

# 1 Integrate for ArcGIS

## Installation Guide

### Desktop Edition

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# Contents

---

<b>1 Installation Overview .....</b>	<b>4</b>
Release Package .....	4
Installation Pre-requisites .....	4
Licences .....	5
<b>2 Installing Components .....</b>	<b>6</b>
Running the Setup Wizard .....	6
Configuring a Central Rules Store .....	21
Shared Machine Setup .....	22
Client Machine Setup .....	22
<b>3 Installing Add-ins .....</b>	<b>24</b>
Uninstalling Add-ins .....	24
<b>4 Checking the Installation .....</b>	<b>25</b>
<b>5 Upgrading an Installation .....</b>	<b>26</b>

# 1 Installation Overview



**Note:** Before proceeding with an installation, please see your Release Notes to ensure you have installed all pre-requisite software and meet all minimum system requirements.

The installation process consists of the following main steps:

1. Extract your [release package](#)
2. Install core components using the Setup Wizard
3. Install any required [Add-ins](#)



**Note:** If any help is required during the installation process, please contact 1Spatial Support.

## Release Package

Your release package consists of a zip file, which must be extracted to an accessible location.

The **1IFA\_Desktop\_Installer-[version].exe** file is the setup wizard that will [install your components](#).

Other files include:

- ▶ plugins for each desktop application (e.g. **1IFA\_ArcMap\_[version]\_Plugin-[version].esriaddin**)

## Installation Pre-requisites

Before proceeding with your installation, ensure you have met the system requirements and installed all necessary Esri applications.

Consult the *1Integrate for ArcGIS Release Notes* for the specific pre-requisites for your release.

# Licences

During the installation process you will be asked to specify the location of a licence folder e.g `C:/1Spatial/1IfA`.

Two directories will automatically be created by the installation wizard in this location, called **hash** and **lic**.

A file called **hardware\_hash.txt** will be created in the hash folder. This file will contain a string of characters unique to the machine on which 1Integrate for ArcGIS is being installed. This file will need to be sent to 1Spatial Support and will be used to generate your licence.

When received, the licence file generated by 1Spatial Support must be placed in the **lic** folder.



**Warning:** Previous 1.4.\*1Integrate for ArcGIS Desktop Edition licences will not work after the upgrade to v 1.4.21. If your current licence for 1Integrate for ArcGIS Desktop Edition was generated before v 1.4.21, please contact 1Spatial Support in order to generate a new licence.



**Note:** The location of the licence folder can be changed after installation by editing the <license-folder> element within the **rules\_engine\_svc-config.xml** file (typically located within C:\Program Files\1Spatial\RulesEngineService\config\)

## 2 Installing Components

The following components are installed via the 1Integrate for ArcGIS Setup Wizard:

- ▶ **Metadata Service** - stores all data related to 1Integrate for ArcGIS
- ▶ **Rule Author** - web application to allow the creation and publication of rules
- ▶ **Rules Engine Service** - runs all rule processing



**Note:** If you wish to configure a single central rules store for use by multiple 1Integrate for ArcGIS Desktop Edition users, see "Configuring a Central Rules Store" on page 21.

## Running the Setup Wizard

The Setup Wizard is run via the **1IFA\_Desktop\_Installer-[version].exe** file provided in your [Release Package](#).

Install the Metadata Service:

1. Launch the wizard by double-clicking on **1IFA\_Desktop\_Installer-[version].exe**.

Name	Date modified	Type	Size
1IFA_ArcGISPro_Desktop_Plugin-1.5.0.1.e...	20/02/2017 15:46	ESRIADDINX File	5,964 KB
1IFA_ArcMap_10.3_Desktop_Plugin-1.5.0....	20/02/2017 15:46	ESRIADDIN File	10,535 KB
1IFA_ArcMap_10.4_Desktop_Plugin-1.5.0....	20/02/2017 15:46	ESRIADDIN File	6,997 KB
1IFA_Desktop_Installer-1.5.0.1.exe	20/02/2017 15:46	Application	47,721 KB

Figure 2-1: *Example Release Package*

The 1Integrate for ArcGIS Setup Wizard will open.

2. Click **Install** to proceed.



Figure 2-2: *Setup Wizard Start Page*

If prompted to trust the application, click **Accept**.

3. The Setup Wizard will now run through each component to be installed, starting with the Metadata Service.

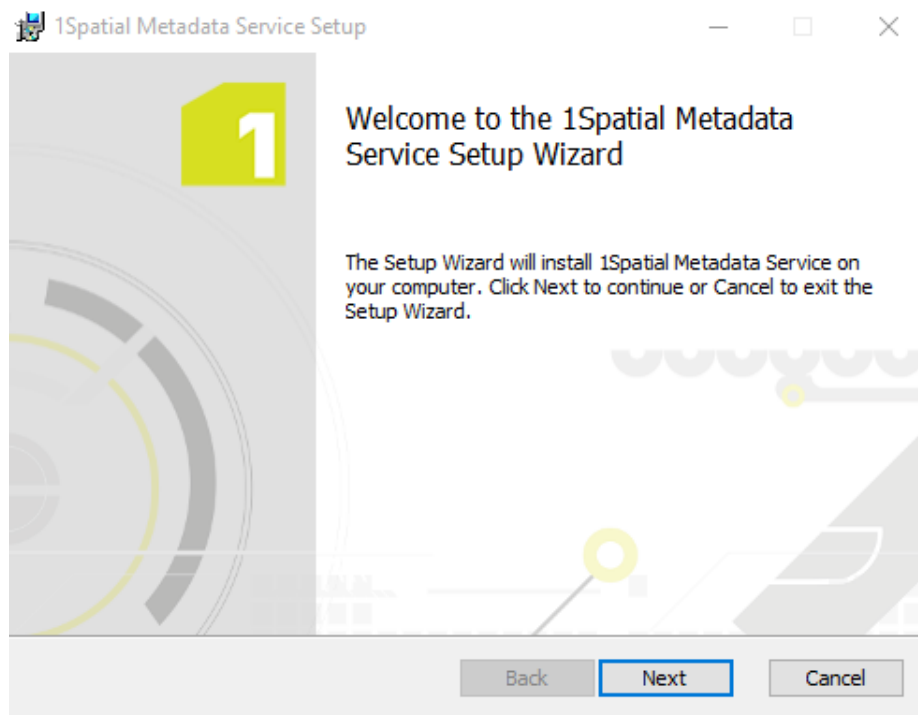


Figure 2-3: *Installing the Metadata Service*

Click **Next** to proceed.

4. If you want to change the location in which to install the Metadata Service, click **Change**.

To accept the location and proceed, click **Next**.

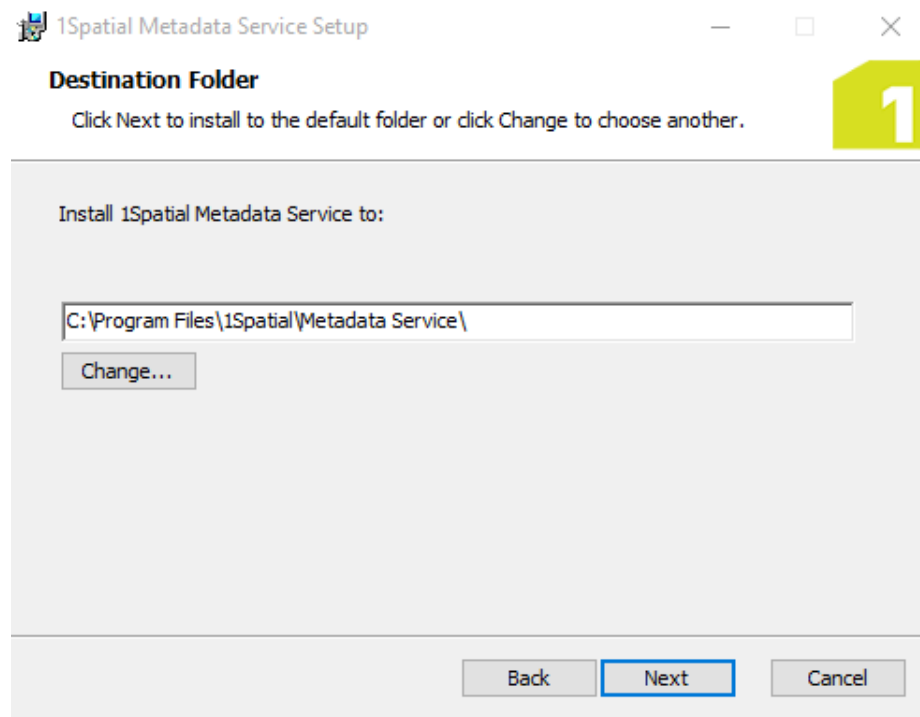


Figure 2-4: Location for the Metadata Service

5. Select a database option:
  - ▶ **Generic database** - a lightweight database option (*not* recommended for implementations requiring high usage or many users)

▶ **MySQL database**

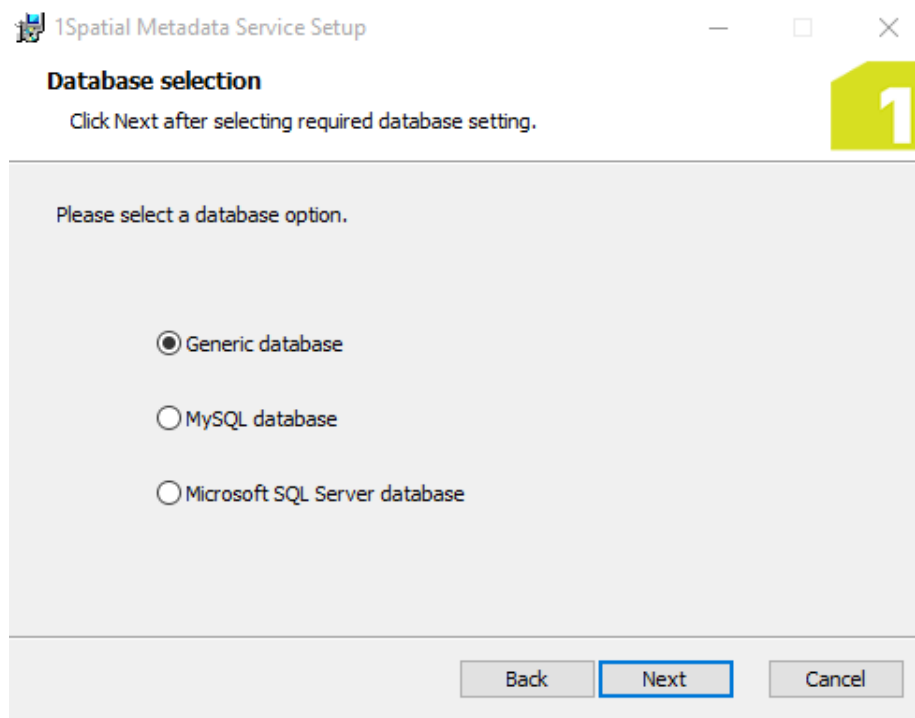


**Note:** MySQL must already be installed.

▶ **Microsoft SQL Server database**

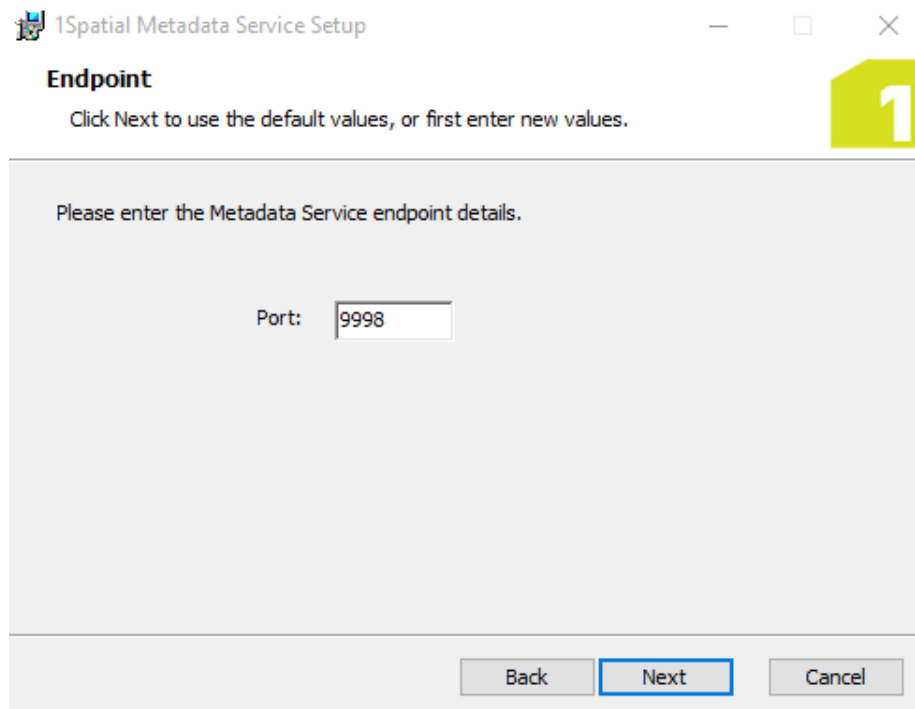


**Note:** Microsoft SQL Server must already be installed.

Figure 2-5: *Select a database option*


Once selected, click **Next** to proceed.

6. Enter the Metadata Service endpoint port (by default this is 9998).

Figure 2-6: *Set the Metadata Service endpoint*

Click **Next** to proceed.

7. Enter an Administrator password, used to access the Metadata Service.

 **Note:** This will become the password corresponding to the username "admin".

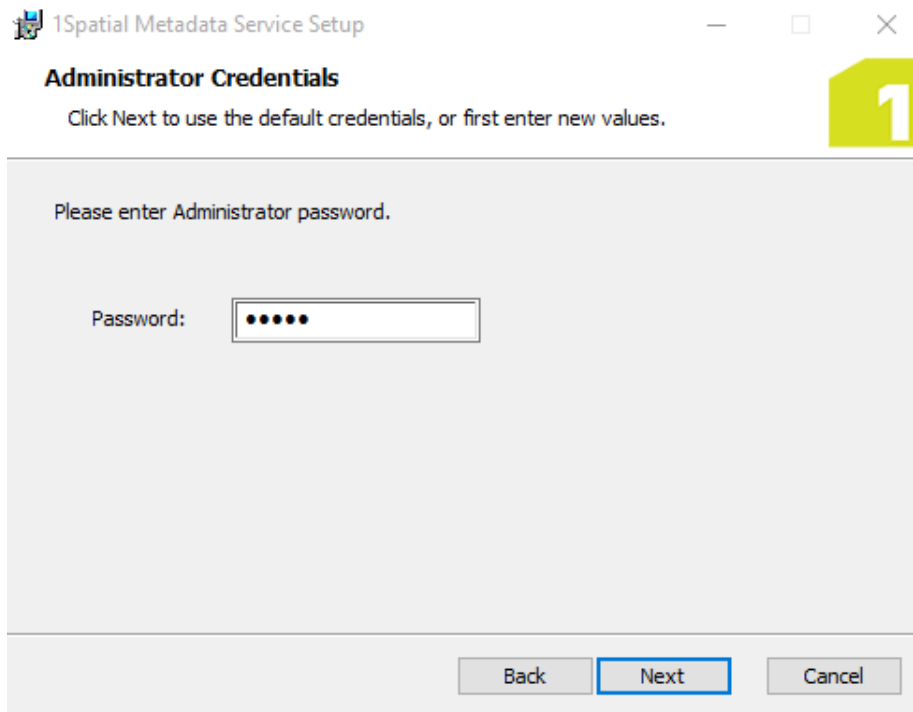




Figure 2-7: Set the Administrator password

 **Note:** We recommend you overwrite the default value for security purposes.

Click **Next** to proceed.

8. Select an authentication service to be used by users accessing the Metadata Service.

 **Note:** Select **Local Authenticator**, as other options are not yet supported.

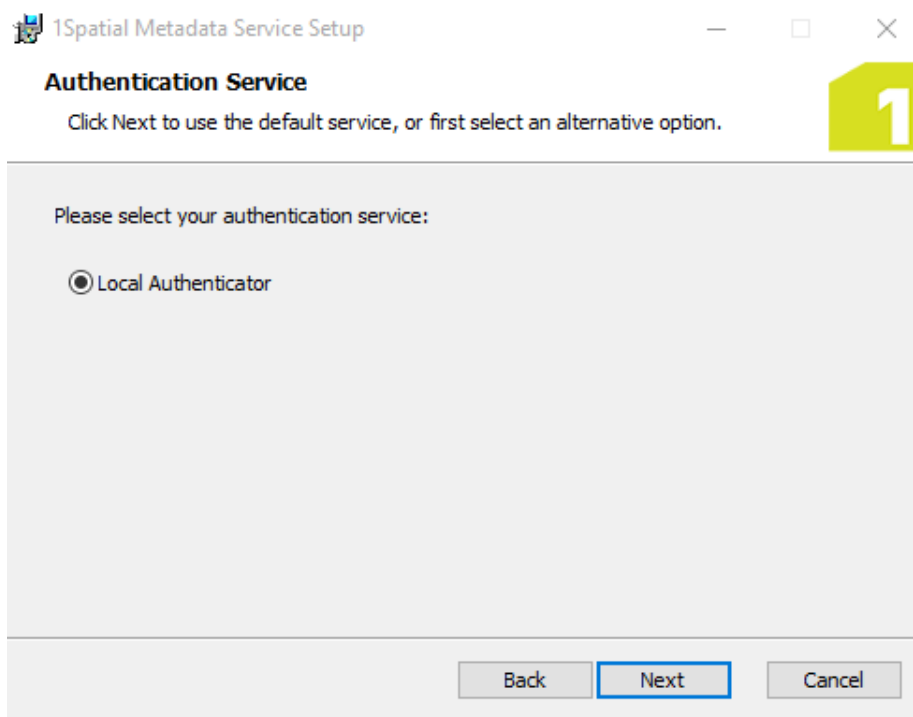



Figure 2-8: *Select Authentication Service*

Once selected, click **Next** to proceed.

9. Click **Install**.

The Metadata Service is now installed. Click **Finish** to proceed.

 **Note:** You can test that the Metadata Service has installed correctly by navigating to [https://\[host\]:\[port\]/login.html](https://[host]:[port]/login.html). The login screen should appear.

Install the Rule Author:

1. The Setup Wizard will now install the next component, the Rule Author.



Figure 2-9: *Installing the Rule Author*

Click **Next** to proceed.

2. If you want to change the location in which to install the Rule Author, click **Change**.

To accept the location and proceed, click **Next**.

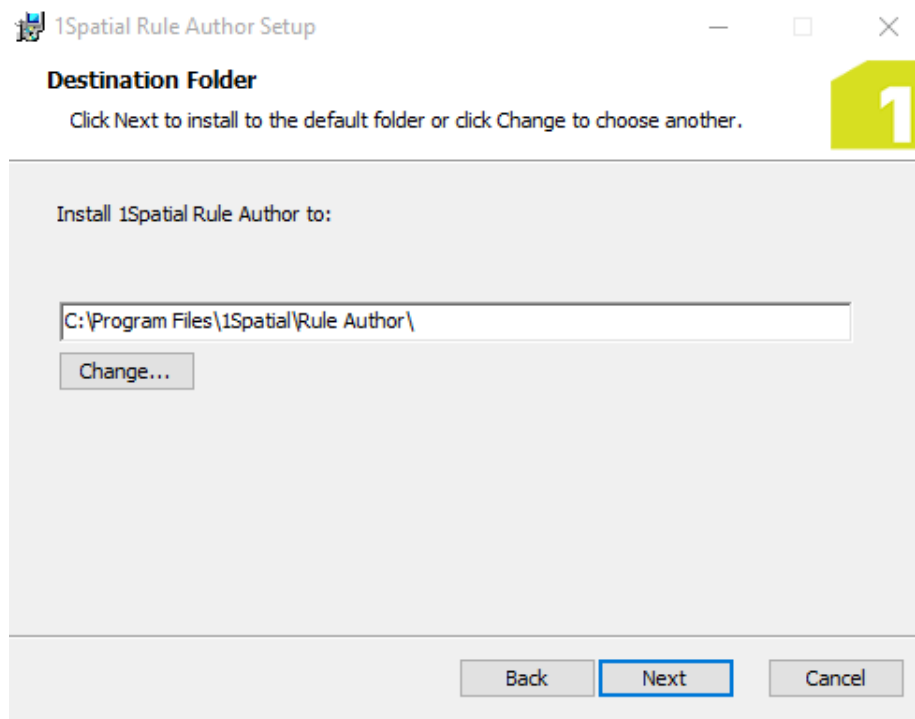


Figure 2-10: *Location for the Rule Author*

3. Enter the Rule Author endpoint port (by default this is 7878).

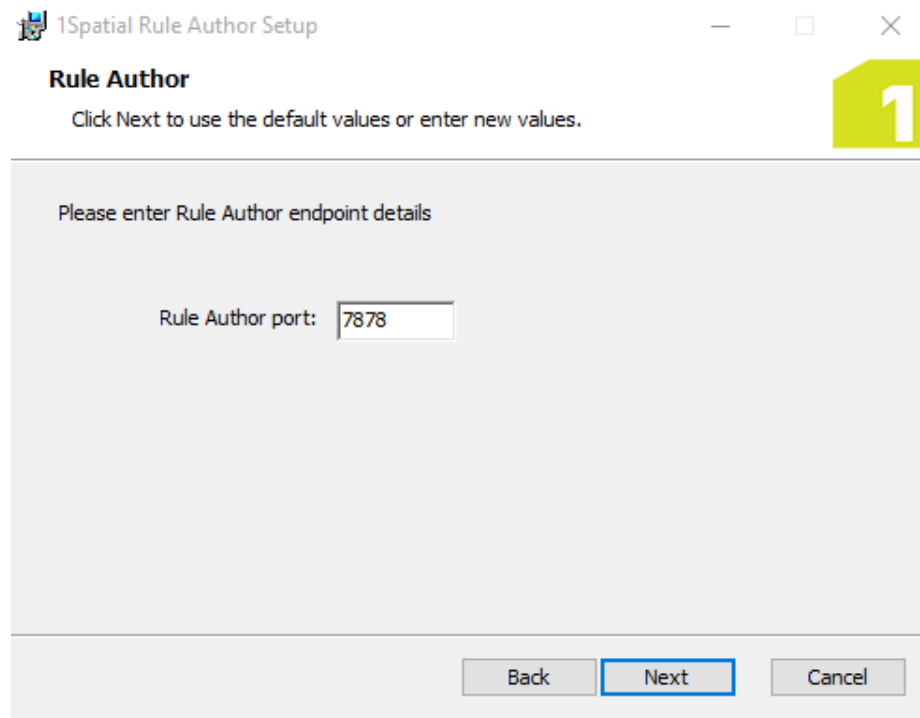
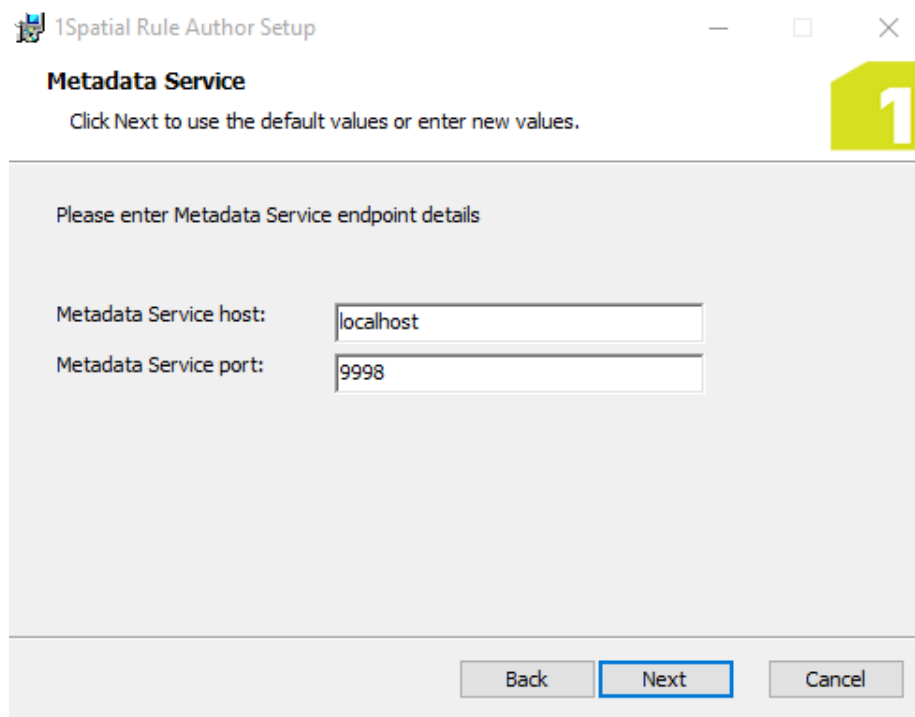


Figure 2-11: *Set the Rule Author port*

Click **Next** to proceed.

4. Enter the Metadata Service endpoint details:

- ▶ **Metadata Service host** - the machine on which the Metadata Service is installed
- ▶ **Metadata Service port** - the port defined during installation (by default this was set to 9998)



1Spatial Rule Author Setup

**Metadata Service**

Click Next to use the default values or enter new values.

Please enter Metadata Service endpoint details

Metadata Service host: localhost

Metadata Service port: 9998


Back Next Cancel

Figure 2-12: *Enter details for the Metadata Service endpoint*

Click **Next** to proceed.

5. Click **Install**.

The Rule Author is now installed. Click **Finish** to proceed.

 **Note:** You can test that the Rule Author has installed correctly by navigating to [https://\[host\]:\[port\]/login.html](https://[host]:[port]/login.html). The login screen should appear.

Install the Rules Engine:

1. The Setup Wizard will now install the final component, the Rules Engine Service.

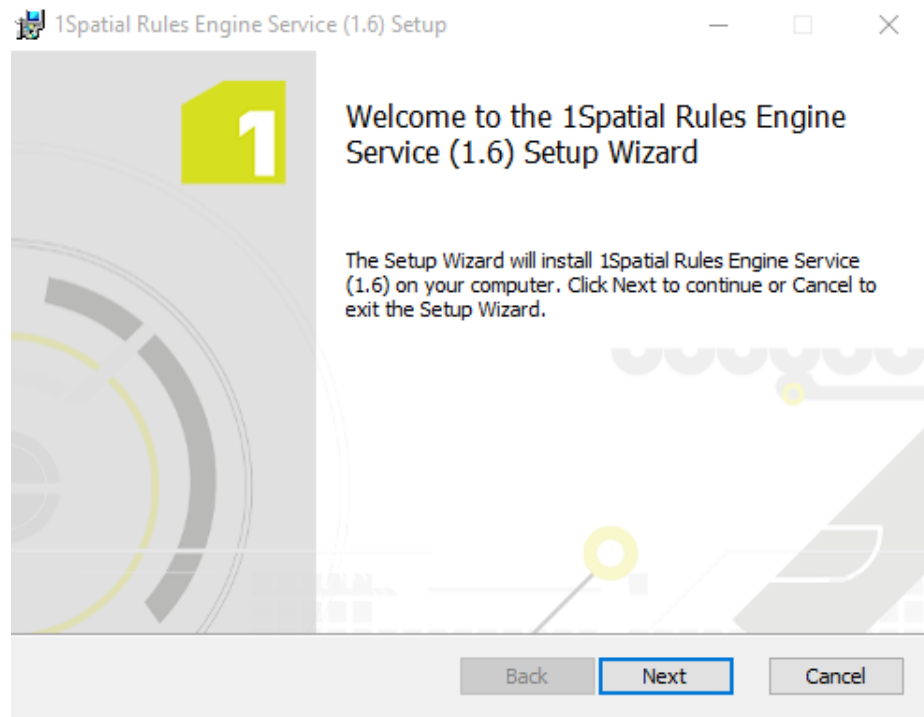


Figure 2-13: *Installing the Rules Engine*

Click **Next** to proceed.

2. If you want to change the location in which to install the Rules Engine, click **Change**.

To accept the location and proceed, click **Next**.

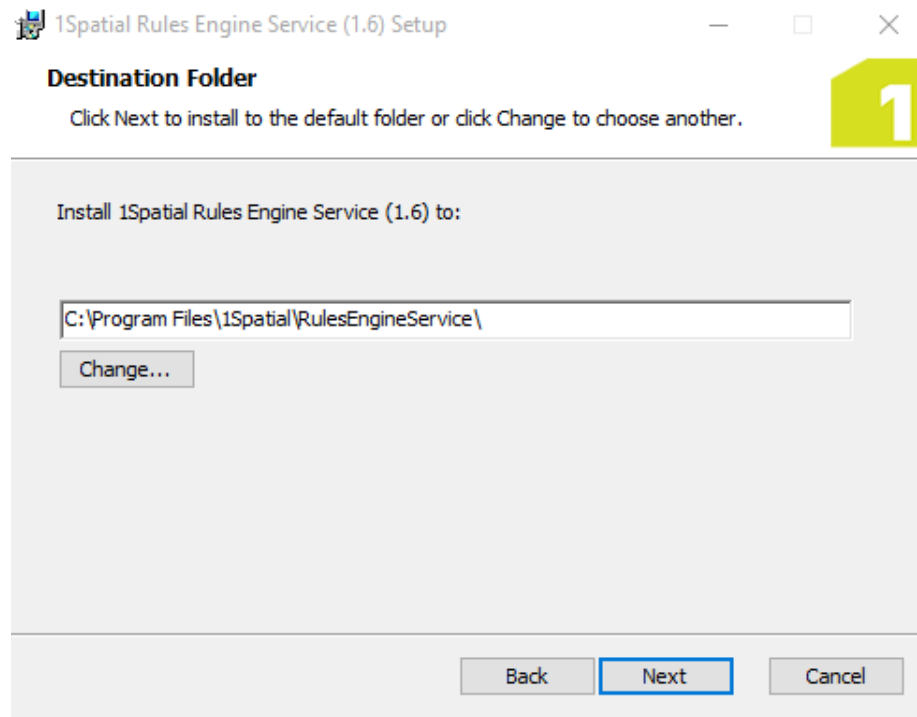


Figure 2-14: *Location for the Rules Engine*

3. Enter the **Rules Engine Service port** (by default this is 6868).

Click **Browse** to specify the location where the licence folder should be created (see "Licences" on page 5).

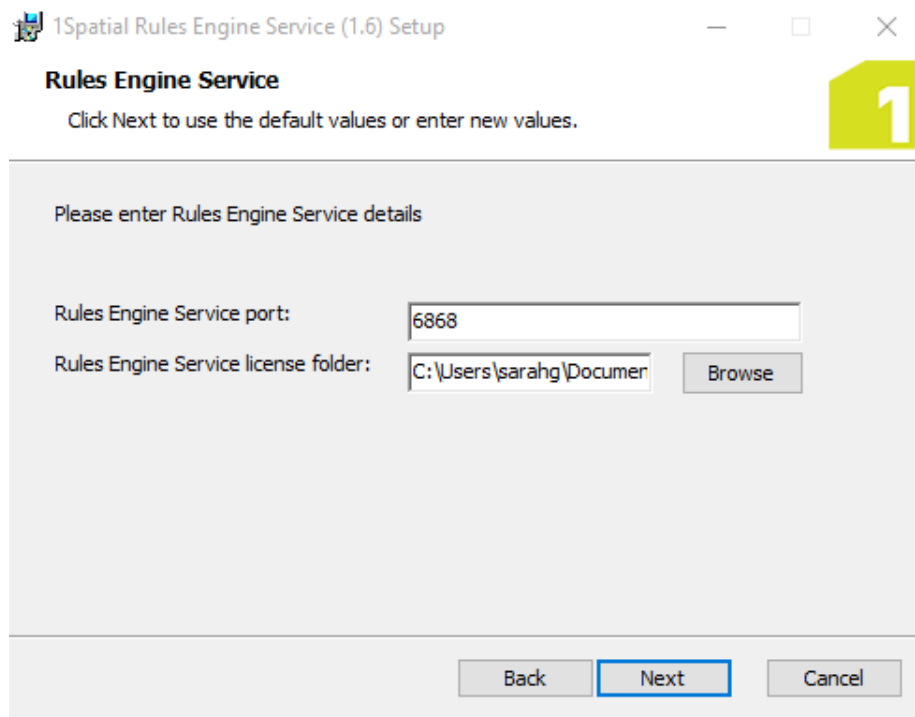
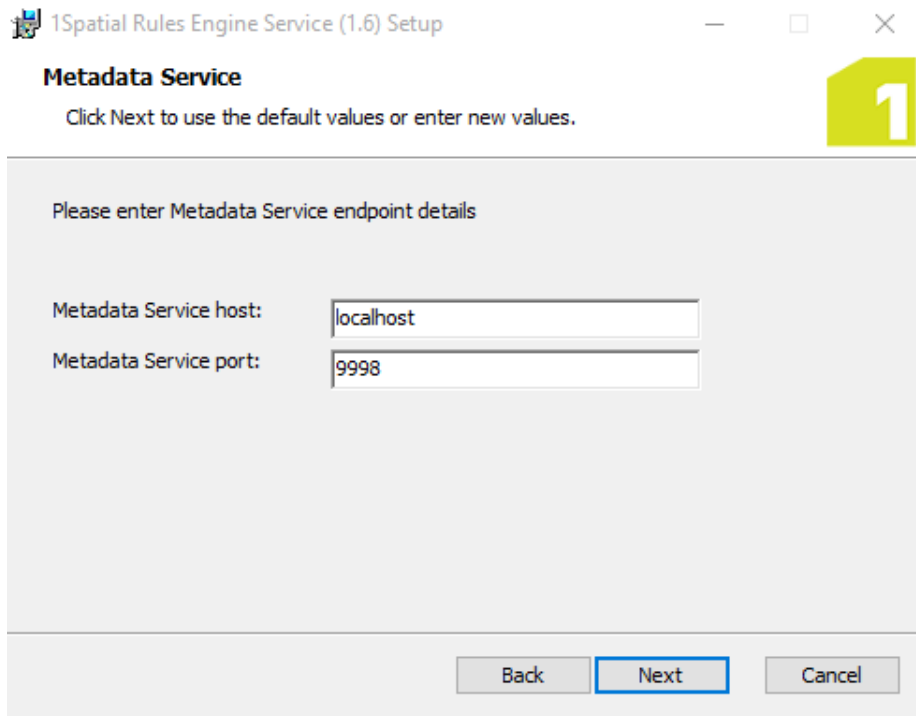


Figure 2-15: *Rules Engine Service Details*

Click **Next** to proceed.

4. Enter the Metadata Service endpoint details:

- ▶ **Metadata Service host** - the machine on which the Metadata Service is installed
- ▶ **Metadata Service port** - the port defined during installation (by default this was set to 9998)



The screenshot shows a Windows-style setup window titled "1Spatial Rules Engine Service (1.6) Setup". The window has a yellow icon with the number "1" in the top right corner. Below the title bar, the text "Metadata Service" is displayed, followed by the instruction "Click Next to use the default values or enter new values." The main area of the window contains the text "Please enter Metadata Service endpoint details". Below this, there are two input fields: "Metadata Service host:" with the value "localhost" and "Metadata Service port:" with the value "9998". At the bottom of the window, there are three buttons: "Back", "Next" (which is highlighted with a blue border), and "Cancel".

Figure 2-16: *Enter details for the Metadata Service endpoint*

Click **Next** to proceed.

5. Click **Install**.

The Rule Engine is now installed. Click **Finish** to exit the Setup Wizard.



**Note:** You will need to acquire a licence before you can use 1Integrate for ArcGIS. See "Licences" on page 5 for details on where to place the licence file.

# Configuring a Central Rules Store

1Integrate for ArcGIS: Desktop edition is deployed by default with three components locally on each user's machine:

- ▶ The Metadata Service (often referred to as the "rules store")
- ▶ The Rule Author
- ▶ The Rules Engine

It is possible to configure a single central metadata service and rule author for use by multiple 1Integrate for ArcGIS Desktop Edition users.

To enable this process, a full installation of all components must be performed on the central rules machine (the "shared" machine), and also on all user machines (the "client" machines). The user machines are then configured to use the rules on the central server.

**Note:** Currently it is not possible to install a subset of the components, so they are all installed and then the services which are not required are disabled on the respective machines.

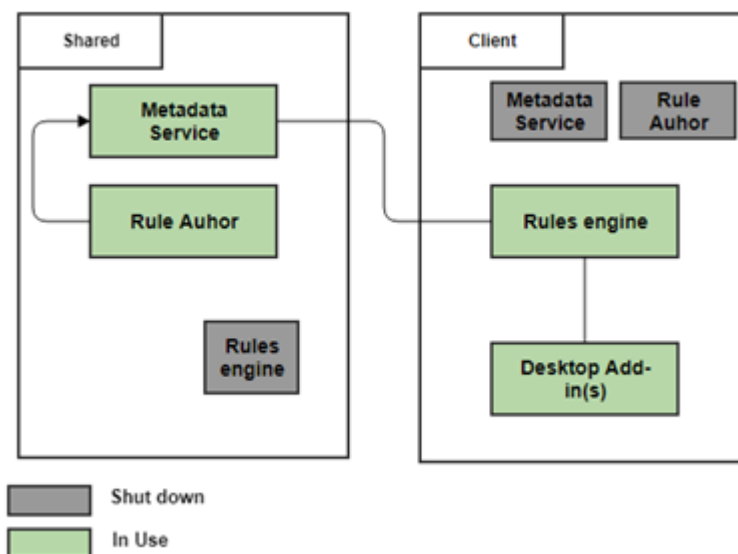


Figure 2-17: Components disabled in the shared and client machines

## Shared Machine Setup

On the Shared Machine that will hold the shared rules...



**Note:** This machine does not require any Esri software installed on it or any 1Spatial licenses to run the components.

1. Run the 1Integrate for ArcGIS: Desktop Edition installer.  
Perform a standard installation for all three components, but note there is no need to generate or install 1Spatial licenses for this machine or to install any Add-ins.
2. Stop the 1Spatial Rules Engine Service:
  - i. Open **Windows Services**.
  - ii. Find the **1Spatial Rules Engine Service** and **Stop** the process.
  - iii. Open the **Properties** for the **1Spatial Rules Engine Service** and change **Startup type** to **Manual**. This will stop the service starting when the machine is restarted.

Use the URL of the Rule Author on this machine for viewing, managing, restoring and backing up rules. The URL of the Rule Author can be accessed remotely from other machines.

This URL can be provided only to users who will *change* the rules. Users who are simply *running* rules do not need to be provided with this; their ArcMap and ArcGIS Pro plugins will access the rules for them. This prevents accidental modification of the rules.

## Client Machine Setup

On each User Machine that is running ArcMap or ArcGIS Pro...

1. Run the 1Integrate for ArcGIS: Desktop Edition installer.  
Install the Metadata Service and Rule Author as per a standard installation.
2. When the installation wizard comes to the Rules Engine, enter Metadata Service endpoint details that correspond to the Shared Machine.
  - ▶ **Metadata Service host** - the shared machine on which the Metadata Service is installed
  - ▶ **Metadata Service port** - the port defined during installation on the shared machine (by default this was set to 9998)

Proceed to finish the installation.

3. Stop the 1Spatial Metadata Service:
  - i. Open **Windows Services**.
  - ii. Find the **1Spatial Metadata Service** and **Stop** the process.
  - iii. Open the **Properties** for the **1Spatial Metadata Service** and change **Startup type** to **Manual**. This will stop the service starting when the machine is restarted.
4. Stop the 1Spatial Rule Author:
  - i. Open **Windows Services**.
  - ii. Find the **1Spatial Rule Author Service** and **Stop** the process.
  - iii. Open the **Properties** for the **1Spatial Rule Author Service** and change **Startup type** to **Manual**. This will stop the service starting when the machine is restarted.
5. Install and test any required ArcMap or ArcGIS Pro Add-Ins on each client machine.

## 3 Installing Add-ins

There are a number of Add-ins available, depending on the application you are using:

- ▶ ArcMap
- ▶ ArcGIS Pro

In order to install these Add-ins, you will require the plugin, supplied in your Release Package as an Esri AddIn File (e.g. **1IFA\_ArcMap\_[version]\_Plugin-[version].esriaddin**).

### Install an Add-in:

1. Locate the Esri AddIn File within your Release Package.
2. Double-click on the file to activate it.
3. Click **Install Add-In**.

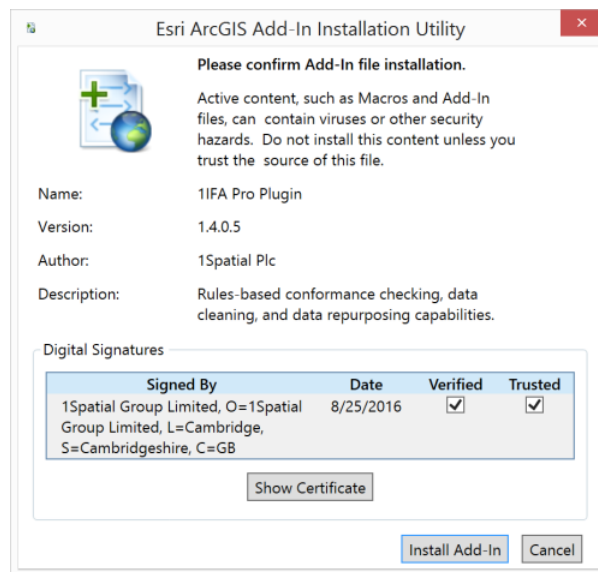


Figure 3-1: *Install Add-In*

The Esri ArcGIS Add-In Installation Utility will confirm that the installation has succeeded.

## Uninstalling Add-ins

The 1Integrate for ArcGIS Add-ins can be removed from ArcMap or ArcGIS Pro using the **Add-in Manager** (see the [Esri documentation](#) for further details).

## 4 Checking the Installation

To check the installation has completed successfully, open a browser and navigate to the interface(s), using the locations determined during installation.

Component	Location
Metadata Service	https://[host]:[port]/index.html
Rule Author	https://[host]:[port]/login.html

Log in to the Rule Author using the Administrator credentials determined during installation.

Check your required Add-Ins have installed within each application.

Check that the three 1Spatial services are running by looking at the Services tab in Windows Task Manager.

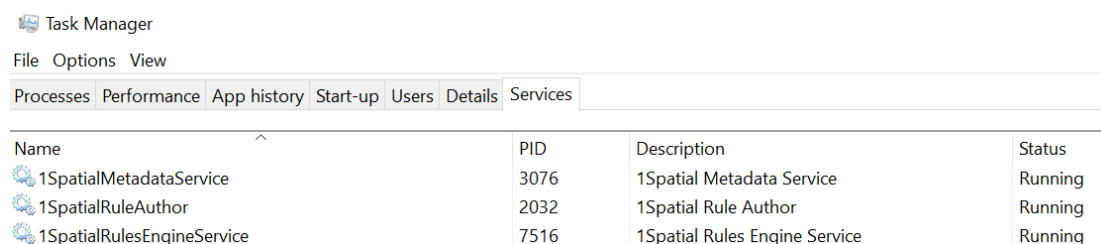


Figure 4-1: Windows Task Manager > Services

# 5 Upgrading an Installation

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It is possible to upgrade an existing installation of 1Integrate for ArcGIS from an older version to a newer version.

## Upgrade an Installation (Desktop Edition):

1. Back up your existing Rules and Actions.  
Access the folder where your current version of 1Integrate for ArcGIS is installed.
2. Uninstall the existing 1Integrate for ArcGIS installation using the Windows® Control Panel.
3. Remove the 1Integrate for ArcGIS Add-Ins for ArcMap and/or ArcGIS Pro.
4. Install the latest version of 1Integrate for ArcGIS as per the installation guide.