Docusnap – Installing and Configuring

Installing and Configuring Docusnap

TITLE	Docusnap – Installing and Configuring
AUTHOR	Docusnap Consulting
DATE	7/18/2024
VERSION	3.2	valid as of July 18, 2024

CONTENTS

1. INTRODUCTION

The installation and configuration of Docusnap includes the following points:

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

In addition, you need a Microsoft SQL Server instance to run Docusnap.

This HowTo will guide you through the entire installation and configuration process of Docusnap as well as a Microsoft SQL Server Express instance.

Furthermore, the use of a central configuration file is described. This file contains all the necessary configurations of Docusnap and is set up so that every user of Docusnap uses this configuration file.

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

2. BASIC INSTALLATION OF DOCUSNAP

2.1 SYSTEM REQUIREMENTS

- Recommended is at least Windows 10 / Windows Server 2019 / Windows Server 2022
- min. 4 GB RAM, recommend 8 GB RAM
- min. 2 CPU cores or more, recommend 4 CPU cores
- At least .NET Framework 4.8

The specifications regarding CPU and RAM refer to Docusnap only. If you run the SQL-Server instance on the same system as the Docusnap Server, the hardware equipment should be adapted accordingly.

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 or a full Microsoft SQL Server can be used.

For productive use of Docusnap, we recommend using a current Microsoft SQL Server (Express) version (from version 2019). In addition to the database instance, the full text search should also be selected during installation.

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.

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.

2.3 BASIC INSTALLATION

After the downloaded of the current installation file, the Docusnap installation includes the following steps:

- Welcome screen
- End User License Agreement - Consent required
- Select installation directory
- Database selection
- IP Scanner / recommended drivers
- Completion / Installation

In the step **Database Selection**, you must decide whether you want to use an existing Microsoft SQL server (recommended) or the local database. Docusnap will not install a Microsoft SQL Server in this step - it must already be available.

In the step **IP Scanner / recommended drivers** you can install the NPCAP driver. This is a prerequisite for the extended IP scan. You can also install the NPCAP driver manually, the setup is located at %ProgramFiles%\Docusnap 13\MSI\npcap-oem.exe

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 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. This key is entered in the **Activation Key** field.

How to activate the Docusnap installation online
After entering the key press the **Activate** button. A permanent connection to our license server (https://license.docusnap.com) must be possible.

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.**

After entering the activation key press the **Offline Activation** button and select **Create Activation Request.**

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 START OPTIONS

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.

3.1.3 DATABASE CONNECTION

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

Information about the SQL server and the database:

- Server name\instance name or IP address\instance name
- Name of the database: Docusnap

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/Create button.

After the necessary data has been entered, you can create the database by clicking on the Connect/Apply button.

When creating a new database, you have the option of including the Docusnap demo client in the database. This contains demo data.

Note: The demo client cannot be added afterwards for technical reasons.

3.1.4 SETTINGS

In step 4, the Docusnap system paths are specified. By default, documentation, reports, input masks and other documents are stored in these paths. In addition, you will find customizations and other settings there.

Best practice is to set up a central Docusnap directory that is accessible via the network by means of sharing.

The Local and Team Settings paths can be combined - With this centralized sharing path, you are prepared to use Docusnap with multiple users and client installations. For example:

- \\DocusnapServer\Docusnap\Documentation
- \\DocusnapServer\Docusnap\TeamSettings
- …

> 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.

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.

> 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

3.2.1 SERVER START SETTINGS

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. You can also authorize the local system account to access the database if the Docusnap Server and SQL Server are available on the same system.

Please also note the notes regarding the necessary authorizations when a user is used to run the service.

- Administration rights on the system
- Local security policy
  - o   Log on as a service
  - o   Replace a process level token

For more information, see the help that you call by pressing F1.

If a user is used to run the service, we recommend using the NetBios notation:

- Domain\Username

Group Managed Service Accounts are supported!

3.2.2 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 Windows service and authorize accordingly!

3.2.3 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.

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

3.2.3.1 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.

To do this, open the configuration of the Docusnap Server in the Title Bar – General - Docusnap Server 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:

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.

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. Note here that authentication is only active if user management has also been activated in Docusnap. Until this is implemented, the Anonymous Authentication is valid!

You can find more information about how to log in to Docusnap Web in the corresponding HowTo in our Knowledge Base: Docusnap Web Configuration.

Please note the following with the HTTP Security Headers option:

<u>Enabling this option causes the Web client to no longer display the embedded reports, maps and documents due to the higher security requirement!</u>

This option denies loading X-frames, which provides protection against clickjacking.

Clickjacking attacks use multiple transparent/opaque layers that cause a user to perform actions that they do not want to perform or are unaware that they are performing - such as clicking a button or clicking a link.

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.

4. SETTING UP A CENTRAL CONFIGURATION FILE

The previous chapter Configuring Docusnap described the steps required to configure Docusnap.

If you do not want to carry out these steps for every Docusnap client installation and also want to ensure that all users use the same configurations, you can set up a central configuration file.

The client configurations carried out are all saved in a configuration file. This can be found under the following path of the user who carried out the configuration

- %AppData%\Docusnap\Configuration.xml

Create a new folder in your Docusnap base path, e.g. Configuration. Move the Configuration.xml file to this folder.

In the next step, customise the DocusnapSettings.xml file in the C:\ProgramData\Docusnap folder.

Copy the following XML passage into the file and overwrite the existing one. Adjust the path to your centrally stored configuration file (underlined).

```xml
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ApplicationSettings                          xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">

    <AlternativeConfigFile>\\host\share\config.xml</AlternativeConfigFile>

</ApplicationSettings>
```

Copy the customised file to the previously created configuration folder. After reinstalling the client, copy the DocusnapSettings.xml file to C:\ProgramData\Docusnap and overwrite the existing file. After starting Docusnap, all settings are already available.

5. INSTALLATION AND CONFIGURATION OF THE SQL SERVER

The following is a description of how to install and configure an SQL Server Express 2022 instance for use with Docusnap.

5.1 INSTALLING MICROSOFT SQL SERVER

You can download the necessary installation files directly from Microsoft.
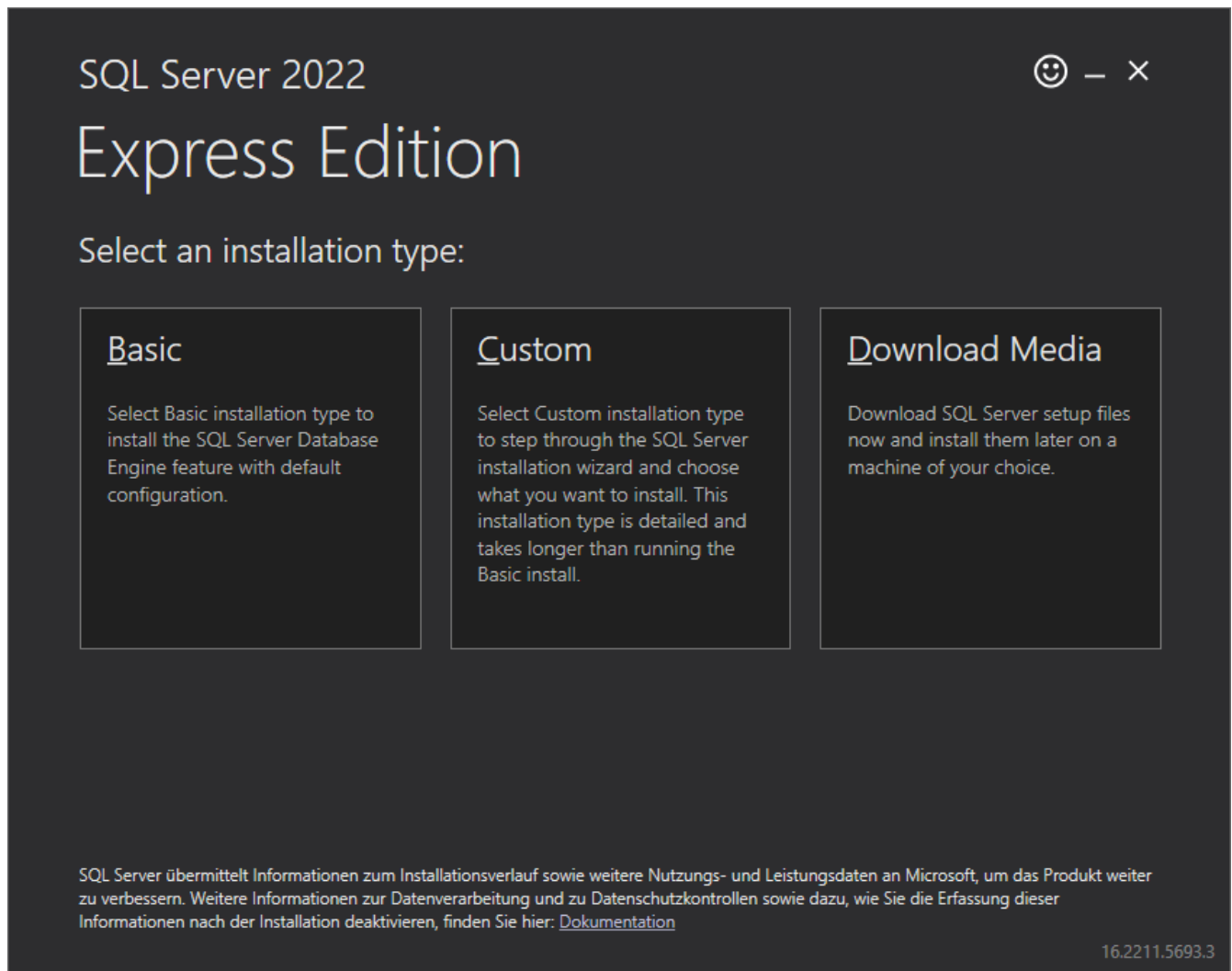
Choose Custom or Download Media:

Fig. 1 – Choose SQL-Server Installation Type

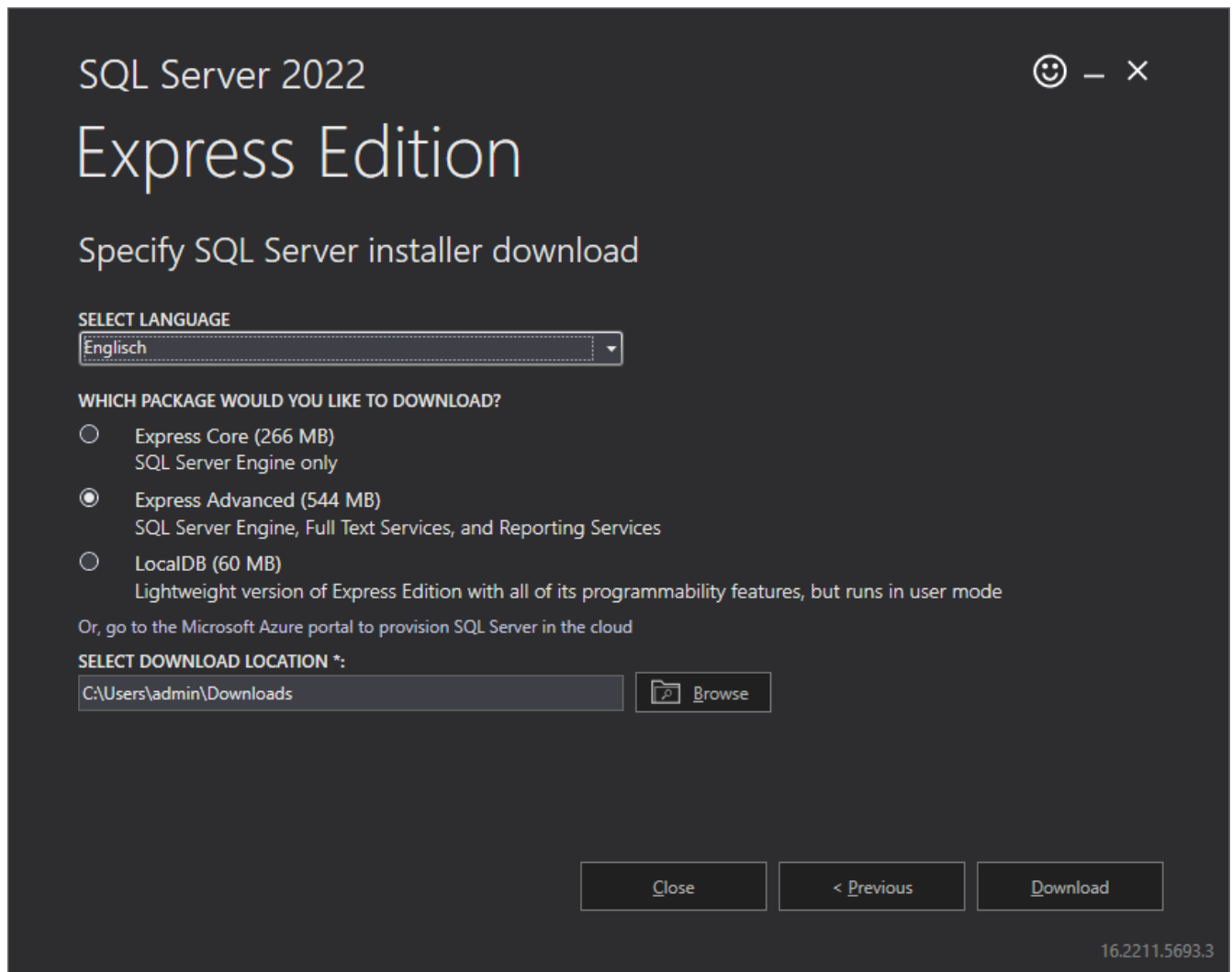If you want to download the installation media first, select The Express Advanced package.

Fig. 2 - Download SQL Server Express 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.
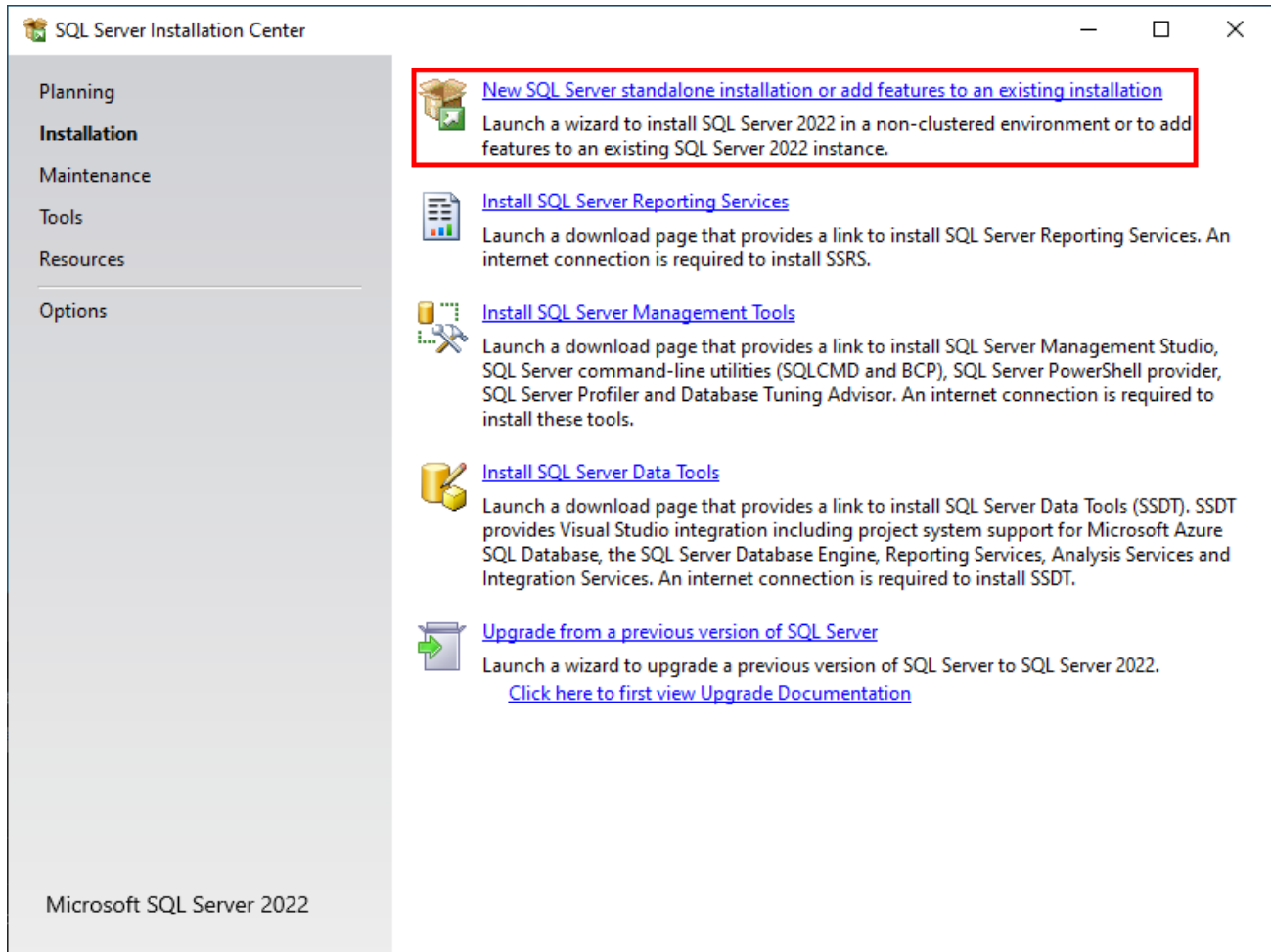
Fig. 3 - SQL Server Installation - Installation Center
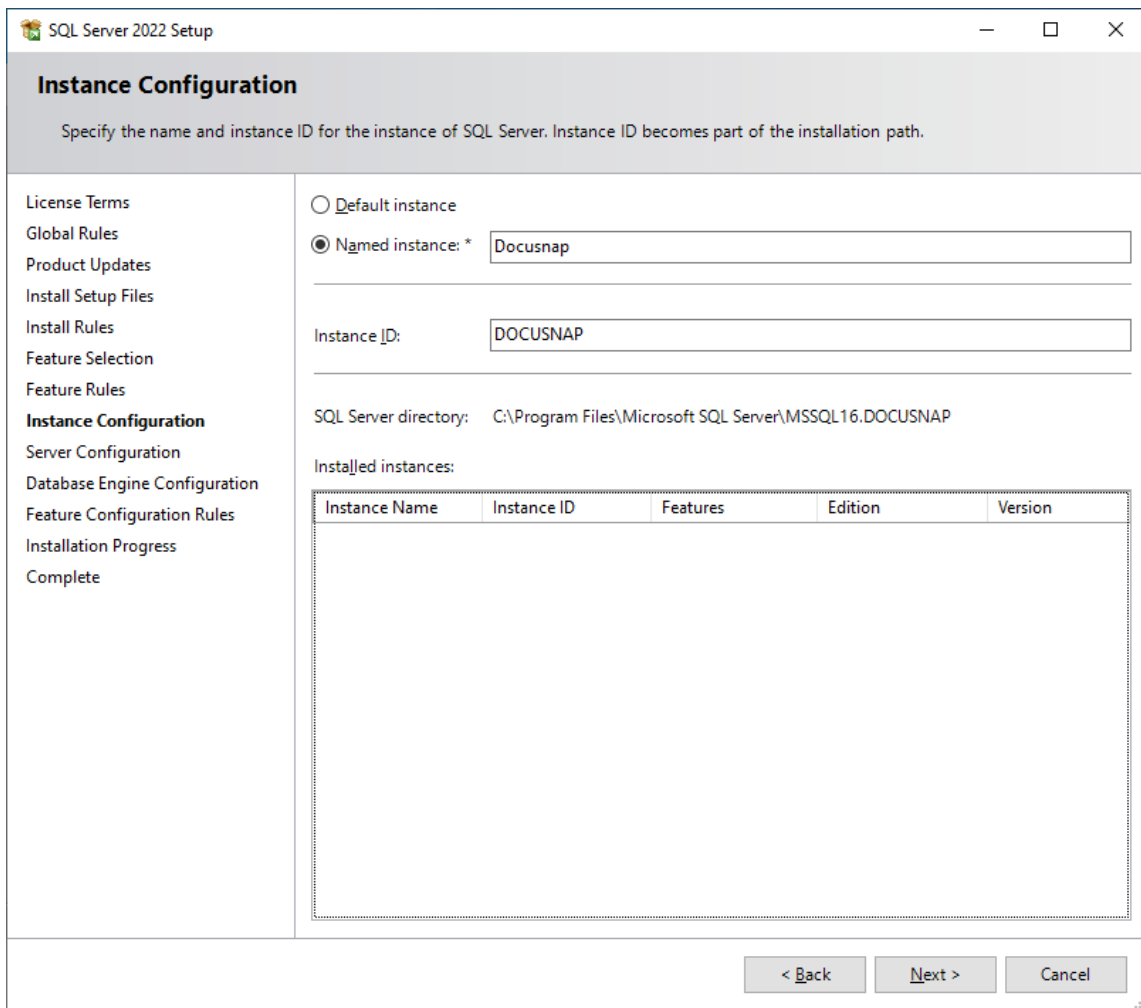
5.1.2 FEATURE SELECTION

In the feature selection step, the following must be selected:

- Instance Features
  - o Database Engine Services
    - SQL Server Replication
    - Full-Text and Semantic Extraction for Search

5.1.3 INSTANCE CONFIGURATION

Within the instance configuration, select the Named instance: Docusnap.

Fig. 4 - SQL Server Installation - Instance Configuration - Choose Instance Name

5.1.4 DATABASE MODULE CONFIGURATION

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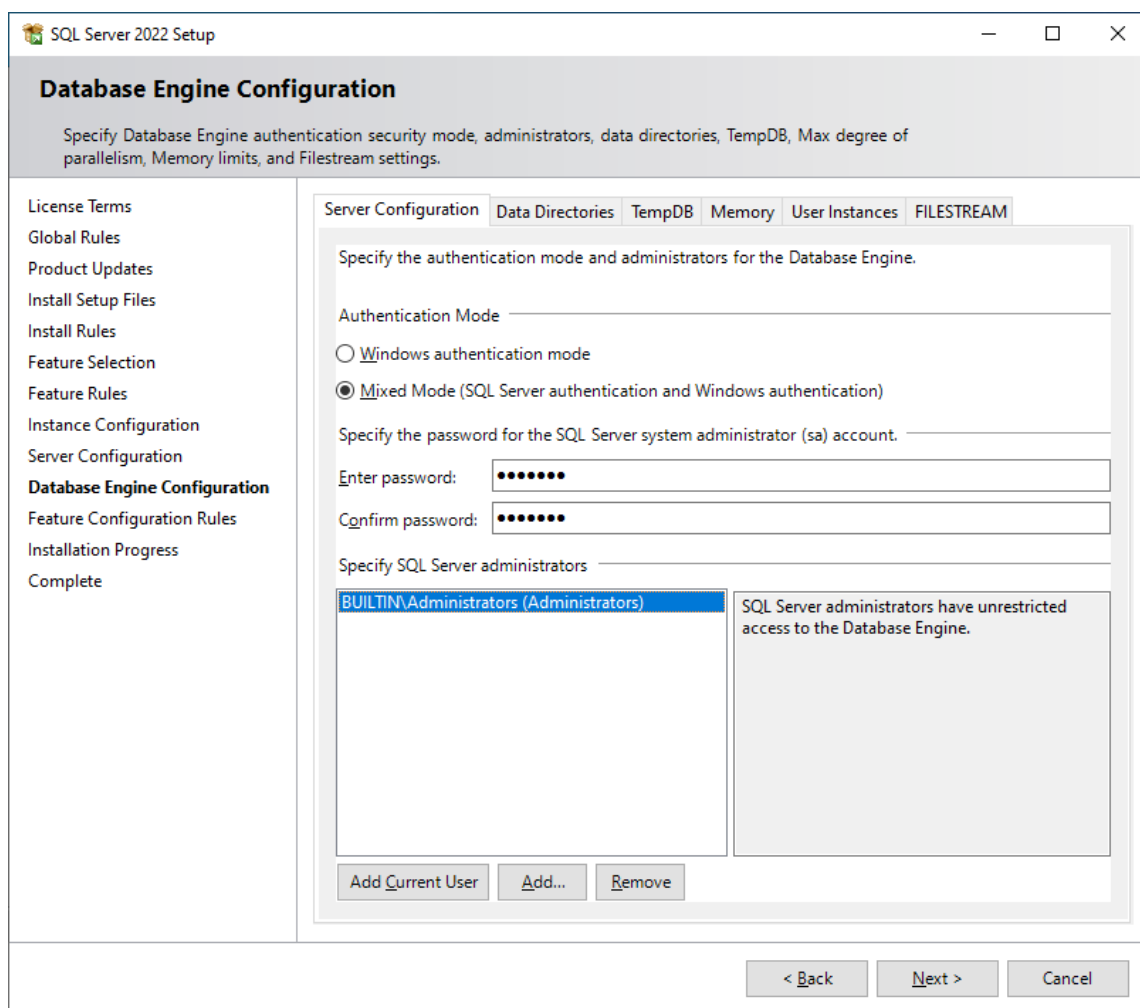

Fig. 5 - SQL Server Installation – Database Engine Configuration – Active SA User

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 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" / DOCUSNAP
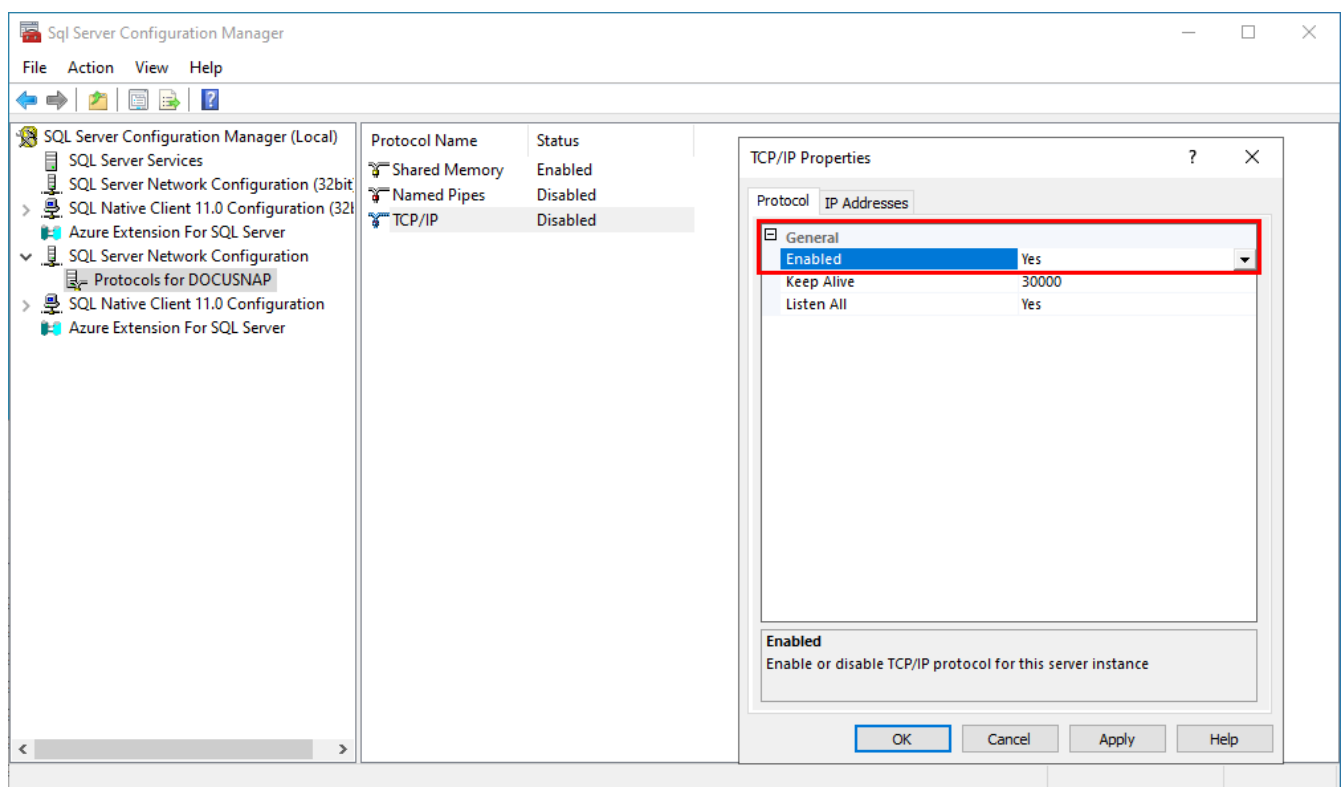
Enable **TCP/IP**.

Fig. 6 - 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.
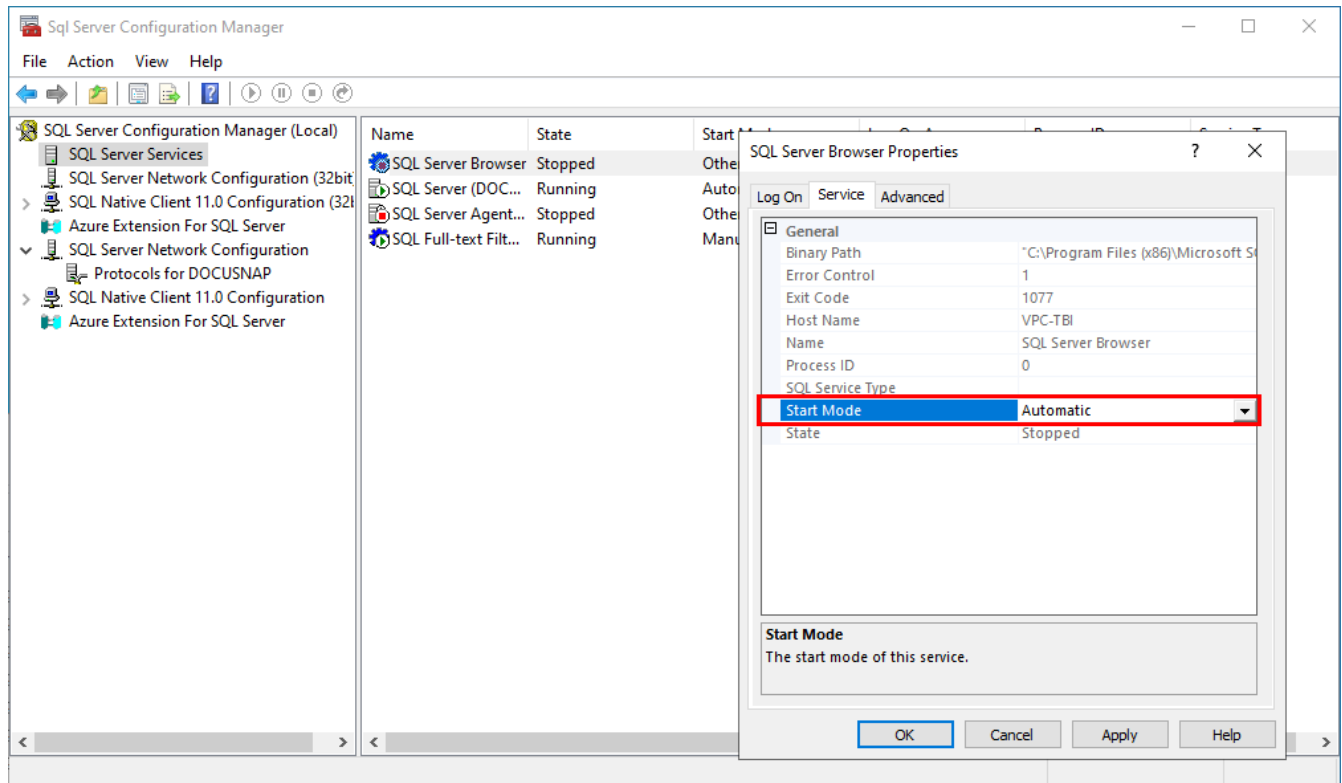

Fig. 7 - SQL Server Express Configuration - SQL Server Browser Service

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.
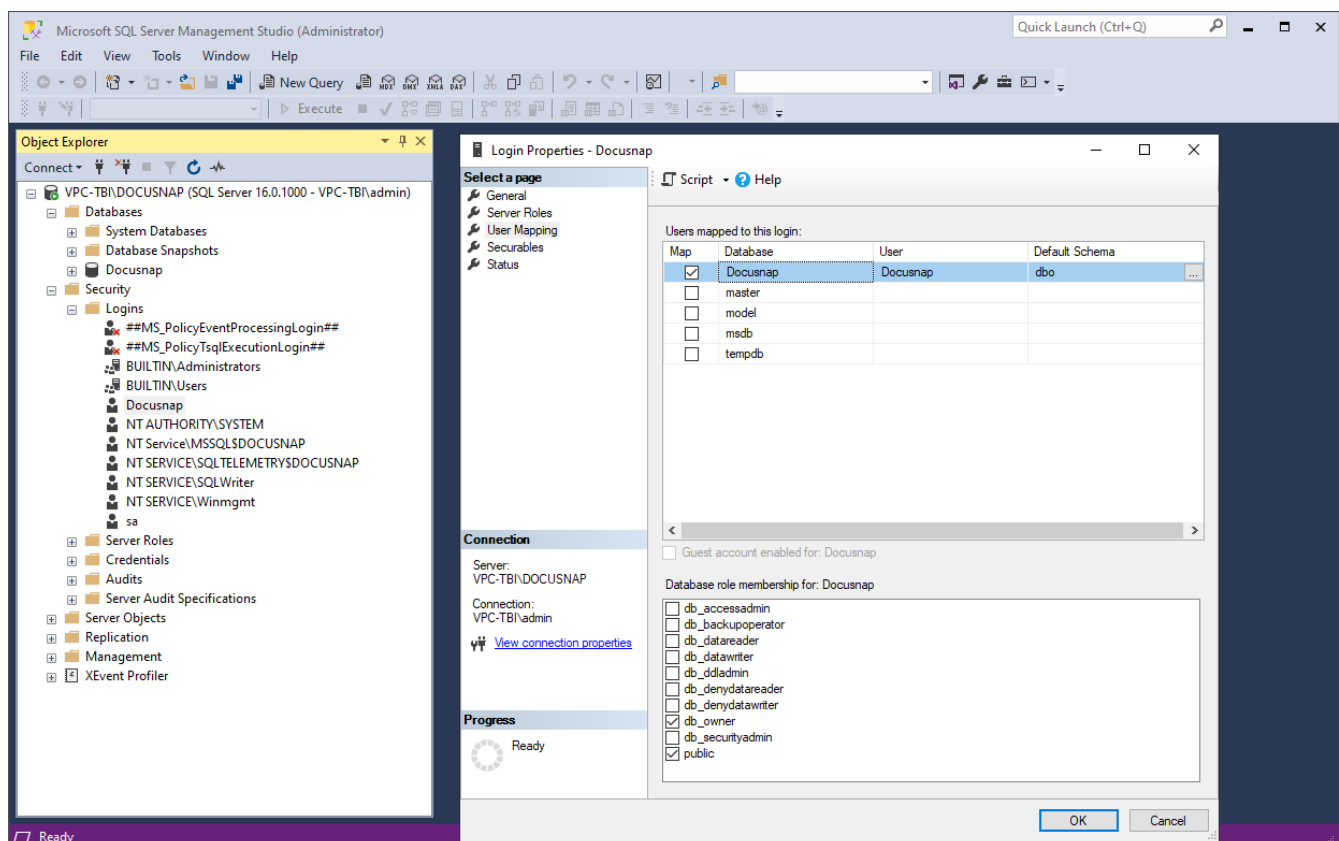

Fig. 8 - SQL Server Express Configuration - Database permissions

> 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.
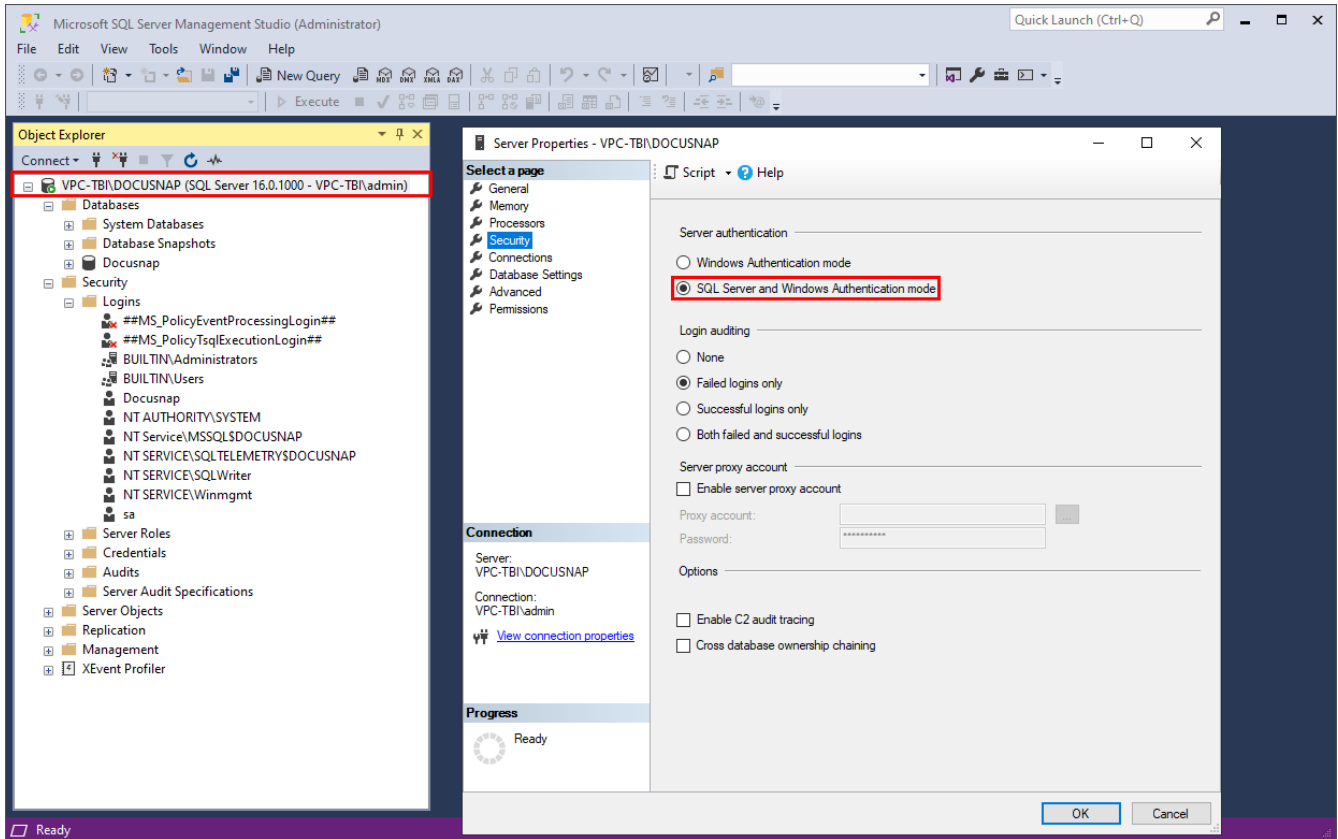

Fig. 9 - SQL Server Express Configuration - Database authentication

5.2.4 ENABLING SQL SERVER IN THE WINDOWS FIREWALL

In order to access the SQL Server and the Docusnap database via the network, a corresponding firewall rule must be activated for the SQL Server and SQL Browser Service when the Windows Firewall is activated.

You create the firewall rules as follows:

Control Panel - Windows (Defender) Firewall - Advanced Settings - Right Click Inbound Rules

- Rule type = Program
- Program - This program path:
  - %ProgramFiles%\Microsoft SQL Server\MSSQL16.MSSQLSERVER\MSSQL\Binn\sqlservr.exe
  - The path can be different - MSSQL16.DOCUSNAP - Docusnap is the name of the SQL instance and 16 is the version number of the SQL Server
  - Furthermore, the installation directory may differ

Repeat the procedure for the sqlbrowser.exe, which can be found in the following path by default:

%ProgramFiles(x86)%\Microsoft SQL Server\90\Shared

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.

The two files must be copied to the SQL server. You can use Microsoft SQL Server Management Studio to append them. Use a user with **sysadmin** permissions (SA or similar).
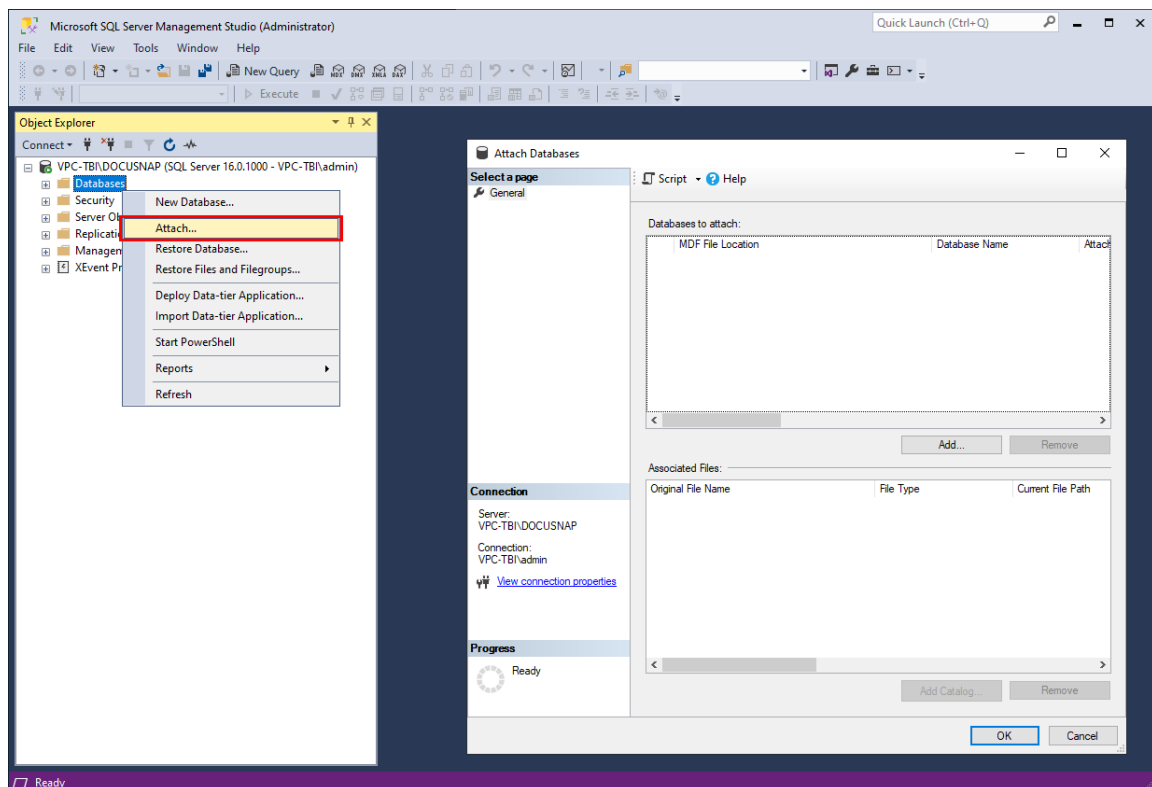
Right click on **Databases - Attach**

Fig. 10 - 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.

6. PROVIDING DEMO DATA

As already described in the chapter Step 3 - Database, you can import demo data when you create a new Docusnap database.

If you confirm the selection regarding the DocusnapSports Demo Company, you will find two clients in your database. The client DocusnapSports cannot be used any further and will only provide you with demo data and will not be taken into account in the license count.

Important: The demo data cannot be subsequently implemented in an existing Docusnap database.

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
May 05, 2020	Version 2.0 - Revision of the HowTos for Docusnap 11
November 04, 2021	Version 2.1 – Added another possibility of a central configuration file, SQL server installation extended by full text search
July 12, 2022	Version 2.2 – System requirements updated (.NET Framework 4.8)
December 14, 2022	Version 2.3 – Revision of the HowTo for Docusnap 12
December 5, 2023	Version 3.0 – Revision of the HowTo for Docusnap 13
May 13. 2024	Version 3.1 - Adjustments made to the recommendations.
July 18, 2024	Version 3.2 - Update of the installing SQL server version