

Instalare SQL Server 2017 Express (x64) si pregatire pentru ForIT - Forms

Tip	Document tehnic
Autor	Foris Zoltan
Versiunea	-
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Prefata

Cateodata este necesara instalarea (sau reinstalarea) manuala a serverului de baze de date **Microsoft SQL Server 2017 Express (x64)** pentru ca setup-ul **ForITFormsServer.exe** nu reuseste sa instaleze automat din diverse motive.

Ce este MS SQL Server si cum este folosit in ForIT - Forms

MS SQL Server este un server de baze de date relationale (RDBMS) care dispune de un limbaj de programare SQL (Structured query language), prin intermediul caruia programele interactioneaza cu datele inregistrate si stocate in bazele de date.

MS SQL Server este implementat (pe sistemul de operare Windows) sub forma unui serviciu (Windows Service). Comunicarea intre programe si serviciul MS SQL Server este realizata prin 3 protocoale: TCP/IP, Named Pipes si Shared Memory Provider. Local, programele folosesc Named Pipes sau Shared Memory Provider, iar de la distanta (de pe alt calculator) comunicarea este realizata prin protocolul TCP/IP. Portul implicit este 1433.

MS SQL Server dispune de o versiune simplificata, limitata si gratuita, MS SQL Server Express, care este folosit si de programul de gestiune ForIT - Forms, insa versiunea Express in mod implicit nu expune portul 1433 si nici nu permite conexiuni de la distanta - de pe alt calculator (aceste configurari sunt efectuate de catre setupul ForIT - Forms si / sau de catre utilitarul ForITFormsSQLInit).

Securitatea datelor este garantata prin autorizarea implicita Windows, sau autorizarea combinata Windows + autorizare SQL Server.

MS SQL Server stocheaza datele in fisiere. Extensia acestor fisiere sunt:

- .mdf: fisier care contine datele
- .ldf: fisier log

Pentru integritatea bazei de date, amandoua fisiere sunt vitale.

Pentru fiecare baza de date MS SQL Server Express creeaza (cel putin) o pereche de fisiere .mdf si .ldf care se numesc astfel: <nume_baza_date>.mdf si <nume_baza_date>_log.ldf si sunt stocate implicit in folderul de instalare a serverului de baze de date, care poate fi (in functie de arhitectura procesorului sau a versiunii dedicate pentru procesor: x86 sau x64):

Arhitectura (procesor) x64		Arhitectura (procesor) x86
instalare 64 biti	instalare 32 biti	instalare 32 biti
C:\Program Files\Microsoft SQL Server\MSSQL14.SQLEXPRESS\MSSQL\Data	C:\Program Files (x86)\Microsoft SQL Server\MSSQL14.SQLEXPRESS\MSSQL\Data	C:\Program Files\Microsoft SQL Server\MSSQL14.SQLEXPRESS\MSSQL\Data

Incepand cu versiunea v5.1.x, fisierele de baze de date folosite de catre programul de gestiune ForIT - Forms sunt create in folderul de instalare a programului de gestiune ForIT - Forms: **C:\Program Files (x86)\ForIT Solutions\ForIT - Forms\SQLDatabases** .

Instante

Pe un calculator este posibila instalarea a mai multor instante de SQL Server. O instanta este identificata prin nume (implicit este SQLEXPRESS si nu trebuie modificat pentru ForIT - Forms), fiecare instanta avand propriul set de fisiere (programe si date). SQL Server suporta 50 de instante pe un calculator. Conectarea la o instanta particulara se realizeaza prin NUME_SAU_IP\INSTANCE_NAME, spre ex. SERVER\SQLEXPRESS, unde SERVER este denumirea calculatorului si SQLEXPRESS este numele instantei. Conectarea la o instanta locala se poate face prin .\SQLEXPRESS, unde punctul indica calculatorul local (localhost).

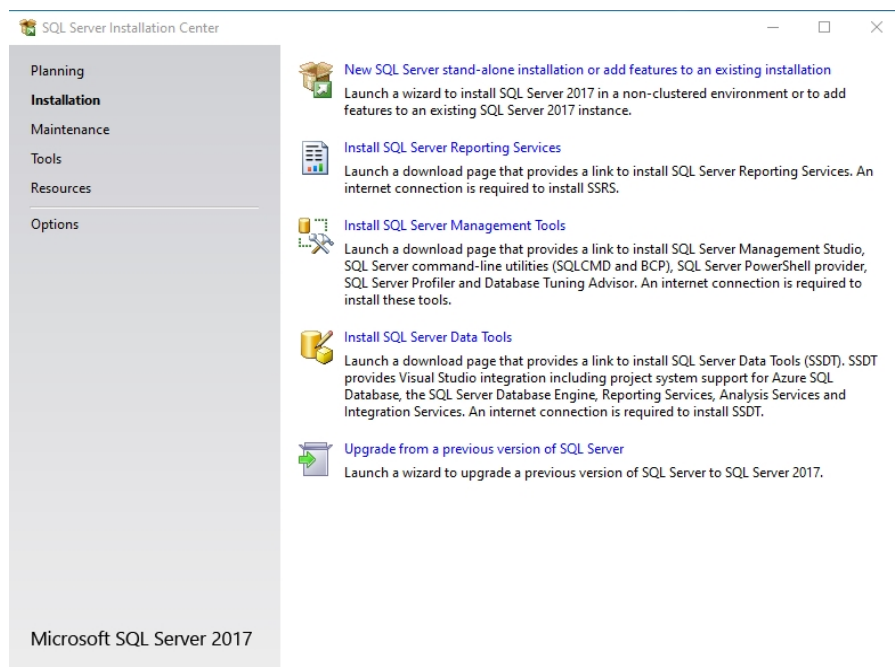
ForIT - Forms se poate configura sa foloseasca oricare instanta, folosind utilitarul Configurare Retea, insa nu este recomandata folosirea unei alte instante decat SQLEXPRESS (necesita interventia de la ForIT Solutions, reconfigurarea tuturor statilor implicate). Totusi, in anumite situatii, daca clientul dispune de o licenta de SQL Server si doreste folosirea serverului propriu de baze de date, este necesara optiunea de conectare la o instanta specifica sau implicita (fara denumire).

Instalare SQL Server 2017 Express (x64)

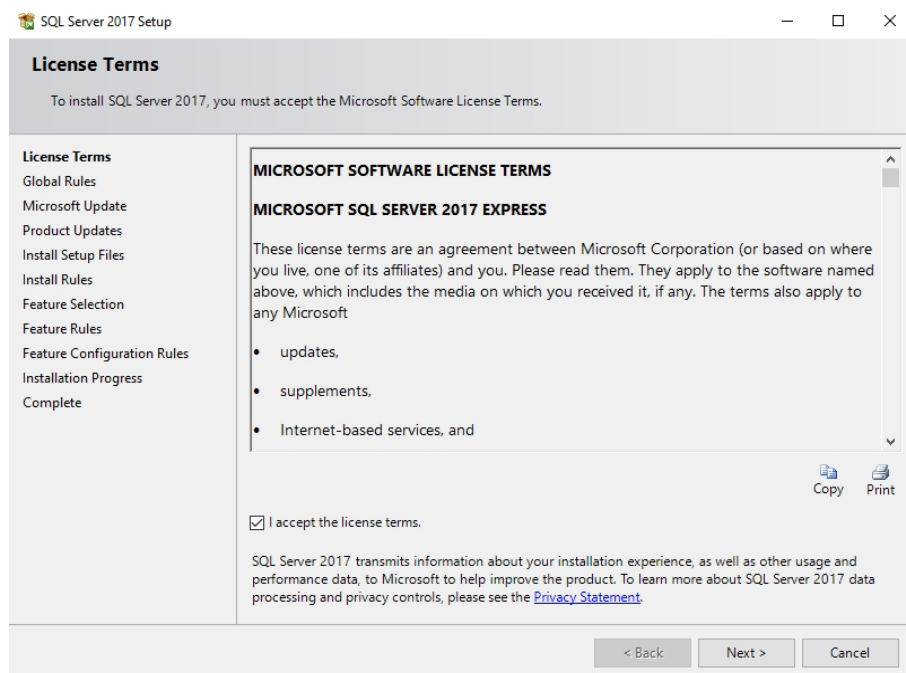
1. Se descarca kitul de instalare

https://www.foritsolutions.com/download/SQLEXPRAADV_x64_ENU.exe .

2. Se lanseaza in executie programul descarcat: SQLEXPRAADV_x64_ENU.exe .

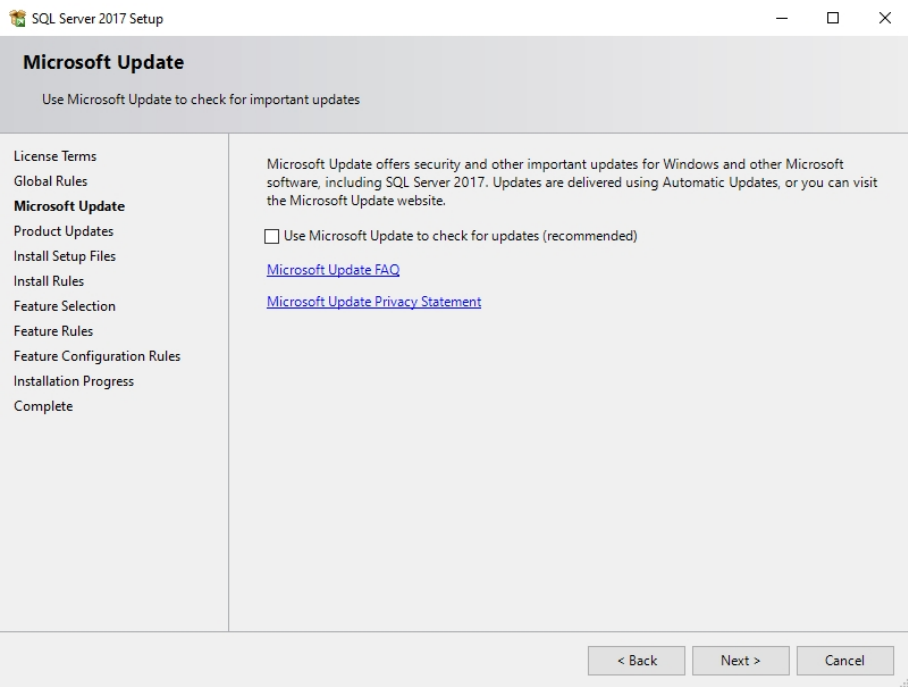


3. Se alege optiunea de instalare **New SQL Server stand-alone installation or add features to an existing installation.**

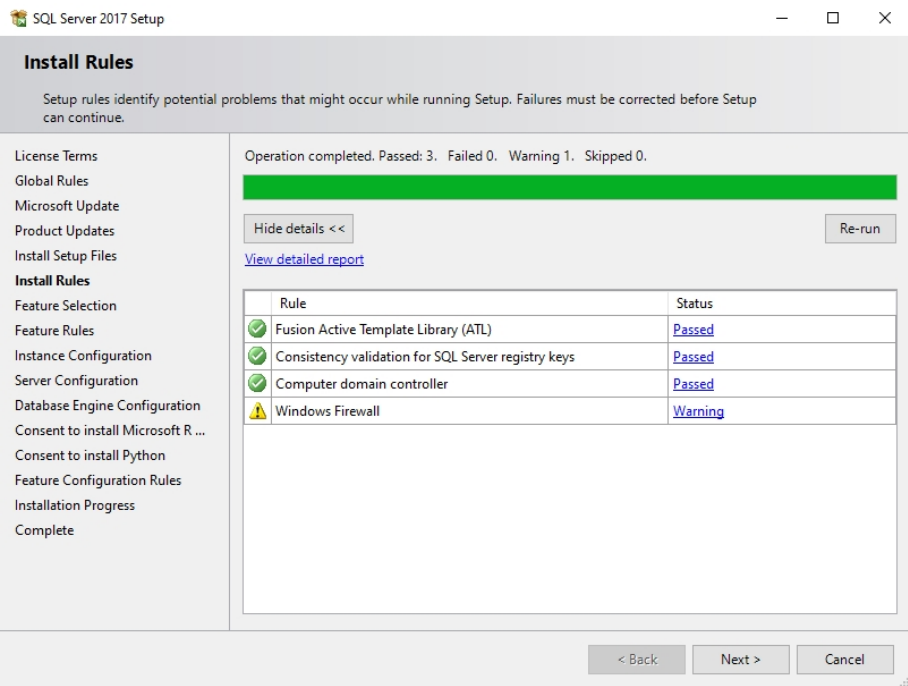


Se bifeaza **I accept the license terms** si se apasa butonul **Next**.

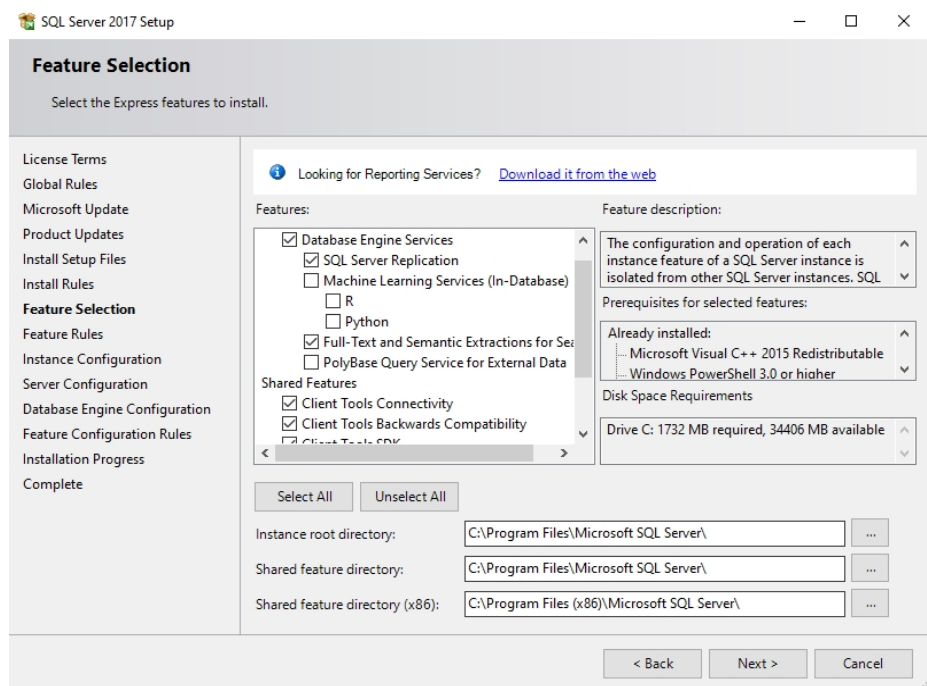
4. Se apasa butonul **Next** .



5. Se apasa butonul **Next**.



6. Se debifeaza **Machine Learning, R, Phytion si Full-text and Semantic.**



Feature Selection

Select the Express features to install.

License Terms
Global Rules
Microsoft Update
Product Updates
Install Setup Files
Install Rules
Feature Selection
Feature Rules
Instance Configuration
Database Engine Configuration
Feature Configuration Rules
Installation Progress
Complete

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Features:

- ☒ Database Engine Services
- ☒ SQL Server Replication
- ☐ Machine Learning Services (In-Database)
- ☐ R
- ☐ Python
- ☒ Full-Text and Semantic Extractions for Search
- ☐ PolyBase Query Service for External Data

Shared Features

- ☒ Client Tools Connectivity
- ☒ Client Tools Backwards Compatibility
- ☒ Client Tools SDK

Feature description:

The configuration and operation of each instance feature of a SQL Server instance is isolated from other SQL Server instances. SQL

Prerequisites for selected features:

Already installed:

- Microsoft Visual C++ 2015 Redistributable
- Windows PowerShell 3.0 or higher

Disk Space Requirements

Drive C: 1732 MB required, 34406 MB available

Select All Unselect All

Instance root directory: C:\Program Files\Microsoft SQL Server\

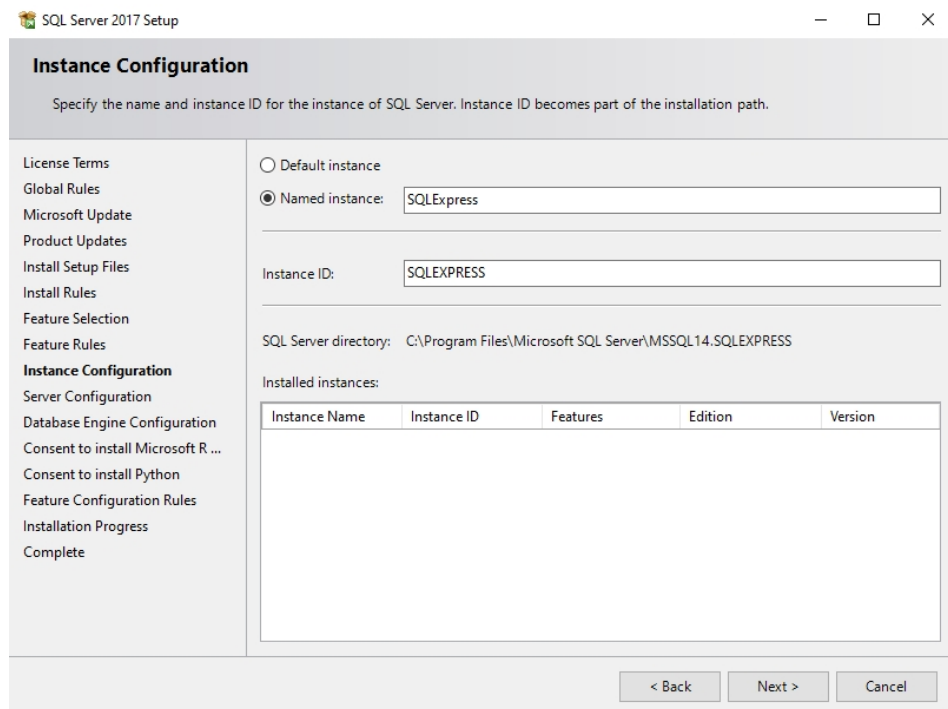
Shared feature directory: C:\Program Files\Microsoft SQL Server\

Shared feature directory (x86): C:\Program Files (x86)\Microsoft SQL Server\

< Back Next > Cancel

Se apasa butonul **Next**.

7. Se apasa butonul **Next**.



Instance Configuration

Specify the name and instance ID for the instance of SQL Server. Instance ID becomes part of the installation path.

License Terms
Global Rules
Microsoft Update
Product Updates
Install Setup Files
Install Rules
Feature Selection
Feature Rules
Instance Configuration
Server Configuration
Database Engine Configuration
Consent to install Microsoft R ...
Consent to install Python
Feature Configuration Rules
Installation Progress
Complete

☐ Default instance

☒ Named instance:

Instance ID:

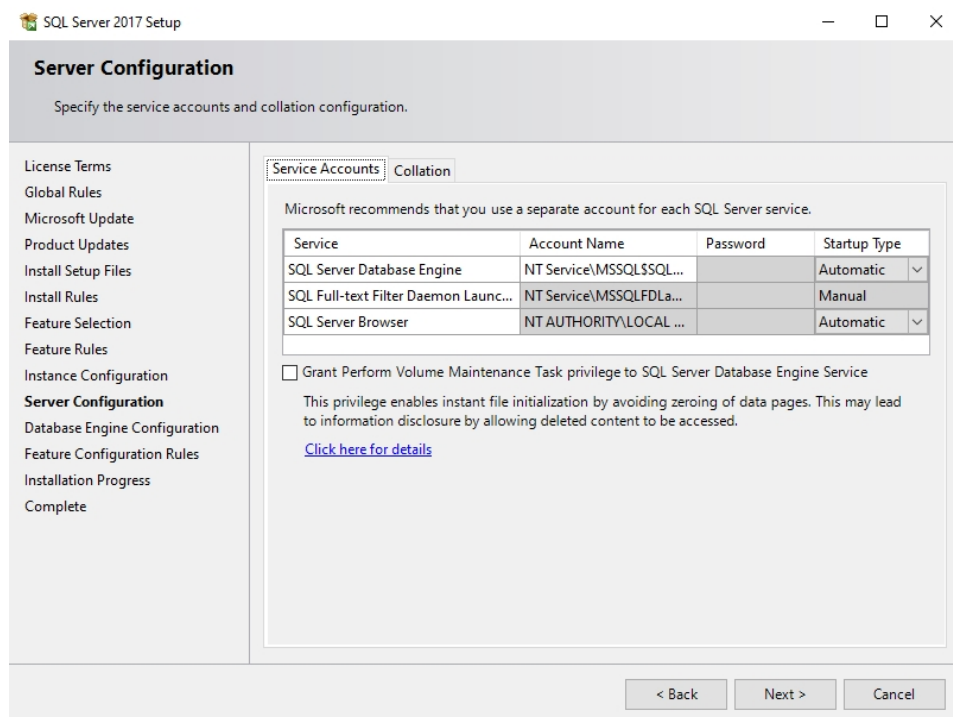
SQL Server directory: C:\Program Files\Microsoft SQL Server\MSSQL14.SQLEXPRESS

Installed instances:

Instance Name	Instance ID	Features	Edition	Version

< Back Next > Cancel

8. Se selecteaza pentru **SQL Server Browser** Startup Type **Automatic**



SQL Server 2017 Setup

Server Configuration

Specify the service accounts and collation configuration.

License Terms
Global Rules
Microsoft Update
Product Updates
Install Setup Files
Install Rules
Feature Selection
Feature Rules
Instance Configuration
Server Configuration
Database Engine Configuration
Feature Configuration Rules
Installation Progress
Complete

Service Accounts Collation

Microsoft recommends that you use a separate account for each SQL Server service.

Service	Account Name	Password	Startup Type
SQL Server Database Engine	NT Service\MSSQL\$SQL...		Automatic
SQL Full-text Filter Daemon Launc...	NT Service\MSSQLFDLa...		Manual
SQL Server Browser	NT AUTHORITY\LOCAL ...		Automatic

☐ Grant Perform Volume Maintenance Task privilege to SQL Server Database Engine Service

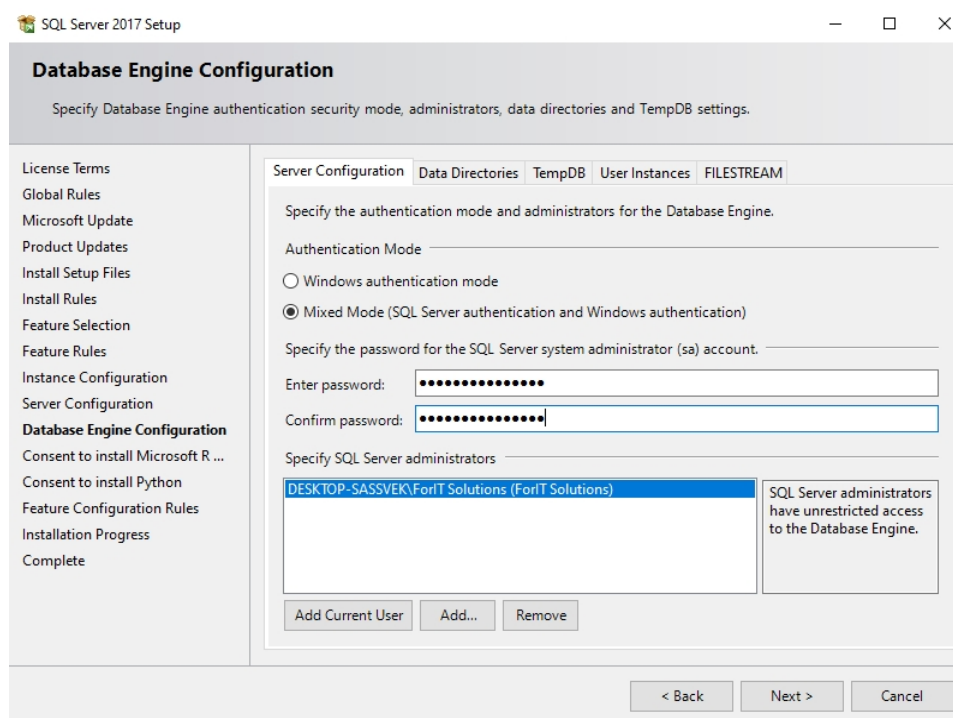
This privilege enables instant file initialization by avoiding zeroing of data pages. This may lead to information disclosure by allowing deleted content to be accessed.

[Click here for details](#)

< Back Next > Cancel

Se apasa butonul **Next**.

9. Se selecteaza **Mixed Mode (SQL Server authentication and Windows authentication)**



SQL Server 2017 Setup

Database Engine Configuration

Specify Database Engine authentication security mode, administrators, data directories and TempDB settings.

License Terms
Global Rules
Microsoft Update
Product Updates
Install Setup Files
Install Rules
Feature Selection
Feature Rules
Instance Configuration
Server Configuration
Database Engine Configuration
Consent to install Microsoft R ...
Consent to install Python
Feature Configuration Rules
Installation Progress
Complete

Server Configuration Data Directories TempDB User Instances FILESTREAM

Specify the authentication mode and administrators for the Database Engine.

Authentication Mode

☐ Windows authentication mode

☒ Mixed Mode (SQL Server authentication and Windows authentication)

Specify the password for the SQL Server system administrator (sa) account.

Enter password:

Confirm password:

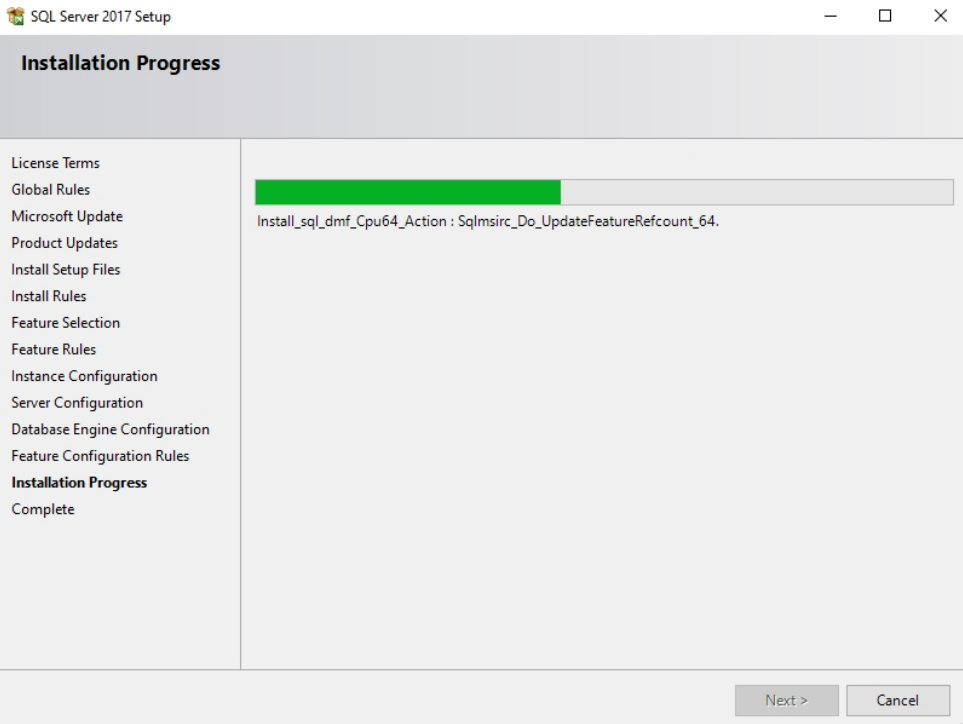
Specify SQL Server administrators

DESKTOP-SASSVEK\ForIT Solutions (ForIT Solutions)	SQL Server administrators have unrestricted access to the Database Engine.

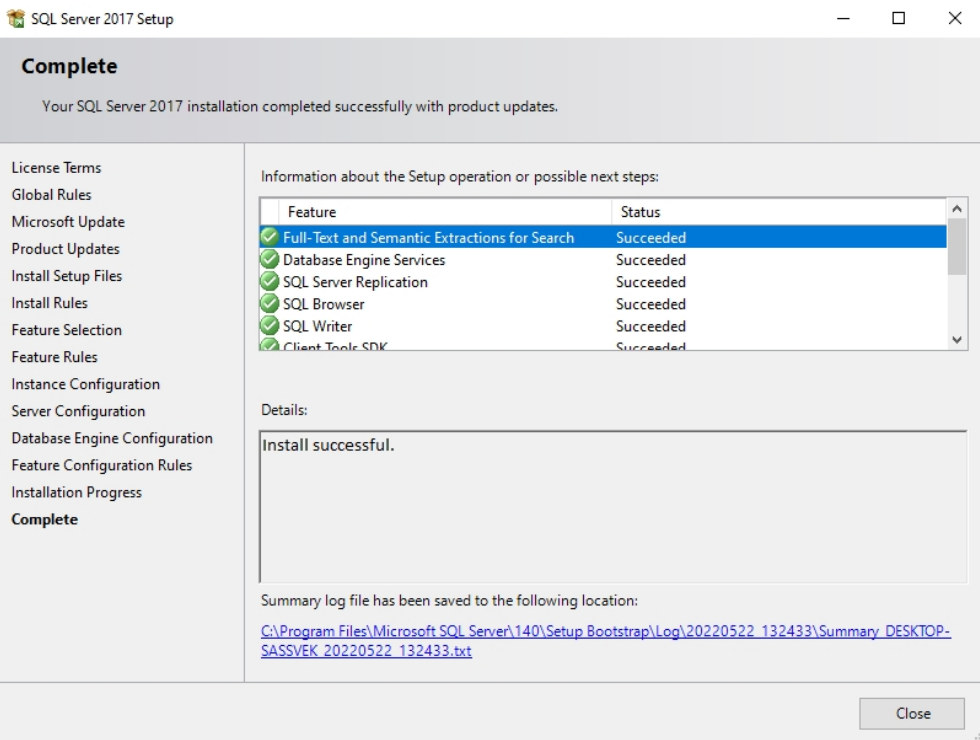
Add Current User Add... Remove

< Back Next > Cancel

Se introduce o parola complexa si se confirma (poate sa fie orice parola complexa care contine litere mari, mici, semnul exclamarii, liniuta, fara spatii, aceasta parola nu va mai fi folosita niciodata) si se apasa butonul **Next**, dupa care se asteapta pana cand se termina instalarea.



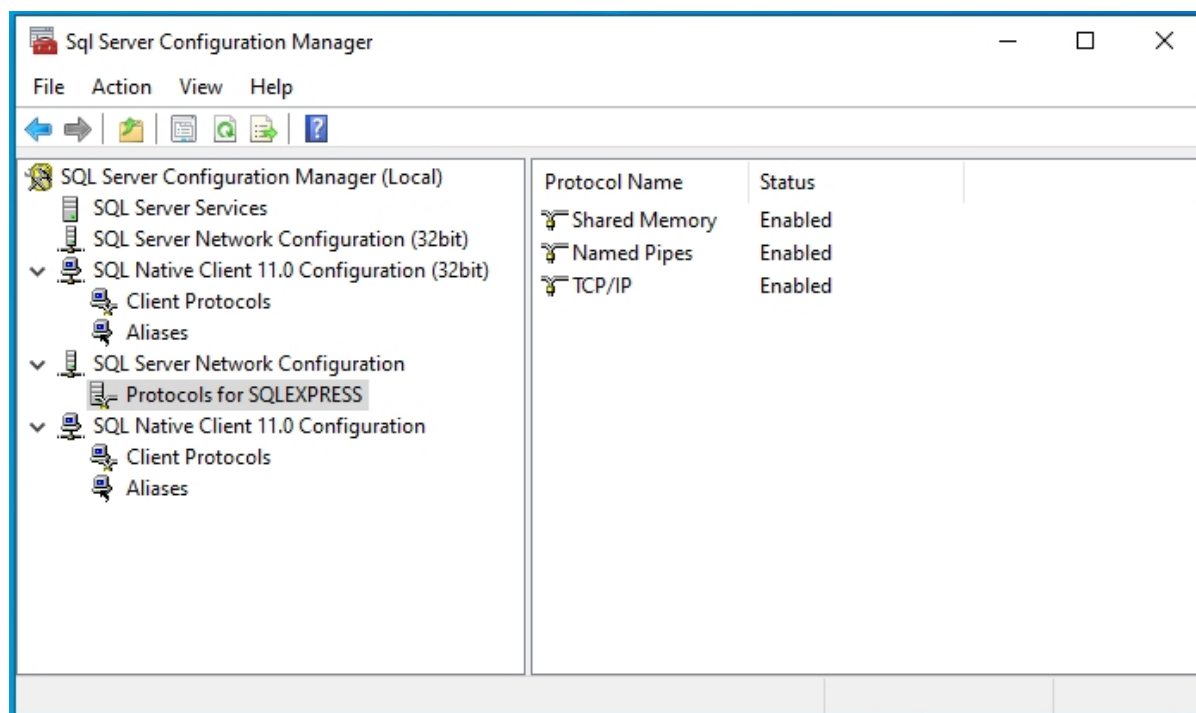
10. Daca instalarea s-a terminat cu succes, kitul de instalare afiseaza urmatoarea pagina:



Se apasa butonul **Close** si se inchid celelalte ferestre deschise de setup.

Configurarea protocoalelor de retea

1. Se lanseaza programul **Sql Server Configuration Manager**.

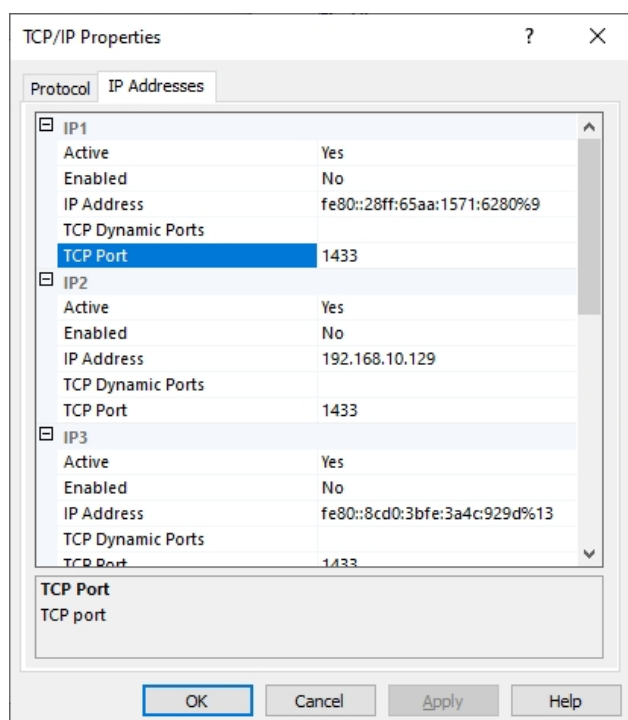


2. Se selecteaza din stanga SQL Server Network Configuration -> Protocols for SQLEXPRESS.

3. In partea dreapta click dreapta pe **Named Pipes** si **Enable**.

4. In partea dreapta click dreapta pe **TCP/IP** si **Enable**.

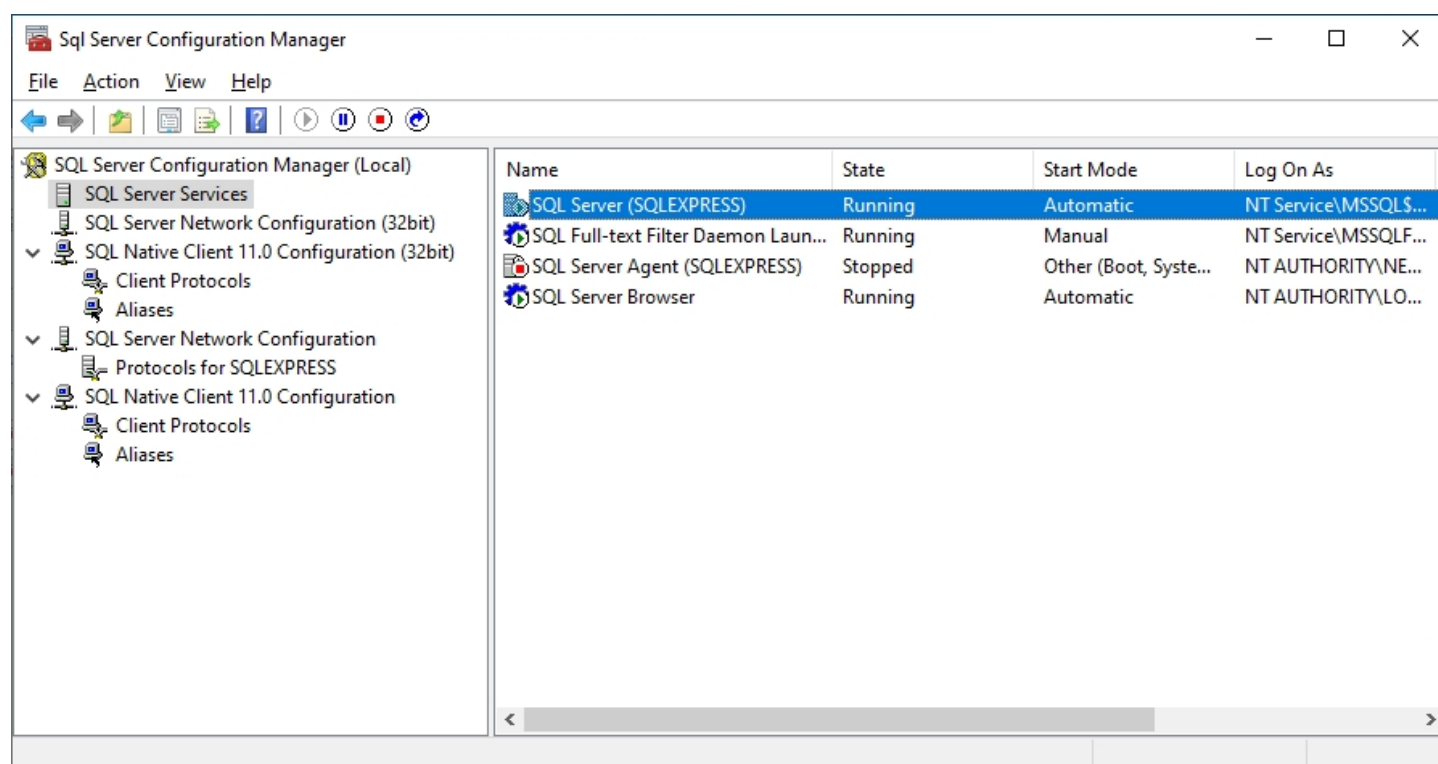
5. Dublu-click pe **TCP/IP**, dupa care este afisata urmatoarea fereastra



- Pentru fiecare IP se sterge valoarea **TCP Dynamic Ports** (sa nu fie nimic acolo, nici spatiu, nici 0, nimic);
- Pentru **TCP Port** se introduce valoarea **1433**
- Se repeta acest pas pentru fiecare IP, IP1, IP2, IP3, ..., IPAll
- Se apasa butonul Apply

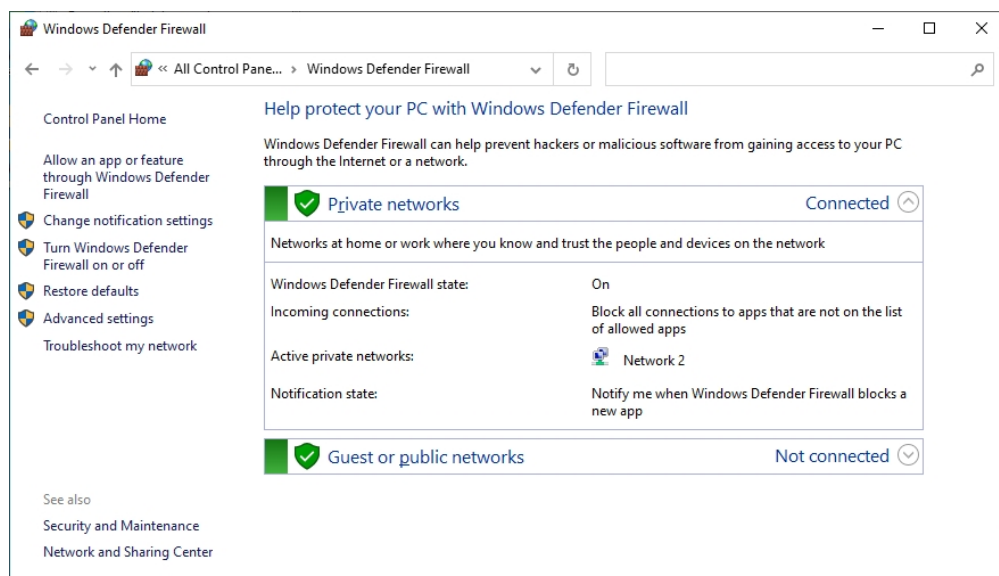
Restartarea serviciilor SQL

- Din partea stanga se selecteaza **SQL Server Services**
- In partea stanga click dreapta pe **SQL Server (SQLEXPRESS)** si **Restart**
- In partea stanga click dreapta pe **SQL Server Browser** si **Restart**

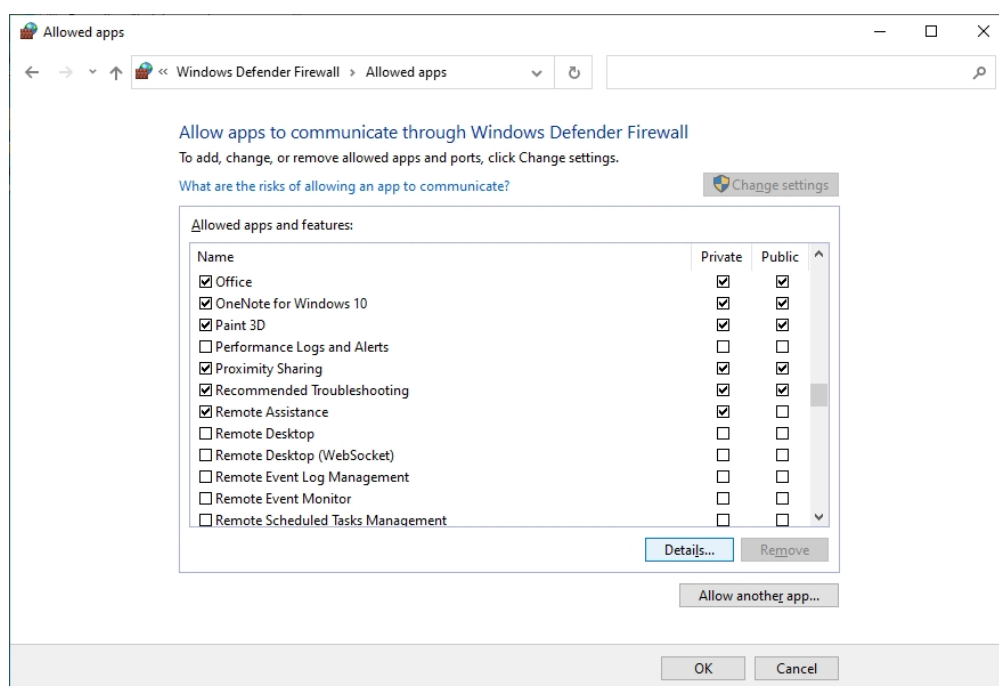


Configurarea Firewall pentru SQL Server

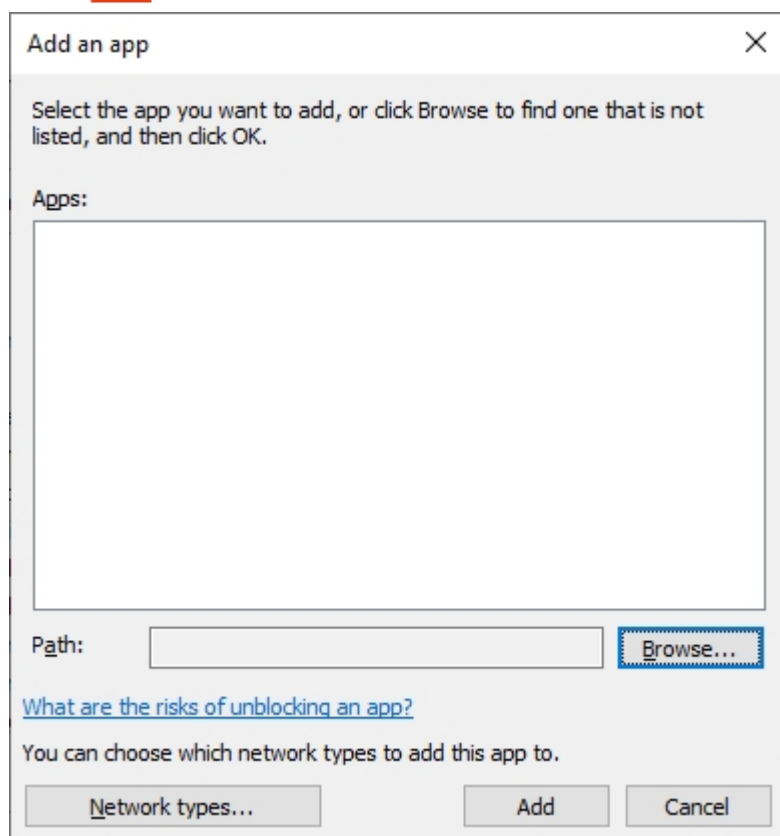
Din **Control Panel** se lanseaza **Windows Defender Firewall**



Din partea stanga se apasa butonul **Allow an app or feature through Windows Defender Firewall**.



Se apasa butonul **Change Settings**, dupa care butonul **Allow another app...**



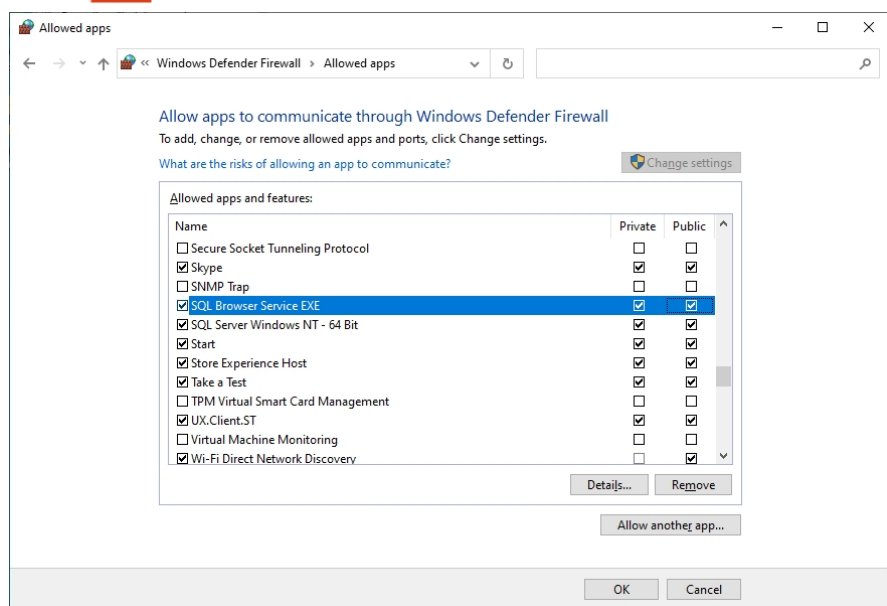
Se apasa butonul Browse si se cauta in sistemul de fisiere sqlservr.exe care este instalat de obicei aici:

C:\Program Files\Microsoft SQL Server\MSSQL14.SQLEXPRESS\MSSQL\Binn\sqlservr.exe, dupa care se apasa butonul **Add**.

Pasii de mai sus se repeta si pentru **SQL Server Browser**, se apasa butonul **Allow another app...** si se selecteaza fisierul sqlbrowser.exe care de obicei este instalat aici:

C:\Program Files (x86)\Microsoft SQL Server\90\Shared\sqlbrowser.exe

Se apasa butonul **Add**, dupa care fereastra de exceptii trebuie sa arate asa:



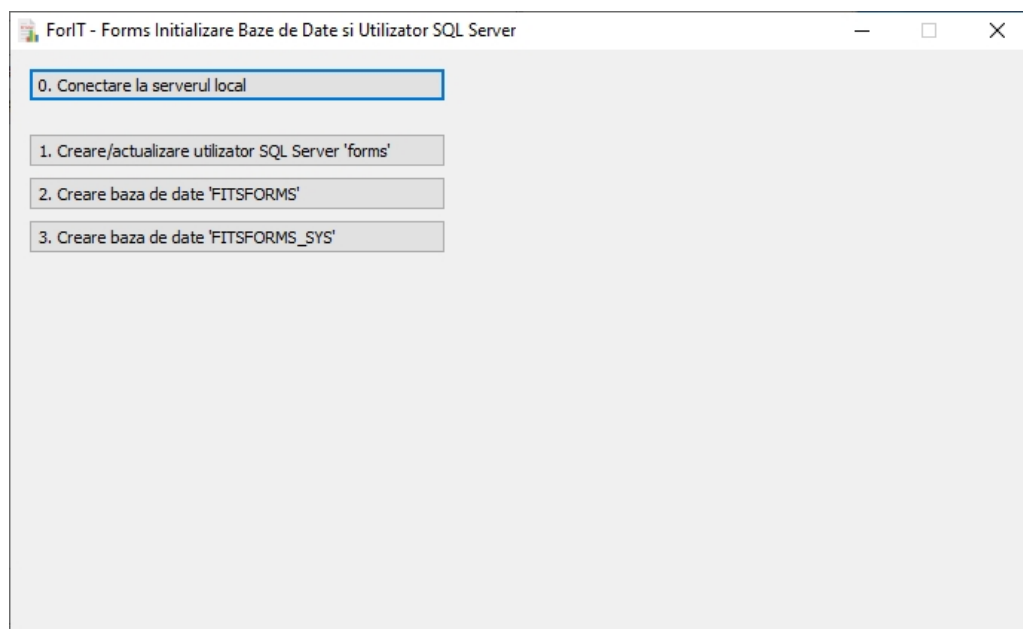
Pentru amandoua inregistrari (**SQL Server Browser Service EXE** si **SQL Server Windows NET - 64 Bit**) se bifeaza amandoua retele **Private** si **Public**.

La final, se apasa butonul OK.

Initializarea bazelor de date si a utilizatorului implicit

Pentru acest pas, se descarca utilitarul ForITFormsInitSQL:

<https://www.foritsolutions.com/download/ForITFormsInitSQL.exe>



Se apasa butonul **0. Conectare la serverul local**.

Pentru crearea/actualizarea utilizatorului 'forms' se apasa butonul **1. Creare/actualizare utilizator SQL Server 'forms'** (acest buton este util si atunci cand se doreste doar actualizarea utilizatorului 'forms' de la versiunea 4, sau de la o versiune mai recenta de 5 - cand parola era alta)

Pentru crearea bazelor de date implicite FITSFORMS si FITSFORMS_SYS se apasa butoanele 2 si 3.

In acest moment SQL Server 2017 Express este instalat, utilizatorul 'forms' si bazele de date sunt create. De asemenea, SQL Server 2017 permite conexiuni de pe alte calculatoare si a fost adaugat exceptie pentru programele / serviciile SQL Server (cam asta incearca sa rezolve setupul ForITFormsServer.exe, cateodata fara succes).

Reluati setup-ul ForITFormsServer.exe