

# eFLOW

## Installation Guide

Version 5.2

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# eFLOW installation procedure

This step by step guide provides detailed instructions for installing eFLOW.

Before starting the installation, read the eFLOW specifications carefully to ensure that all requirements are met.

If you experience problems with the installation, check the *Troubleshooting* section in the *eFLOW Implementation Guide*.

**Important:** For local installations, you must run Setup as Administrator. If you install eFLOW from a remote share, you must use a domain account that has read and execute permissions on the remote share.

## Configure antivirus software

We recommend excluding the following eFLOW folders from the antivirus scan:

### eFLOW server side installation folders

- C:\inetpub\wwwroot\Tis Web Site
- C:\inetpub\wwwroot\WebFrontOffice
- C:\inetpub\wwwroot\WebValidate
- C:\inetpub\wwwroot\WebScan

### eFLOW client installation folder

- C:\Program Files (x86)\TIS\eFlow 5

### eFLOW data folder

- C:\ProgramData\TIS\eFlow 5\AppData

## Download the eFLOW installation package

You can download the eFLOW installation package from the TIS FTP site.

Read carefully the latest Release Notes before you proceed with the installation.

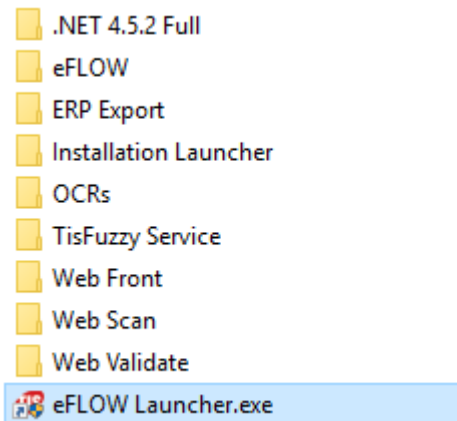
Download and unzip the following installation modules:

- eFLOW Platform
- Web stations

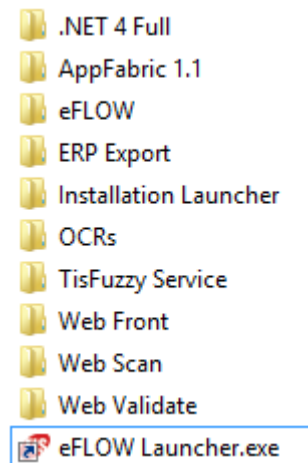
- TiS Fuzzy Service
- OCR Engines

Copy the Web stations, Tis Fuzzy Service, and OCR engines installations to the installation root folder. The folder structure will look as follows:

### eFLOW 5.2.1 and 5.2.2



### eFLOW 5.2



## Get ready for the upgrade

This section describes the required preparations when upgrading. Proceed to the next step if you are performing a fresh installation.

It is good practice to start the upgrade with an empty system, even if technically this is not always necessary.

**Note:** Upgrade procedures may vary slightly for different eFLOW versions. It is important to follow the exact procedure described in the Release Notes.

1. Back up important data before starting to upgrade the existing eFLOW version:

- Databases:
  - eFLOW Management database
  - Application workflow databases
- Configuration files:
  - Server and client side *\ConfigSources* folders
  - All eFLOW *Web.config* files

2. Back up your application CAB.

## Run the eFLOW installation launcher

1. Open the [eFLOW Installation Launcher](#).

2. Select the eFLOW features you are planning to install on this machine.

This step is required to decide what prerequisites need to be checked on this machine.

3. Check whether the eFLOW software prerequisites are installed properly.

You can install the prerequisites without leaving the eFLOW Installation Launcher.

4. Check that the MS SQL server is valid and accessible.

Required for server or standalone installations only. You can skip this step when upgrading an existing installation or using the local SQL server.

## Start the eFLOW installation

**Note:** The eFLOW 5 full installation consists of separate installation modules. If you select to install several modules on the same machine (for example, the server and one of the Web stations), you must install them one after another. It is not possible to run two installations simultaneously.

### eFLOW platform installation

First install the eFLOW server and then continue with the installation on client machines.

Decide which client sub-features you want to install on each client machine.

The Automatic Stations Starter feature should always be selected on machines running automatic stations. It installs the service required for running these stations in automatic mode.

Install the eFLOW platform and then proceed with the OCR engines installation.

## Web Validate server

The Web Validate server can be installed either on the eFLOW server machine or separately, like any other client.

Once the Web Validate server is installed, Web Validate clients will be able to access it using a web browser.

## Web Scan server

The Web Scan server can be installed either on the eFLOW server machine or separately, like any other client.

Once the Web Scan server is installed, Web Scan clients will be able to access it using a web browser.

## Web Front Office server

The Web Front Office server can be installed either on the eFLOW server machine or separately, like any other client.

Once the Web Front Office server is installed, Web Front Office clients will be able to access it using a web browser.

## TIS Fuzzy Service

The TIS Fuzzy Service can be installed either on the eFLOW server machine or separately, like any other client.

Once the TIS Fuzzy Service is installed, eFLOW clients will be able to access the web service that implements the TIS Fuzzy algorithm.

## eFLOW OCR engines

We recommend installing the OCR engines only after the eFLOW platform has been installed. This will ensure that all registry values and configuration paths are set properly.

**Note:** You can also install any eFLOW module from the command prompt. See [Command prompt setup](#) for details.



# eFLOW Installation Launcher

The eFLOW Installation Launcher helps to avoid installation errors. It clearly defines the installation steps and checks the eFLOW software prerequisites configuration before initiating the platform installation. You can install missing prerequisites directly from the Launcher.

**Important:** Always run the eFLOW Installation Launcher as local administrator.

To open the Installation Launcher:

1. In the eFLOW installation folder, open the *Installation Launcher* folder.
2. Right-click on the file *eFLOW Launcher.exe* and select **Run as administrator**.

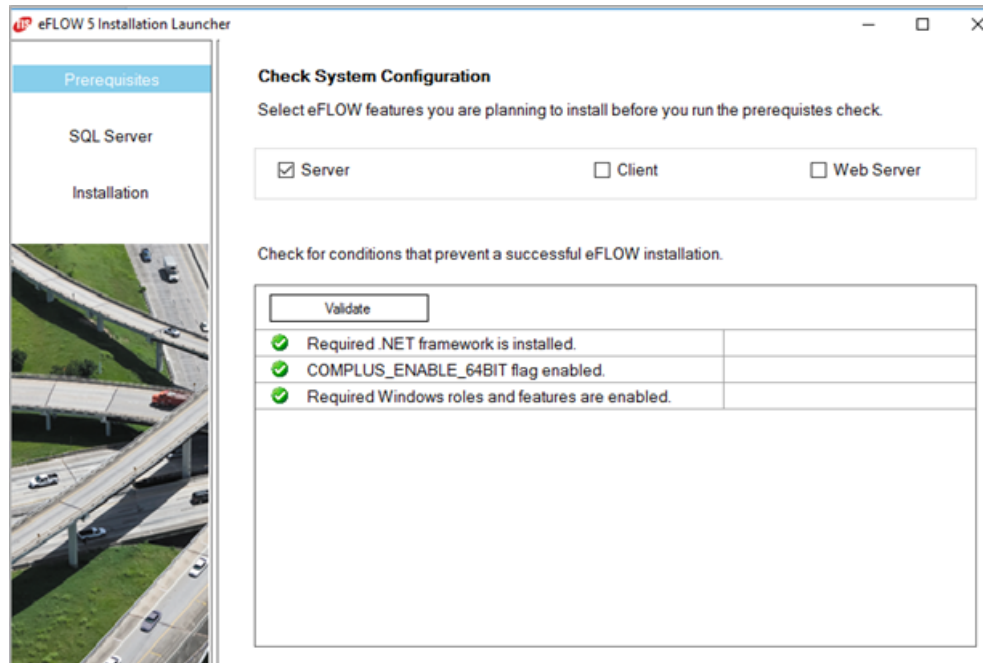
Navigate between the launcher tabs to proceed with the installation.

## Prerequisites tab

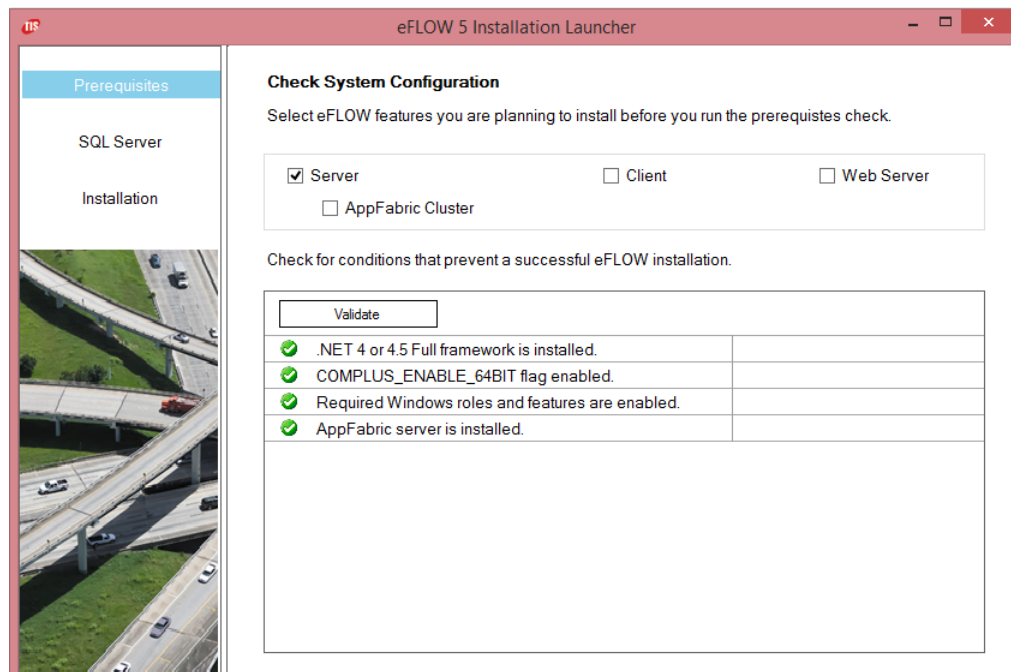
1. Select one or more modules to install. The eFLOW prerequisites validation is based on this selection.
  - **Server:** select if you are planning to install an eFLOW server.
  - (Applies to eFLOW 5.2 and earlier; as of eFLOW 5.2.1, AppFabric is no longer required.) In addition, check **AppFabric Cluster** if you are planning to install multiple eFLOW servers. If checked, the launcher will install AppFabric Caching Services if they are missing.
  - **Client:** select if you are planning to install an eFLOW client.
  - **Web Server:** select it if you are planning to install Web Front Office, Web Validate, Web Scan or TIS Fuzzy Service.

2. Click the **Validate** button to start the prerequisites check.

eFLOW 5.2.1 and 5.2.2:



eFLOW 5.2:



## .NET framework

The full .NET 4.5 framework is required to run eFLOW modules. This validation will fail if the full .NET Framework 4.5 installation is missing.

If the installation fails:

- Click **Install .NET framework** to install the full .NET 4.5 framework from the Launcher.
- Run the .NET 4.5 framework installation directly from the eFLOW installation folder.

## COMPLUS\_ENABLE\_64BIT

64-bit machines are expected to be working in 64-bit mode. This validation checks if the **COMPLUS\_ENABLE\_64BIT** flag is set.

If the installation fails:

- Click **SetWOW 64-Bit flag** in the Launcher to configure the **COMPLUS\_ENABLE\_64BIT** flag.
- Run **C:\WINDOWS\Microsoft.NET\Framework64\v2.0.50727\Ldr64.exe Set64** from the command prompt.

## Required Windows Roles and Features

This validation fails if some of the Windows roles and features required by eFLOW are not enabled.

If the installation fails:

- Click **Enable Windows Features** in the Launcher. This launches the batch file that enables the required features.
- Run the relevant batch file directly from the eFLOW Launcher folder.
- Turn on the required roles and features from the Control Panel.

## Microsoft AppFabric Server (eFLOW 5.2 and earlier)

**Note:** This section applies only for eFLOW 5.2 and earlier. As of eFLOW 5.2.1, AppFabric is no longer required.

This validation is applied only on eFLOW server machines. It checks whether AppFabric Server is installed correctly.

If the installation fails:

- Click **Install AppFabric Server** in the Launcher. This will start the AppFabric 1.1 installation.
- Launch the AppFabric Server installation directly from the eFLOW installation folder.
- Check the following for troubleshooting:
  - [AppFabric Setup Missing Prerequisites](#)
  - The *AppFabric errors* troubleshooting section in the *eFLOW Implementation Guide*.

**Note:** Repeat the validation after installing the missing prerequisites.

## SQL Server tab

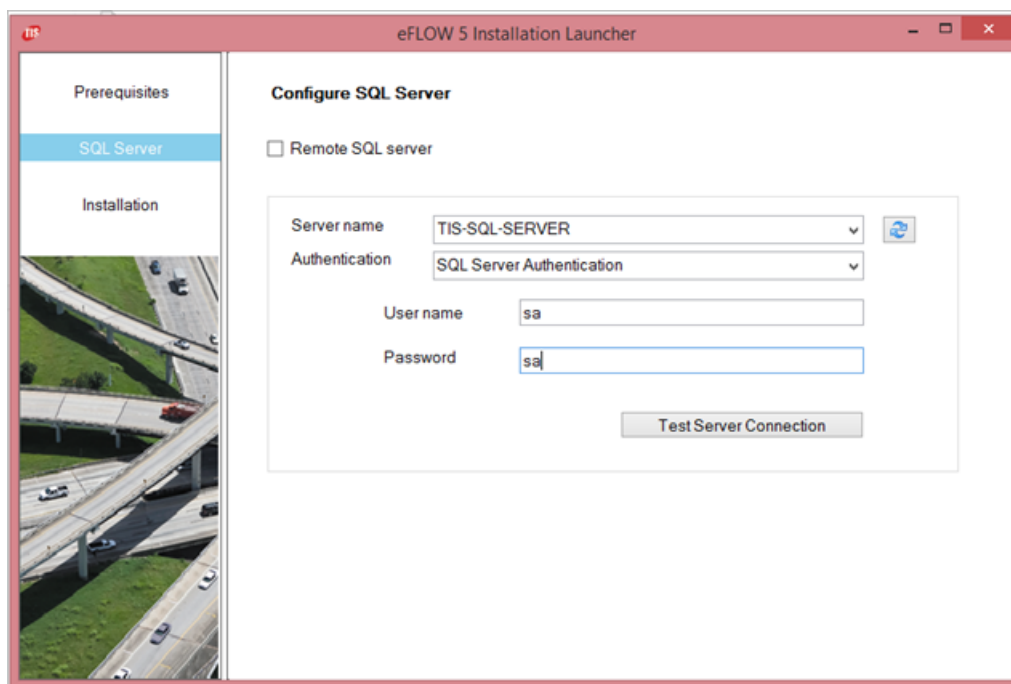
The **SQL Server** tab is enabled only if eFLOW server is selected for installation.

The **SQL Server** tab is used for testing purposes only. Unlike the actual eFLOW installation, it does not save any configuration parameters. You may decide to skip this test when reinstalling eFLOW or connecting a single instance of the local SQL server.

If the **Remote SQL server** check box is checked, the **Server name** list displays all the available remote SQL servers. If it is not checked, only the local SQL server instances are listed.

To test the SQL server connection:

1. In the **Server name** list, select the server on which eFLOW will be installed.
2. Select the authentication type.
  - **Windows Authentication:** The SQL connection will be tested using the current user credentials.
  - **SQL Server Authentication:** You must provide the SQL user name and password.



## Installation tab

The **Installation** tab contains links for installing the following eFLOW installation modules:

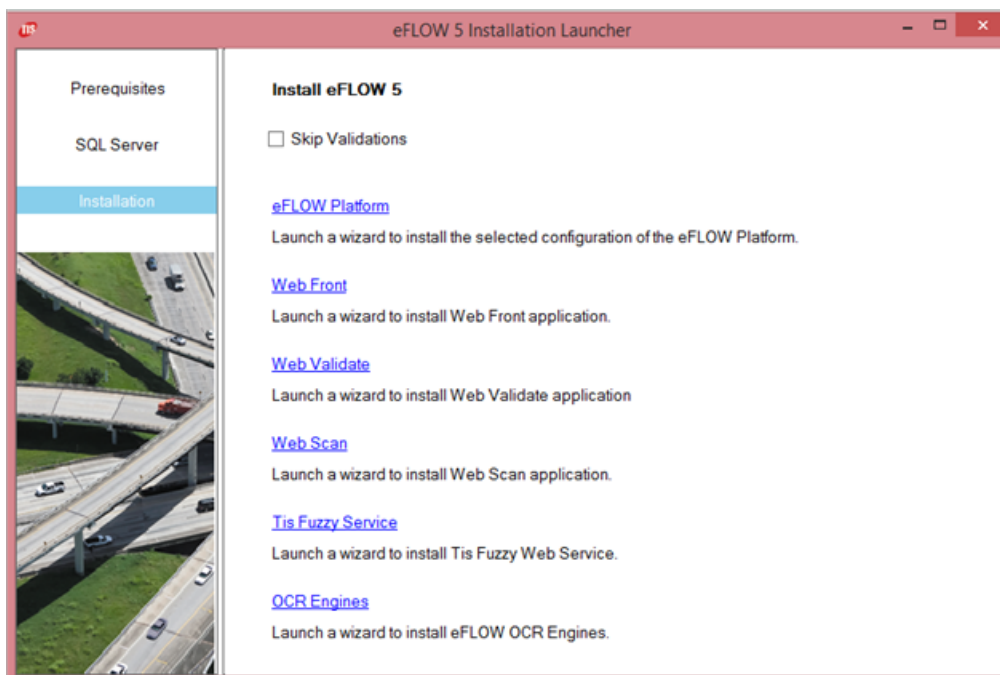
- eFLOW Platform
- Web Front Office
- Web Validate
- Web Scan

- Tis Fuzzy Service
- OCR Engines

**Important:** If **eFLOW Platform** is selected for installation, we strongly recommend starting with this module and then proceeding with the others. This will ensure the validity of the eFLOW configuration.

Check **Skip Validations** if you do not need to repeat the prerequisites check before starting the installation.

You can install one or more modules on the same machine. You must launch the installations one after another; you cannot run them simultaneously.



## eFLOW Setup Wizard

This section explains how to install a new eFLOW platform instance using the setup installation wizard.

Run the [eFLOW Installation Launcher](#) first to check the prerequisites configuration and SQL server connection.

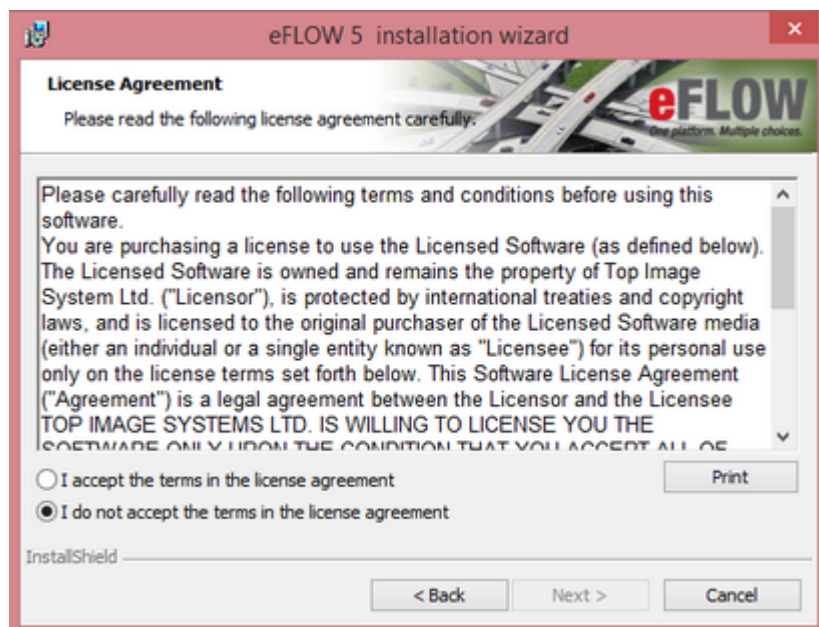
Once all prerequisites are installed, you can start the eFLOW platform installation from the **Installation** tab in the Installation Launcher.

The Launcher will select 32-bit or 64-bit installation automatically depending on your operating system type.

1. Start the setup wizard from the **Installation** tab of the Installation Launcher.



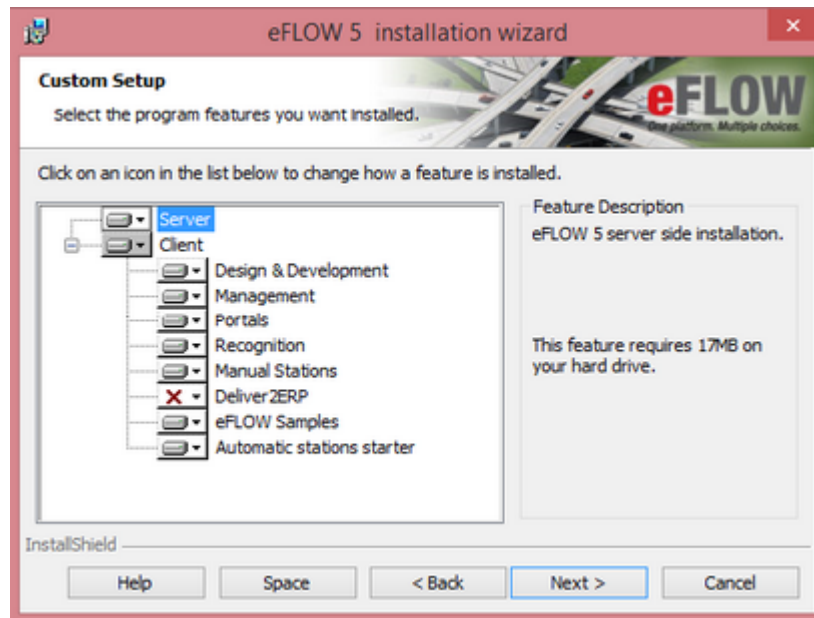
2. Agree to the terms of the license agreement to start the installation.



### 3. Select the installation features.

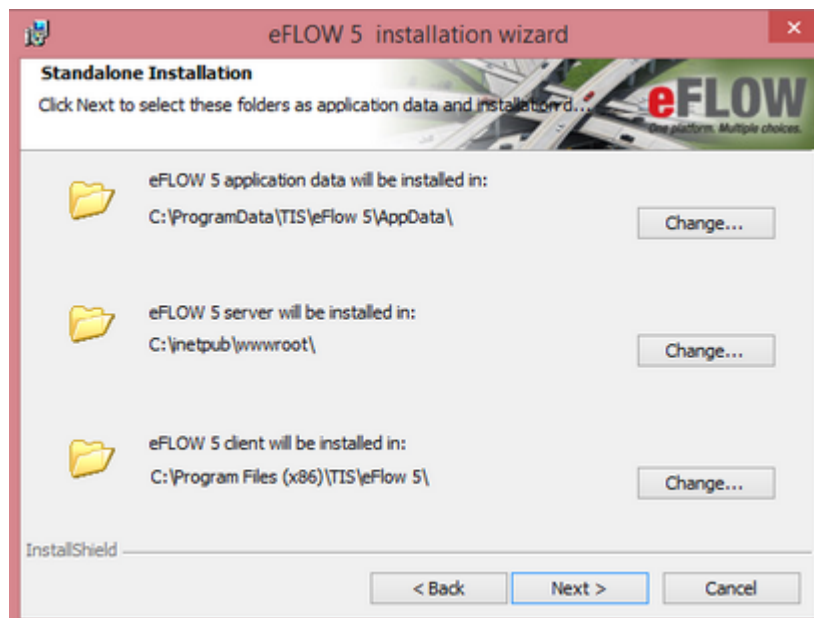
By default, both **Server** and **Client** will be installed.

Deliver2ERP is the only feature not selected for installation by default.



### 4. Set the installation paths.

This dialog box may look slightly different depending on the features selected for installation.

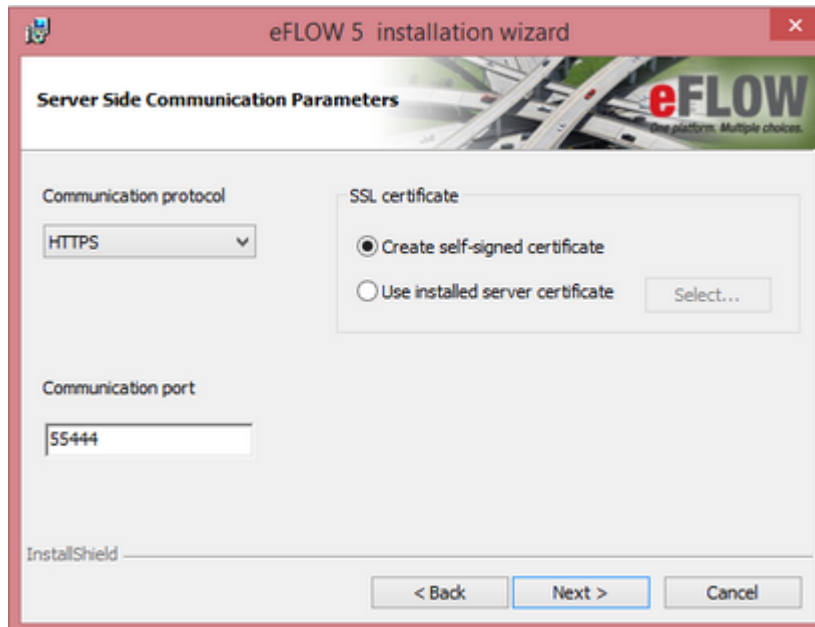


5. Set the communication parameters.

- Server or Standalone installation.

By default, eFLOW uses the **HTTPS** secure communication protocol.

We recommend applying default values unless other communication settings are explicitly required by the project.



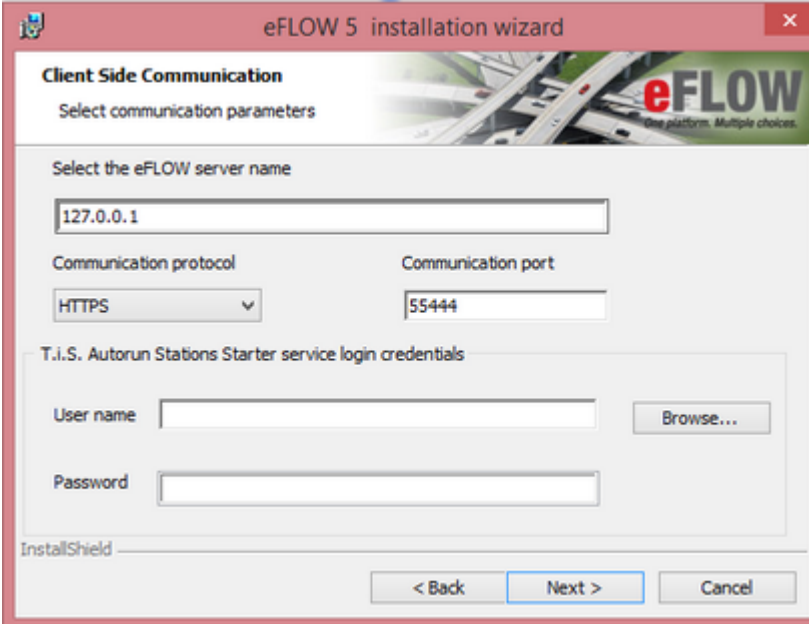


- Client installation

**eFLOW server name:** You can use either the DNS name or the IP address.

**Communication protocol** type and **Communication port** number should be the same as those set on the eFLOW server.

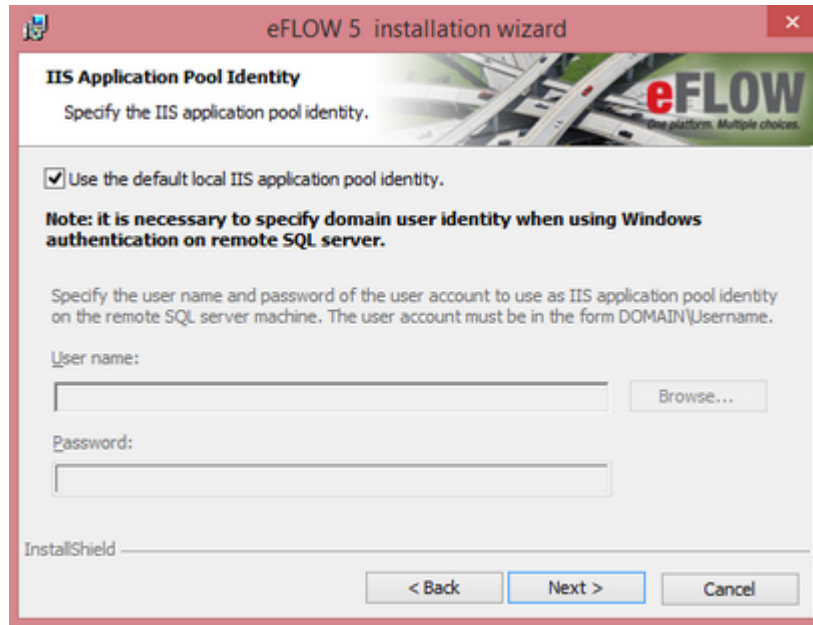
The **T.i.S. Autorun Stations Starter service login credentials** panel is enabled only if the Autorun Stations Starter service is selected for installation. By default, this service is configured to run under the **LocalSystem** account. You can use any other account, provided that it has **LogonAsService** permissions.



The screenshot shows the 'eFLOW 5 installation wizard' window. The title bar is red with the TIS logo and the text 'eFLOW 5 installation wizard'. The main window has a light gray background. At the top, there's a banner with the 'eFLOW' logo and the tagline 'one platform. Multiple choices.' Below the banner, the section is titled 'Client Side Communication' with the subtitle 'Select communication parameters'. The first field is 'Select the eFLOW server name' with a text box containing '127.0.0.1'. Below this are two fields: 'Communication protocol' with a dropdown menu set to 'HTTPS', and 'Communication port' with a text box containing '55444'. A section titled 'T.i.S. Autorun Stations Starter service login credentials' is expanded, showing 'User name' and 'Password' text boxes, and a 'Browse...' button next to the User name field. At the bottom left, it says 'InstallShield'. At the bottom right, there are three buttons: '< Back', 'Next >' (highlighted with a blue border), and 'Cancel'.

6. Define the IIS Application Pool Identity.

This dialog box appears only during Server or Standalone installations.



- Click **Next** without changing anything if you agree to use the **Default IIS Application Pool Identity**.

The virtual user account **IIS AppPool\TisAppPool** is generated by IIS automatically when the **TisAppPool** application pool is created.

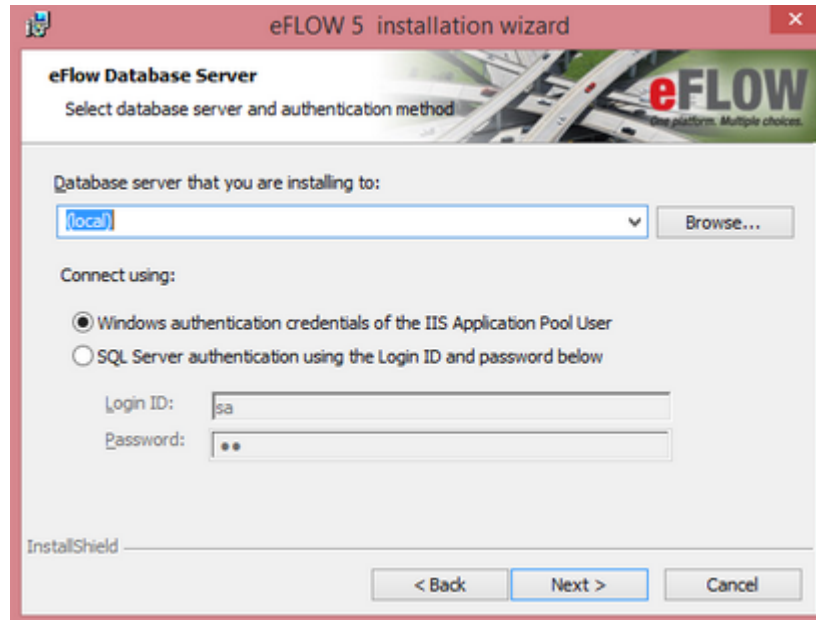
- Uncheck the **Use the default Application Pool Identity** check box and specify the user name and account if you wish to use a specific **TisAppPool** identity.

Make sure that the **TisAppPool** user is granted all the required operating system permissions. See the *eFLOW users* section in the *eFLOW Implementation Guide* for details.

**Important:** If you are planning to work with remote SQL server and use Windows authentication, the **TisAppPool** user must be a domain user. The user account name must be written as DOMAINUSER.

## 7. Define SQL server connection parameters.

This dialog box appears only during Server or Standalone installations.



**Local vs. Remote SQL server:** You can work with any available SQL server. The **SQL Servers** list is populated with the names of the local SQL server instances, and the **Browse** button opens a list of the SQL servers in the current domain.

**Authentication method:** eFLOW supports both SQL server and Windows authentication.

- Windows authentication:

The process that connects to the SQL server runs under the **TiS Application Pool** user credentials.

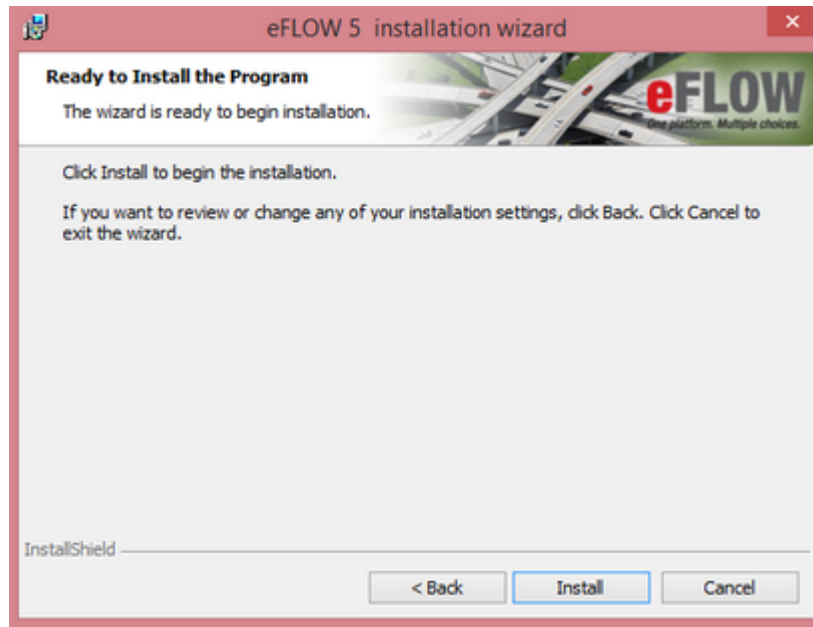
- SQL server authentication:

The installation checks the connection string validity.

**Important:** The installation attempts to create a new SQL server login. Failure to create a new SQL login will not stop the installation, but it will be necessary to create a corresponding login after the installation is finished.

## 8. Start the installation.

The **Ready to Install the Program** dialog box summarizes what you are about to install and gives you a last chance to cancel or change anything that is wrongly configured. Now you can proceed with the installation.



The eFLOW platform installation may take between 5 and 15 minutes depending on the features selected, installation media, and so on.

On machines where Microsoft update KB2918614 is installed, the installation can take more time. See the community discussion [KB2918614 breaks Windows Installer Service](#) for more information.

# Command prompt setup

Before you run eFLOW setup from the command prompt, review the [Installation procedure](#).

Installing a new instance of eFLOW from the command prompt enables you to specify the features to install and how they are configured. You can also specify silent, basic, or full interaction with the setup user interface.

## eFLOW 5 installation parameters

Use the parameters in this table to develop command line installation scripts.

Parameter	Value	Description
INSTALLDIR	String value	Path to the eFLOW client side installation.
TIS_WEB_SITE	String value	Path to the eFLOW server side installation.
APPDATA	String value	Path to the eFLOW server side application data folder.
APPDATA1	String value	Path to the eFLOW client side application data folder.
ADDLOCAL	ALL	Installs all eFLOW features.
	Server	Installs eFLOW server-side features.
	Client	Installs eFLOW client-side features. Launch, Deliver, and eFLOWCmd are always installed when you select the <b>Client</b> installation feature.
	Design	Installs Design, Design Free, Design Smart, Analyze Recognition, Design Image Classifier, and View CSM.
	Portals	Installs Scan and Collect.
	Management	Installs Control, Administrate, LaunchPro, Configure, and Analyze Free.
	ERPEXport	Installs Deliver2ERP.
	ManualStations	Installs Validate, Escalate, Tile and Organize.
	Sample_Applications	Installs the eFLOW sample applications.
	CustomizationSamples	Installs the eFLOW customization code samples.
	Recognition	Installs the recognition modules (not including OCR engines).
	AutoStarter	Installs the eFLOW Autorun Starter Windows service that launches automatic stations.
	Orchestrate	Installs the Supervise station.

Parameter	Value	Description
COMMPROTOCOL	HTTPS	Default secure communication protocol.
	Basic HTTP	HTTP communication protocol.
	Net.Tcp	Net.Tcp communication protocol.
	Net.Pipe	Net.Pipe communication protocol.
COMMPORT	55444	Default HTTPS port. This is only a recommendation. You can select any port number required by the project.
HTTPS_CERTIFICATE	1	Creates and installs a new self-signed certificate.
	2	Uses the existing SSL certificate.
HTTPS_CERT_NAME	String value	SSL certificate thumbprint (certificate hash). Required by the HTTPS protocol.
INSTALLLEVEL	100	Default installation level.
SERVER_NAME	127.0.0.1	eFLOW server name or IP address. Required by the eFLOW client installations.
TIS_APPPOOL_IDENTITY	ApplicationPoolIdentity	<b>TisAppPool</b> will run under the default application pool identity.
	SpecificUser	<b>TisAppPool</b> will run under the specific user identity.
IS_NET_API_LOGON_USERNAME	String value	<b>TisAppPool</b> user name. Relevant only if <b>SpecificUser</b> identity is selected.
IS_NET_API_LOGON_PASSWORD	String value	<b>TisAppPool</b> user password. Relevant only if <b>SpecificUser</b> identity is selected.
IS_SQLSERVER_SERVER	String value	SQL server instance name.

Parameter	Value	Description
IS_SQLSERVER_AUTHENTICATION	0	Windows Authentication.
	1	SQL Server authentication.
IS_SQLSERVER_USERNAME	String value	SQL server login name. The default value is <b>sa</b> .
IS_SQLSERVER_PASSWORD	String value	SQL server login password. The default value for the <b>sa</b> user is <b>sa</b> .
AUTORUN_NAME	String value	eFLOW Autorun Starter service user name. Relevant only if the AutoStarter feature is selected for installation. By default, this service runs under the <b>LocalSystem</b> user.
AUTORUN_PASSWORD	String value	eFLOW Autorun Starter Service user password. Relevant only if the AutoStarter feature is selected for installation. By default, this service runs under the <b>LocalSystem</b> user.

## How to use setup parameters

Use the following syntax guidelines to develop installation commands.

- **PARAMETER="value"** for all single value parameters. Using double quotation marks is recommended, but required only if the value contains a space.
- **PARAMETER="value1","value2","value3"** for all multiple-value parameters. Using double quotation marks is recommended, but required only if the value contains a space.

See [http://msdn.microsoft.com/en-us/library/windows/desktop/aa367988\(v=vs.85\).aspx](http://msdn.microsoft.com/en-us/library/windows/desktop/aa367988(v=vs.85).aspx) for MSI installer command line options.

## Silent installation

Use the */qn* parameter to install eFLOW from the command prompt in full quiet mode, or use the */qb* parameter for quiet basic mode. The */qb* switch only shows progress: it does not accept any input, and displays no messages if errors are encountered.

## Examples of command line installations

### Install all eFLOW features on a 64-bit machine

```
msiexec /i "\\64Bit\\eFlow 5.msi" ADDLOCAL=ALL /!v "c:\\eFlow 5 Install.log" /q
```

### Install the server only on a 64-bit machine

```
msiexec /i "\\64Bit\\eFlow 5.msi" ADDLOCAL=Server /!v "c:\\eFlow 5 Install.log" /q
```

### Install all client features on a 64-bit machine

```
msiexec /i "\\64Bit\\eFlow 5.msi" ADDLOCAL=L=Client,Portals,Design,Management,AutoStarter,ERPEXport,ManualStations,Sample_Applications,Recognition,Orchestrate,CustomizationSamples SERVER_NAME="10.0.0.198" /!v "c:\\eFlow 5 Client Install.txt" /qb
```

### Install selected client features on a 32-bit machine

```
msiexec /i "\\32Bit\\eFlow 5.msi" ADDLOCAL=Client,Design,Management,Sample_Applications SERVER_NAME="10.0.0.198" /!v "c:\\eFlow 5 Client Install.txt" /qb
```

### Install the server only and configure TisAppPool to run under the specific user identity

```
msiexec /i "eFlow 5.msi" ADDLOCAL=Server TIS_APPPOOL_IDENTITY="SpecificUser" IS_NET_API_LOGON_USERNAME="tistesting\\tisuser" IS_NET_API_LOGON_PASSWORD="123456" /qb
```

### Install the server only and configure SQL server user authentication

```
msiexec /i "eFlow 5.msi" ADDLOCAL=Server IS_SQLSERVER_SERVER="10.0.0.78" IS_SQLSERVER_AUTHENTICATION="0" IS_SQLSERVER_USERNAME="tistesting\\tisuser" IS_SQLSERVER_PASSWORD="123456" /qb
```

## OCR engines installation

This section explains how to install OCR engines for use with eFLOW.

### Plan the OCR engines installation

Install OCR engines only on machines that run recognition modules.



We recommend installing the eFLOW platform first and then the OCR engines. If, for some reason, the installation order was reversed, change the OCRs installation path accordingly in the `<AppData>\Configuration\TisConfiguration.xml` file.

The complete OCR engines installation requires more than 4 GB of disk space, so it is important to select only the required features.

**Note:** OCR engines licenses are checked at runtime only. You will not get any notification during the installation if you select unnecessary OCR engines.

## Supported OCR / ICR engines

eFLOW 5 supports the following OCR/ICR engines:

Installation feature	OCR engine name	OCR engine version	OCR engine version	Description
		eFLOW 5.2.0	eFLOW 5.2 SP1 and SP2	
Abbyy	Abbyy	11.0	11.0	
A2IA	A2IA	3.1	3.1	
Charactell	JustICR	4.2 build 594	4.2 build 594	
Expervision	Expervision	6.1	6.1	Machine print engine
Inlite	Inlite	7.0	7.0	Barcode recognition engine
IRIS	Iris	15.0	15.0	

Installation feature	OCR engine name	OCR engine version	OCR engine version	Description
		<b>eFLOW 5.2.0</b>	<b>eFLOW 5.2 SP1 and SP2</b>	
Kadmos	Kadmos	5.0 p	5.0 p	<p>As of eFLOW 5.1.0, the Kadmos OCR engine installation includes only the commonly used language databases, because the full installation requires more than 6GB of disk space. The following languages are always installed:</p> <ul style="list-style-type: none"> <li>■ English</li> <li>■ German</li> <li>■ Spanish</li> <li>■ French</li> </ul> <p>Contact TIS support if you need to use other languages.</p>
OCE	Oce	6.0	6.0	Replaces the AEG and Recostar engines used previously.
PenPower	PenPower	1.1	1.1	Chinese OCR engine
QualitySoft	QSBarcode	4.9	4.9	Barcode recognition engine
ScanSoft	Omnipage	19.0	19.0	
Ricoh	Ricoh Hand Ricoh Machine	4.1	4.1	Japanese ICR engines
MediaDrive	MediaDrive	Not supported	1.0.2.37	Japanese field OCR engine
	MediaDrivePage	Not supported	9.0.1.0	Japanese page OCR engine

## Install OCR engines from the installation setup wizard

The OCR Engines installation is straightforward; simply select the root path of the installation and the OCR engines to install.

## Install OCR engines from the command prompt

Similar to the eFLOW installation, you can also install the OCR engines from the command prompt.

The following example shows how to install selected engines only:

```
msiexec /i "<Installation Media>\5.0 OCR Installation\eFlow 5 OCRs.msi" INSTALLDIR="c:\OCRs" ADDLOCAL=L="Abbyy,IRIS,Kadmos,OCE" /qb
```

**Important:** When installing OCR engines from the command line, always use the **Installation feature** name, and not the **OCR engine name** (see [Supported OCR/ICR engines](#)); for example, Charactell and not JustICR.