

Configuring Aras Innovator (Optional)

Aras Innovator uses a configuration file to manage licensing and server information that is required to successfully start, locate, and connect to active components in its operation. You can customize and configure various aspects as per your requirements.

Time Zones

Aras Innovator supports Corporate Time Zone.

Corporate Time Zone

If your users access Aras Innovator from multiple time zones, you should configure Aras Innovator to have one corporate time zone that the Innovator Server can reference. This time zone is used for calculating things like when Project Activities become active.

Setting the Corporate Time Zone should be done before users begin to work with the system in production. If it is done after users have begun to use the system, you must get all users to log out of the system before enabling the Corporate Time Zone.

To set the Corporate Time Zone, use the following steps:

1. Log into Aras Innovator as an administrator.
2. From the TOC, select Administration --> Variables.
3. From the main toolbar, select Create a New Item.



CorporateTime...

CorporateTimeZone

Edit Refresh Undo

Variable

Name CorporateTimeZone

Value Eastern Standard Time

Default Value Eastern Standard Time

4. Set the **Name** = **CorporateTimeZone**
5. Set the **Value** according to the registry key name of the required time zone.
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\Time Zones
6. Set the **Default Value** to the value which the variable should default to if the **Value** field is empty.
7. Save, Unclaim, and Close the Variable Item.
8. Log out of Aras Innovator.
9. Restart the World Wide Web Publishing service on the server running the Innovator Server tier of Aras Innovator.

The result is shown in the main Aras Innovator window. Aras Innovator displays only one time.

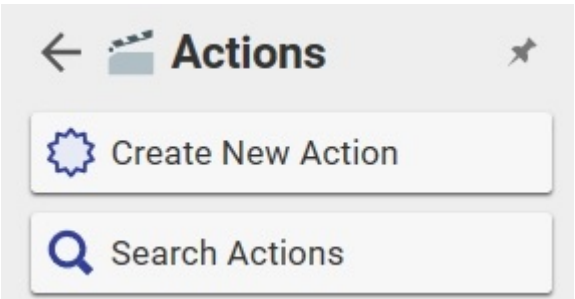
Update Time Zone Data

With the periodic changes to Time Zone information as well as Daylight Savings it is necessary that the time zone data within Aras Innovator be updated. Similar to Windows Updates, this new information needs to be loaded into your system.

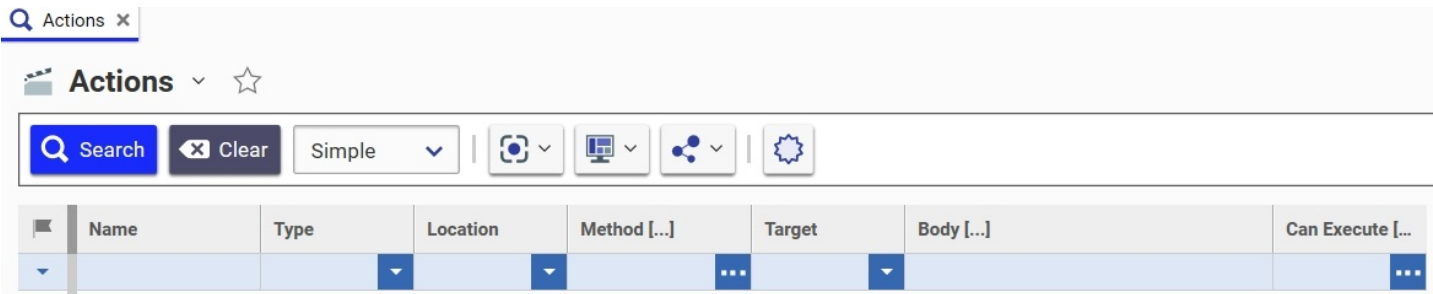
To update the time zone data for your instance, use the following steps:

1. Log into Aras Innovator as an administrator.

2. From the TOC, either click the search icon that appears when you hover over **Actions** or select **Administration>Actions>Search Actions**:



The Search Grid appears.



3. Select **Actions>UpdateTimeZoneInfo** from the toolbar.

This saves the tzupdate.xml to your Working Directory.

4. Once the file is finished downloading, a File Dialog appears. Select the tzupdate.xml file that is downloaded.
5. Click **OK** when the update has completed.

DB Connection

This section provides the fundamental data enabling the Aras Innovator server to connect to the Aras Innovator database. Use this section to manually create custom connections to existing databases.

Table: Definitions of DB variables

Variable	Definition
id	Any alphanumeric name to be used to identify the database when using Innovator.
database	The name of the Aras Innovator database in SQL Server



server The name of the server where the database is installed.
dbo_uid The username to connect to the “Aras Innovator” database user.
dbo_pwd The password to connect to the “Aras Innovator” database user.
regular_uid The username to connect to the “innovator_regular” database user.
regular_pwd The password to connect to the “innovator_regular” database user.

The following is an example of a properly formatted DB Connection section of the InnovatorServerConfig.xml.

Microsoft SQL Server database

```
<DB-Connection  
  id="Innovator"  
  database="InnovatorSolutions"  
  server="localhost"  
regular_uid="innovator_regular" regular_pwd="innovator_regular"  
  dbo_uid="innovator"  
  dbo_pwd="innovator" />
```

Edit the InnovatorServerConfig.xml file located in root of the install directory.

C:\Program Files\Aras\Innovator

1. Id = Innovator > Name you wish to appear in the drop-down list when accessing Innovator. If the id attribute is not present in the entry, then database name is used to identify the database when using Innovator. Select this name carefully, as it is also the name of the folder you vault files are stored in.
2. database = InnovatorSolutions > name of the database you are connecting to.
3. server = Localhost > the name of the SQL Server instance where the database is installed.
4. regular_uid = innovator_regular > the login to connect to the *innovator_regular* database user.
5. regular_pwd = innovator_regular > the password to connect to the *innovator_regular* database user.
6. dbo_uid = innovator > the login to connect to the *innovator* database user.
7. dbo_pwd = innovator > the password to connect to the *innovator* database user.

Customizing/Tailoring User Interface

If desired, edit the UI Tailoring section of the ‘InnovatorServerConfig.xml’. This section of the InnovatorServerConfig.xml file allows the customer to modify the product name. Table: UI Tailoring



variable definition

Variable	Definition
----------	------------

product_name	The title to be used on the main Innovator window title bar
--------------	---

The following is an example of a properly formatted UI Tailoring section of the InnovatorServerConfig.xml file.

```
<UI-Tailoring product_name="Aras Innovator" />
```

Enabling Debugging of Methods

Aras Innovator Methods are compiled before execution. The default behavior of Aras Innovator is not to generate these methods temporary files. If this setting is enabled, these files are stored in the file system in the \Innovator\Server\dll folder of the installation. Because the files are generated at runtime, the DLL files generated in this folder do not list the Aras Corporation company name or the Aras Innovator product name in file properties. Further, the DLL files generated in this folder at runtime do not have a digital signature.

To enable the generation of these files in the file system, you need to add the following tag to the InnovatorServerConfig.xml, found in the root of your installation folder.

```
<Innovator>
  <UI-Tailoring login_logo="...
  <IEClient RequiredSyncMode5="Never"/>
  <operating_parameter key="DebugServerMethod" value="true" />
  <operating_parameter key="debug_log_flag" value="false" />
```

To disable the use of this folder again, you simply need to change the value to false.

```
<Innovator>
  <UI-Tailoring login_logo="...
  <IEClient RequiredSyncMode5="Never" />
  <operating_parameter key="DebugServerMethod" value="false" />
  <operating_parameter key="debug_log_flag" value="false" />
```

Disabling the use of this folder has no negative effect on a production system.

Installing the Reporting Service



Aras Innovator uses integration with the Microsoft SQL Server Reporting Service. This service must be installed and configured to run Aras Innovator reports. Refer to the *Aras Innovator - Microsoft Reporting Services Guide* for details on installing and configuring the service. This document can be found at <https://www.aras.com/support/> or in the *Documentation* folder of the Aras Innovator CD Image.

Configuring Aras Innovator for Single Sign-On

The Innovator Single Sign-On feature provides a mechanism for customers to take advantage of their existing user authentication scheme so that an Innovator login can be processed without the user entering an Innovator specific password. This new feature has been architected so that it can be easily configured to adapt to an Active Directory environment or, if the customer has another user authentication scheme, hooks have been included to integrate a non-standard method.

Refer to the Aras Innovator 40 – Windows Authentication document. This document can be found in the Documentation folder of the CD Image and outlines configuring your Aras Innovator installation for user authentication.

Configuring the Aras Innovator Service

The Aras Innovator Service is a Windows executable program that runs as a Windows Service. It is used to automatically run Aras Innovator Methods on a periodic schedule, as specified in the *InnovatorServiceConfig.xml* file. A single running instance of the Aras Innovator Service can be configured to periodically connect to any number of Aras Innovator Servers and for each Aras Innovator Server run any number of Methods. The standard Windows Event Viewer is used for logging of program status and error messages.

Refer to the Aras Innovator 40 – Scheduler Service document for information on configuring your Aras Innovator installation to use this service. This document can be found in the Documentation folder of the CD Image.

Configuring Custom Installations

Important

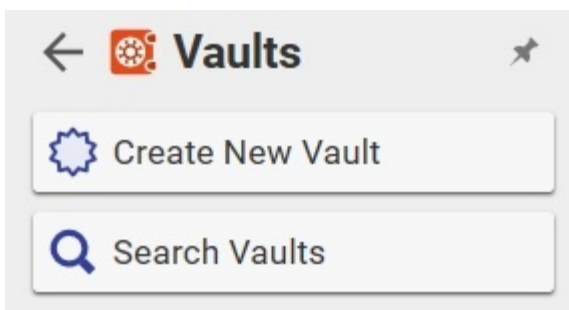


This section assumes a custom installation was chosen, excluding the Conversion Server and Agent Service. It is assumed the Conversion Server and Agent Service are installed on a separate server from the Aras Innovator Server in a production instance.

When using the custom install option certain files must be configured to allow Aras Innovator components to work together. The Aras Innovator Server must know where the database is installed. For the system where Aras Innovator Server is installed, follow the steps outlined in section Database Connection.

The Database must point to the designated vault location. Use the following procedure to set up the vault:

1. Log in as administrator.
2. From the TOC, either click the search icon that appears when you hover over **Vaults** to access the Search grid or select **Administration>File Handling>Vaults**. The following menu appears:



3. Click **Search Vaults**. The Search grid appears.
4. Click **Search**. The Default vault appears in the Search grid.
5. Double-click **Default** to view the dialog box:

Default x

Default
☆
🚩

Edit
↺
↻
⚙️
📊
🔗
⋮

^
Vault

Name

Vault Url Pattern

Vault Url

^
Replication Rule
Conversion Server Priority

🧬
Identities
▼
☆

📄
✖
🔍
⏮

▼
📷
🖥
🔗
▼

🚩	Name	Initiator Type	Replication ...	Filter [...]	Replication T...	Is Active	Label
	All Employees	onChange	Scheduled		Copy	☒	

The following information appears in the fields:

- **Name:** default (we are configuring the Default vault server)
- **Vault UrlPattern:** this is the IIS path to the VaultServer.aspx. By default, this path should be:
`$(HTTP_PREFIX_SERVER)$(HTTP_HOST_SERVER)$(HTTP_PORT_SERVER)$(HTTP_PATH_SERVER)`

Important

Note: If the Vault Server is installed on a separate machine than the Innovator Server, then the web alias may need to be hard coded: `http:// <servername>/<web_alias>/ vault/VaultServer.aspx`

- **Vault Url** – This field is updated automatically after the vault information is saved.

6. Click the Add Identities icon on the Replication Rule tab to specify who can create replication rules for the vault.



7. Click the Add Conversion Servers icon on the Conversion Server Priority tab to add another conversion server to the list.



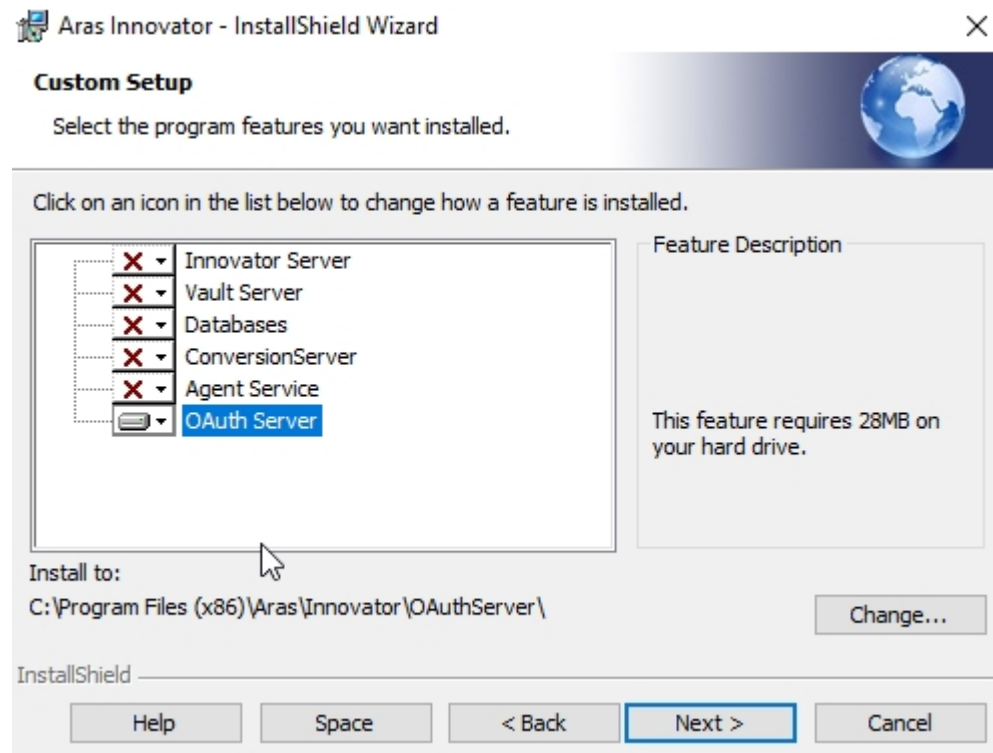
Click the Save and Done buttons to save, and unclaim the file.

9. The Vault Server should have access to the Aras Innovator Server and Database Server – The vault server must know the location of the InnovatorServer.aspx. Here is how to configure it:
 1. Open the file vault.config. This file should be in the root of the installed directory for the Vault server, for example:
C:\Program Files\Aras\Innovator\vault.config
 2. Change the key InnovatorServerUrl to point to the InnovatorServer.aspx. So,

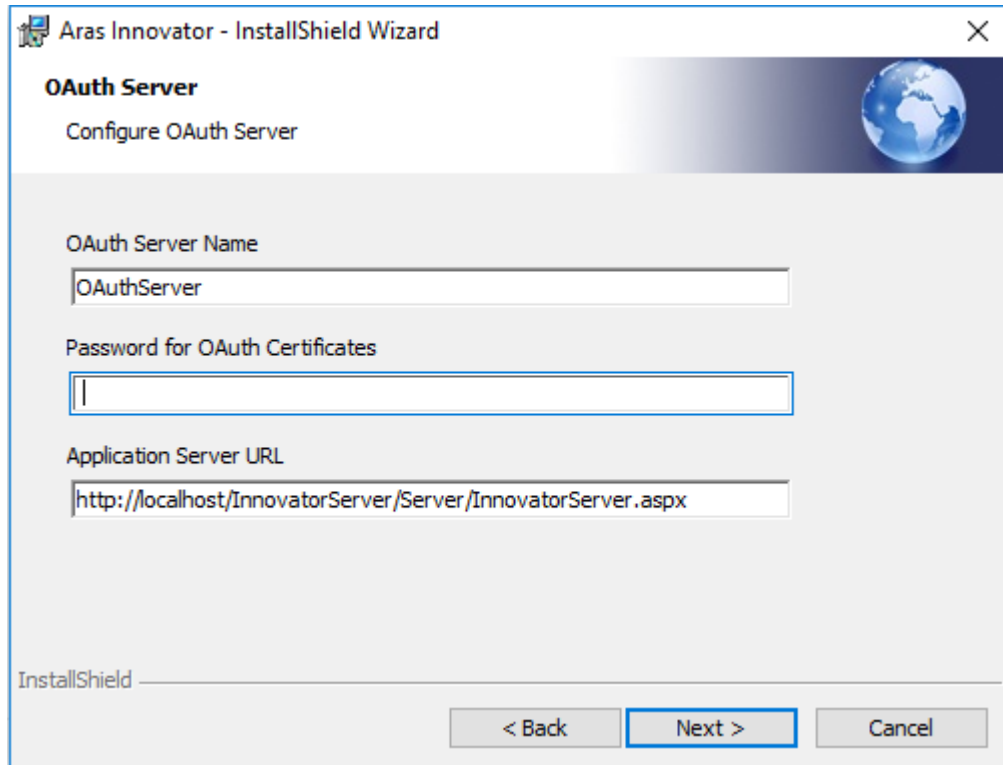
becomes:



- Select the OAuth Server feature and click Next.



The following screen appears.



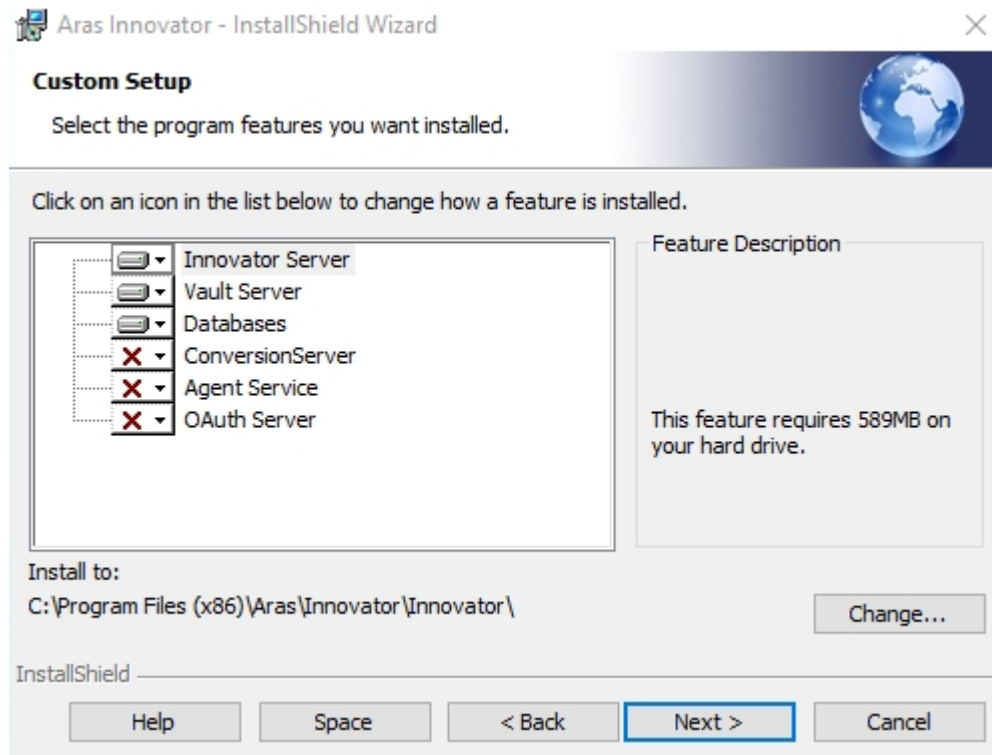
- Specify the OAuth Server name, the password for the OAuth certificates and the Application Server URL.
 - **OAuth Server Name:** enter a name of an Aras OAuth Server instance that you want to use.
 - **Password for OAuth Certificates:** enter a password to protect the certificates.
 - **Application Server URL:** since OAuth Server is not a standalone application, you need to specify the URL of the Aras Innovator Server. The URL is `http://<servername>/<web_alias>/Server/InnovatorServer.aspx` Where:
 - **servername** is the name of the server where the Innovator Server is installed.
 - **web_alias** is the name of the Aras Innovator Server Virtual Directory.

3. Complete the installation.

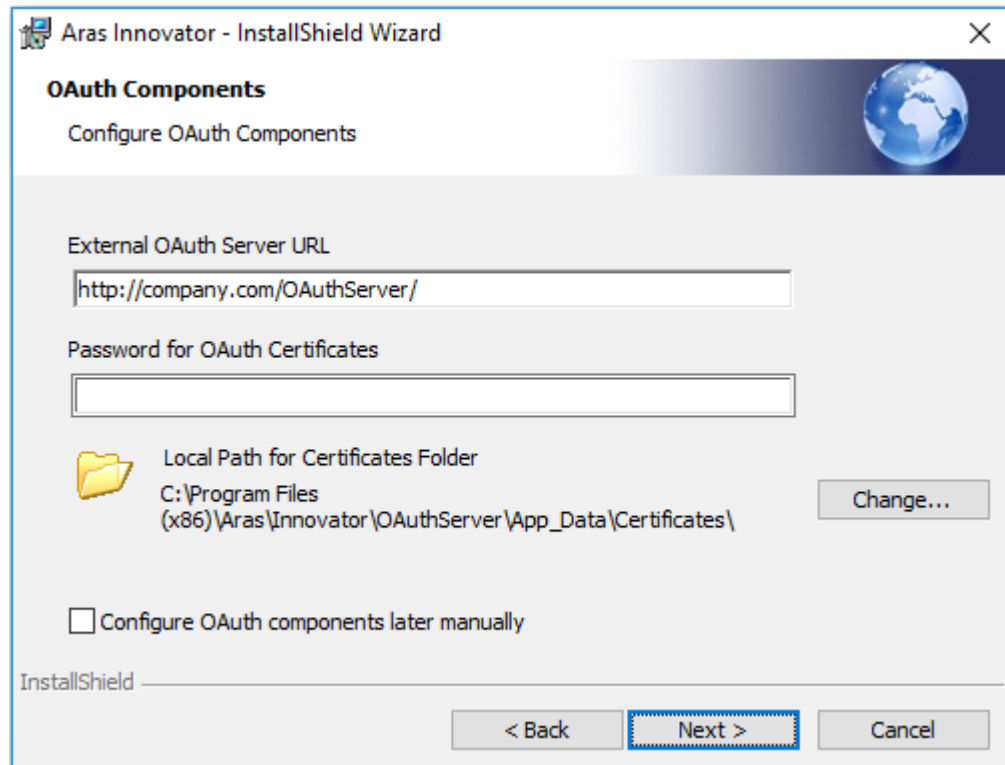
Once you have installed the OAuth Server, you will need to complete the installation of the other Application Components.



1. You should deselect the OAuth Server feature and press **Next**.



The following screen appears.



2. Enter the following information:

1. **External OAuth Server URL:** URL used by other OAuth components to access

▪

`servername`

is the name of the server where the OAuth s

▪

`oauth_server_name`

is the name of the Aras OAuth Server Virtual

2. **Password for OAuth Certificates:** enter the password to access private ce

3. **Local Path for Certificates Folder:** the full local path to the OAuth Cer

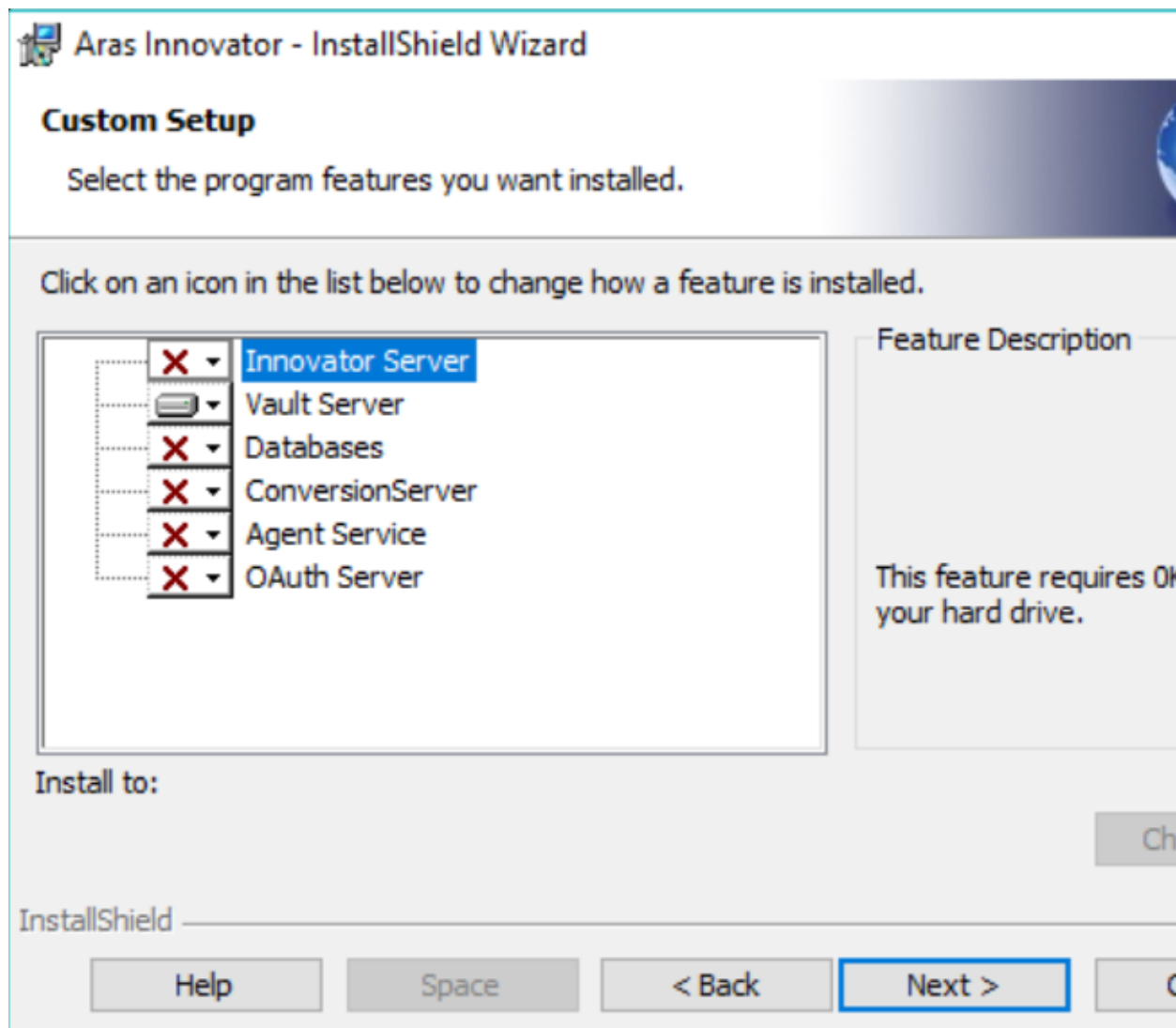
3. You may check **Configure OAuth components later manually** and continue with the

Alternate Vault Installations and Configuration



When using the custom install option certain files must be configured to allow Aras Innovator components to

1. Run a custom installation to set up the new vault, which in this example, we
1. Pick a folder location, for example, C:\Support\WebApplications\VaultFolder
2. Choose **Custom**
3. Select Vault Server ONLY (you do not need to select OAuth Server)



- Use same password for OAuth as that in the web app installation. Copy OAuth
- Specify a unique Vault name such as Version_YourName_VaultID. Update the App
- Install

2. Configure the new vault, which in this example, we call New.

The Database must point to the designated vault location. To set up the vault:

- Log in as administrator.
- Select **Administration>File Handling>Vaults** from the TOC. The **Vaults** menu app
- Click **Create New Vault**. The following dialog appears:

- Enter the following information in the appropriate fields:

- **Name:** New (The name of the vault server we are configuring)
 - **Vault Url Pattern:** this is the IIS path to the VaultServer.aspx. Because
 - http://<servername>/<web_alias>/vault/VaultServer.aspx
 - When a vault is installed stand-alone, the default web alias is: ht
 - **Vault Url:** Leave blank. It gets filled automatically when you save the
- Click the Save, unclaim, and close button.
3. The Vault Server should have access to the Aras Innovator Server and Database
 1. Open the file vault.config. This file should be located in the root of t
C:\Program Files\Aras\Innovator\VaultServer\vault.config
 2. Change the key InnovatorServerUrl to point to the InnovatorServer.aspx.

```
<add key="InnovatorServerUrl" value="${HTTP_PREFIX_SERVER}${HTTP_HOST_S
```

becomes

```
<add key="InnovatorServerUrl" value="http://<servername>/<web_alias>/Server/innovatorserver.aspx" />
```

- c. Change the vault name in the file, to the name of the server we are using, in this case **New**.



```
<add key="VaultServerName" value="default" />  
becomes:  
<add key="VaultServerName" value="new" />
```

Important

In version greater than or equal to 14.0.25 where the vault and innovator server are on two separate servers

Installing Separate Conversion Servers

This tier of the installation is disabled by default. It is necessary to install the Agent Service if you plan to use

Conversion Servers are used to convert specific File Types into another file format. For example, the Aras C

In a typical Aras Installation, the Conversion Server is recommended to be installed on a separate server. Ins

Refer to the Aras Innovator 40 – Conversion Server Setup Guide for information on installing and configuring

Microsoft Visual C++ Redistributable Package



You must install The Microsoft Visual C++ 2015, 2017, and 2019 Redistributable Packages on the Conversion

- Microsoft Visual C++ 2015, 2017, and 2019 Redistributable Packages (x64)
-

<https://support.microsoft.com/en-us/help/2977003/the>

Installing the Agent Service

This tier of the installation is disabled by default. It is necessary to install the Agent Service if you plan to use

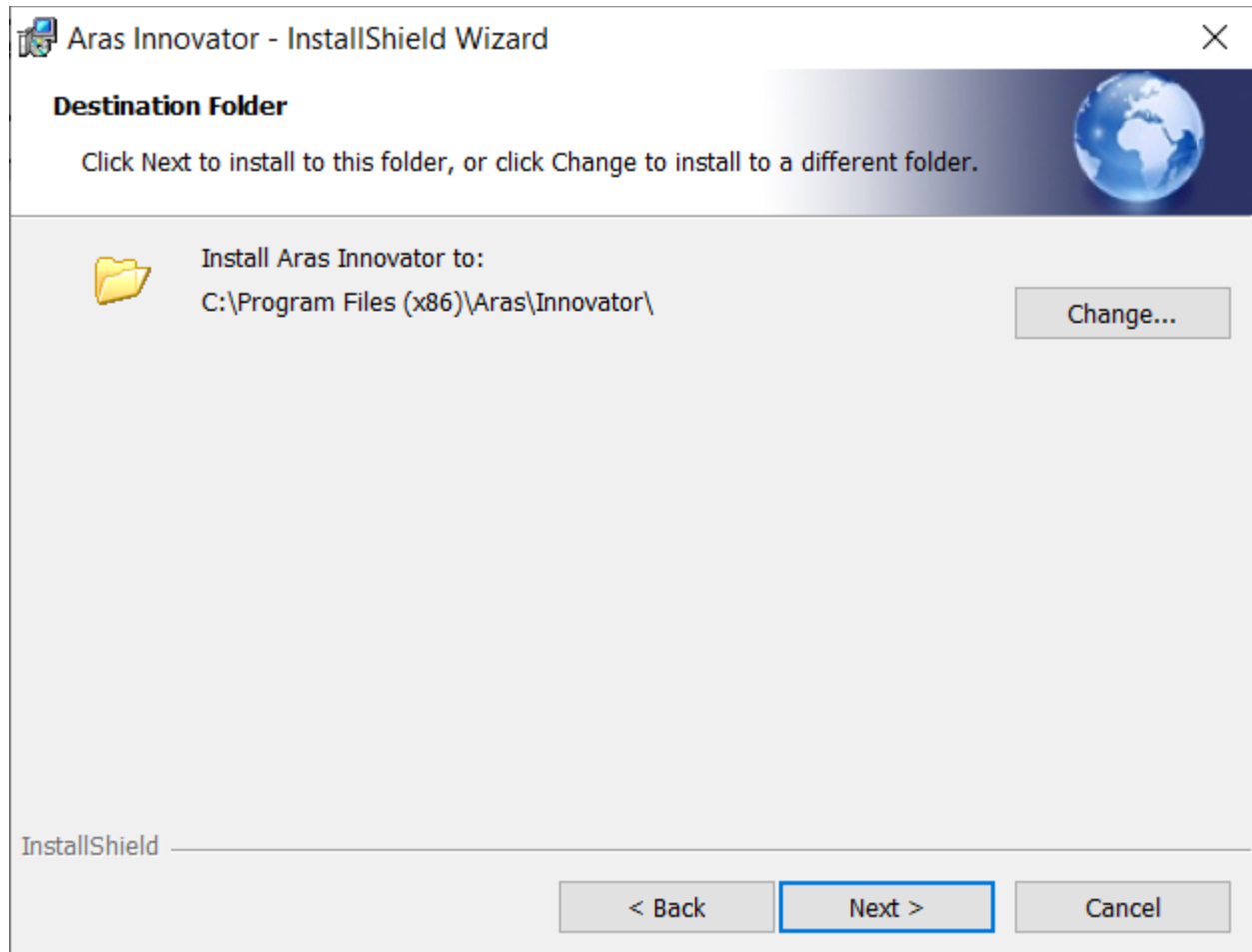
The Aras Agent Service may be installed on a different server than the Aras Innovator Server. If installing on

Important

The following instructions assume that the Agent Service is being installed on the same machine as Aras

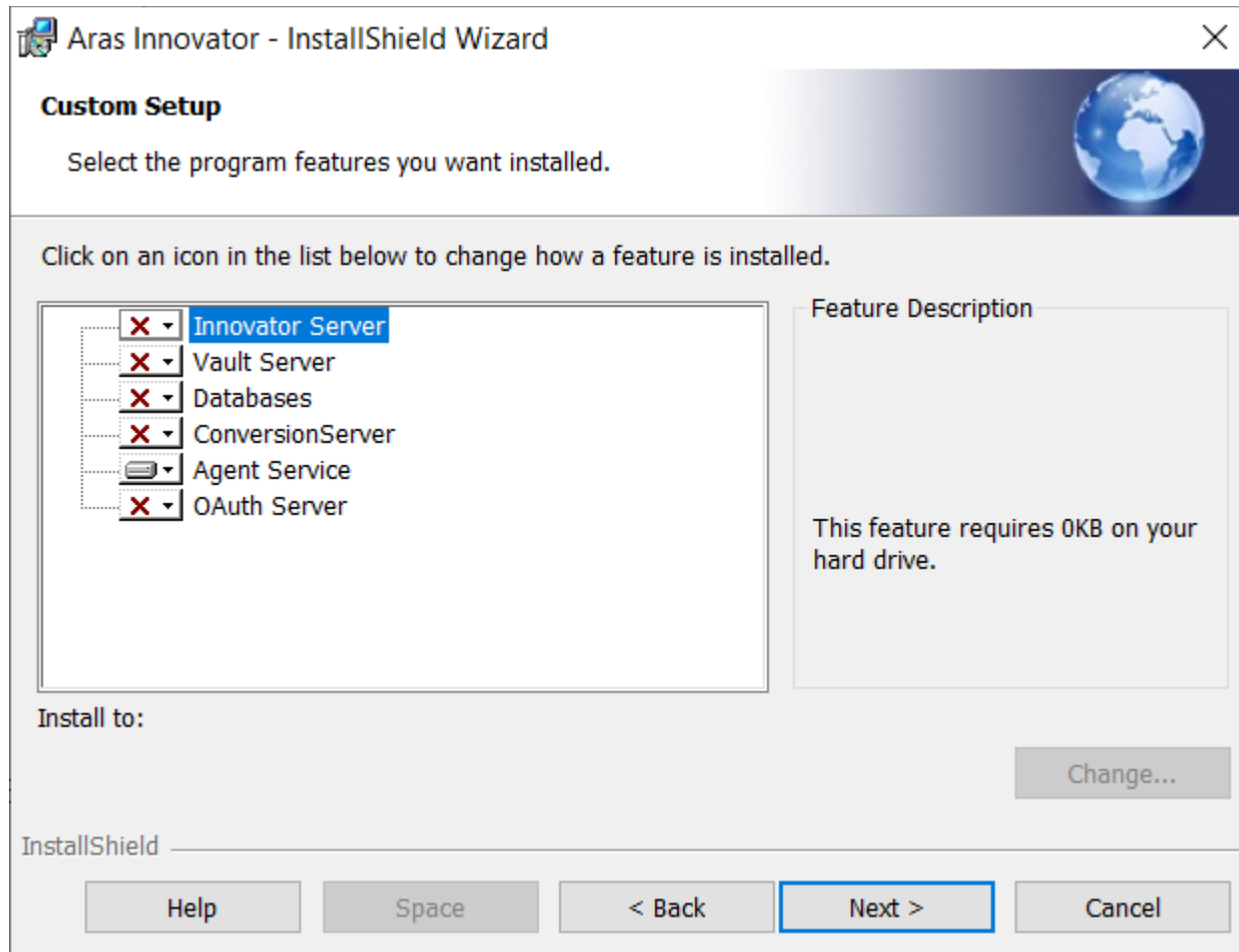
1. When prompted for the installation directory, click **Change** and select a new





2. When selecting setup, choose **Custom** and then select only the **Agent Service** t





3. Specify the **host name**, **port number** as follows: : <ServerName>:<PortNumber>.
The **Agent Service alias** is a unique identifier for the Windows service name.



Aras Innovator - InstallShield Wizard

Agent Service
Configure Agent Service

Input host name and port

Agent Service alias

InstallShield

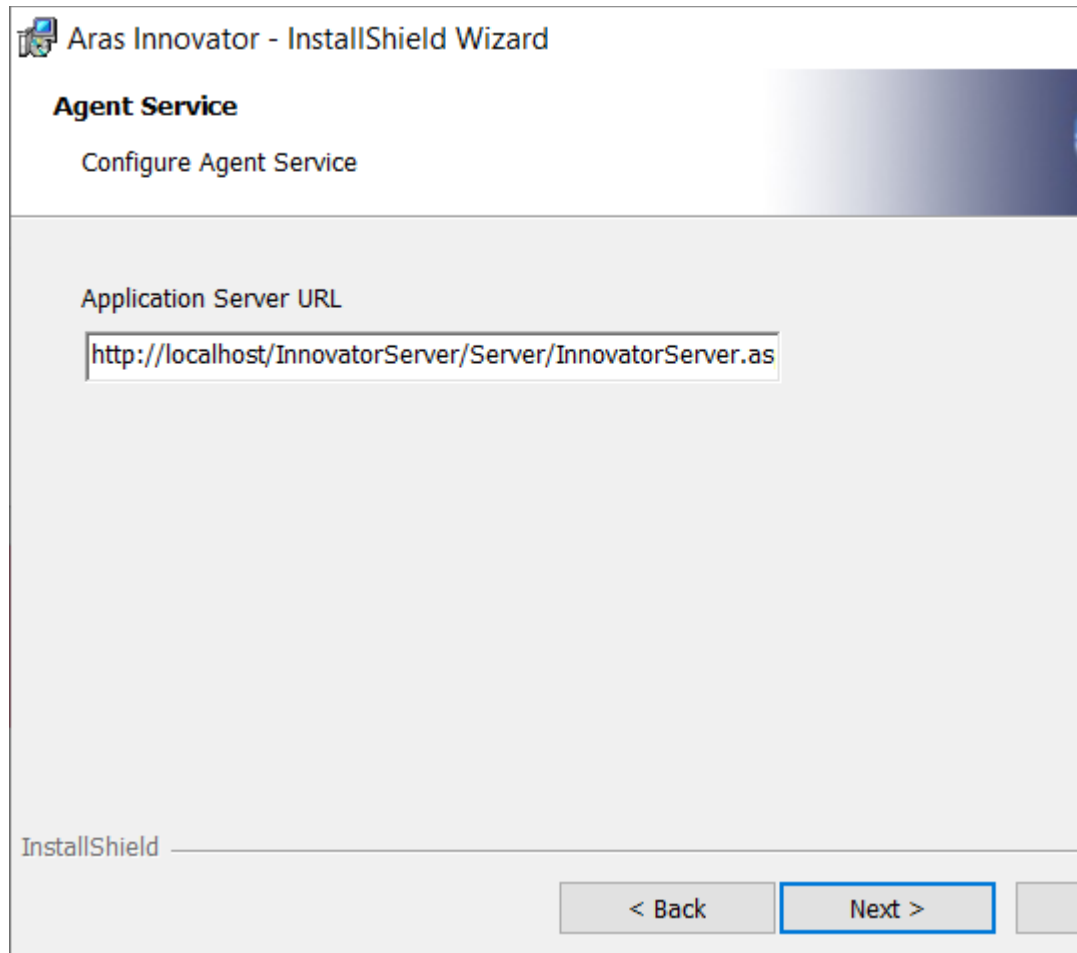
< Back **Next >** Cancel

Important

The Agent Service can only be installed on a free port.

4. Specify the connection URL for the Aras Innovator Server as follows: <Protocol





1. **Application Server URL:** since the Agent Service is not a standalone application, the URL is `http://<servername>/<web_alias>/Server/InnovatorServer.aspx` where:

-

`servername`

is the name of the server where the Aras Innovator is installed.

-

`web_alias`

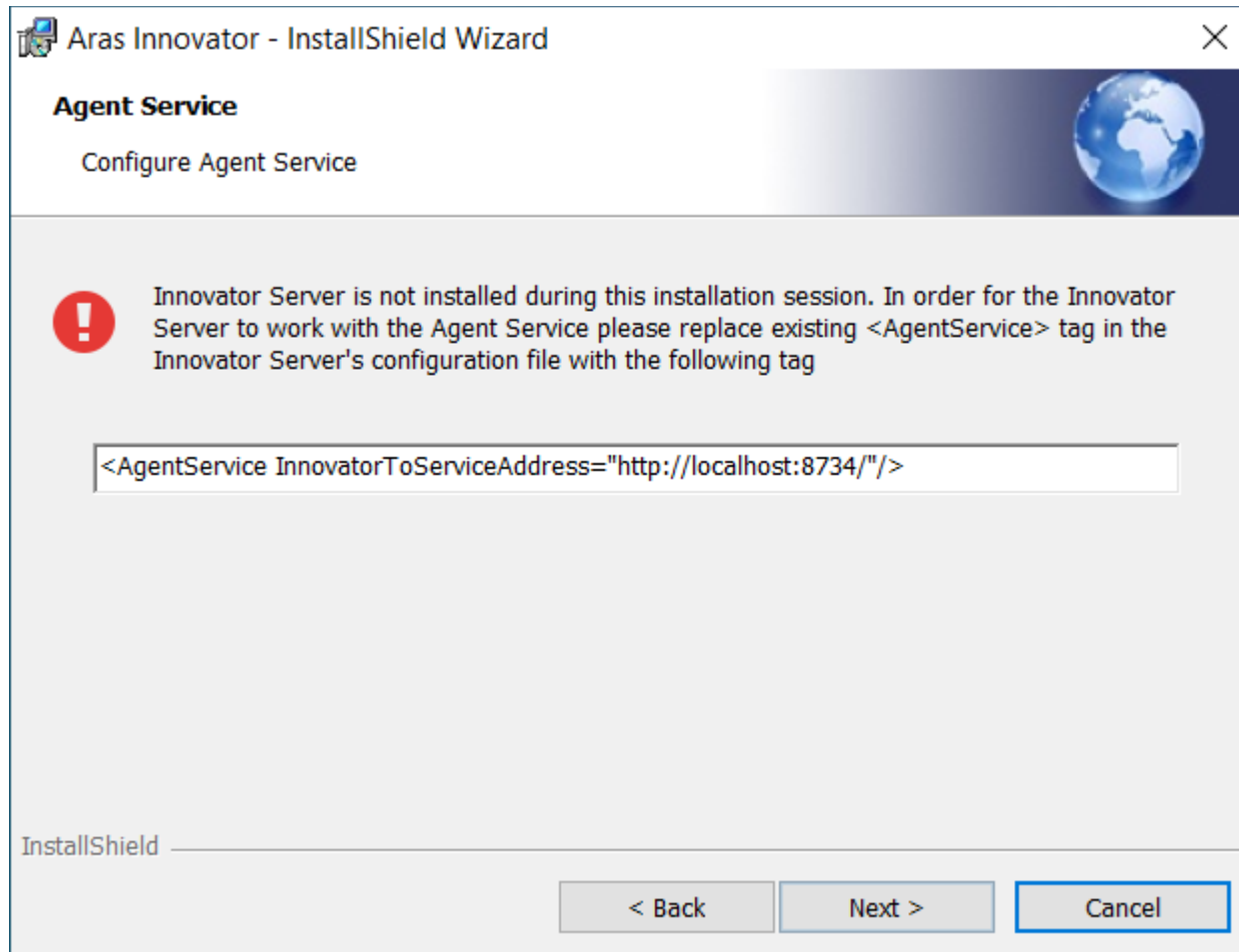
is the name of the Aras Innovator Server Virtual Directory.

This is the same Web Alias that you specified earlier in section [Server Configuration](#).

- A best practice for a standard install is: `http://localhost/$(HTTP_SERVER_ALIAS)/Server/InnovatorServer.aspx`

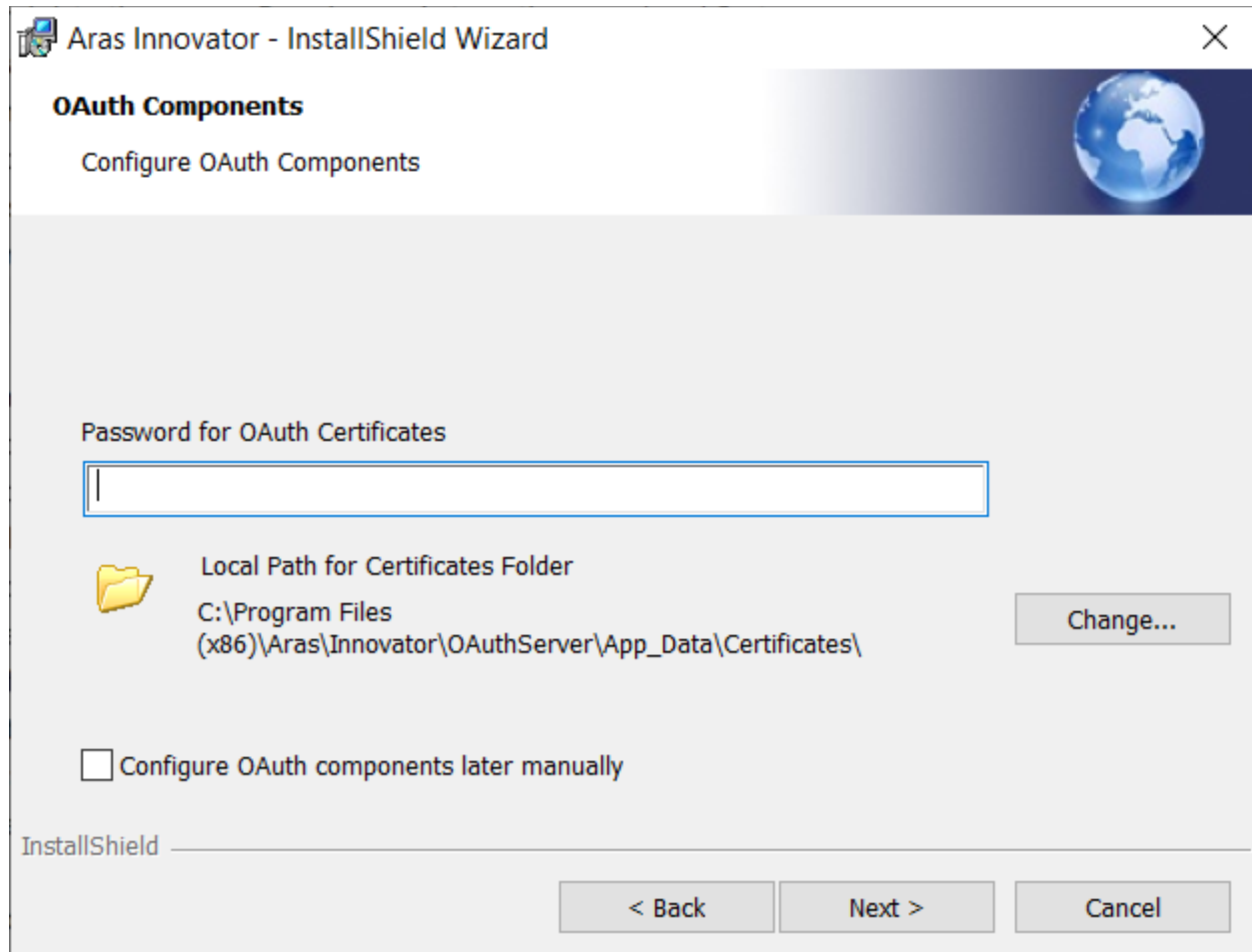
5. Copy the Agent Service Tag generated by the installer and save it to be added to the Agent Service configuration.





6. Configure OAuth Certificates.



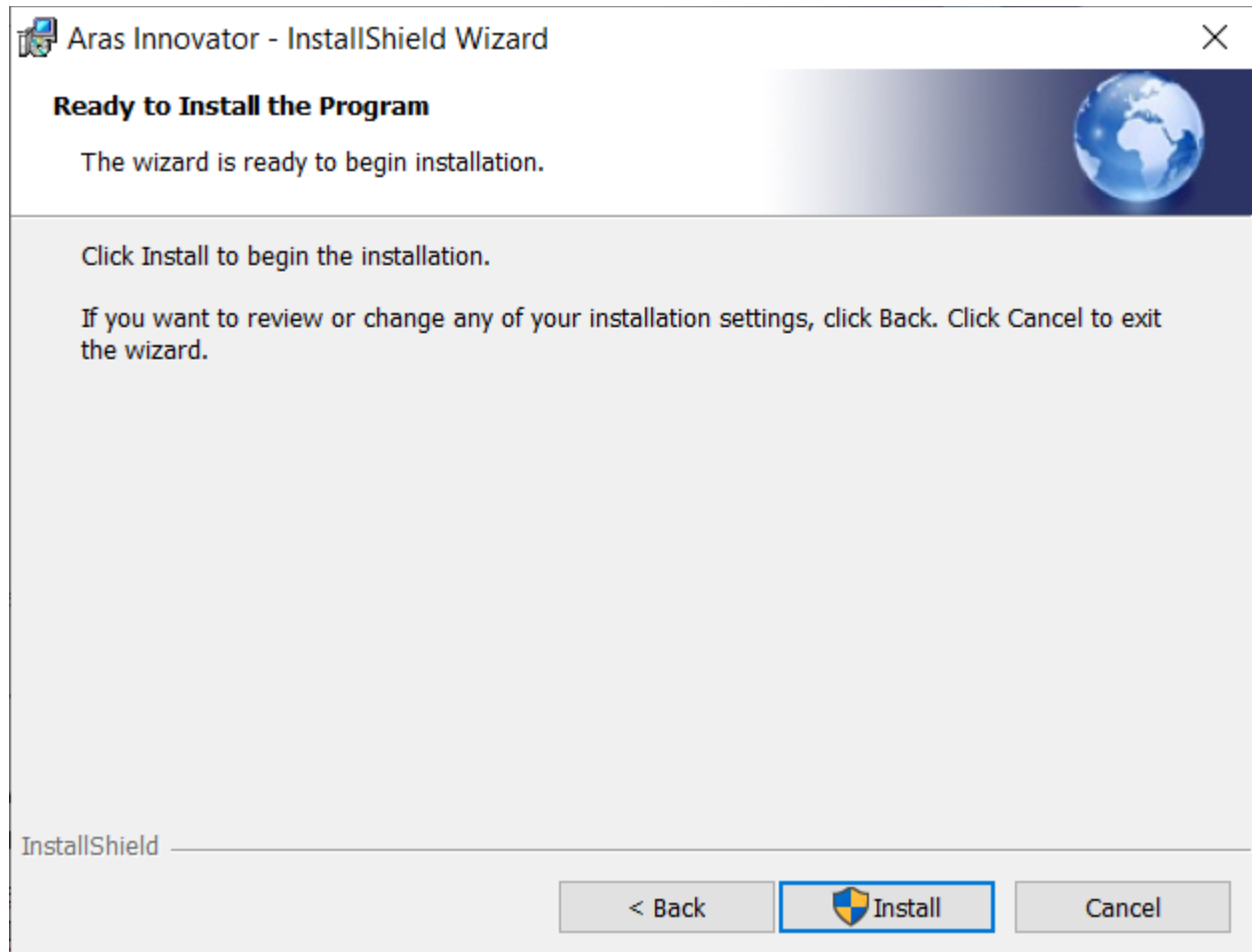


- **Password for OAuth Certificates:** Enter the password to protect the private key.
- **Local Path for Certificates Folder:** the full local path to the OAuth Certificates folder.

You may check **Configure OAuth components later manually** and continue with the installation. This will result in the OAuth components being installed but not configured.

8. Click **Next**.
9. Click **Install** to complete the installation.

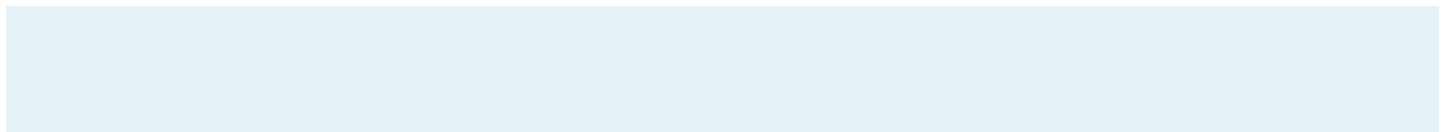




10. After the Agent Service is installed, go to the Aras Innovator Server install

Installing the Agent Service as https

To use the Agent Service as an https service, you must configure the SSL certificate to be bound to an HTTP



Important

Refer to the following link for additional info: <https://docs.microsoft.com/en-us/aspnet/core/fundamentals>

Using the certificate from the file

To use the certificate from the file it is necessary to specify the path to the certificate file and the certificate password.

```
"Kestrel": {
  "Endpoints": {
    "HTTPS": {
      "Url": "https://0.0.0.0:8735/",
      "Certificate": {
        "Path": "SSLCertificate.pfx",
        "Password": "password"
      }
    }
  }
}
```

- Path: a path to a file with a private SSL certificate generated for the current application.
- Password: a password for the private SSL certificate.



Important

Passwords for certificates should be encrypted to increase security. Agent service configuration support

Using RSACrypt

The RSACrypt utility enables the encryption and decryption of different text values including XML configuration

```
RsaCrypt.exe [-c {key container name}] [-m] [-d] [-w] [-t {content}] file x-path x-path x-path...
```

where:

- `[]`: they are used for optional arguments
- `-c` (key container name): a Key container name used in keys storage.
- `-m`: it uses machine key storage.
- `-d`: it decrypts values using the x-path in an xml file.
- `-nw`: the utility will finish without the additional confirmation of pressing
- `-t {content}`: it provides the content for encryption or decryption. Required
- `file`: the full path to an xml file.
- `x-path`: an x-path used to decrypt or encrypt xml-file values.



Using the certificate from the certificate store

To use the certificate from the certificate store it is necessary to import **.pfx** certificate in the store and config

```
"Kestrel": {
  "Endpoints": {
    "HTTPS": {
      "Url": "https://0.0.0.0:8735/",
      "Certificate": {
        "Subject": "subject",
        "Store": "TrustedPublisher",
        "Location": "LocalMachine",
        "AllowInvalid": false
      }
    }
  }
}
```

- Subject: The subject name for the certificate to load. Parameter is required
- Store: The certificate store to load the certificate from. Parameter is required
- Location: The store location to load the certificate from. Default is CurrentUserMy
- AllowInvalid: Indicates if invalid certificates should be considered, such as self-signed

Restarting the IIS Server After Configuration



It is recommended that you restart IIS (World Wide Web Publishing service) after any change to the InnovatorServerConfig.xml file.

To Restart IIS:

1. From the Start menu select **Start --> Settings--> Control Panel --> Administrative Tools**.
2. Select the World Wide Web Publishing service.
3. Select **Action --> Restart** from the main menu.

Send Emails with Microsoft Graph API

If you would like to set up sending emails via Microsoft Graph API instead of Smtplib, you can do it by modifying the *InnovatorServerConfig.xml* file.

Important

For more information related to Microsoft Graph API please refer to the link: <https://docs.microsoft.com/en-us/graph/api/>

Modify *InnovatorServerConfig.xml*: Locate the *Mail* node and set value of the *deliveryMethod* attribute to *MicrosoftGraphApi*.
<Mail deliveryMethod="MicrosoftGraphApi" clientId="..." tenantId="..." clientSecret="..." />



Important

There should be the only one Mail node in InnovatorServerConfig.xml, if there are more, Innovator Server

Important

Your application should have Mail.Send **application** permission configured. For more details, please refer

