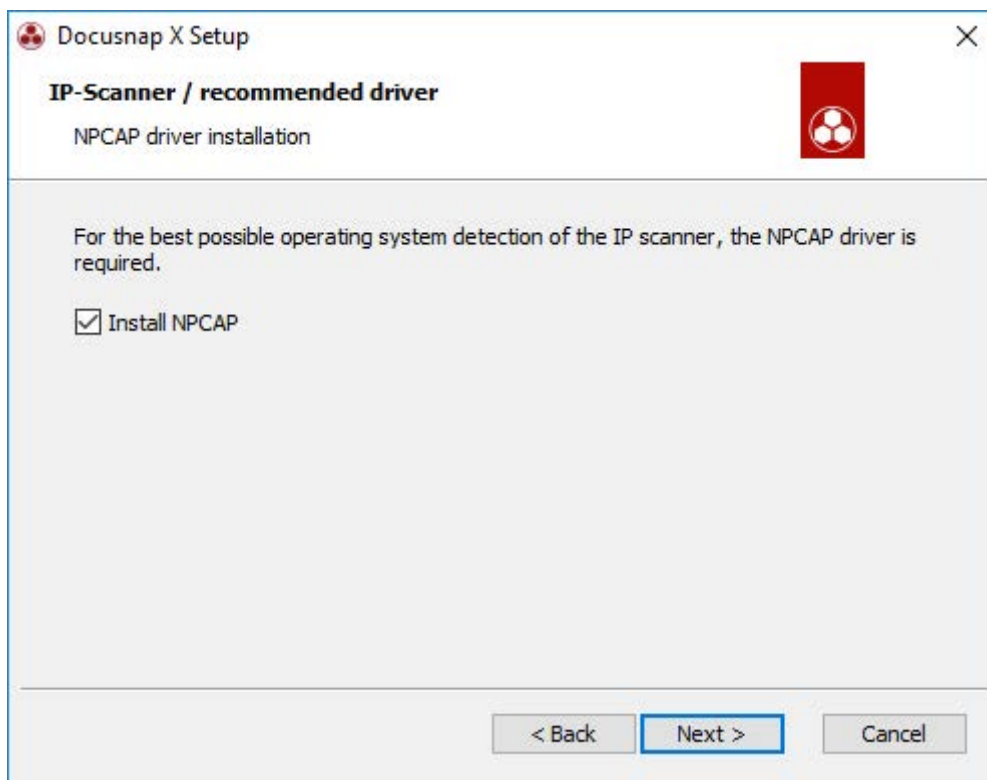
Fig. 4 - Install NPCAP Driver

3. Configuring Docusnap
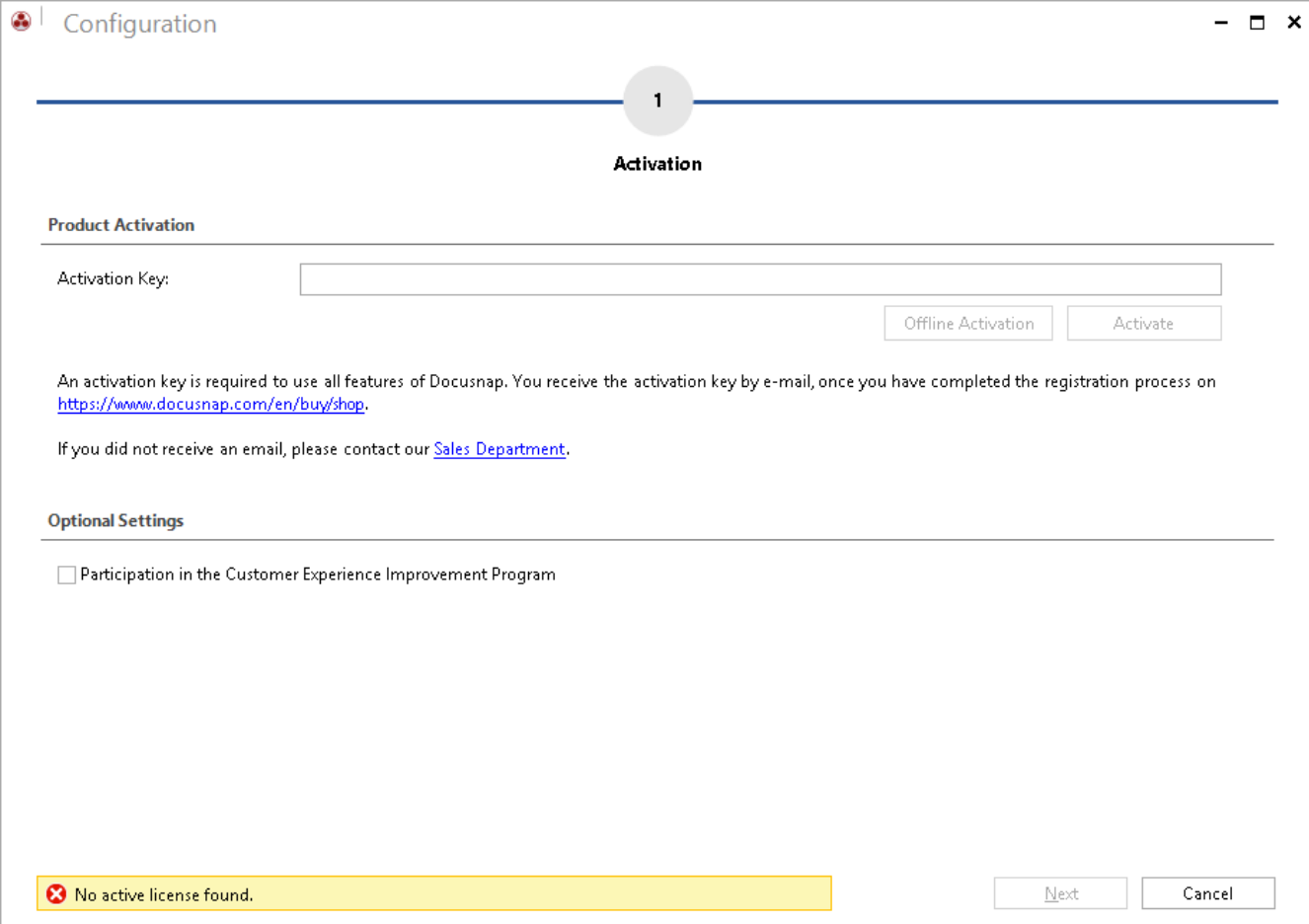
After Docusnap and Microsoft SQL Server have been successfully installed, the basic configurations of Docusnap and Docusnap Server can be performed.

3.1 Basic configuration of Docusnap

3.1.1 Product Activation

After starting Docusnap, the first step is to activate the product. This can be done either online or offline.

The activation key is delivered by e-mail by a Docusnap sales representative. This key is entered in the Activation Key field.

Fig. 5 - Basic Configuration - Product activation

How to activate the Docusnap installation online

After entering the key press the **Activate** button.

Procedure for offline activation of the Docusnap installation

If the computer with the Docusnap installation does not have an Internet connection or the online activation fails, you can also activate Docusnap via **offline activation.**
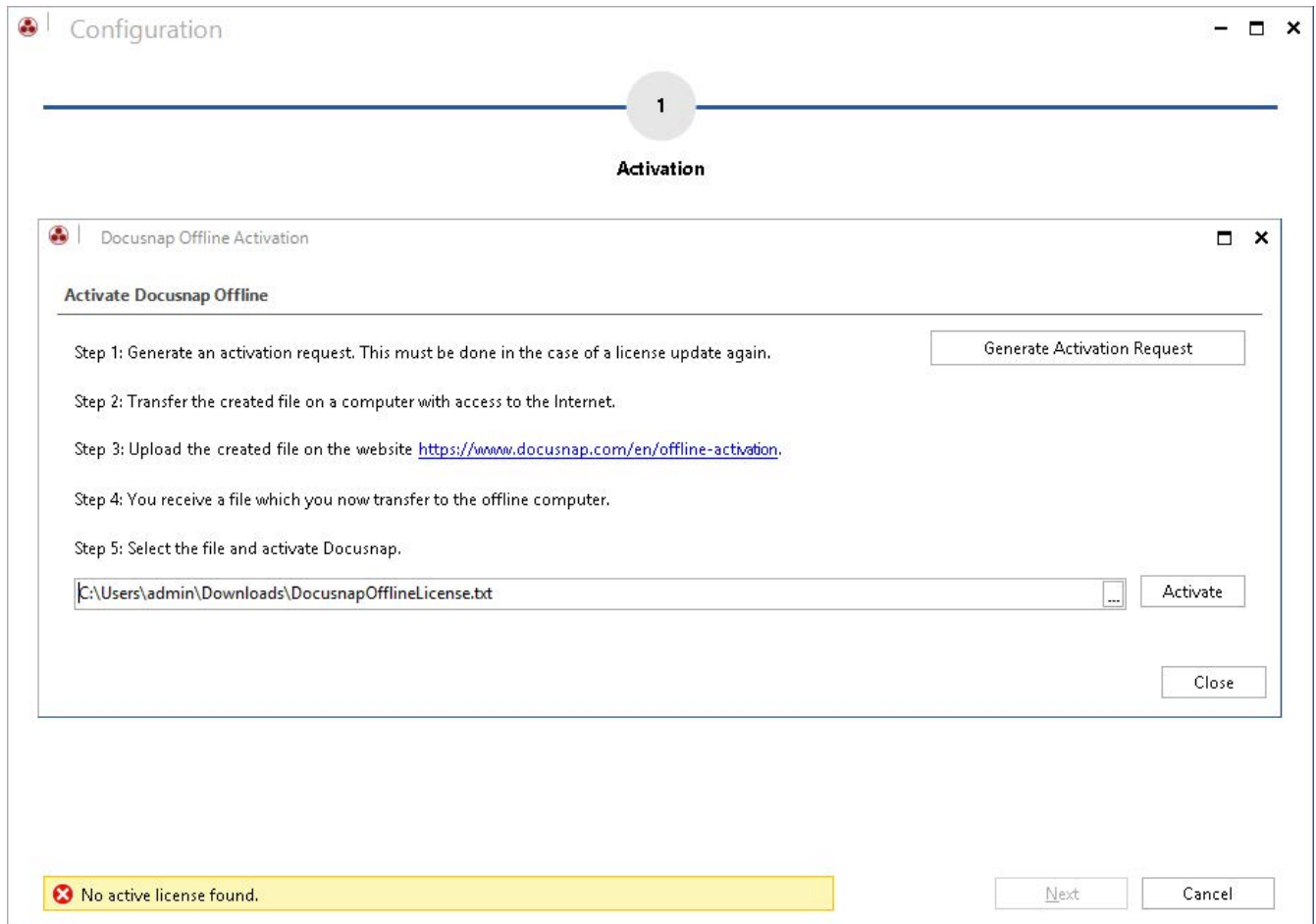
Fig. 6 - Basic Configuration - Offline activation

After entering the activation key press the **Offline Activation** button Save the activation file that will be created.
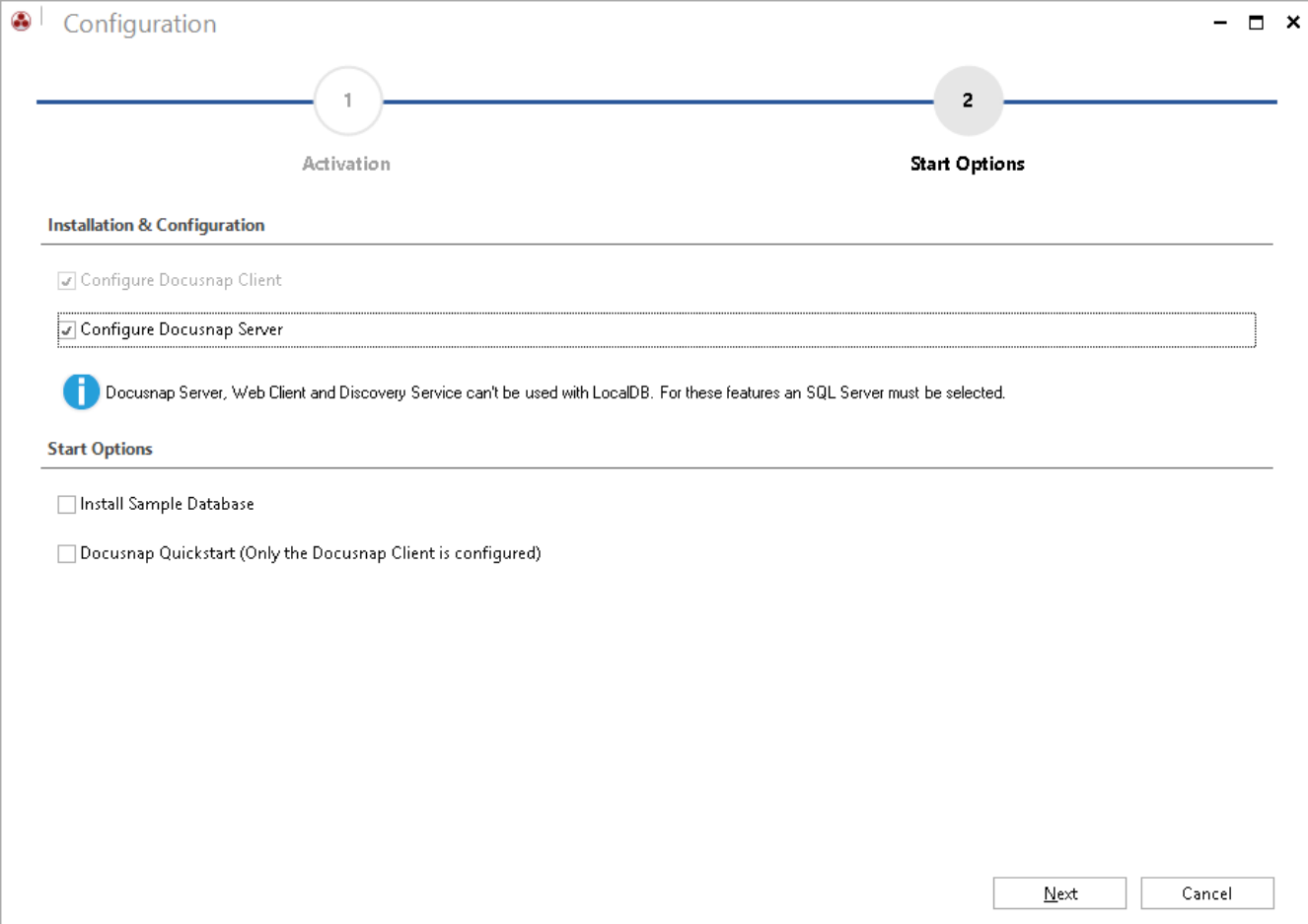
This activation file will be uploaded to the https://www.docusnap.com/en/offline-activation website. After successful activation via the website, the license file can be downloaded. This is loaded into Docusnap and the offline activation is completed.

3.1.2 Feature Selection

After successful activation, the next step is to select the desired functionality of the Docusnap installation. Depending on this selection, the further assistance steps are released.

- Configure Docusnap Client
    - o Classic user interface of Docusnap
    - o Multi-user environment: connection of the Docusnap Client to a central database
- Configure Docusnap Server
    - o Central component in multi-user environments
    - o Automation of inventory and documentation tasks
    - o Connection endpoint for Docusnap Discovery Services
    - o Provision of information for the Docusnap Web Client

The Docusnap Server can also be set up later.

Fig. 7 - Basic Configuration - Feature selection

3.1.3 Database Connection

The following information requires the Installation and Configuration of the Microsoft SQL Server (Express).

Fig. 8 - Basic Configuration - Database configuration

Information about the SQL server and the database:

- SQL server name or IP address
- server name\instance name or IP address\instance name
- Name of the database

authentication

- Windows authentication: The prerequisite for this is that the logged on user can log on to the selected database.
- SQL Server Authentication: If user accounts have been created on the SQL Server, this authentication can be used.

The Docusnap database can only be created using the wizard and the Create button. If you create a new Docusnap database, you need a privileged user (e.g. dbcreator).
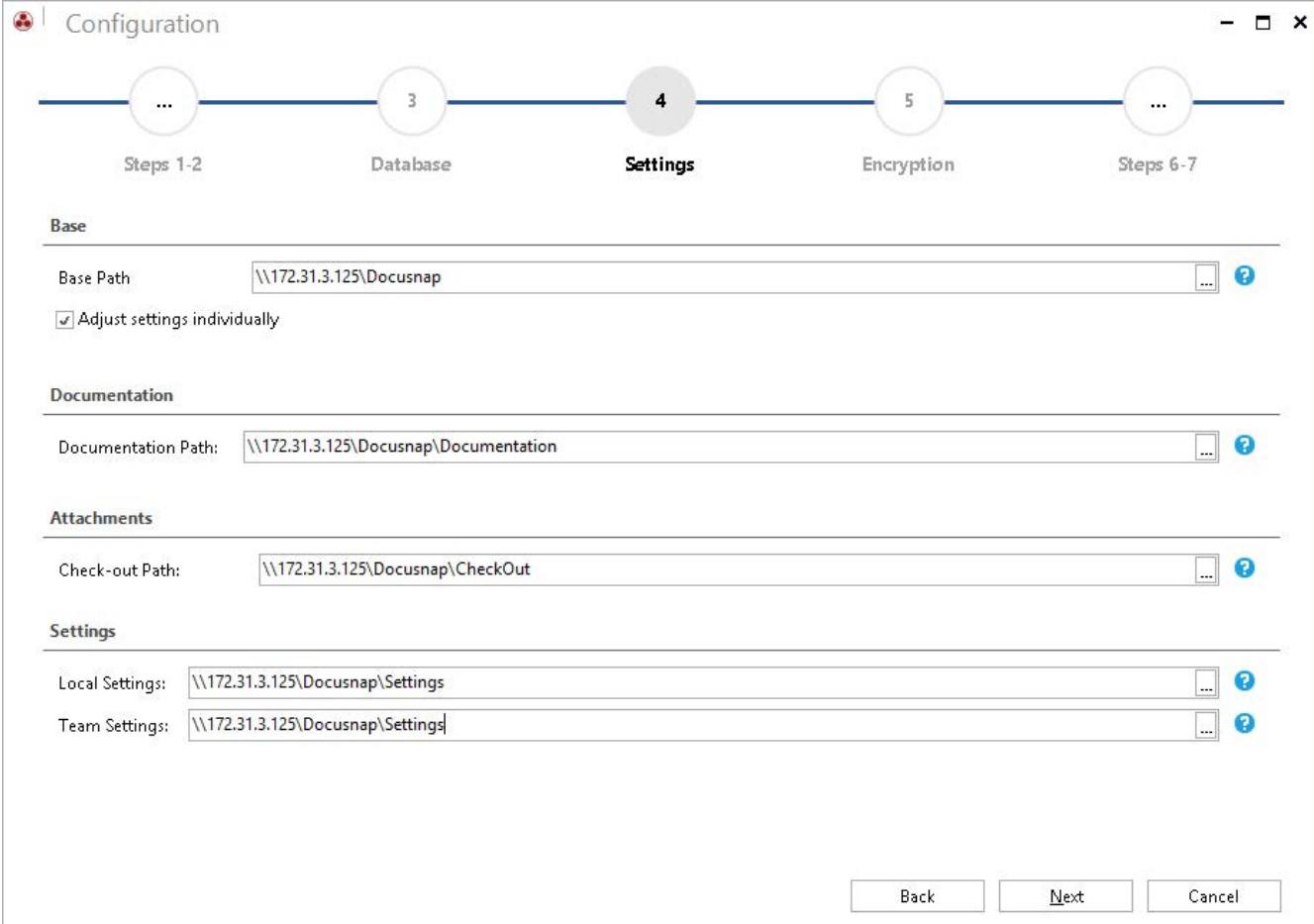
The users need db_owner authorizations for the later operation and thus for the establishment of the connection to the Docusnap database. To do this, select the Connect button.

3.1.4 Data Path Settings

In step 4 - Settings - the Docusnap system paths are specified. Documentation, reports and other documents are stored in these paths by default. You will also find central configurations, adjustments and other settings there.

Best Practice is the establishment of a UNC path, which will be deposited afterwards. This way you are prepared to use Docusnap with multiple users.

> ATTENTION: If a path is referred to, for example, in a user profile, other users of the application may not have access to the data stored there. If you want to use the Docusnap Server and several people access the application, always use the corresponding network shares.
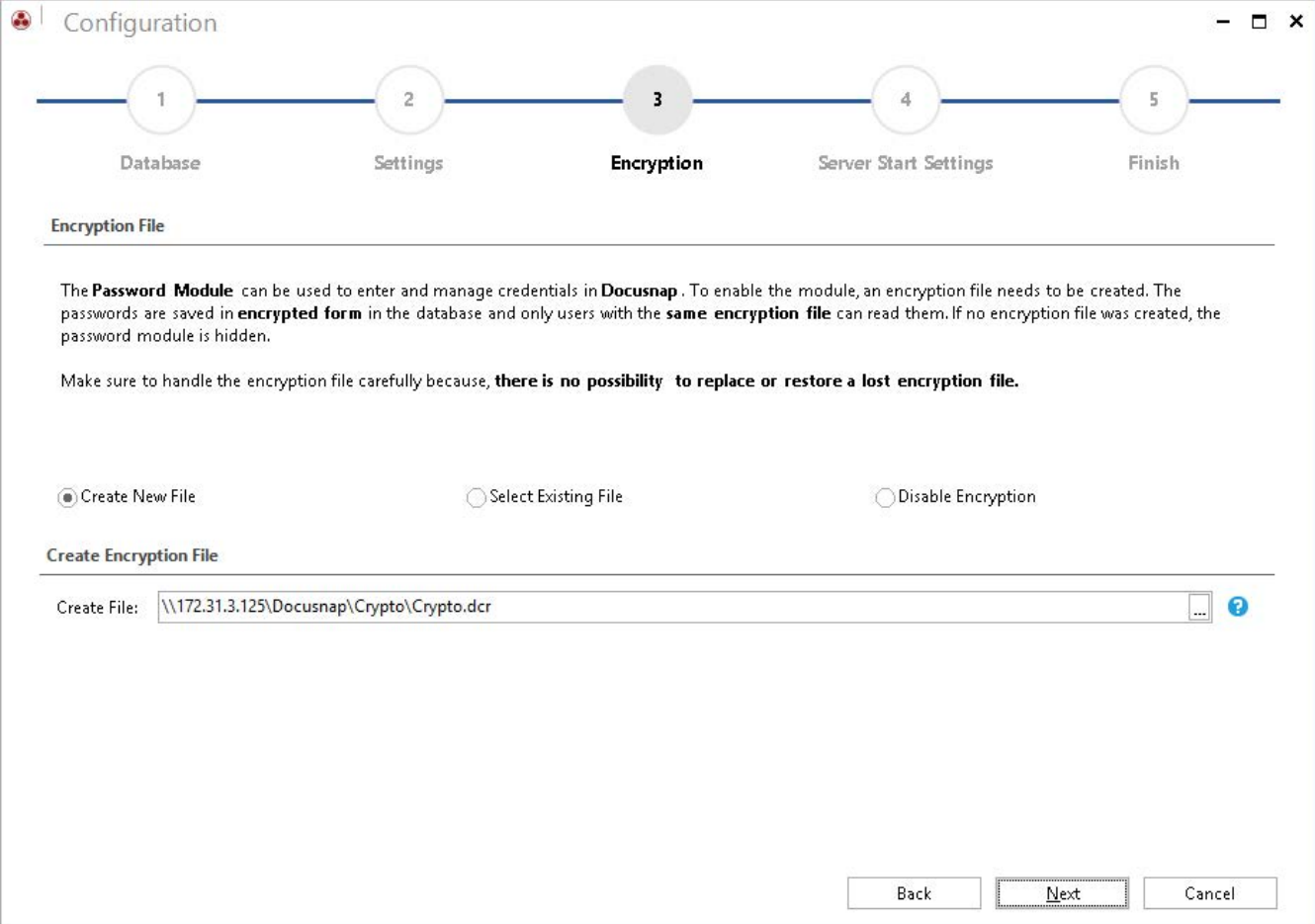
Fig. 9 - Basic Configuration - File paths

3.1.5 Encryption

Docusnap offers the possibility to store passwords. To use this password module, a new encryption file must be created or an existing one selected. Otherwise, this functionality is deactivated in the application. This encryption file provides an encrypted storage of the passwords within the database.

Fig. 10 - Basic Configuration - Creating the encryption file

An encryption file can only be created once per database. There is no way to replace or recover passwords in case of loss.

For more information on how to use passwords or additional information in general, please refer to the appropriate HowTo in our Knowledge Base: Add additional information in Docusnap.
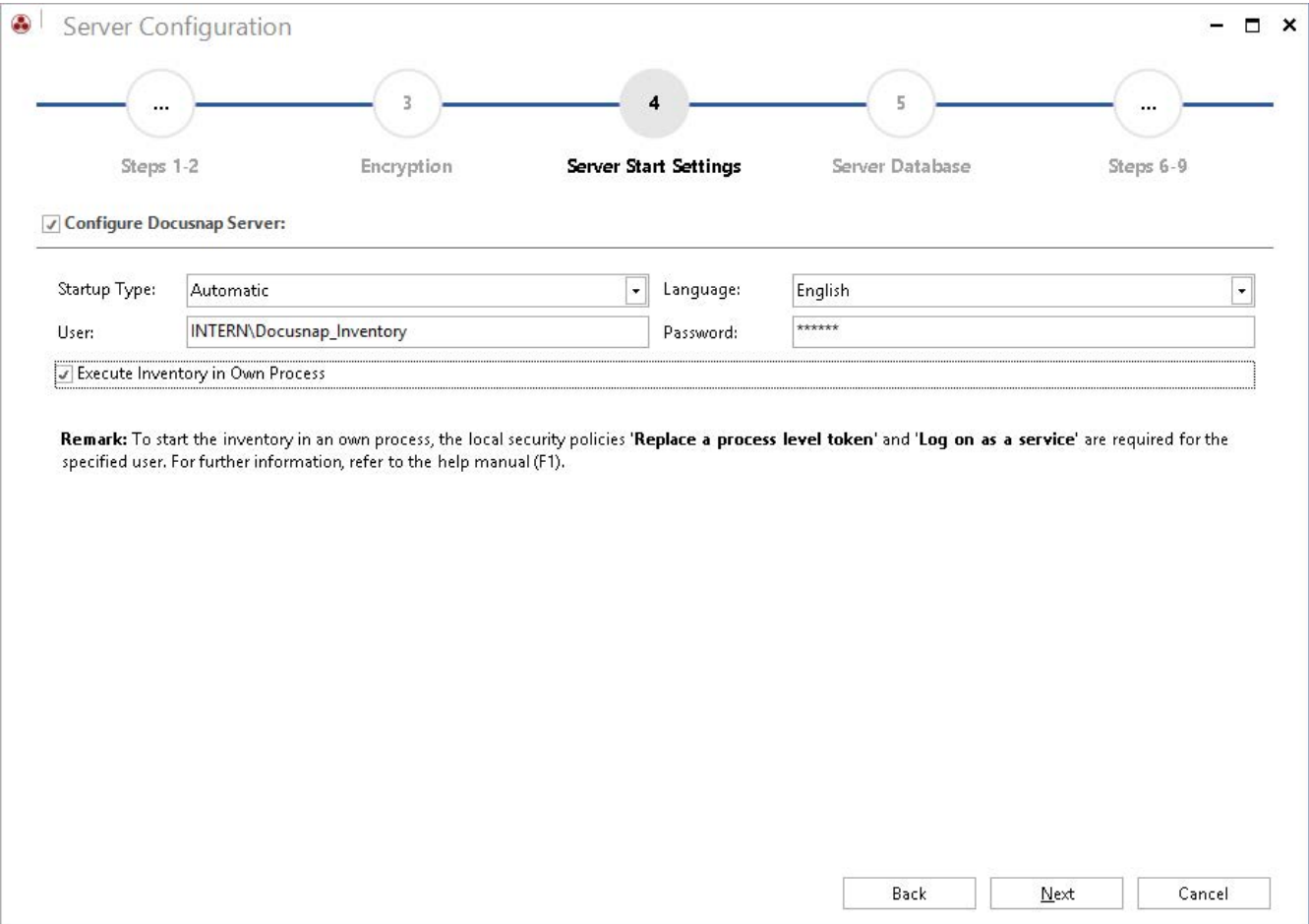
3.2 Configuring Docusnap Server

The Docusnap Server is a Windows service. In order to start the Docusnap and use its functions, the start information and the connection to the Docusnap database must be stored once.

If the Windows service is running with the Local System account and the database is configured with Windows authentication, the service cannot be started because it cannot connect to the database. In this case, SQL Server authentication must be used.

Please also note the notes regarding the necessary authorizations when a user is used to run the service. For more information, see the help that you call by pressing F1.

Also make sure that the executing user is a local administrator on the Docusnap server.

Fig. 11 - Docusnap Server - Configuring the server service

3.2.1 Server Database

The Docusnap Server service also requires a connection to the previously created database. Please note again the authentication at the database for the server service. If the Windows authentication is used, you must pay attention to who executes the service and authorize accordingly!

Fig. 12 - Docusnap Server - Database connection

3.2.2 Server Settings

The account with which the service is started must have access to the specified paths. You must also make sure that the paths match those of the client configuration - see Data Path Settings.

Fig. 13 - Docusnap Server - Path settings

With a click on Next and then Finish the configuration of Docusnap and the Server Service is completed.

3.2.2.1 Advanced Docusnap Server Configuration

During the initial configuration of the Docusnap Server service, two configuration steps are skipped - but you should do these later - Server Mail Settings and Server API.

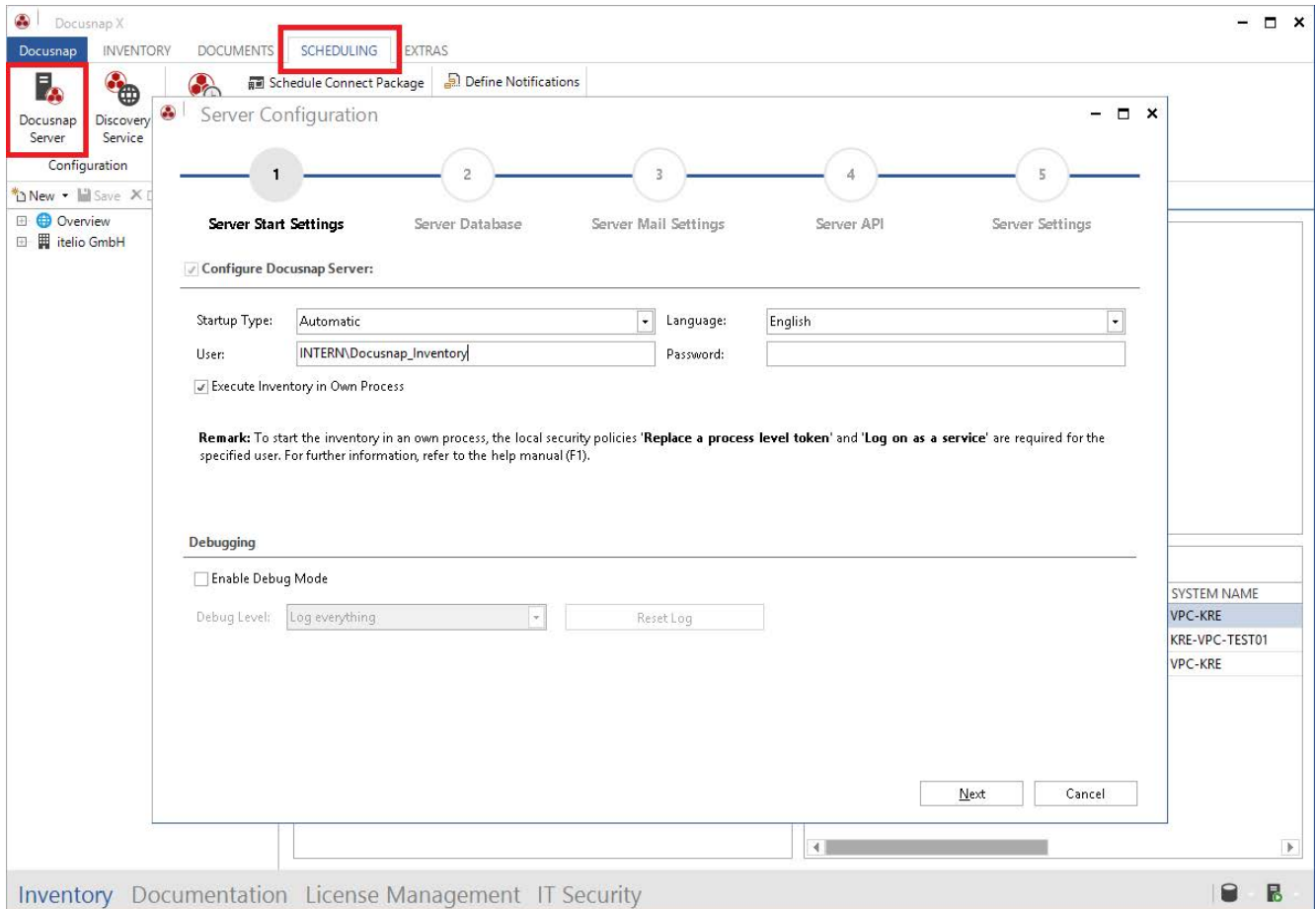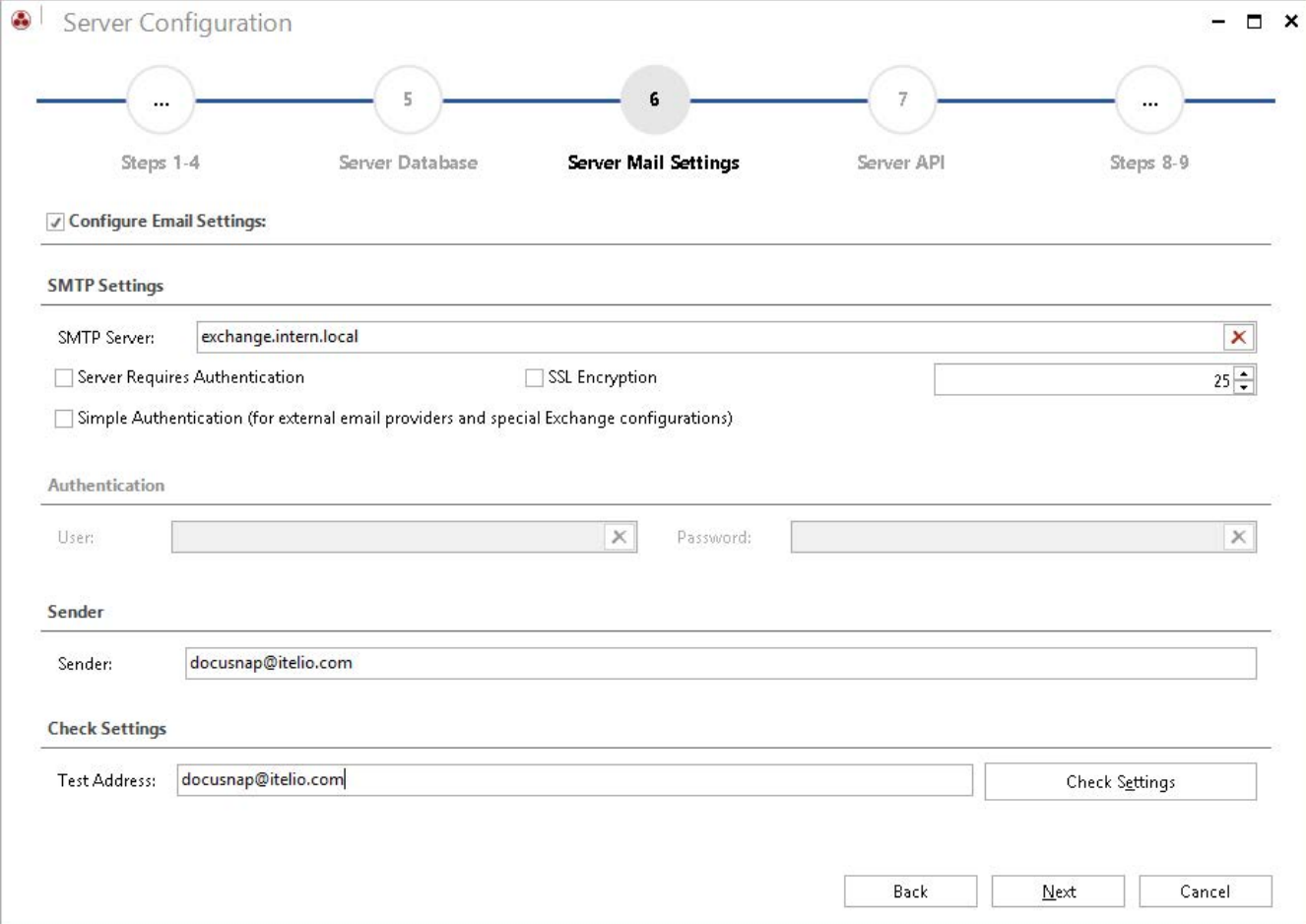Open the configuration of the server service via the tab Automation - Docusnap Server:

Fig. 14 – Docusnap Server – Additional configuration

Server Mail Settings

Navigate to Step 3 – **Server Mail Settings** – and define the configuration that applies to you so that Docusnap can send you reports, documentation or notifications by e-mail:
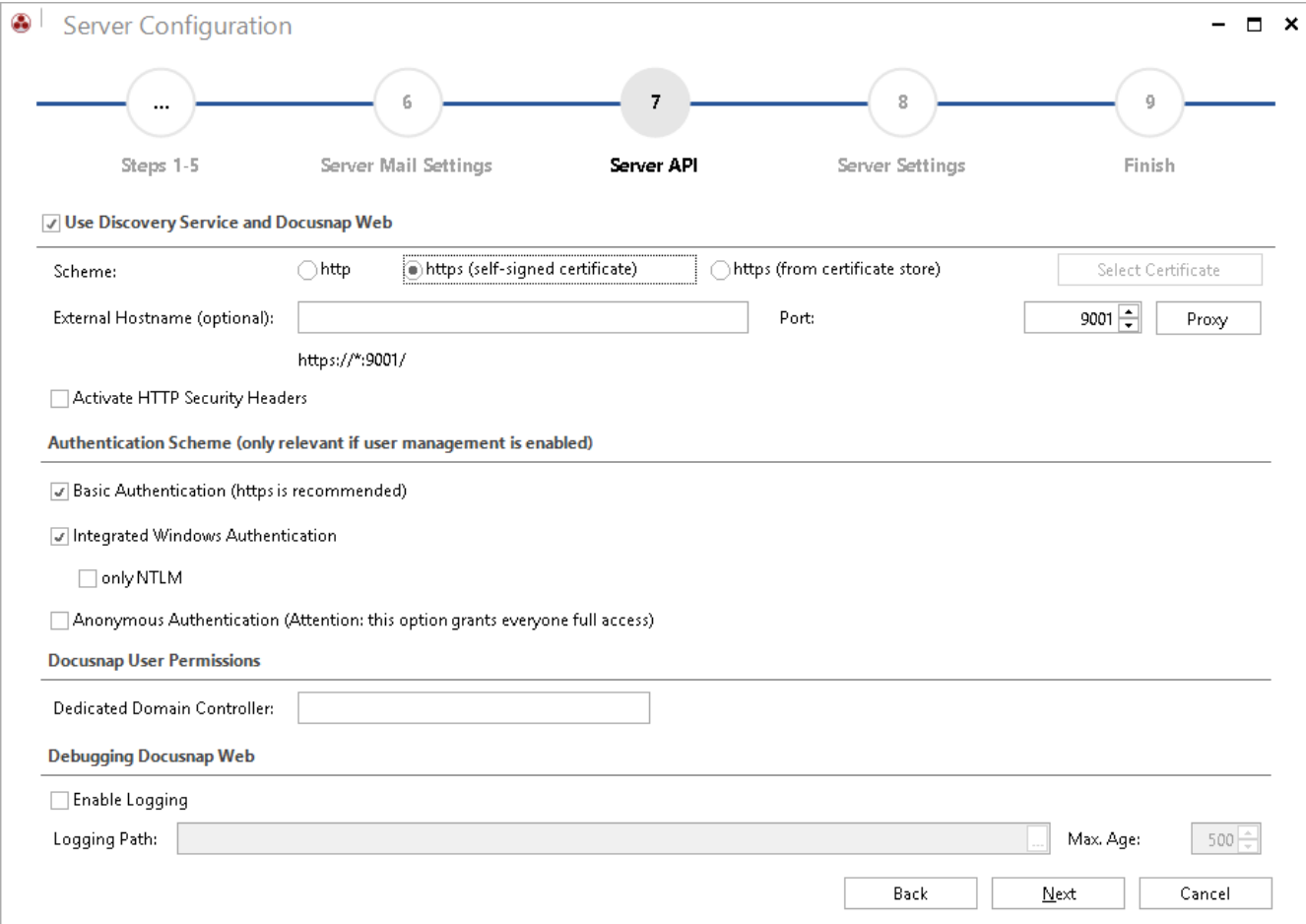

Fig. 15 - Docusnap Server – Additional configuration – Server mail settings

Server API

The Server API is used for communication between Docusnap Server, Docusnap Client and Docusnap Discovery Services. Furthermore, the Server API with the schema and port to be configured below is also available for Docusnap Web.

Within step 4 - **Server API** - you can configure the Server API. Relevant for the configuration is the scheme - http or https with a certificate created by Docusnap itself or with a certificate from the computer store of the system.

The port must also be specified. With the command netstat -ano | find "9001" you can check whether the port on the system is already in operation by another application.

Fig. 16 - Docusnap Server – Additional configuration – Server API

Regarding Docusnap Web you will also find the authentication scheme within the Server API. Here you should enable Basic and Integrated Windows Authentication by default. You can find more information about how to log in to Docusnap Web in the corresponding HowTo in our Knowledge Base: Docusnap Web – Installing and Customizing.

If you have made any changes to the Server API (schema and/or port), you must then adjust the client's Server API connection. The customization can be done in the **General Options - Connections - Server API Connection.**
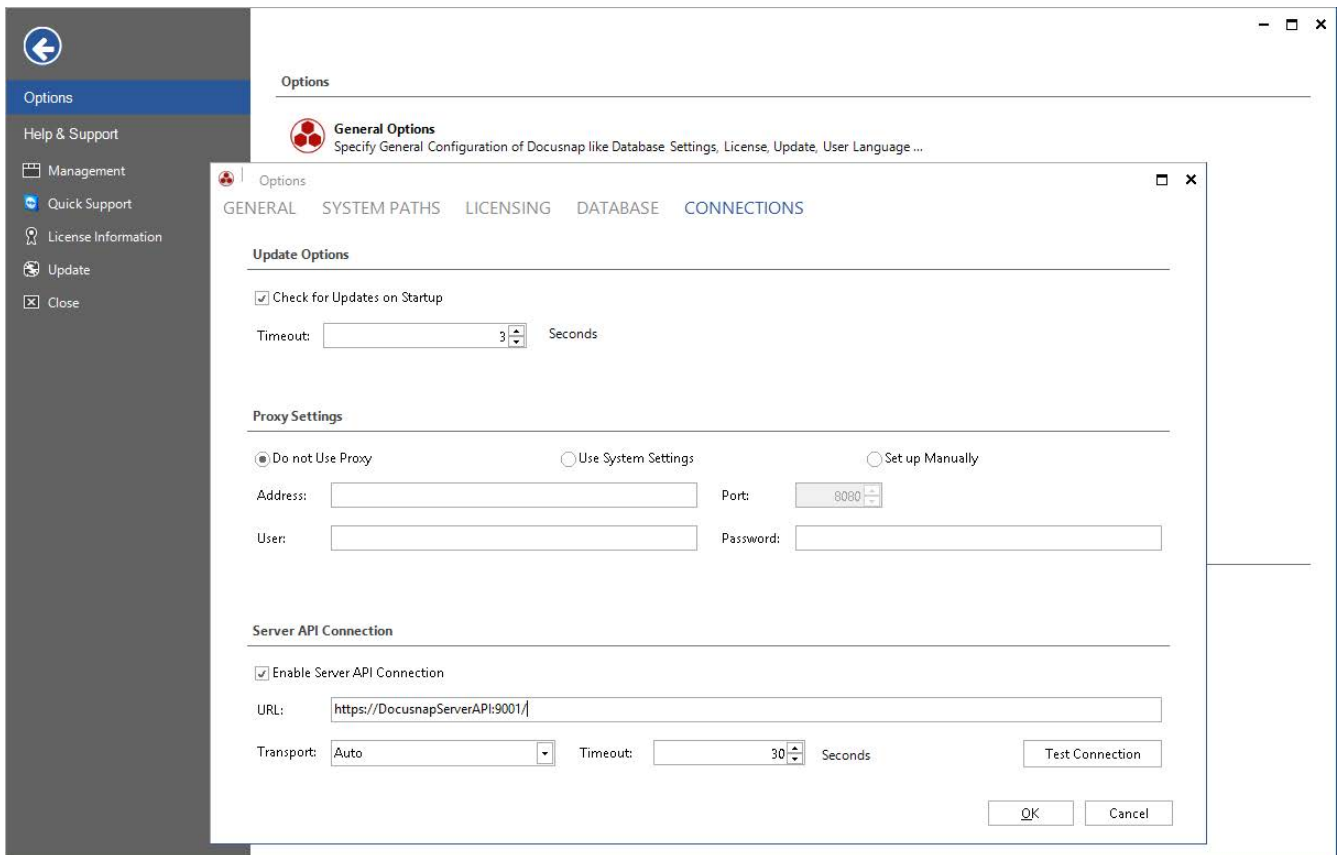

Fig. 17 - Docusnap Server – Additional configuration – Change Server API connection

4. Setting up a Central Configuration File

In the previous chapter Configuration Docusnap the necessary steps concerning the configuration of Docusnap were described.

If you do not want to perform these steps with every Docusnap Client installation and additionally want to make sure that every user uses the same configurations, you can set up a central configuration file.

The executed client configurations were all stored in a configuration file. This can be found in the following path of the user who performed the configuration: %Appdata%\Docusnap\Configuration.xml.

Create a new folder within your Docusnap Base Path - e.g. Configuration. Move the Configuration.xml file to this folder.

Also copy a Docusnap X program link into this folder.

Now these two files have to be linked together. To do this, open the properties of the program link and define the following parameter in the target:

-UseConfig \\System name\Release name\Configuration\Configuration.xml

Example:

```
"C:\Program Files\Docusnap X\Docusnap.exe" -UseConfig "\\KRE-VPC-Test01\Docusnap\Configuration\Configuration.xml"
```

In addition, you must change the name of the link, otherwise it will be removed and recreated when Docusnap is updated.

If you have now installed a new Docusnap Client, copy the new shortcut containing the UseConfig parameter to the desktop of the system and execute it. Docusnap can then be started without a new configuration.

Another purpose of the central configuration file is the installation of Docusnap on a terminal server. Set up the central configuration file here and add the corresponding program shortcut to the public desktop.

5. Installation and Configuration of the SQL Server

The following is a description of how to install and configure an SQL Server Express 2017 instance for use with Docusnap.

5.1 Installing Microsoft SQL Server

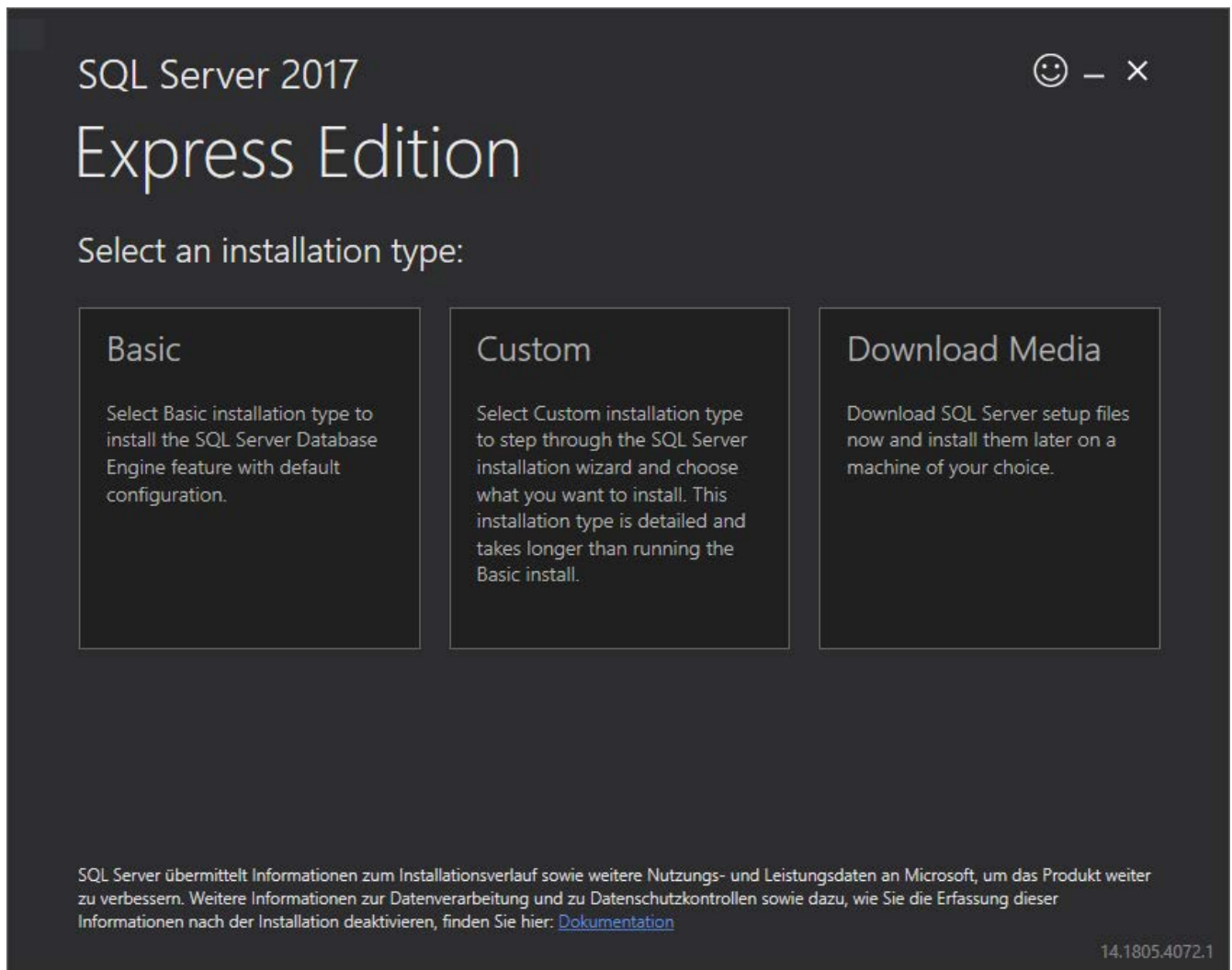You can download the necessary installation files directly from Microsoft:

Fig. 18 - Download SQL Express 2017 installation files

Not all steps of the Setup Wizard are explained below. Only the items that need to be adjusted for use with Docusnap are described. Please leave all other configuration steps at default or adapt them to your needs.

5.1.1 Installation Center

Please start the installation file of Microsoft SQL Server Express. Select the installation of a new, standalone SQL Server installation. At the same time you can select **Install SQL Server Management Tools** as a precaution and download the installation files for SQL Management Studio - it is recommended to install this.
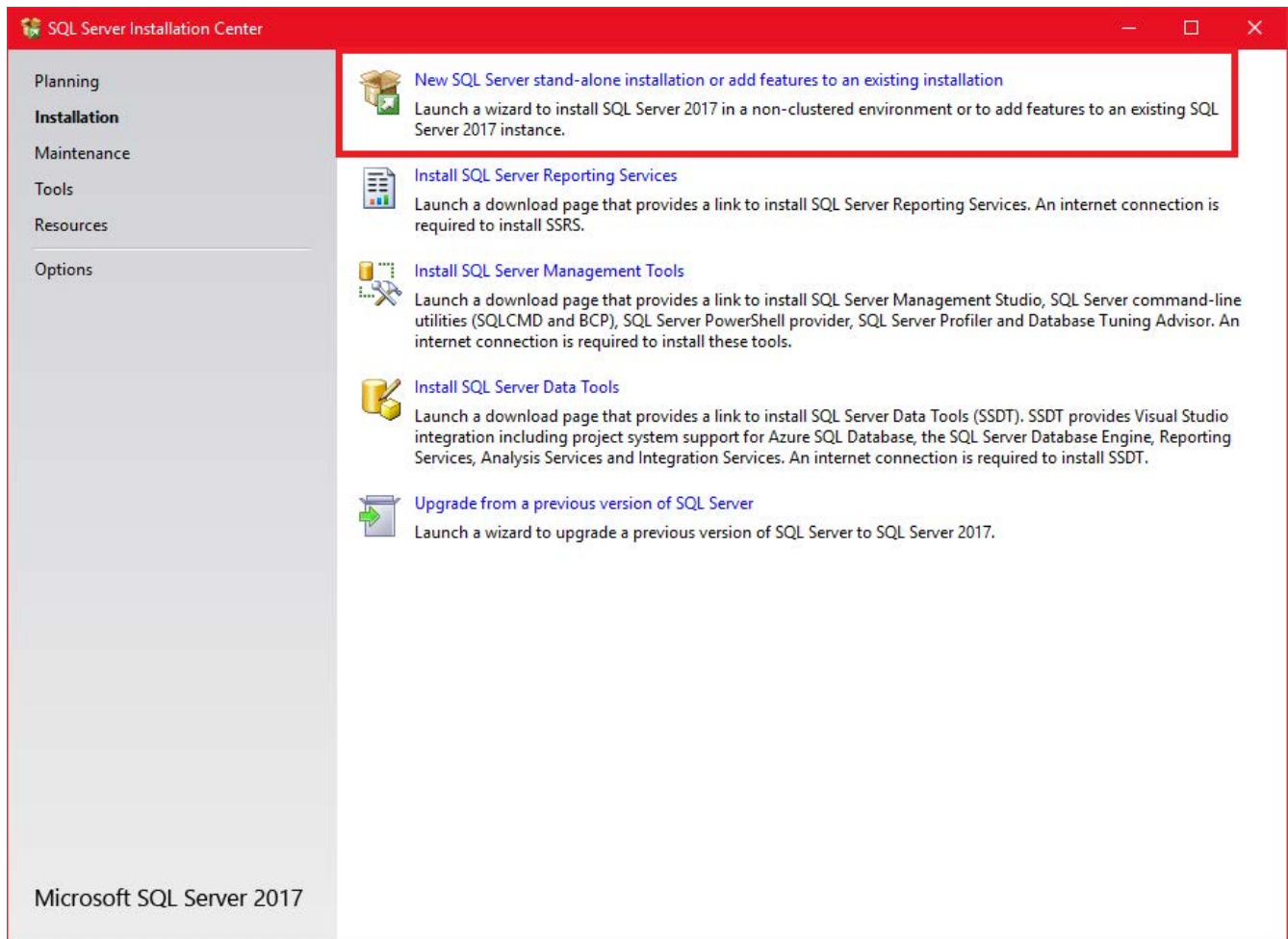

Fig. 19 - SQL Server Installation - Installation Center

5.1.2 Instance Configuration

Within the instance configuration, you can either use the default instance name (MSSQLSERVER) or define your own instance name.
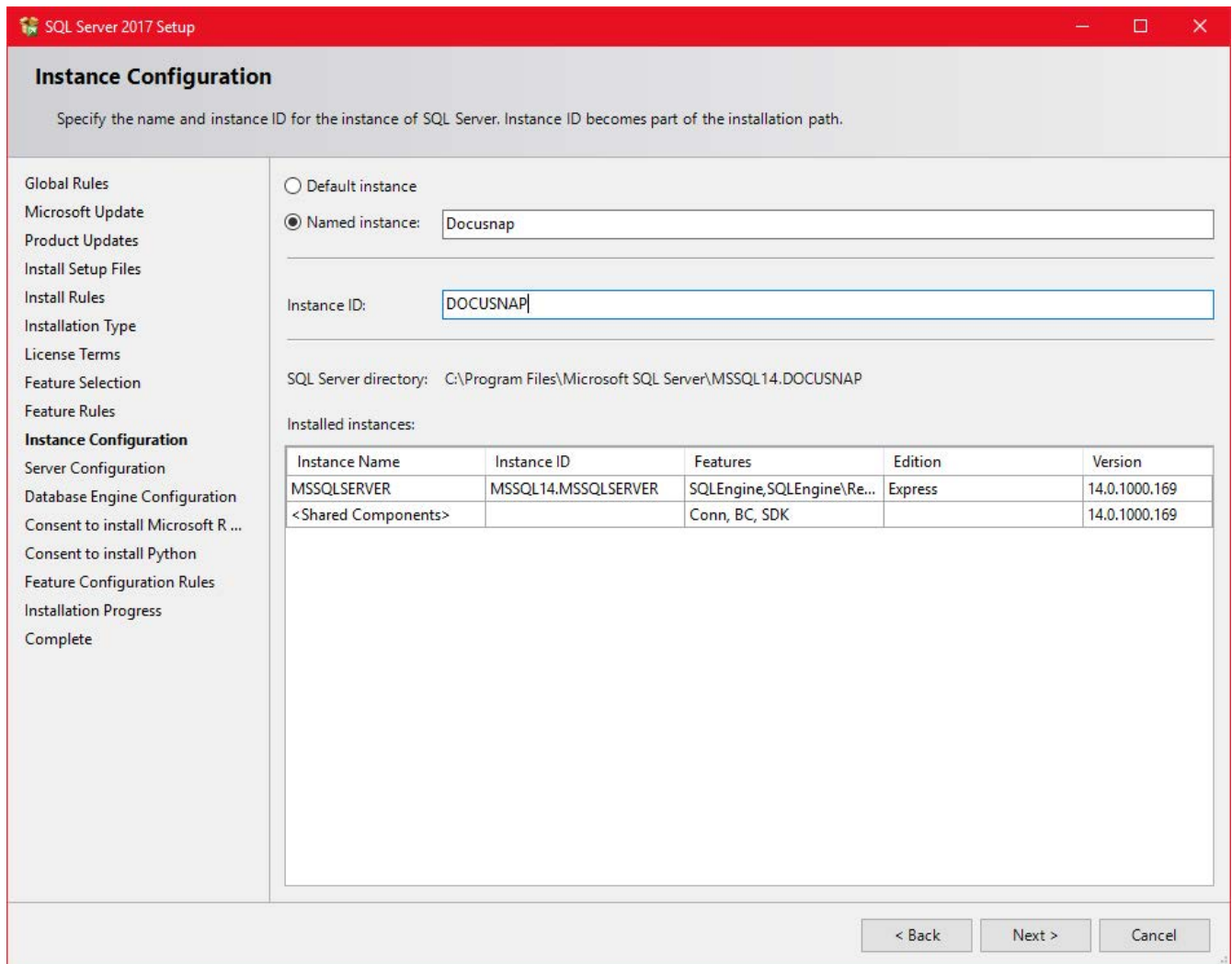

Fig. 20 - SQL Server Installation - Instance Configuration - Choose Instance Name

5.1.3 Database Module Configuration

Please select the **mixed mode** authentication mode and assign a password for the SQL Server system administrator account (SA).
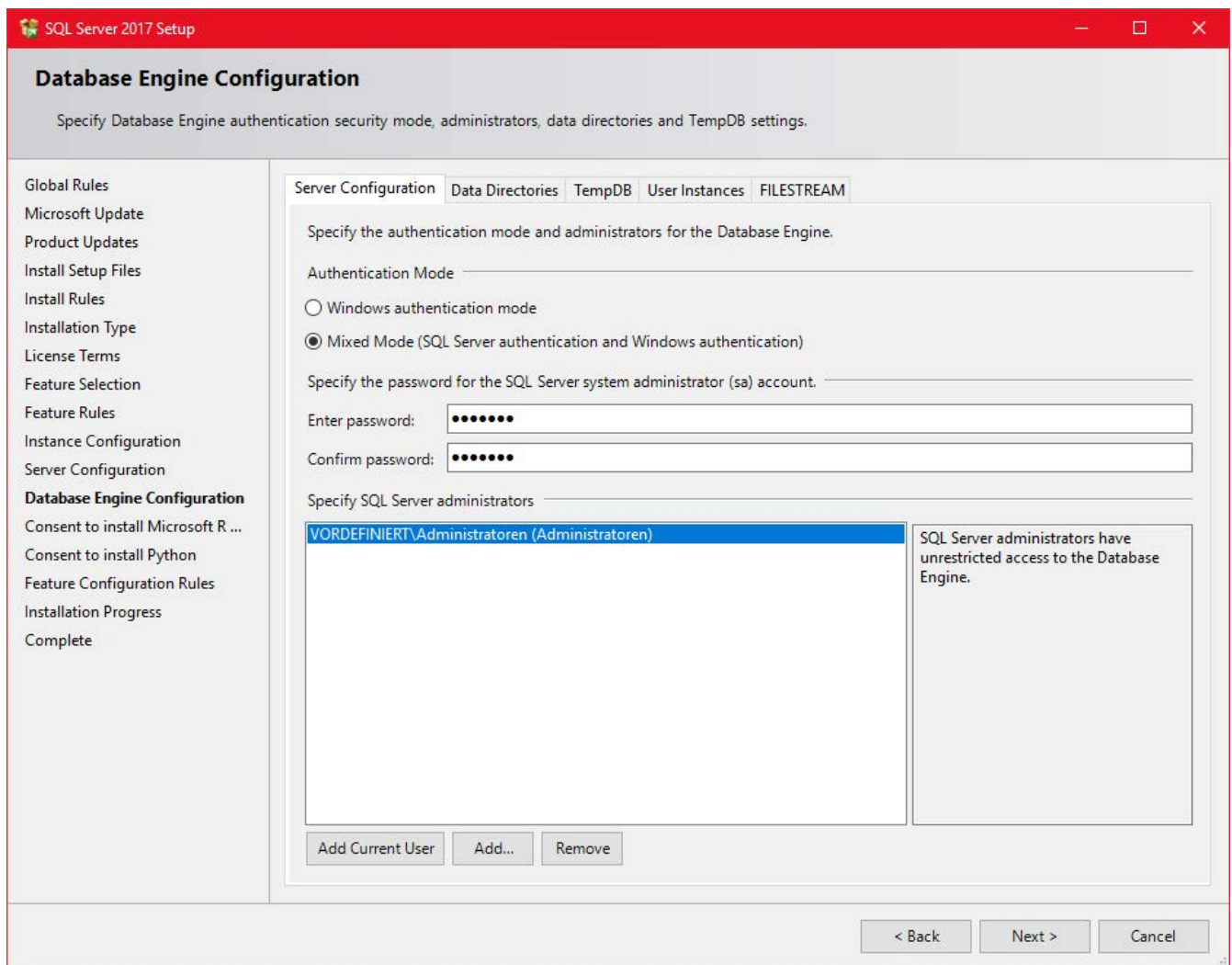

Fig. 21 - SQL Server Installation – Database Engine Configuration – Active SA User

Don't forget to take care of a data backup for the Docusnap database. Either via the SQL server itself or via backup software in the company.

5.2 Configuring SQL Server 2016 Express

5.2.1 SQL Server Network Configuration

SQL Express instances are not configured for remote access by default. However, if you are running a Docusnap client outside the Docusnap server, it requires remote access to the database. To do this, start the SQL Server Configuration Manager.

Navigate as follows:

- SQL Server Network Configuration - Protocols for "INSTANCE NAME"
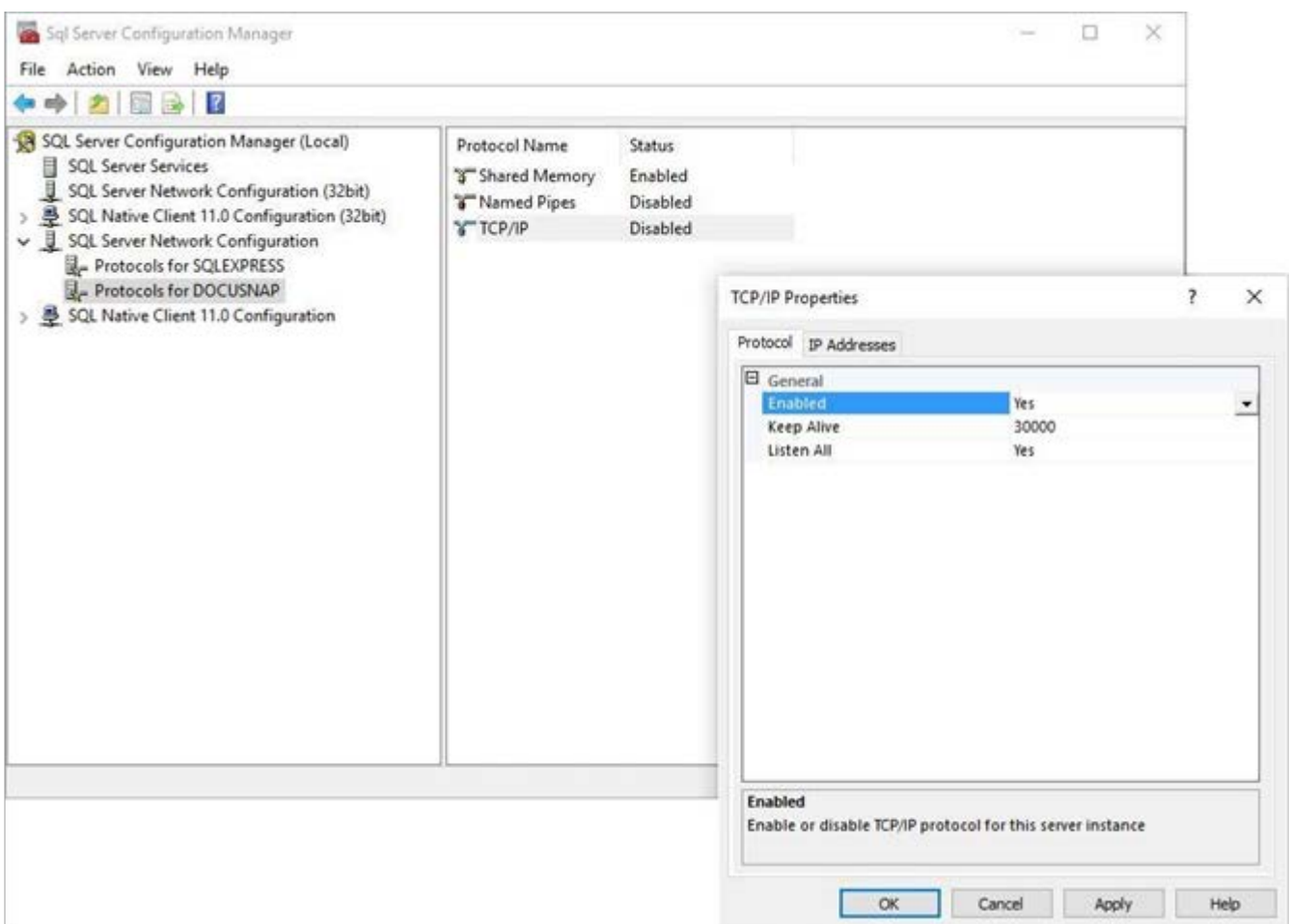
Enable TCP/IP.

Fig. 22 - SQL Server Express Configuration - SQL Server Network Configuration

5.2.2 Starting the SQL Browser Service

This step is necessary for the listing of the SQL Server in the Docusnap configuration and for the negotiation of the communication port. Please set the start mode of the service to Automatic and then start the SQL Server Browser service.
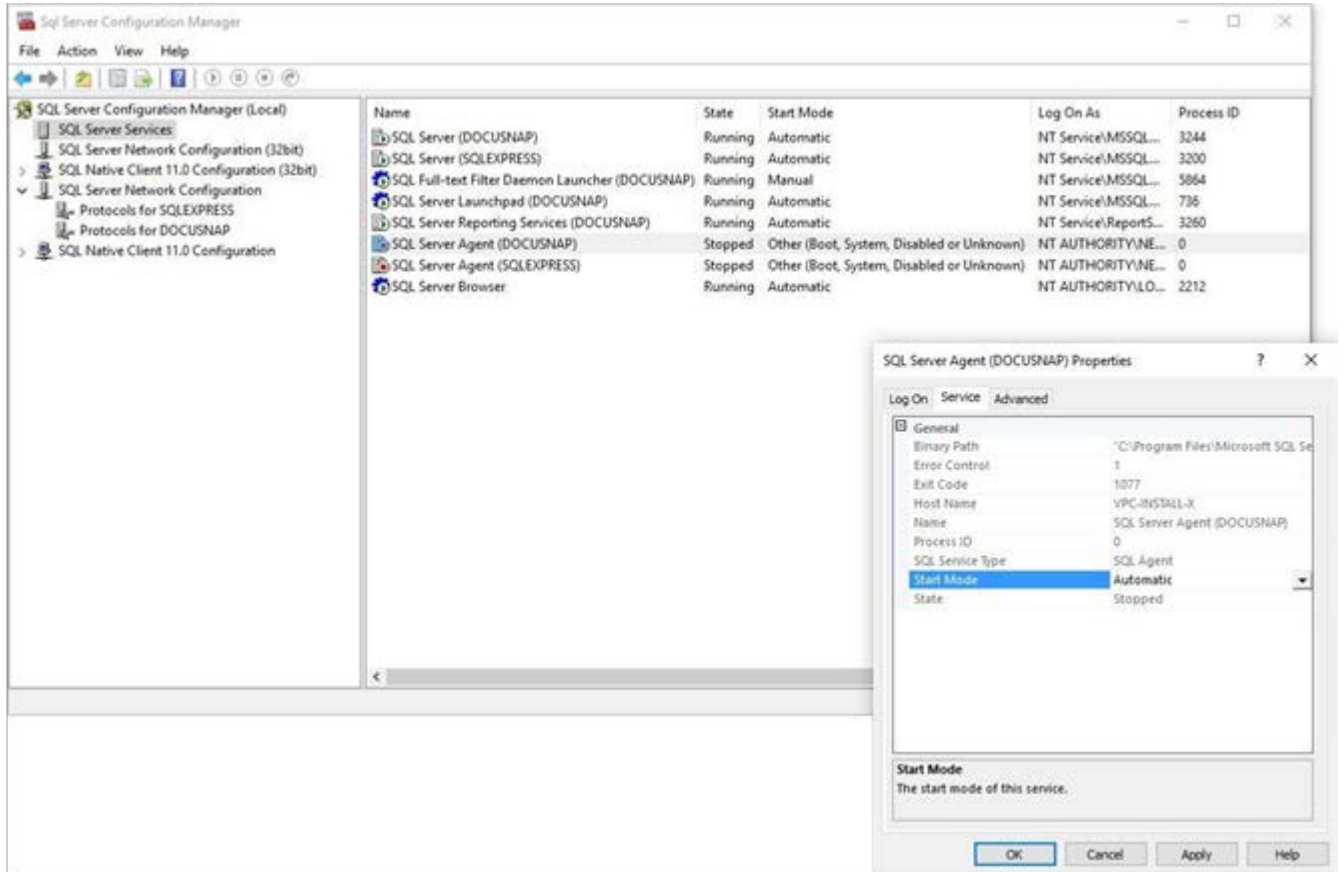

Fig. 23 - SQL Server Express Configuration - SQL Server Browser Service

5.2.3 Database Users and Permissions

> The Docusnap database itself is not created via SQL Management Studio, but automatically during the initial configuration of Docusnap. Please note that it is only possible to assign user rights to the database after it has been created.

The users who connect to the Docusnap database must have **db_owner** permissions.

In the following example, the SQL Server Management Studio first creates an SQL user **Docusnap** and then assigns it membership in the db_owner role for the Docusnap database.
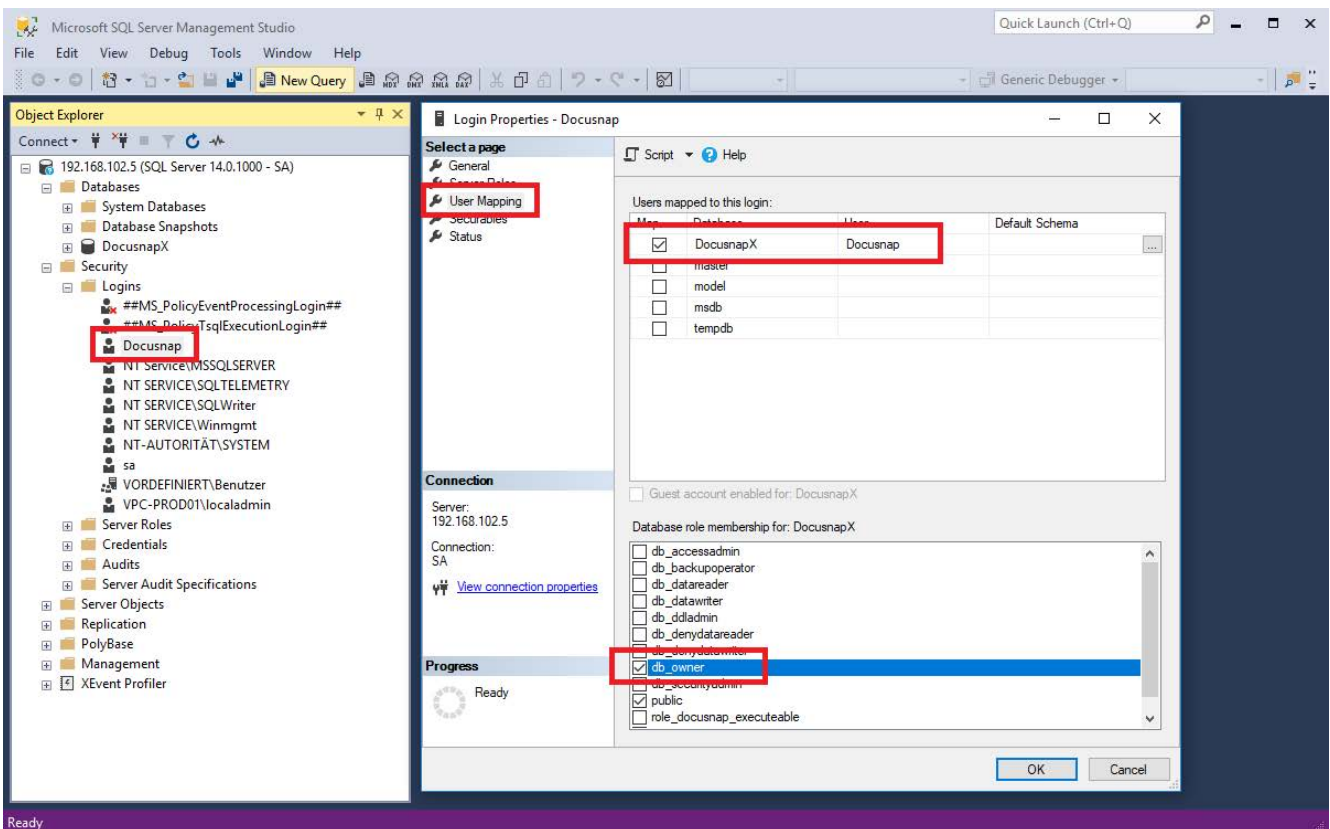
Fig. 24 - SQL Server Express Configuration - Database permissions

To use SQL Server authentication, SQL Server and Windows authentication mode must be enabled for mixed authentication.

When using Windows authentication mode only, all accessing users or groups must be authorized for access in SQL Server Management Studio. This applies in particular to the service account used for the Docusnap Server Service.
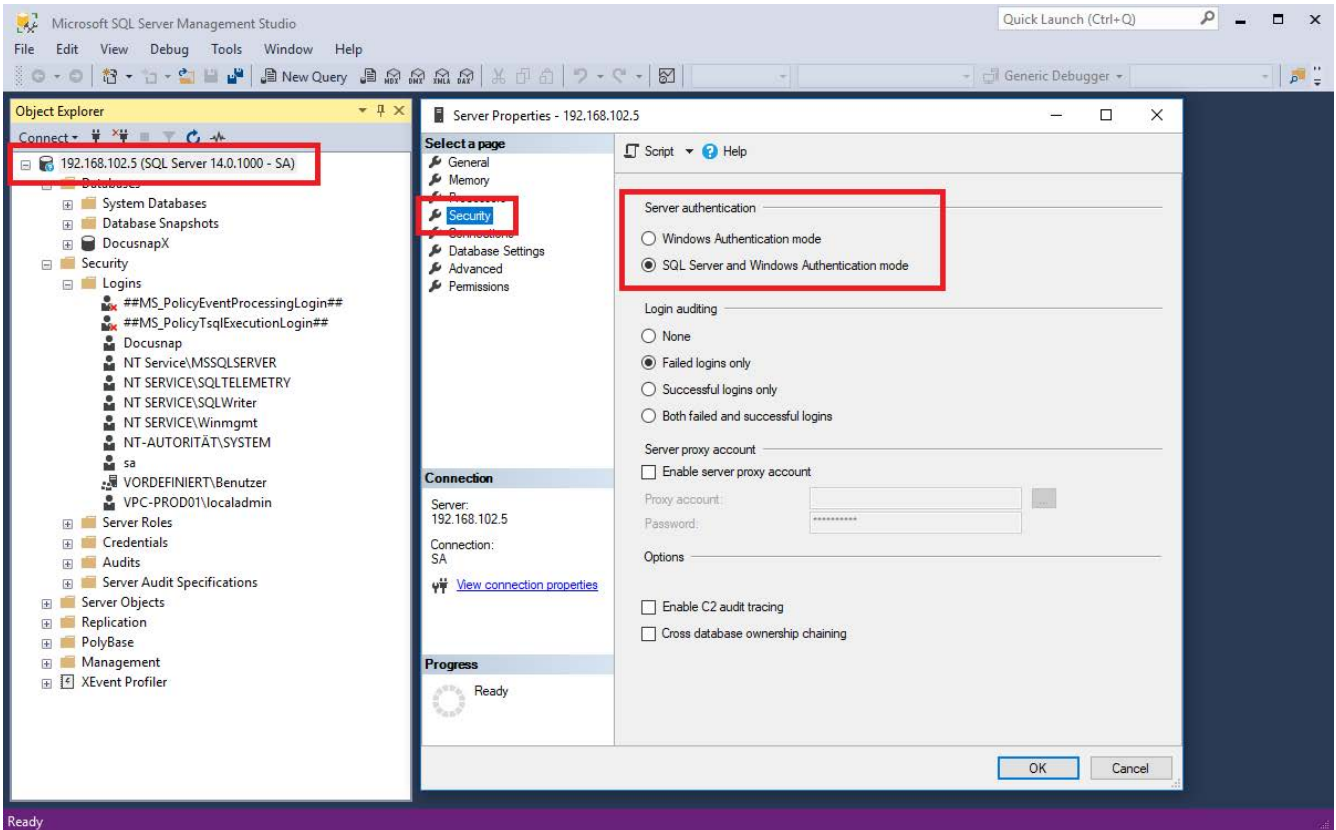

Fig. 25 - SQL Server Express Configuration - Database authentication

5.2.4 Enabling SQL Server in the Windows Firewall

In order to allow access to the SQL Server and the Docusnap database via the network, you need to configure corresponding Firewall rules for the SQL Server and the SQL Browser services while the Firewall is enabled.

To create these Firewall rules, go to Control Panel – Windows Firewall – Allow an app or feature through Windows Firewall.

Fig. 26 - SQL Server Express Configuration - Configuring the Windows Firewall
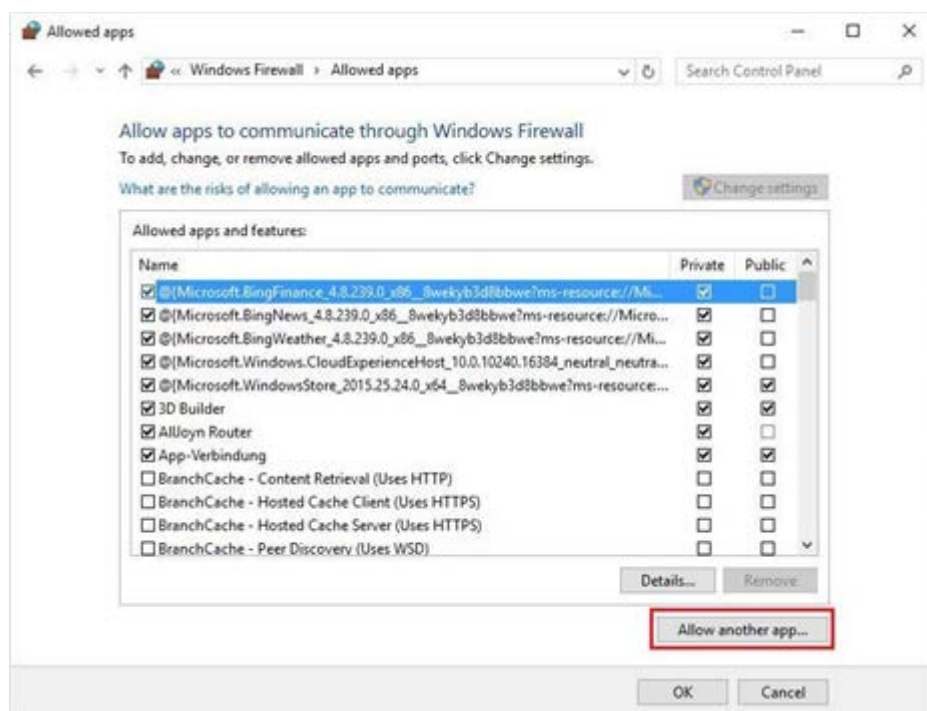
Fig. 27 - SQL Server Express Configuration - Allow another app

Navigate to the following path:

C:\Program Files\Microsoft SQL Server\MSSQL14.DOCUSNAP\MSSQL\Binn

and select the **sqlservr.exe.**

The path may be different here - MSSQL14.DOCUSNAP - Docusnap is in this case the name of the SQL instance and 14 is the version number of the SQL Server.
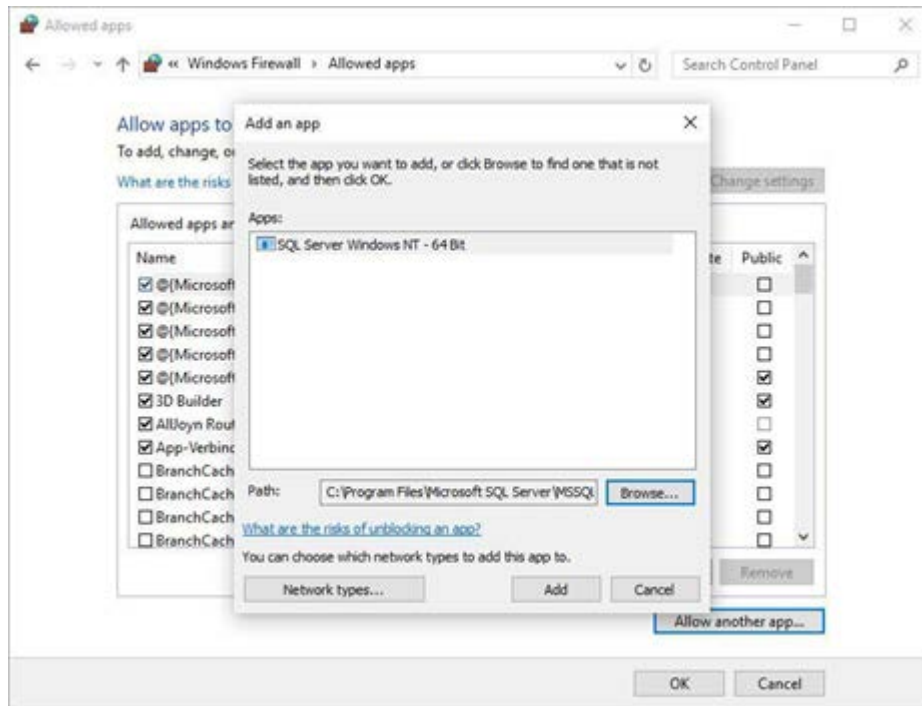
Fig. 28 - SQL Server Express Configuration - Adding the SQL Server exe

Repeat the process for the *sqlbrowser.exe* found in the following path is:
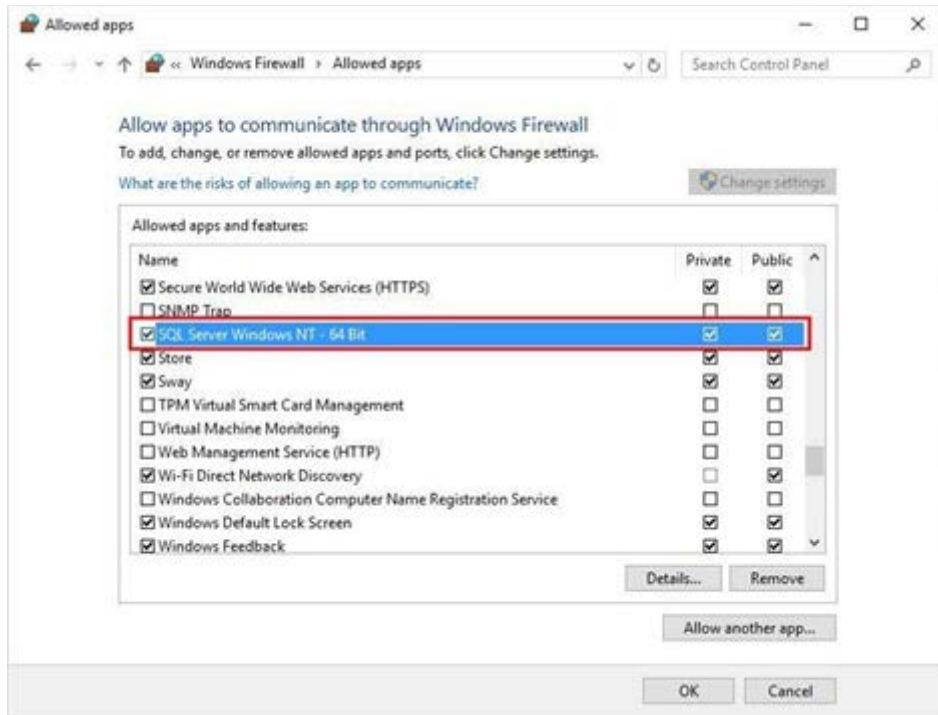
C:\Program Files (x86)\Microsoft SQL Server\90\Shared

Fig. 29 - SQL Server Express Configuration - Windows Firewall - Enabled SQL apps

5.3 Optional Step: Updating your LocalDB to SQL Server (Express)

After the installation of Microsoft SQL Server Express or a fully-featured Microsoft SQL Server with Management Tools, you can add your local DB to it.

The local database (*.mdf and *.ldf files) is located in the user directory of the user who installed the local database and Docusnap.

Copy both files to the SQL Server. Attaching the database works as follows:

Open **Microsoft SQL Server Management Studio** and log on as a user with **sysadmin** permissions (SA or similar).

Right-click **Databases** - **Attach**.
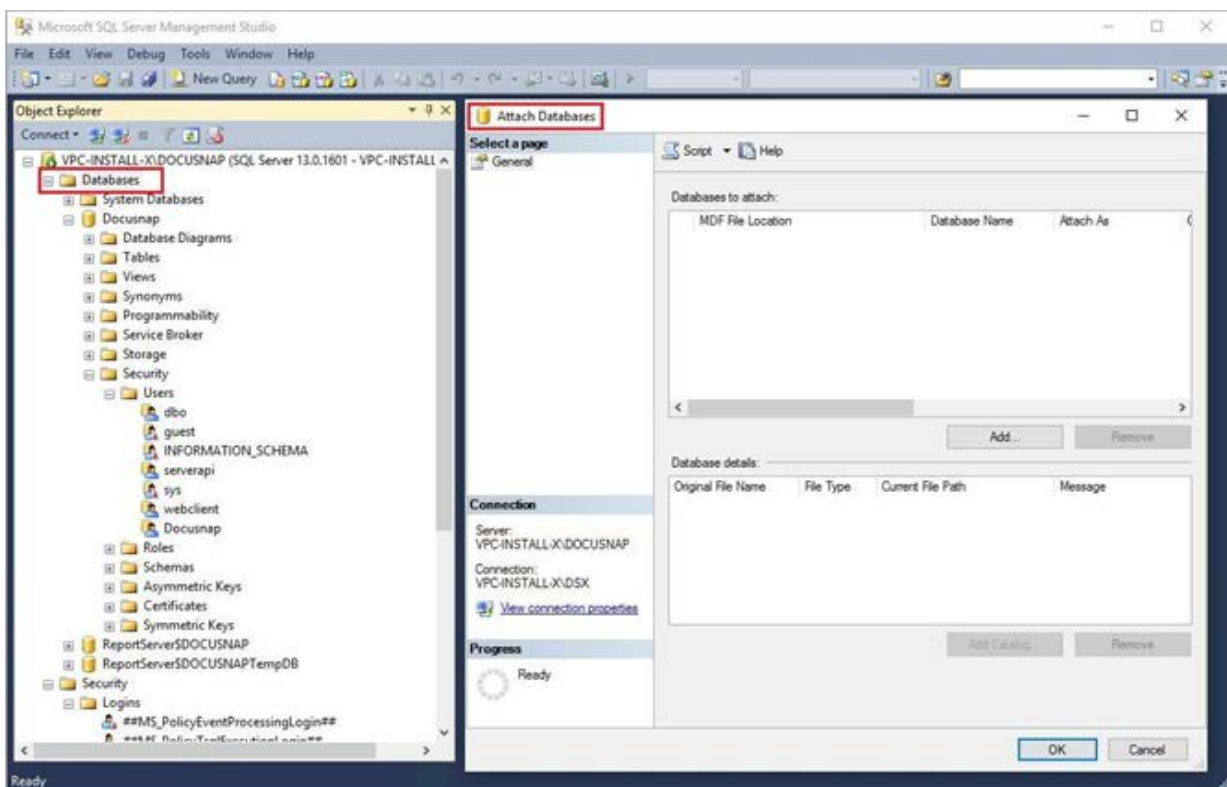
Fig. 30 - Updating the LocalDB to SQL Server

Now, click **Add** to add the file location and select the *.mdf file.

The **Attach Databases** panel shows information related to the database. Here, you can e.g. change the database name in the **Attach as** section.
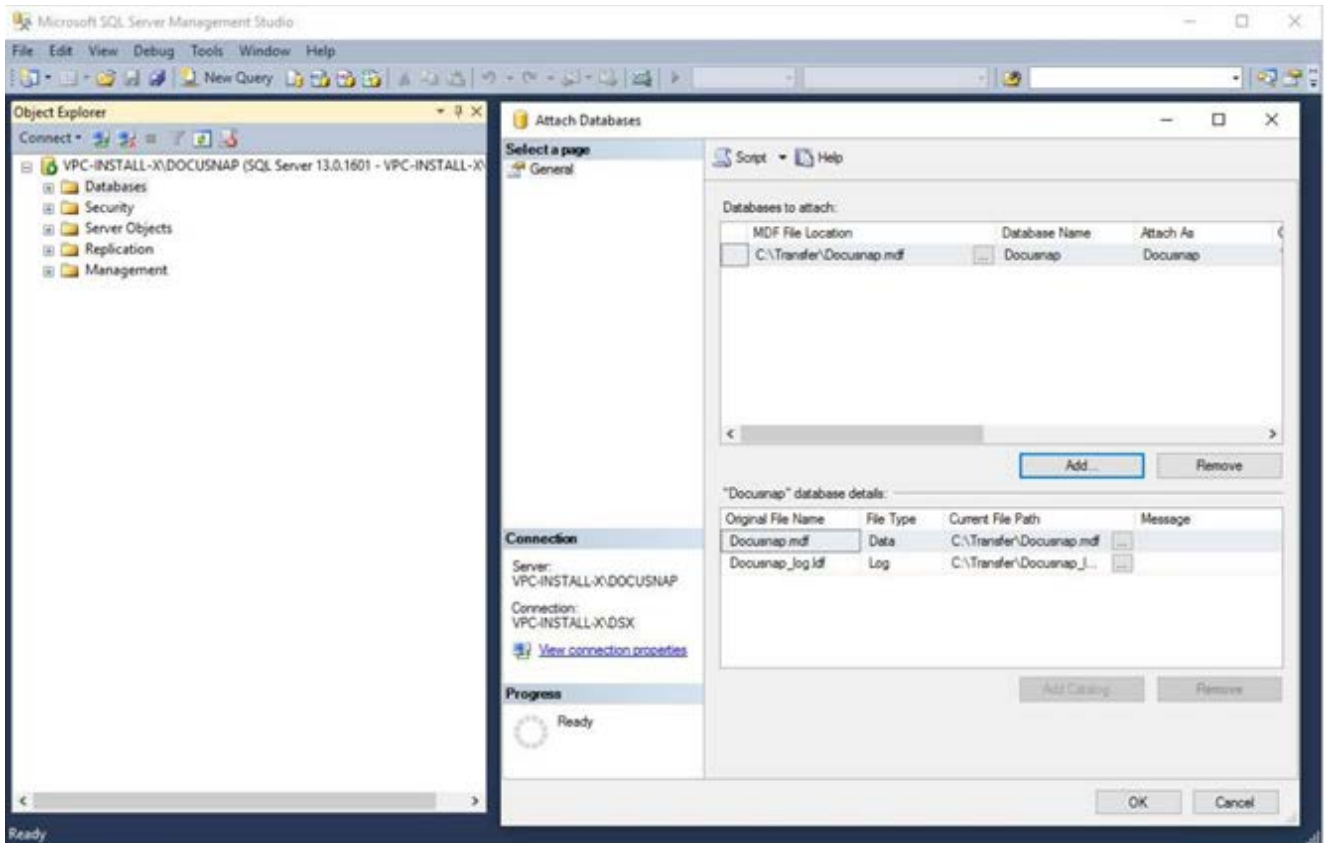
Fig. 31 - Updating LocalDB to SQL Server - Selecting and attaching the LocalDB

5.4 Optional Step: Deployment of the DocusnapDemo database on a SQL server

With every installation of Docusnap an SQL-Backup file is supplied, which is already filled with data (inventories, concepts, ...) from a test infrastructure.

This infrastructure can give you an insight into what information Docusnap reads in and how it can be processed.

The Docusnap.bak file is located at **%ProgramFiles%\Docusnap X\Templates** and can be restored using Microsoft SQL_ Management Studio:

After you have connected to the SQL server, you can restore the database with a right click and select the backup file in the window that opens by selecting "Medium". Confirm this window with OK to restore the database.

Fig. 32 – Restoring DocusnapDemo

LIST OF FIGURES

Version history

Date	Description
September 05, 2016	Adaptations according to RTM Docusnap X
September 27, 2016	Docusnap Server Revision
October 25, 2018	Screenshots updated; New architecture of the web browser
July 26, 2019	Screenshots and texts updated New chapter added - Setting up a Central Configuration File
August 22, 2019	Added a note in chapter 3.2 regarding the configuration of the server service.
January 27, 2020	Adding the NPCAP driver path; Correcting the UseConfig parameter in the central configuration; Restoring the DocusnapDemo database