

# FOIAXpress

## Deployment Manual

v11.8.0

October 2024



OPEXUSTECH.COM

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# FOIAExpress v11.8.0 Deployment Manual

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# Version History

Version	Date	Revision Summary
1.0	1/12/2024	New version for v11.5.0 New Calculate Page Count Job in EDR (10.7.2)
1.1	5/10/2024	Added steps for enabling the Pendo integration (for SaaS customers only). See Section 10.9 for details.
1.2	7/3/2024	There are several new required steps when deploying or upgrading an application to v11.7.0 and up: <ul style="list-style-type: none"><li>▪ Section 1.2 was added to call out these new steps and outline what's changed for v11.7.0.</li><li>▪ Added steps to install or upgrade the FOIAXpress API (required). See Section 10.10 (and subsections).</li><li>▪ Added new required steps for applications using the AI Assistant feature, see Section 10.11 (and subsections) for details. These steps must be followed to use the AI Assistant in v11.7.0.</li><li>▪ There is a known issue with the User Manual link in v11.7.0, and this must be manually updated after the installation. This process is outlined in Section 10.12</li></ul>
1.3	7/24/2024	Updated Section 10.10.1 ( <i>API Installation Prerequisites</i> ) to note that both .NET v7.0.11 and 8.0.6 are required to be installed for the API to function correctly in v11.7.X.



Version	Date	Revision Summary
1.4	8/8/2024	<p>Updated the following:</p> <ul style="list-style-type: none"> <li>▪ Section 3.2.3: Revised steps to direct administrators to create an “FXRepo” directory as the parent directory for the various FOIAXpress file repositories. See steps 2 and 3.</li> <li>▪ Section 8: Added a note that if the repository details are ever edited during an application update, IIS must also be restarted on the application server.</li> </ul>
1.5	10/01/2024	<p>New update for v11.8.0:</p> <ul style="list-style-type: none"> <li>▪ All installations and upgrades now require the IIS CORS Module to be installed. See section 2.7 - <i>Install CORS Module</i> for more information and a link to download the CORS Module.</li> <li>▪ A new EDR Calculate Page Count job was added. This must be manually added to the Scheduler as a post-installation procedure. See section 10.7.2 - <i>Calculate Page Count Job</i> for steps and details.</li> <li>▪ Removed the User Manual URL section as this is fixed for v11.8.0</li> </ul>
1.6	10/18/2024	<p>Revised the API Installation Prerequisites (10.10.1) to remove the requirement for .NET 7.0.11, as this is not required for v11.8.0.</p>



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# 1 FOIAXpress Deployment Manual

## 1.1 About This Document

This manual is intended to guide system administrators through the required steps to deploy FOIAXpress within their organization, including both new installations and upgrades.

## 1.2 Notes About v11.8.0

Two requirements were added for v11.8.0:

- The IIS CORS Module must be installed on the application server. See steps in section 2.7.
- Added a new EDR Calculate Page Counts job. See section 10.7.2

In addition, requirements were added for v11.7.0 that we wanted to call out:

- The FOIAXpress API must be installed with all applications on v11.7.0 and up. Steps to install the API can be found in Section 10.10 (and subsections).
- If you will be using the AI Assistant feature, there are some new steps you must follow when deploying or upgrading. These details are included in Section 10.11 (and subsections).

## 1.3 FOIAXpress Installation Package

The FOIAXpress installation package is a zip file containing all the files needed to install FOIAXpress, Scheduler, EDR and the FOIAXpress database. Your customized installation is driven by the values set in the *Inputs.Json* file located at the root of directory where the zip file is extracted.

Contact OPEXUS support at [support@opexustech.com](mailto:support@opexustech.com) for your installation package.

## 1.4 Deployment Procedure

Deploying FOIAXpress follows the procedure outlined below. Each step is covered in the subsections in this manual.

1. Review the Application Installation Prerequisites:
  - a. If this is an Azure installation, also review the Azure Installation Prerequisites
  - b. If this is an upgrade of an existing FOIAXpress application, review the Upgrading FOIAXpress section.
2. Download and verify the installation package, then extract the files.



3. Update the Inputs.json file with your deployment details.
4. Run Install.ps1
5. Perform post-installation procedures.
6. For Azure-based environments, also perform the Azure Post-Installation procedures.

## 1.5 Deployment Requirements

While the FOIAXpress deployment package (and this manual) are designed to be usable by anyone, we recommend that installation be completed by an experienced system administrator, as knowledge about your organization's architecture are necessary to execute this deployment. It is important to check the person doing the installation has the level of access and the accounts specified in the Inputs.json have the access level needed for upgrading or installing the application, databases and services specified.



## 2 Application Installation Prerequisites

The installation prerequisites are crucial as they outline the minimum system requirements and necessary preparations that need to be met before proceeding with the installation process. Ensuring that your system meets these prerequisites will ensure a smooth and successful FOIAXpress deployment. Please take the time to thoroughly review and fulfill the requirements outlined in this section before moving on to the next steps.

### Notes:

- **These prerequisites apply to new installations. For upgrades to existing environments, see the Upgrading FOIAXpress section.**
- **From version 11.4.0 onward, the application will only deploy with a valid HTTPS certificate.**

### 2.1 Recommended System Requirements

The Recommended System Requirements provides information about the environment required for setting up the FOIAXpress (FX) application. It outlines the recommended hardware and software to install the application and its related components. The manual also mentions basic networking recommendations to enhance performance.

### 2.2 Deployment System Requirements

The installation package must be deployed from the application server, which must meet the requirements outlined below:

Requirement	Description
Location	Deployment scripts can be executed from Application server. The script must be executed from application server if the Application or Scheduler are installed.
User Permissions	The logged-in user should have the local administrator permissions.



Requirement	Description
<b>Operating System Requirements</b>	Windows 2016/2019/2022
<b>Microsoft .NET Framework 4.8 Runtime</b>	<p>Microsoft .NET Framework 4.8 Runtime must be downloaded and installed. It can be downloaded and installed from the following location:</p> <p><a href="https://dotnet.microsoft.com/en-us/download/dotnet-framework/net48">https://dotnet.microsoft.com/en-us/download/dotnet-framework/net48</a></p>
<b>SqlPackage</b>	<p>The SqlPackage must be downloaded and installed. It can be downloaded and installed from the following location:</p> <p><a href="https://learn.microsoft.com/en-us/sql/tools/sqlpackage/sqlpackage-download?view=sql-server-ver16#windows-net-framework">https://learn.microsoft.com/en-us/sql/tools/sqlpackage/sqlpackage-download?view=sql-server-ver16#windows-net-framework</a></p>
<b>SqlServer</b>	<p>The SqlServer module must be downloaded and installed on the application server. See the <i>Install SQL Server Module</i> section for steps.</p>
<b>PowerShell Version</b>	<p>PowerShell 5.1.22621.963 must be installed for deployment using auto deployment.</p> <p><a href="https://www.microsoft.com/en-us/download/details.aspx?id=54616">https://www.microsoft.com/en-us/download/details.aspx?id=54616</a></p>



Requirement	Description
<b>Microsoft Visual C++ Redistributable</b>	<p>The Microsoft Visual C++ Redistributable must be downloaded and installed on the application server for all new FX installs.</p> <p><b>Note: Both executables below must be downloaded and installed.</b></p> <p><a href="https://aka.ms/vs/17/release/vc_redist.x64.exe">https://aka.ms/vs/17/release/vc_redist.x64.exe</a></p> <p><a href="https://download.microsoft.com/download/1/6/5/165255E7-1014-4D0A-B094-B6A430A6BFFC/vcredist_x64.exe">https://download.microsoft.com/download/1/6/5/165255E7-1014-4D0A-B094-B6A430A6BFFC/vcredist_x64.exe</a></p>

## 2.3 Prerequisites Checklists

Prerequisites for the Application Server, Database, and Permissions are outlined in the following tables:

### 2.3.1 Application Server Checklist

Requirement	Description
<b>Operating System</b>	Windows 2016, 2019, or 2022 Server installed on the database, repository, and application servers.
<b>Disk Space</b>	20 GB
<b>Software</b>	Microsoft .NET Framework 4.8 or later



Requirement	Description
<b>Server Roles</b>	<p>Ensure the following roles are selected to be installed on the Application Server. These are found under the <i>Application Development</i> roles list, under the <i>Server Roles</i> configuration:</p> <p>Windows 2022:</p> <ul style="list-style-type: none"> <li>▪ .Net Extensibility 4.8</li> <li>▪ ASP.NET 4.8</li> </ul> <p>Windows 2019:</p> <ul style="list-style-type: none"> <li>▪ .Net Extensibility 4.7</li> <li>▪ ASP.NET 4.7</li> </ul> <p>Windows 2016:</p> <ul style="list-style-type: none"> <li>▪ .Net Extensibility 4.6</li> <li>▪ ASP.NET 4.6</li> </ul>

### 2.3.2 Database Checklist

Requirement	Description
<b>Database Server Version</b>	<p>Microsoft SQL Server 2017, 2019, or 2022</p> <p>OR</p> <p>Azure SQL Database (if using Azure deployment)</p> <p>OR</p> <p>Amazon RDS SQL Server (if using AWS)</p>
<b>Disk Space</b>	20 GB



Requirement	Description
<b>Database User Permissions</b>	<ul style="list-style-type: none"> <li>▪ To Create New Database</li> <li>▪ To Upgrade an Existing Database</li> <li>▪ Windows Authentication vs Mixed Mode Authentication User</li> </ul>
<b>Server Collation</b>	Ensure SQL Server collation is configured for not case-sensitive.

**Note:** These are the minimum requirements, and the actual requirements may change depending on the factors such as data size, number of documents and users, etc.

### 2.3.3 FOIAXpress Database Account Requirements

There are three accounts you must setup to configure the application, database, and repository servers. The table below outlines the type of accounts, their purpose, and requirements.

Account	Purpose	Requirement
<b>Application Setup</b>	This user will install and configure the FOIAXpress application and its services.	<p>This account must be setup as a Domain/Local User and a member of the Administrators on server groups.</p> <p>This user must also have Write permissions on the “C:/Windows:Temp/AINS” folder in order to configure the App Pool and Scheduler Service.</p>



Account	Purpose	Requirement
<b>FOIAXpress Database Creation</b>	This user setups the FOIAXpress database user account and grants required permissions.	<p>This account must be added to the following SQL Server security roles for the user that will create the database either in SQL Server (Window User) or Windows Authentication Mode (NT User):</p> <ul style="list-style-type: none"> <li>▪ db_creator</li> <li>▪ db_owner</li> <li>▪ securityadmin</li> </ul> <p>Additionally, to register the assembly in the master database, the user must have “ViewServerState” permissions on this database (accessible in SQL Server Management Studio under <b>Databases &gt; Properties &gt; Permissions &gt; View server permissions &gt; Logins or Roles</b>).</p>
<b>FOIAXpress Database User</b>	This user performs all FOIAXpress database transactions required for the FOIAXpress application	This account must be assigned as a member of the db_owner database role for the FOIAXpress SQL Server database.

### 2.3.4 Account Permissions

Ensure the following accounts are granted full permissions as outlined below:





Account	Description
<b>Application App Pool Account</b>	This is the account used for app pool of the application in IIS.
<b>Scheduler Service Account</b>	This is the account used as the service account for Scheduler Windows service.

The above accounts must have full access to the file share path configured as the file repository location. The following folders will be created by the deployment tool under this file repository location (for on-prem deployments only). For AWS and Azure, the following folders should be manually created in the file repository location before running the deployment tool.

The following table summarizes the permissions required on the subfolders in the file repository location.

Location	Access Type	Comments
<b>\AFXWDOCS</b>	Modify, Read & Execute, List Folder Contents, Read, Write	All FOIAXpress original are stored in this location.
<b>\AFXWCORL</b>	Modify, Read & Execute, List Folder Contents, Read, Write	All FOIAXpress correspondence documents are stored in this location.
<b>\AFXWDOFL</b>	Modify, Read & Execute, List Folder Contents, Read, Write	All FOIAXpress web download documents are stored in this location.
<b>\AFXWERR</b>	Modify, Read & Execute, List Folder Contents, Read, Write	All FOIAXpress electronic reading room documents are stored in this location.



## 2.3.5 Database Readiness for Upgrades

Prior to deploying FOIAXpress 11.3.0 or above, we must first execute an analysis of the database. This analysis is intended to identify and discrepancies between the production database and the application schema.

A dacpac tool is used to identify discrepancies in the current database version against the database schema. This tool generates a report of changes that will be made by the upgrade tool to the schema. On deploying the latest version of FX (11.3.0 or higher), the database automatically updates to the latest schema, and deletes any custom updates made to the customer's schema.

It is crucial to run this report prior to an upgrade to gauge the impact of the upgrade on the customer system. The report must be analyzed by OPEXUS for any potential issues or data loss prior to taking any further steps in deploying the application.

## 2.4 Install SQL Server Module

Follow the steps below to install the SQL Server Module on the application server:

1. Navigate to the following link:  
<https://www.powershellgallery.com/packages/Sqlserver/21.1.18256>
2. Under *Installation Options*, select **Manual Download**:

▽ Installation Options

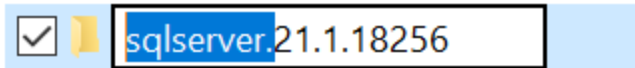
Install Module	Azure Automation	Manual Download
----------------	------------------	-----------------

Manually download the .nupkg file to your system's default download location. Note that the file won't be unpacked, and won't include any dependencies. [Learn More](#)

[Download the raw nupkg file](#)

3. Click **Download the raw nupkg file**. The SQLserver .nupkg file downloads.
4. Locate the downloaded "SQLserver" file, then right click it and select **Properties**.
5. On the *General* tab, select **Unblock**, then click **Apply**.
6. Next, edit the "SQLserver" file extension from .nupkg to .zip.
7. Extract the .zip package in the downloaded location. After the folder is extracted, remove "sqlserver." from the folder name:





8. Navigate to `C:\ProgramFiles\WindowsPowerShell\Modules` and create a folder called **SqlServer**.
9. Copy the renamed .zip folder from the downloaded location to the *SqlServer* folder created in the previous step (`C:\ProgramFiles\WindowsPowerShell\Modules\SqlServer`)

## 2.5 Install Full Text Search on SQL Server

**Note: The steps below are for SQL Server 2019. SQL Server 2016 and 2020 may require a different series of steps.**

1. Copy the SQL Server setup files on the server where you want to install it or add it to existing installation. Right click the **SQL Server setup** file and select **Run as Administrator....**
2. The installation center screen appears where you'll install the full text search feature. Click **Installation** on the left side of the screen.
3. Select the New SQL Server stand-alone installation or add features to an existing installation option.
4. The SQL Server Setup screen appears. Click the **Next** button to continue.
5. Setup files will be installed as part of the prerequisites. Once this is complete, the **Next** button will be enabled. Click **Next** to continue.
6. The *Install Rules* screen appears, which checks install rules. If no rules are failed, click the Next button to continue.

**Note: If any rule returns a *Warning*, you can continue. You will not be able to continue if any failures are encountered.**

7. The next screen will allow you to choose an existing instance to enable Full Text Search. Click the **Add features to an existing instance of SQL Server** radio button then click **Next** to continue.
8. The *Feature Selection* screen appears. Click the checkbox beside the *Full-Text and Semantic Extractions for Search* option, then click **Next**.
9. At the *Server Configuration* screen, click **Next**.
10. The *Ready to Install* screen appears. When you're ready to proceed, click **Install**.
11. The *Installation Progress* screen appears where you can track the installation using the progress bar. Wait until it is completed.
12. Once Full Text Search is installed successfully, the *Complete* screen appears. You can click on the link for the log file for this installation if you want to see more details.



13. Click the **Close** button to close the window. Full Text Search is now installed for your SQL Server instance, and you can create Full Text Catalogs and Indexes based on your requirements

## 2.6 HTTP Redirection and Activation

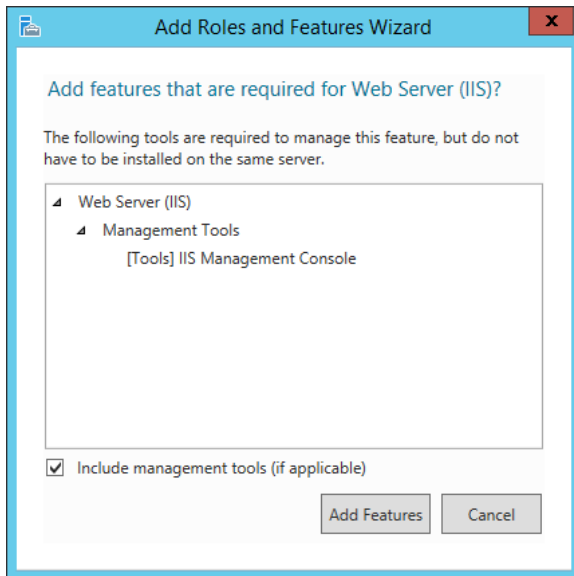
### 2.6.1 Install HTTP Redirection Feature

Prior to installing the application, you must install and configure the HTTP Redirection feature on the IIS web server. This serves to navigate between FOIAXpress controls (Scan, Correspondence, Document Management, etc.).

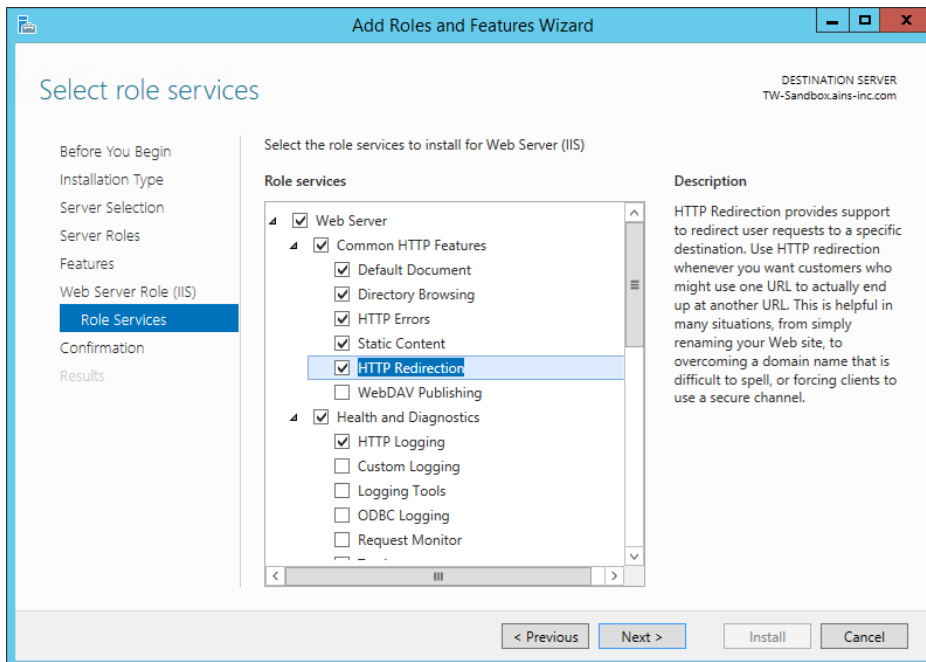
#### Notes:

- **Make sure to perform this installation on the application server.**
  - **You must install the Windows 2016, 2019, or 2022 on the application server for this feature to function properly.**
  - **URL to download hotfix:** <http://support.microsoft.com/kb/980368>
1. Click Start > All Programs > Administrative Tools > Server Manager. The *Server Manager* application launches.
  2. Click **Roles**.
  3. Click **IIS**. The *Servers* screen appears.
  4. Select **Add Roles and Features** from the *Tasks* drop-down list. The *Add Roles and Features* wizard appears.
  5. Click **Server Roles**. The **Add Role Services** window opens displaying a list of services.
  6. Click the **Web Server (IIS)** checkbox.





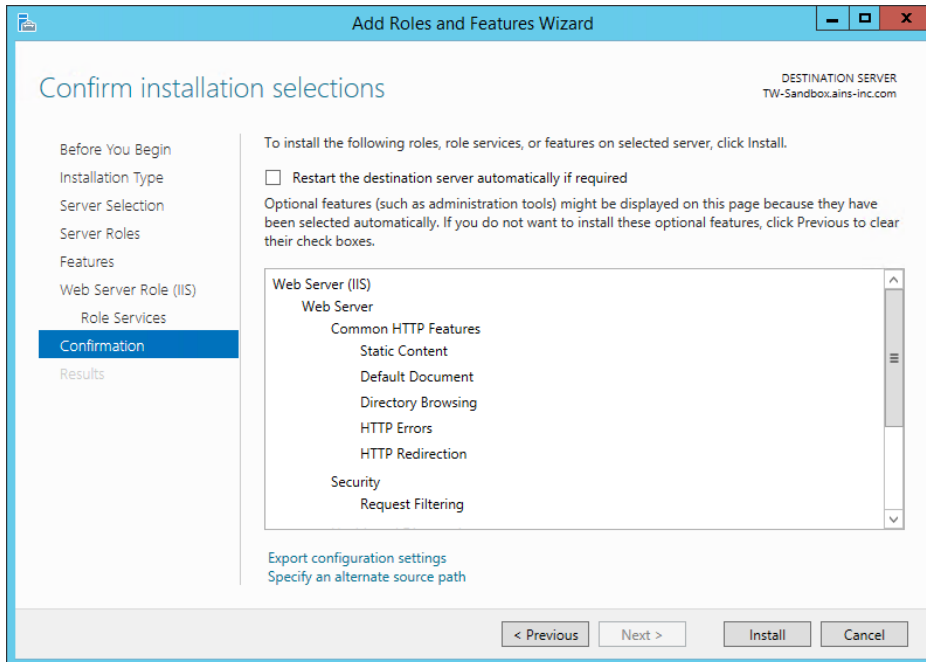
7. Click **Add Features**.
8. Click **Next**. The *Features* list appears.
9. Click **Next**. The *Destination Server* detail page appears.
10. Click **Next**.
11. Click the **Web Server** checkbox.
12. Click the **Common HTTP Features** checkbox.
13. Click the **HTTP Redirection** checkbox under the *Common HTTP Features* node.



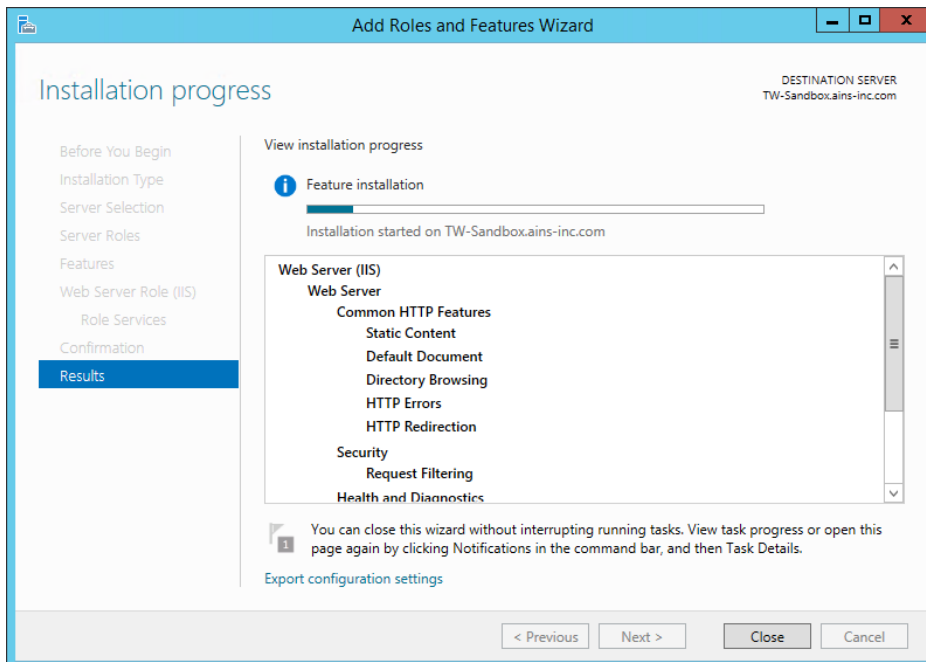
14. Click **Next**. The *Confirm Installation Selections* window opens displaying the feature to be installed.



## Application Installation Prerequisites

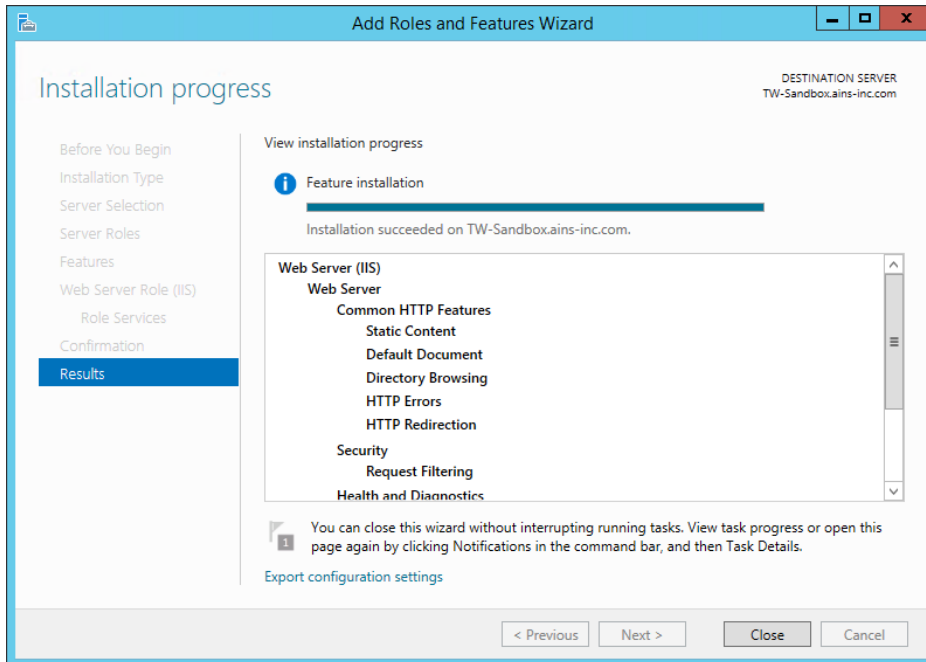


15. Click **Install**. The *Installation Progress* window appears depicting the progress of the installation on the web server. This may take a few minutes.



16. Once the installation is completed, the *Installation Results* window appears confirming the feature(s) that was installed on the web server. Click **Close** to exit the application.





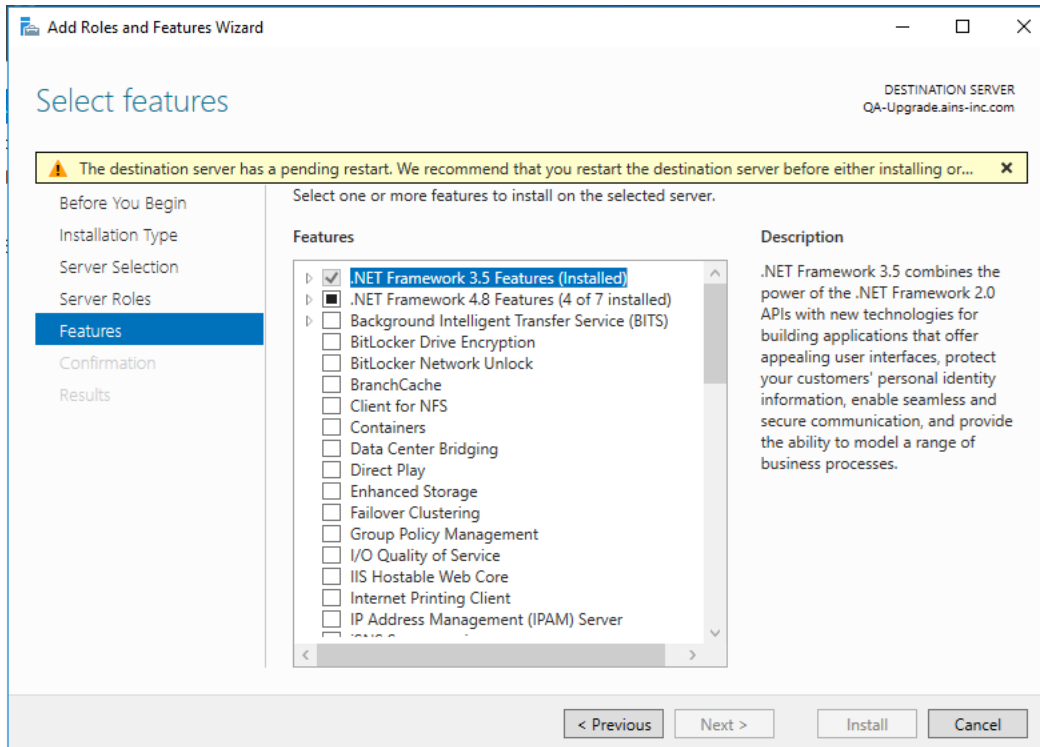
### 2.6.2 Install HTTP Activation Feature

Prior to installing the application, you must install and configure the HTTP Activation feature on the IIS web server. This is a required element for Microsoft .NET Framework 4.8.

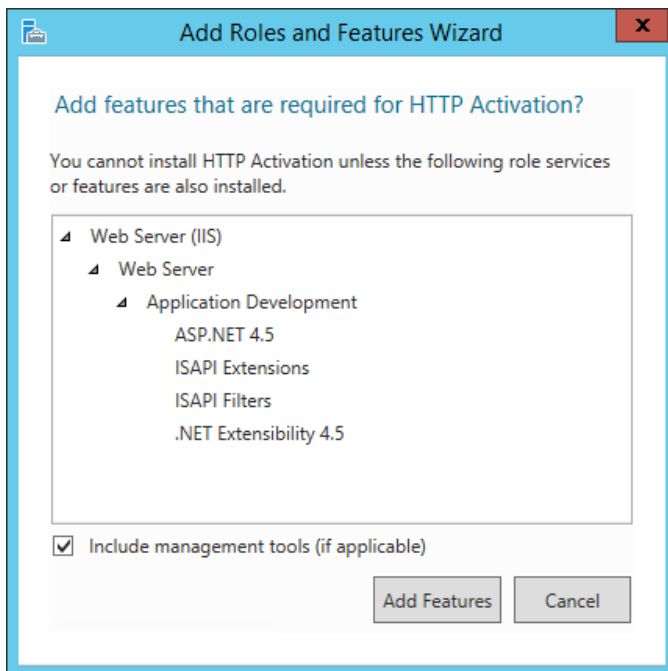
1. Click **Start > All Programs > Administrative Tools > Server Manager**. The *Server Manager* application launches.
2. Right-click **Features**.
3. Click **Roles**.
4. Click **IIS**. The *Servers* screen appears.
5. Select **Add Roles and Features** from the *Tasks* drop-down list. The *Add Roles and Features* wizard appears.
6. Click **Features**. The *Add Features* window opens displaying a list of features.
7. Click **.NET Framework 4.8 Features**.
8. Click **WCF Services**.



## Application Installation Prerequisites



9. Click the **HTTP Activation** checkbox. The *Add Features Wizard* window appears.



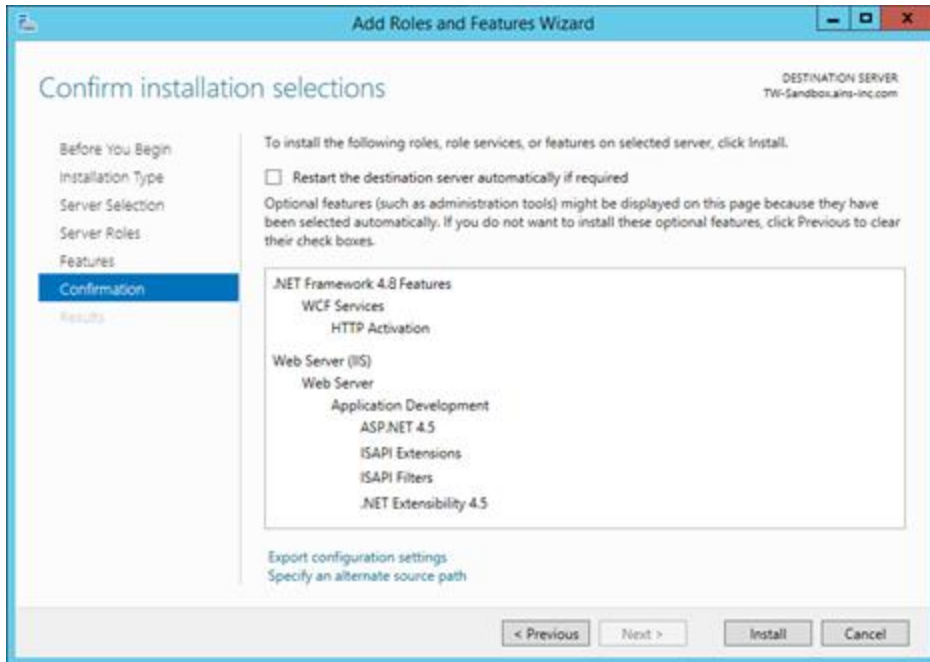
10. Click **Add Features**. The *Add Features Wizard* window closes. The *Select Features* window appears.

11. Click **Next**. The *Confirm Installation Selections* window appears.

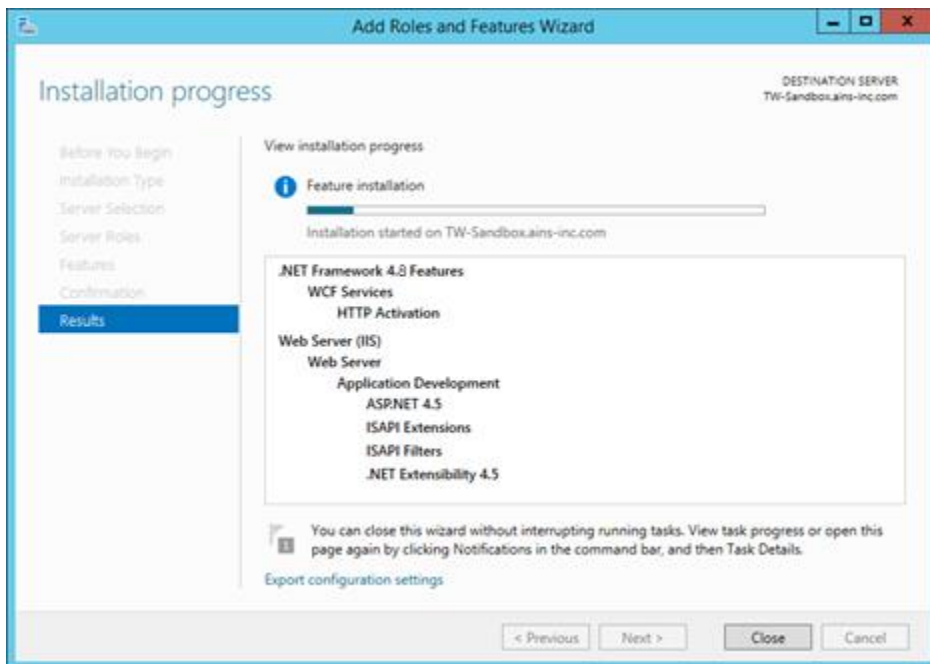




## Application Installation Prerequisites

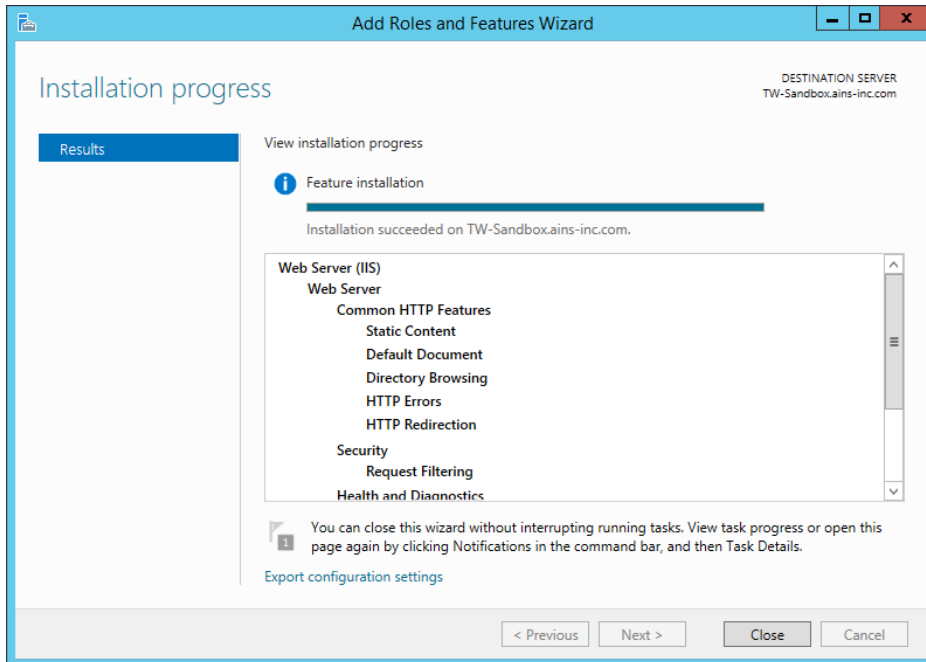


12. Verify the components for installation are correct and click **Install**. The *Installation Progress* window appears.



13. Once the installation is completed, the *Installation Results* window appears confirming the feature(s) that was installed on the web server. Click **Close**.





## 2.7 Install CORS Module

For all installations (v11.8.0 and up) you must also install IIS CORS Module on the application server using the Web Platform Installer. The IIS CORS module allows the application to support the CORS protocol. Learn more and download the CORS module from the following location:

<https://www.iis.net/downloads/microsoft/iis-cors-module>



## 3 Azure Installation Prerequisites

### 3.1 Configure Azure SQL Database

Please refer to the following link for detail on using Azure SQL database.

<https://azure.microsoft.com/en-us/products/azure-sql/database>

Use these RDS SQL server database details for your FOIAXpress application deployment if using AWS.

### 3.2 File Repository Setup

The first prerequisite for Azure installation is to create the required file repository. This is created through the Azure portal as a directory in an Azure File Share. To ensure full functionality, it is recommended that users access the Azure Portal site using Google Chrome or Microsoft Edge.

#### 3.2.1 Create Storage Account

Complete the steps below to create a storage account:

1. Navigate to the Azure portal and select **Storage Accounts** from the sidebar.
2. Add a new storage account to your resource group titled “FXfilestorage”.
3. Click **Review + create**.



## Azure Installation Prerequisites

### Create storage account

[Basics](#) [Advanced](#) [Tags](#) [Review + create](#)

Azure Storage is a Microsoft-managed service providing cloud storage that is highly available, secure, durable, scalable, and redundant. Azure Storage includes Azure Blobs (objects), Azure Data Lake Storage Gen2, Azure Files, Azure Queues, and Azure Tables. The cost of your storage account depends on the usage and the options you choose below. [Learn more](#)

**PROJECT DETAILS**

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

\* Subscription

Pay-As-You-Go

\* Resource group

AinsFX

[Create new](#)

**INSTANCE DETAILS**

The default deployment model is Resource Manager, which supports the latest Azure features. You may choose to deploy using the classic deployment model instead. [Choose classic deployment model](#)

\* Storage account name ⓘ

fxfilestorage

\* Location

East US

Performance ⓘ

☒ Standard ☐ Premium

Account kind ⓘ

StorageV2 (general purpose v2)

Replication ⓘ

Read-access geo-redundant storage (RA-GRS)

Access tier (default) ⓘ

☐ Cool ☒ Hot

Review + create

Previous

Next : Advanced >

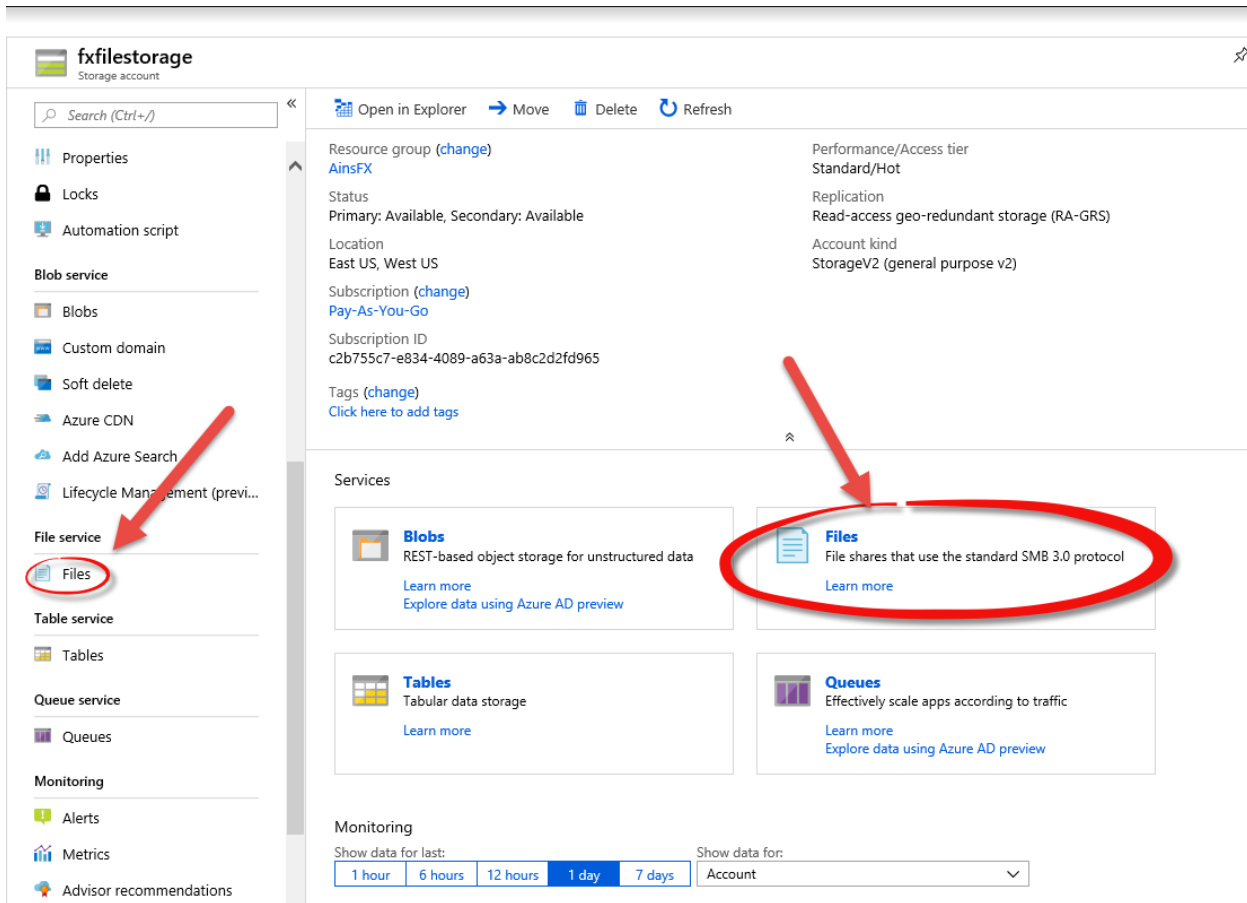
### 3.2.2 Create FOIAXpress File Repository as a File Share

Complete the steps below to create the FOIAXpress File Repository/File Share:

4. Select the newly created storage account and click **Files** (or select **Files** under *File Service* from the inner sidebar).



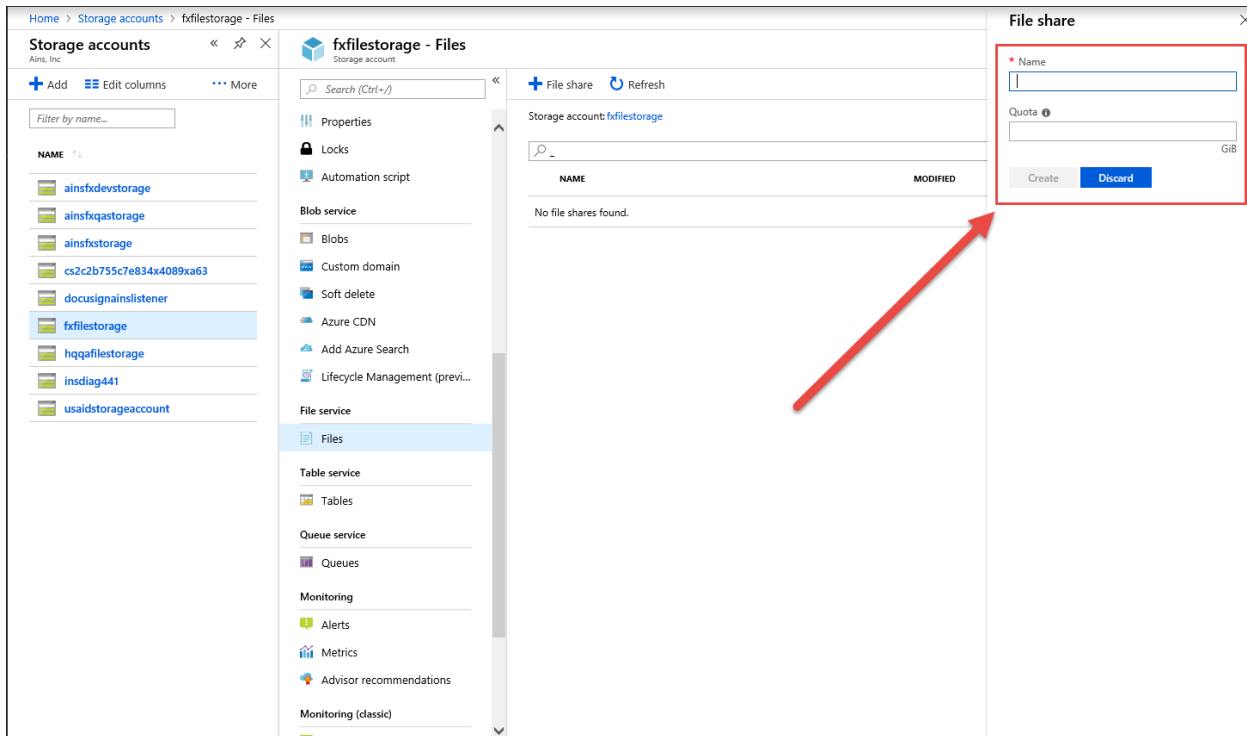
## Azure Installation Prerequisites



5. Add a new File Shares to the storage account ("FXrepo") and specify a disk size quota (>50GB is recommended).

**Note: The File Share is used to contain all documents uploaded into and generated by the FX application and should be sized accordingly.**





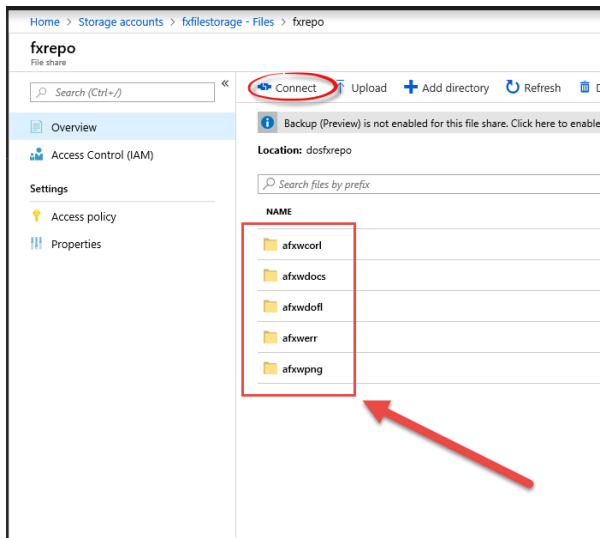
**Note:** After creation, the File Share is not immediately accessible, but it will appear after a short time (<5 minutes).

### 3.2.3 Create FOIAXpress File Repository subfolders in the File Share

To create the necessary FOIAXpress File Repository subfolders within the File Share:

1. Open the newly created file repository once available in the list of File Shares.
2. Click **Add Directory** and add a new directory called *FXRepo*.
3. Within the *FXRepo* directory, add a new directory for each of the following folder names:
  - a. aFXwcorl
  - b. aFXwdocs
  - c. aFXwdofl
  - d. aFXwerr
  - e. aFXwpng.

## Azure Installation Prerequisites



4. After the required folders are created, click **Connect** from the *Folder* screen to view connection details.
5. Save the text content from the second PowerShell command – this contains the UNC path, and the Username and Password information that will be required in later configuration steps. The Username should be the name of the Storage Account that was created in the first step.

path  
username  
password



Alternatively, run this command if the key doesn't begin with a forward slash:

```
net use Z:  
fxfilestorage.file.core.windows.net\fxrepo /u:AZURE\  
fxfilestorage  
44yH0quDSOAmapeAKVGoNhqh3vEhD169U8n8SSyYS2jNNS  
mj5Z7n2znBQ2tTZSElw4GbE9RB/CwGesjesjyGlg==
```

When connecting from a computer from outside Azure, remember to open outbound TCP port 445 in your local network. Some Internet service providers may block port 445. Check with your service provider for details.

[Learn more about Azure File Storage with Windows](#)



## 4 AWS Prerequisites

### 4.1 Configure Amazon Web Services RDS for SQL Server

Please refer to the following link for detail on using RDS for SQL server. Please use the RDS SQL server database details for your FOIAXpress application deployment if using AWS.

<https://aws.amazon.com/rds/sqlserver/>

### 4.2 File Repository Setup Using Amazon FSx

The link below provides details to configure an Amazon FSx shared storage for use with your FOIAXpress application.

<https://aws.amazon.com/fsx/windows/>

When complete, this will enable a UNC path for a Windows file share for use in FOIAXpress to store FX documents and files. Please refer to the Application Installation Prerequisites for details on the permissions required for these file shares.





## 5 Upgrading FOIAXpress

This section provides steps and details for users upgrading an existing FOIAXpress environment to the latest version. After reviewing the following subsections, you'll complete the steps outlined in the following sections of this document.

**Note:** After downloading the installation package, if you are upgrading FX, you can skip directly to the *Inputs.json Settings for Upgrade* section of this document.

### 5.1 Upgrade Assumptions

Information presented in this section assumes that the applications listed below are installed on the server:

- Windows 2016/2019/2022 Server
- Microsoft .NET Framework 4.8
- Microsoft .NET Framework 4.8 is required to use the Permissions Migration tool.
- Previous version of FOIAXpress installed and configured.

### 5.2 Upgrade Prerequisites

**Note:** Important upgrade prerequisites were added for v11.3.0. Review the following section in full before proceeding.

Prior to deploying FOIAXpress 11.3.0 or above, we must first execute an analysis of the database. This analysis is intended to identify and discrepancies between the production database and the application schema.

A dacpac tool is used to identify discrepancies in the current database version against the database schema. Please contact OPEXUS support to have this tool run on your application.

This tool generates a report of changes that will be made by the upgrade tool to the schema. On deploying the latest version of FX (11.3.0 or higher), the database automatically updates to the latest schema, and deletes any custom updates made to the customer's schema.

It is crucial to run this report prior to an upgrade to gauge the impact of the upgrade on the customer system. The report must be analyzed by OPEXUS for any potential issues or data loss prior to taking any further steps in deploying the application.

In addition, ensure you have fulfilled the prerequisites below:



- Backup the database(s) before upgrading.
- The upgrade installation must be performed on the database, application, and services servers.
- A new license key is required. It is included in the Setup file, or was sent to you in a separate email. If you cannot find your key, please email [support@opexustech.com](mailto:support@opexustech.com).
- Speak with your FOIAXpress administrator before upgrading your application to determine how you want to convert your existing System, Request, and File Cabinet privileges to FOIAXpress's new role-based permission structure. This can be done manually, or automatically during the upgrade. You must determine your approach before proceeding with the upgrade.
- If your agency has purchased the EDR module, please make a note of the EDR database name(s) before starting the upgrade process.
- You must have full control permissions to all FOIAXpress folders, databases, and backup folders.
- The application upgrade can be run from the specific drive where your database and application servers have access. However, this guide is written assuming you have copied the application to the C: drives on the respective servers.









## 6 Download the Installation Package

The FOIAXpress installation package contains the files needed to install FOIAXpress and its associated components. Contact OPEXUS support at [support@opexustech.com](mailto:support@opexustech.com) for your installation package.

After downloading the package, follow the steps below to unzip the file:

1. Locate the downloaded .zip file, then right click it and select **Properties**.
2. On the *General* tab, select **Unblock**, then click **Apply**.
3. Next, unzip the contents of the folder. The contents of the package appear as shown in the following example:

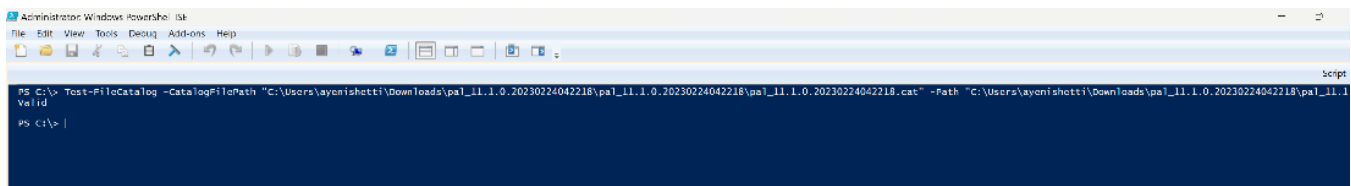
<input type="checkbox"/> Name	Type	Date modified
 dbscripts	File folder	2/24/2023 8:26 PM
 FOIAXpress	File folder	2/24/2023 8:27 PM
 installscripts	File folder	2/24/2023 8:20 PM
 inputs.json	JSON File	2/24/2023 8:20 PM
 install	Windows PowerShell Script	2/24/2023 8:20 PM
 uninstall	Windows PowerShell Script	2/24/2023 8:20 PM

### 6.1 Verify the Integrity of the Installation Package

Steps to verify the integrity of the installation package.

1. Open Windows Powershell ISE.
2. Use the command below to verify the integrity of installation package:  
*Test-FileCatalog -CatalogFilePath "<<catalog file path(with extension of .cat) from downloaded artifact>>" -Path "<< folder that should be validated against the catalog file >>"*

3. It will show as valid, as shown in the following example:

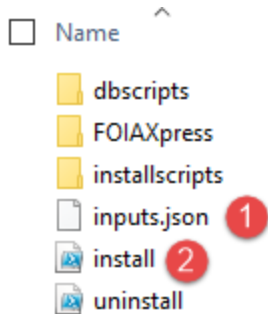


```
PS C:\> Test-FileCatalog -CatalogFilePath "C:\Users\ayenishetti\Downloads\pal_11.1.0.20230224042218\pal_11.1.0.20230224042218.cat" -Path "C:\Users\ayenishetti\Downloads\pal_11.1.0.20230224042218\pal_11.1.0.20230224042218"
Valid
PS C:\>
```



## 6.2 About the Installation Package

There are two primary files you'll interact with during installation:



1. *Inputs.json*: Drives the installation of the FOIAXpress system components. The file is in a standard json format and needs to remain a valid json file for successful installation.
2. *Install.ps1*: The executable file you will run to deploy the installation package with the parameters configured in the Inputs.json file.

# 7 Inputs.json Settings for New Installations

## 7.1 About the Inputs.json File

The Inputs.json file located in the root directory of the extracted deployment package zip file drives the installation of the different components of the FOIAXpress system. The file is in a standard json format and needs to remain a valid json file post updates prior to the installation.

The settings are grouped into sections, each addressing settings which may or may not require configuration, depending on your specific installation. The following subsections in this chapter describe each section of the Inputs.Json file.

The parent node is the 'inputs' section. This section appears as follows:

```
{
  "inputs": {
    "InstallType": {
      "New": "N",
      "Upgrade": "Y"
    },
    "Components": {
      "APP": "Y",
      "DB": "N"
    }
  },
}
```

Each section has parameters you can adjust to configure your installation. An example section is shown below, with an explanation for how it works:

Each (1) *Section* ("InstallType" in this example) includes various (2) *Settings* ("New" in this example) to configure.

```
{
  "inputs": {
    1 "InstallType": {
      2 "New": "N",
      "Upgrade": "Y"
    },
    "Components": {
      "APP": "Y",
      "DB": "N"
    }
  },
}
```

For each (A) *Setting* ("Upgrade" here), you can edit the (B) *text* in quotations ("N" here to indicate "No") to configure the settings for your installation. This might include adding a file path, user name, password, or simply a "Y" or "N" depending on the field you are configuring.



The first section under the parent node is the Install Type. See the following section for details on configuring your install type, with the remaining sections following in the order they appear in the Inputs file.

## 7.2 Install Type

Use the “InstallType” section to determine if this is a new installation, or an upgrade for an existing system:

```
"inputs": {
  "InstallType": {
    "New": "Y",
    "Upgrade": "N"
```

Setting	Description
<b>New</b>	Determine whether this is a new installation. For new installations this should be a “Y” value.
<b>Upgrade</b>	Determine whether this is an upgrade for an existing application. For new installations this should be a “N” value.

## 7.3 Install Components

The “Components” section allows you to determine which components to include with this installation. To include a component with your installation, be sure to assign the component a “Y” value on the corresponding line:

```
"Components": {
  "APP": "Y",
  "SCHEDULER": "Y",
  "DB": "Y",
  "EDRDB": "N"
```



Setting	Description
<b>APP</b>	Include the FOIAXpress Application in this installation procedure. This should be a “Y” value for new installations and upgrades if the applications needs to be installed or upgraded respectively.
<b>SCHEDULER</b>	Include the FOIAXpress Scheduler in this installation procedure. This should be a “Y” value for new installations and upgrades if the scheduler needs to be newly installed or upgraded respectively.
<b>DB</b>	Include the FOIAXpress Database in this installation procedure. This should be a “Y” value for new installations and upgrades if the database needs to be newly installed or upgraded respectively
<b>EDRDB</b>	Include the Electronic Document Review (EDR) Database in this installation procedure. This should be a “Y” value if you want to include EDR in either a new installation or an upgrade.

## 7.4 Application and Scheduler

The “APPANDSCHEDULER” section has settings related to the FOIAXpress application and scheduler installations. A value must be set for all values in this section to successfully install the application:

**Note: any files paths specified must have two backslashes where a path in windows explorer requires a single backslash.**

```
"APPANDSCHEDULER": {
  "InstallLocation": "C:\\Program Files",
  "BackupLocation": "C:\\backup",
  "SSLCert": {
    "SSLPort": "443",
    "CertPath": "<<CERTIFICATE PATH>>",
    "CertPassword": "<<CERTIFICATE PASSWORD>>",
    "DNSName": "FOIAXpress"
  },
  "AppPool": "FXAppPool"
```



Setting	Description
<b>InstallLocation</b>	Specify a path for the application installation. Note this must be a file path for the .json file the execute.
<b>BackupLocation</b>	Specify a path for the application backup location. Note this must be a file path for the .json file the execute
<b>SSLCert</b>	The following lines contain the SSL Certificate information. No data is required on this line. This is the grouping for SSL Certification settings to be used for the installation.
<b>SSLPort</b>	The network port designated for your application's secure communications using SSL.
<b>CertPath</b>	Specify a path where the .pFX certificate file is located. Note this must a file path for the .json file to execute
<b>CertPassword</b>	Enter the password associated with the certificate linked in the "CertPath" field
<b>DNSName</b>	Enter the Domain Name System (DNS) name for the domain associated with the application.
<b>AppPool</b>	Enter the name of the application pool associated with your FOIAXpress application,

## 7.5 Database Settings

The "DB" section contains the settings for installing or upgrading your FOIAXpress database. In case of a new installation, an agent account will be created.





```

"DB": {
  "DBServer": "<<DATABASE SERVER NAME>>",
  "DBName": "<<DATABASE NAME>>",
  "CreatorDBUserId": "<<DB CREATER USER ID>>",
  "CreatorDBUserPassword": "<<DB CREATER USER ID PASSWORD>>",
  "IntegratedSecurity": "N",
  "AgentAccount": "<<AGENT NAME TO CONNECT FOIAXpress DB>>",
  "AgentAccountPassword": "<<AGENT PWD>>",
  "AgentAccountIntegratedSecurity": "N"
}

```

Setting	Description
<b>DBServer</b>	Name assigned to the server responsible for storing, retrieving, and managing FOIAXpress data
<b>DBName</b>	Name given to the specific database used for FOIAXpress
<b>CreatorDBUserID</b>	Database User ID to be used for this installation. The CreatorDBUserId should have admin rights with the ability to create a new database or database object on the specified Database server
<b>CreatorDBUserPassword</b>	<p>Password associated with the account used in the "CreatorDBUserID" field.</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>▪ If you do not wish to enter this password in the .json file, you will have the option to manually enter the password while running the deployment.</li> <li>▪ If utilizing integrated security (see the following option), you are not required to provide a password as the user is authenticated using Windows authentication.</li> </ul>

Setting	Description
<b>IntegratedSecurity</b>	The Integrated Security property instructs the SQL Client to connect to SQL Server using Windows Authentication through the Security Support Provider Interface (SSPI). Use “Y” or “N” to determine if you are using Integrated Security in this installation.
<b>AgentAccount</b>	The SQL server login account to be created in case of a new database install or the login already setup for the database being upgraded
<b>AgentAccountPassword</b>	The SQL server Agent Account password specified in the AgentAccount setting  <b>Note: If you do not wish to enter this password in the .json file, you will have the option to manually enter the password while running the deployment.</b>
<b>AgentAccountIntegratedSecurity</b>	Whether integrated security should be used when connecting to the database, default is “N”

## 7.6 File Repository Settings

The “FileRepository” section contains the setting for different file paths used by the FOIAXpress application to store files.

**Note: The “DocumentsComments” lines in this section are included to provide additional information and do not need to be edited or configured as part of the installation. Each comment line indicates the folder name you must use for the corresponding repository. File paths are required to have two backslashes for the regular one backslash used in specifying windows paths.**



```

"FileRepository": {
  "Documents": "C:\\\\AFXWDOCS",
  "DocumentsComments": "Documents path should end with AFXWDOCS directory",
  "Correspondence": "C:\\\\AFXWCORL",
  "CorrespondenceComments": "Correspondence path should end with AFXWCORL directory",
  "DownloadLocation": "C:\\\\AFXWDOFL",
  "DownloadLocationComments": "DownloadLocation path should end with AFXWDOFL directory",
  "PALReadingRoom": "C:\\\\AFXWERR",
  "PALReadingRoomComments": "PALReadingRoom path should end with AFXWERR directory",
  "PNGCacheLocation": "C:\\\\AFXWPNG",
  "PNGCacheLocationComments": "PNGCacheLocation path should end with AFXWPNG directory"
}

```

Setting	Description
<b>Documents</b>	Enter the file path location for the Documents repository.
<b>DocumentsComments</b>	Indicates that the “Documents” repository must end with a folder named “AFXWDOCS”
<b>Correspondence</b>	Enter the file path location for the Correspondence repository
<b>CorrespondenceComments</b>	Indicates that the “Correspondence” repository must end with a folder named “AFXWCORL”
<b>DownloadLocation</b>	Enter the file path location for downloads from the application.
<b>DownloadLocationComments</b>	Indicates that the “DownloadLocation” repository must end with a folder named “AFXWDOFL”
<b>PALReadingRoom</b>	Enter the file path location for the PAL Reading Room repository.
<b>PALReadingRoomComments</b>	Indicates that the “PALReadingRoom” repository must end with a folder named “AFXWERR”

Setting	Description
<b>PNGCacheLocation</b>	Enter the file path location for the PNG cache repository.
<b>PNGCacheLocationComments</b>	Indicates that the “PNGCacheLocation” repository must end with a folder named “AFXWPNG”

## 7.7 Authentication Settings

The “Authentication” section contains settings needed for FOIAXpress to authenticate using FORMS authentication after the application is installed:

```
"Authentication": {
  "Type": "FORMS",
  "//Type Comment": "Type can be one of these FORMS,SSO,EAUTHENTICATION",
  "Forms": {
    "MembershipProvider": "DATABASE",
    "//MembershipProvider Comments": "MemberProvider can be one of these DATABASE,LDAP",
    "LdapAccountUsername": "",
    "LdapAccountPassword": "",
    "LdapUrl": "",
    "LdapSynchronizeAdUsersUserName": "",
    "LdapSynchronizeAdUsersPassword": "",
    "LdapSynchronizeAdUsersUrl": ""
  },
  "eAuthentication": {
    "eAuthenticationLogoutUrl": ""
  }
}
```

Setting	Description
<b>Type</b>	Enter the type of authentication used. Options include FORMS, SSO, and EAUTHENTICATION.
<b>Type Comment</b>	Lists the authentication Types that can be entered in the field above (FORMS, SSO, and EAUTHENTICATION).

Setting	Description
<b>Forms</b>	The Forms authentication fields are listed in this subsection. These only need to be filled in if using FORMS authentication.
<b>MembershipProvider</b>	Enter the membership provider type. Options include DATABASE or LDAP.
<b>MembershipProvider Comments</b>	Lists the membership provider types that can be entered in the field above (DATABASE or LDAP).
<b>LdapAccountUsername</b>	Username associated with the LDAP account used for authentication.
<b>LdapAccountPassword</b>	Password associated with the LDAP account username used in the field above.
<b>LdapUrl</b>	URL associated with the LDAP server
<b>LdapSynchronizeAdUsersUserName</b>	LDAP User Name
<b>LdapSynchronizeAdUsersPassword</b>	LDAP Password
<b>LdapSynchronizeAdUsersUrl</b>	LDAP URL
<b>eAuthentication</b>	eAuthentication details are included in this subsection (if eAuthentication is the selected authentication type).
<b>eAuthenticationLogoutUrl</b>	Redirect URL for users when logged out using eAuthentication.



## 7.8 SMTP Server Settings

The “SMTPServer” section contains setting for the application’s mail server:

```
"SMTPServer": {
  "Address": "0.0.0.0",
  "PortNo": "25"
```

Setting	Description
<b>Address</b>	Address of the server responsible for sending email messages from the FOIAXpress application.
<b>PortNo</b>	Port number associated with the SMTP server entered in the “Address” setting

## 7.9 EDR Settings

### 7.9.1 EDR Inputs

The “EDRDBS” section is used to store database settings for one or more EDR databases. The settings should specify the database server where the named database(s) should be installed using the CreatorDBUserId and password. If the AgentAccount is not present, the given AgentAccount must be created.

```
"EDRDBS": [
  {
    "DBServer": "<<EDR DATABASE SERVER NAME>>",
    "DBName": "<<EDR DATABASE NAME>>",
    "CreatorDBUserId": "<<EDR DB USER CREATOR ID>>",
    "CreatorDBUserPassword": "<<EDR DB USER CREATOR PWD>>",
    "IntegratedSecurity": "N",
    "AgentAccount": "<<AGENT NAME TO CONNECT EDR DB>>",
    "AgentAccountPassword": "<<Agent PWD>>",
    "AgentAccountIntegratedSecurity": "N",
    "ConnectionName": "<<CONNECTOR NAME>>"
```



Setting	Description
<b>DBServer</b>	Name assigned to the server responsible for storing, retrieving, and managing EDR data
<b>DBName</b>	Name given to the specific database used for FOIAXpress EDR.
<b>CreatorDBUserId</b>	Database User ID to be used for this installation. The CreatorDBUserId should have admin rights with the ability to create a new database or database object on the specified Database server
<b>CreatorDBUserPassword</b>	Password associated with the account used in the "CreatorDBUserID" field
<b>IntegratedSecurity</b>	The Integrated Security property instructs the SQL Client to connect to SQL Server using Windows Authentication through the Security Support Provider Interface (SSPI). IntegratedSecurity in this section relates to the EDR database. Use "Y" or "N" to determine if you are using integrated security in this installation
<b>AgentAccount</b>	Login account to be created in SQL Server on a new installation and an existing Login account previously created in the SQL Server previously used for the database being upgraded
<b>AgentAccountPassword</b>	The password for the login specified in the AgentAccount setting



Setting	Description
<b>AgentAccountIntegratedSecurity</b>	The Integrated Security property instructs the SQL Client to connect to SQL Server using Windows Authentication through the Security Support Provider Interface (SSPI). Here IntegratedSecurity in this section related to EDR database.
<b>ConnectionName</b>	To register EDR database with this name in the respective FX/FX database mentioned in the DB section.

## 7.9.2 Multiple EDR Servers

You can configure multiple EDR Servers within the inputs.json file. Follow the steps below to configure multiple EDR Servers:

1. Configure the settings for the first EDR server using the existing fields.
2. Select and copy the fields under the EDRDBS section. Be sure to only copy the lines highlighted below:

```
{
  "DBServer": "<<EDR DATABASE SERVER NAME>>",
  "DBName": "<<EDR DATABASE NAME>>",
  "CreatorDBUserId": "<<EDR DB USER CREATOR ID>>",
  "CreatorDBUserPassword": "<<EDR DB USER CREATOR PWD>>",
  "IntegratedSecurity": "N",
  "AgentAccount": "<<AGENT NAME TO CONNECT EDR DB>>",
  "AgentAccountPassword": "<<Agent PWD>>",
  "AgentAccountIntegratedSecurity": "N",
  "ConnectionName": "<<CONNECTOR NAME>>"
}
```

3. Next place your cursor here, after the closing bracket that follows the last input field, and add a comma (","):






```

"EDRDBS": [
  {
    "DBServer": "<<EDR DATABASE SERVER NAME>>",
    "DBName": "<<EDR DATABASE NAME>>",
    "CreatorDBUserId": "<<EDR DB USER CREATER ID>>",
    "CreatorDBUserPassword": "<<EDR DB USER CREATER PWD>>",
    "IntegratedSecurity": "N",
    "AgentAccount": "<<AGENT NAME TO CONNECT EDR DB>>",
    "AgentAccountPassword": "<<Agent PWD>>",
    "AgentAccountIntegratedSecurity": "N",
    "ConnectionName": "<<CONNECTOR NAME>>"
  },

```



4. Next, paste the content you copied in step 2 after the comma you added in the previous step:

```

"EDRDBS": [
  {
    "DBServer": "<<EDR DATABASE SERVER NAME>>",
    "DBName": "<<EDR DATABASE NAME>>",
    "CreatorDBUserId": "<<EDR DB USER CREATER ID>>",
    "CreatorDBUserPassword": "<<EDR DB USER CREATER PWD>>",
    "IntegratedSecurity": "N",
    "AgentAccount": "<<AGENT NAME TO CONNECT EDR DB>>",
    "AgentAccountPassword": "<<Agent PWD>>",
    "AgentAccountIntegratedSecurity": "N",
    "ConnectionName": "<<CONNECTOR NAME>>"
  },
  {
    "DBServer": "<<EDR DATABASE SERVER NAME>>",
    "DBName": "<<EDR DATABASE NAME>>",
    "CreatorDBUserId": "<<EDR DB USER CREATER ID>>",
    "CreatorDBUserPassword": "<<EDR DB USER CREATER PWD>>",
    "IntegratedSecurity": "N",
    "AgentAccount": "<<AGENT NAME TO CONNECT EDR DB>>",
    "AgentAccountPassword": "<<Agent PWD>>",
    "AgentAccountIntegratedSecurity": "N",
    "ConnectionName": "<<CONNECTOR NAME>>"
  }
]

```

5. Configure the second set of EDRDBS fields with the details of the second EDR Server:  
 6. Repeat steps 2 through 6 to add more EDR servers as needed.

## 7.10 General Application Configuration

The “Configuration” section contains settings for initial install application configuration, setting up the basic details required to log in and get started in the application. This account is the primary administrator account for the application.



```

"Configuration": {
  "AdminUser": {
    "Login": "Admin",
    "Password": "<<PASSWORD>>",
    "FirstName": "Admin",
    "LastName": "Admin",
    "Email": "<<EMAIL ID>>"
  },
  "Organization": {
    "Name": "<<ORGANIZATION NAME>>",
    "OfficeName": "<<OFFICE NAME>>",
    "OfficeCode": "<<OFFICE CODE>>"
  },
  "FiscalYear": {
    "CurrentFY": "2023",
    "Starts": "10/01/2022",
    "Ends": "09/30/2023"
  },
  "ActType": {
    "ATIAPA": "N",
    "FOIP": "N",
    "FIPPA": "N"
  }
}

```

Setting	Description
<b>AdminUser</b>	This subsection allows you to configure the basic details and sign in information for the initial Admin user account you'd like to create in the system.
<b>Login</b>	Enter the username you'd like to assign for the first Admin application user.
<b>Password</b>	Enter a password for the Admin account associated with the username you entered above.
<b>FirstName</b>	Enter the first name you'd like to associate with this Admin account
<b>LastName</b>	Enter the last name you'd like to associate with this Admin account



Setting	Description
<b>Email</b>	Enter an email address for this Admin account.
<b>Organization</b>	Use this subsection to provide your basic organization details.
<b>Name</b>	Enter a name for your organization, as it should appear in the system.
<b>OfficeName</b>	Provide an initial office name for an organization office. You'll be able to add more offices in the application configuration.
<b>OfficeCode</b>	Enter a system code assigned to this office, to assist with request identification and assignment.
<b>FiscalYear</b>	Use this subsection to configure the fiscal year details for your application
<b>CurrentFY</b>	Enter the current fiscal year used in your application in "YYYY" format (e.g., "2023")
<b>Starts</b>	Provide a start date for your fiscal year in MM/DD/YYYY format (e.g., "01/01/2023")
<b>Ends</b>	Provide an end date for your fiscal year in MM/DD/YYYY format (e.g., "12/31/2023")
<b>ActType</b>	This field is not applicable for FOIAXpress. Do not edit or remove this field.
<b>ATIAPA</b>	This field is not applicable for FOIAXpress. Do not edit or remove this field.



## Inputs.json Settings for New Installations

Setting	Description
<b>FOIP</b>	This field is not applicable for FOIAXpress. Do not edit or remove this field.
<b>FIPPA</b>	This field is not applicable for FOIAXpress. Do not edit or remove this field.



## 8 Inputs.json Settings for Upgrade

This section discusses the inputs.json settings used when upgrading an existing FX environment. For information on using the inputs.json file, see the *About the Inputs.json File* section of this manual.

**Note: Some fields that would be required for a new installation should be left as-is for an upgrade. It is important to not edit or remove these fields as this could compromise the integrity of the inputs.json file. These are described where appropriate in the following sections.**

### 8.1 Install Type

Use the “InstallType” section to determine if this is a new installation, or an upgrade for an existing system:

```
"InstallType": {  
  "New": "N",  
  "Upgrade": "Y"
```

Setting	Description
<b>New</b>	Determine whether this is a new installation. For upgrades this should be a “N” value
<b>Upgrade</b>	Determine whether this is an upgrade for an existing application. For upgrades this should be a “Y” value

### 8.2 Install Components

The “Components” section allows you to determine which components to include with this upgrade. If you included a component in your previous installation, be sure to assign the component a “Y” value on the corresponding line:



```
"Components": {
  "APP": "Y",
  "SCHEDULER": "Y",
  "DB": "Y",
  "EDRDB": "N"
```

Setting	Description
<b>APP</b>	Include the FOIAXpress Application in this upgrade procedure. This should be a "Y" value for upgrades.
<b>SCHEDULER</b>	Include the FOIAXpress Scheduler in this upgrade procedure. This should be a "Y" value for upgrades if the scheduler needs to be upgraded.
<b>DB</b>	Include the FOIAXpress Database in this upgrade procedure. This should be a "Y" value for upgrades.
<b>EDRDB</b>	Include the Electronic Document Review (EDR) Database in this installation procedure. This should be a "Y" value if your application includes EDR.

## 8.3 Application and Scheduler

The "APPANDSCHEDULER" section only requires input in the InstallLocation and BackupLocation fields.

**Note: All fields not listed above can remain as-is during an upgrade.**

```
"APPANDSCHEDULER": {
  "InstallLocation": "C:\\Program Files",
  "BackupLocation": "C:\\backup",
  "SSLCert": {
    "SSLPort": "443",
    "CertPath": "<<CERTIFICATE PATH>>",
    "CertPassword": "<<CERTIFICATE PASSWORD>>",
    "DNSName": "FOIAXpress"
  },
  "AppPool": "FXAppPool"
```



Setting	Description
<b>InstallLocation</b>	Specify a path for the application installation. Note this must be a file path for the .json file the execute.
<b>BackupLocation</b>	Specify a path for the application backup location. Note this must be a file path for the .json file the execute.  <b>Note: The BackupLocation must exist in the specified file path</b>

## 8.4 Database Settings

The “DB” section contains the settings for installing or upgrading your FOIAXpress database. In case of a new installation, an agent account will be created.

**Note: You do not need to edit the AgentAccount fields during an upgrade, these can remain as-is.**

```
"DB": {
  "DBServer": "<<DATABASE SERVER NAME>>",
  "DBName": "<<DATABASE NAME>>",
  "CreatorDBUserId": "<<DB CREATER USER ID>>",
  "CreatorDBUserPassword": "<<DB CREATER USER ID PASSWORD>>",
  "IntegratedSecurity": "N",
  "AgentAccount": "<<AGENT NAME TO CONNECT FOIAXpress DB>>",
  "AgentAccountPassword": "<<AGENT PWD>>",
  "AgentAccountIntegratedSecurity": "N"
```

Setting	Description
<b>DBServer</b>	Name assigned to the server responsible for storing, retrieving, and managing FOIAXpress data
<b>DBName</b>	Name given to the specific database used for FOIAXpress



Setting	Description
<b>CreatorDBUserID</b>	<p>Database User ID to be used for this installation. The CreatorDBUserID must have the following roles and permissions:</p> <ul style="list-style-type: none"> <li>▪ dbcreator</li> <li>▪ dbowner</li> <li>▪ securityadmin</li> <li>▪ GRANT ANY OBJECT PRIVILEGE</li> </ul>
<b>CreatorDBUserPassword</b>	<p>Password associated with the account used in the “CreatorDBUserID” field.</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>▪ If you do not wish to enter this password in the .json file, you will have the option to manually enter the password while running the deployment.</li> <li>▪ If utilizing integrated security (see the following option), you are not required to provide a password as the user is authenticated using Windows authentication.</li> </ul>
<b>IntegratedSecurity</b>	<p>Use “Y” or “N” to determine if you are using integrated security in this installation</p>

## 8.5 File Repository Settings

The “FileRepository” section contains the setting for different file paths used by the FOIAXpress application to store files.

**Notes:**

- These fields can remain as-is during the upgrade.





- **If these settings are ever updated, you must restart IIS on the application server. Failure to restart IIS on the application server after changing the file repository settings will cause cache-related issues**

## 8.6 Authentication Settings

The “Authentication” section contains settings needed for FOIAXpress to authenticate using FORMS authentication after the application is installed. These fields can remain as-is during the upgrade.

**Note: These fields can remain as-is during the upgrade.**

## 8.7 SMTP Server Settings

The “SMTPServer” section contains setting for the application’s mail server. These fields can remain as-is during the upgrade.

**Note: These fields can remain as-is during the upgrade.**

## 8.8 EDR Settings

The “EDRDBS” section is used to store database settings for one or more EDR databases. The settings should specify the database server where the named database(s) should be installed using the CreatorDBUserId and password. If the AgentAccount is not present, you must create the given AgentAccount.

**Note: You do not need to edit the AgentAccount fields during an upgrade, these can remain as-is.**

```
"EDRDBS": [
  {
    "DBServer": "<<EDR DATABASE SERVER NAME>>",
    "DBName": "<<EDR DATABASE NAME>>",
    "CreatorDBUserId": "<<EDR DB USER CREATOR ID>>",
    "CreatorDBUserPassword": "<<EDR DB USER CREATOR PWD>>",
    "IntegratedSecurity": "N",
    "AgentAccount": "<<AGENT NAME TO CONNECT EDR DB>>",
    "AgentAccountPassword": "<<Agent PWD>>",
    "AgentAccountIntegratedSecurity": "N",
    "ConnectionName": "<<CONNECTOR NAME>>"
  }
]
```



Setting	Description
<b>DBServer</b>	Name assigned to the server responsible for storing, retrieving, and managing EDR data
<b>DBName</b>	Name given to the specific database used for FOIAXpress EDR.
<b>CreatorDBUserId</b>	Database User ID to be used for this installation. The CreatorDBUserId should have admin rights with the ability to create a new database or database object on the specified Database server
<b>CreatorDBUserPassword</b>	<p>Password associated with the account used in the “CreatorDBUserID” field.</p> <p><b>Note: If you do not wish to enter this password in the .json file, you will have the option to manually enter the password while running the deployment.</b></p>
<b>IntegratedSecurity</b>	Use “Y” or “N” to determine if you are using integrated security in this installation

## 8.9 General Application Configuration

The “Configuration” section contains settings for initial install application configuration, setting up the basic details required to log in and get started in the application. This account is the primary administrator account for the application.

**Note: These fields can remain as-is during the upgrade.**



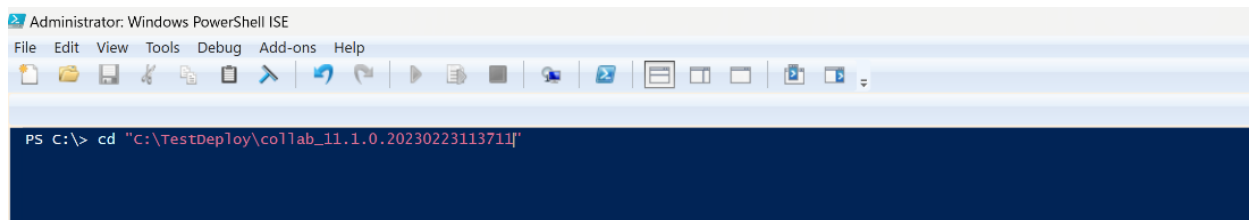
## 9 Run Install.ps1

Before you are ready to run the Install.ps1 file, review the steps below to verify you've completed all the steps to this point:

- Ensure your system meets the minimum requirements outlined in the Deployment System Requirements section.
- Make sure you have connectivity to the servers where the software is being installed.
- Complete the procedures described in the Deployment System Requirements section.
- Download, verify, and extract the FOIAXpress Installation package.
- Configure the Inputs.json file for your installation.

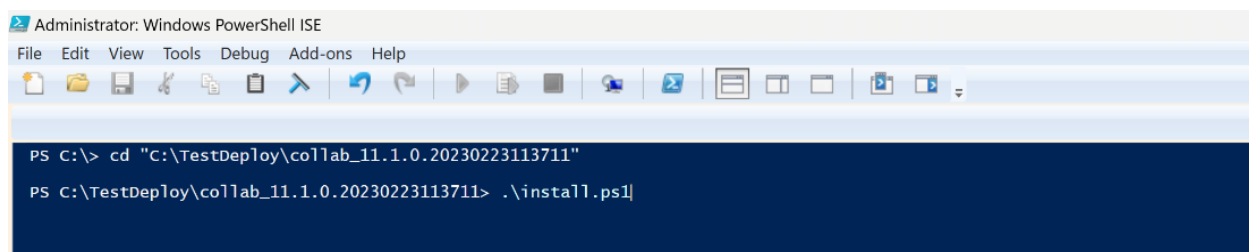
Once the above prerequisites are complete, follow the steps below to deploy the FOIAXpress Installation package.

1. Open Windows Powershell ISE.
2. Use PowerShell to navigate to the location where you extracted the installation package:



```
Administrator: Windows PowerShell ISE
File Edit View Tools Debug Add-ons Help
PS C:\> cd "C:\TestDeploy\collab_11.1.0.20230223113711"
```

3. Type .\install.ps1 for either install or upgrade.

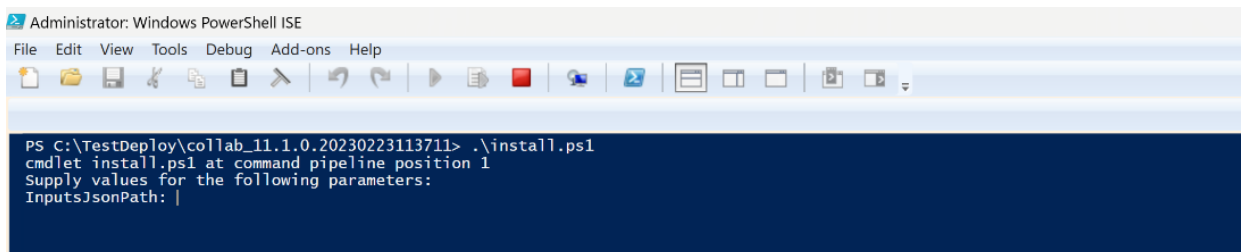


```
Administrator: Windows PowerShell ISE
File Edit View Tools Debug Add-ons Help
PS C:\> cd "C:\TestDeploy\collab_11.1.0.20230223113711"
PS C:\TestDeploy\collab_11.1.0.20230223113711> .\install.ps1
```

4. If the inputs.json file is in same location as the extracted installation files, simply click enter to execute the installation. Alternatively, if you have file in different location provide this file location, then execute the script.

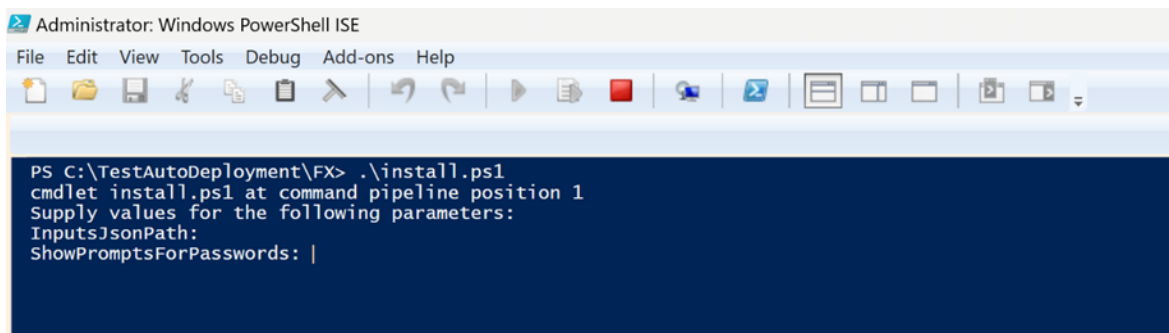


## Run Install.ps1



```
Administrator: Windows PowerShell ISE
File Edit View Tools Debug Add-ons Help
PS C:\TestDeploy\collab_11.1.0.20230223113711> .\install.ps1
cmdlet install.ps1 at command pipeline position 1
Supply values for the following parameters:
InputsJsonPath: |
```

5. Once the inputs.json parameter is passed, it will ask whether to show/not to show prompts for passwords during the installation process. If you provided the password in the Inputs.json file, enter **N**. To enter the password manually, or if you did not enter the password in the Inputs.json file, enter **Y**. Next, hit **Enter** on your keyboard.



```
Administrator: Windows PowerShell ISE
File Edit View Tools Debug Add-ons Help
PS C:\TestAutoDeployment\FX> .\install.ps1
cmdlet install.ps1 at command pipeline position 1
Supply values for the following parameters:
InputsJsonPath:
ShowPromptsForPasswords: |
```

6. The installation procedure executes. See the following section for post-installation procedures to verify the application deployed successfully.
7. If you elected to enter your password manually, you will be prompted to do so at times during the installation.



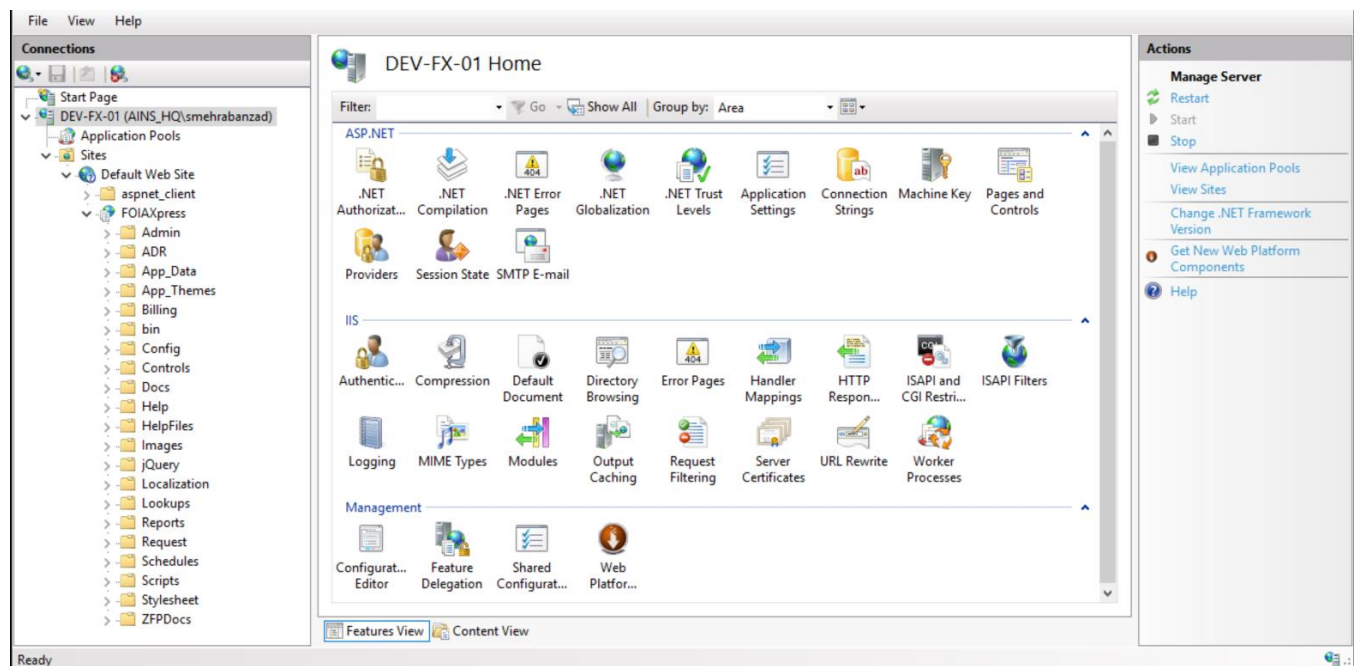
# 10 Post-Installation Procedures

After successfully executing the install, you'll want to complete the post-install procedures outlined in the following sections to ensure the application and associated components are present and accessible in the installed location.

## 10.1 FOIAXpress Site

Follow the steps below to verify creation of the FOIAXpress site:

1. Open IIS.
2. Click to expand the *Default Web Site* list:



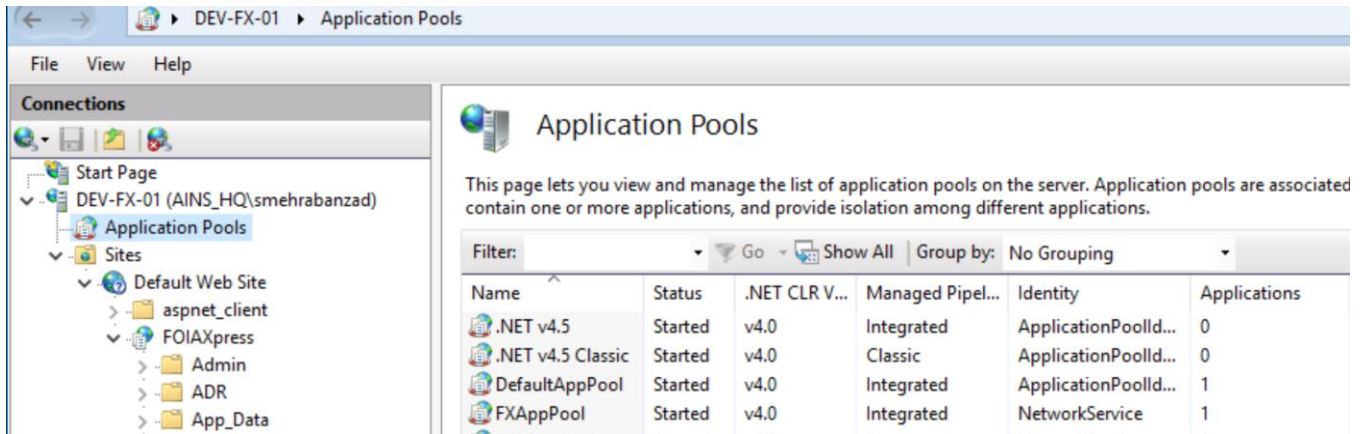
3. Verify that the FOIAXpress application is listed.

## 10.2 Application Pool - FXAppPool Exists

Follow the steps below to verify that the application pool created for the application exists:

1. Open IIS.
2. Click to expand the Application Pools list:





3. Verify that the Application Pool specified in the inputs.json file is listed.

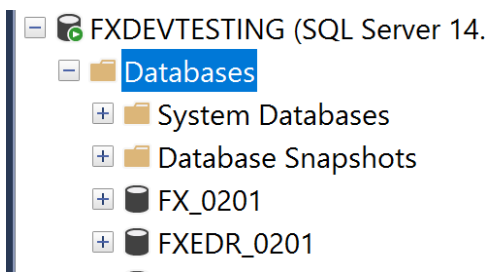
## 10.3 Database Check

Follow the steps below to check that the databases specified in inputs.json were successfully created:

1. Using management studio, connect to the database server specified in the Inputs.Json.
2. Login with the CreatorDBUserId login and password specified in the Inputs.Json.
3. Expand the list of databases.
4. Verify that the database specified in the Inputs.Json is listed.
5. Open up a query window and execute the following query.

```
select * from tblConfig where vckey = 'Version'
```

6. In the row returned from this query, the vcValue should be the same as the database version:



## 10.4 URL Access

To verify that the application successfully loads when accessing the URL, open a supported web browser and navigate to the configured application URL. The FOIAXpress log in screen appears



as shown below. Enter the Admin credentials configured in the general settings section of the Inputs.json file (see *General Application Configuration*) to log in.

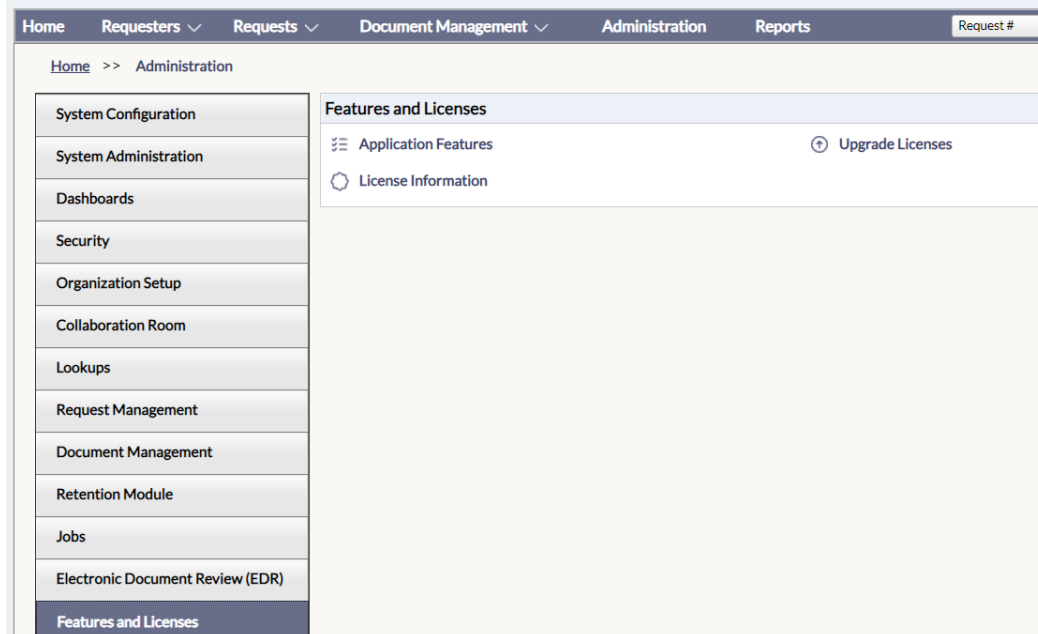


The image shows the FOIAXpress Sign In interface. It features a dark blue header with the FOIAXpress logo. Below the header is a white sign-in box with the title 'Sign In'. Inside the box, there are two input fields: 'Username' and 'Password'. The Password field has a toggle icon (an eye) to the right of it. Below the Password field is a link that says 'Forgot your password?'. At the bottom of the sign-in box is a dark blue button with the text 'SIGN IN' in white capital letters.

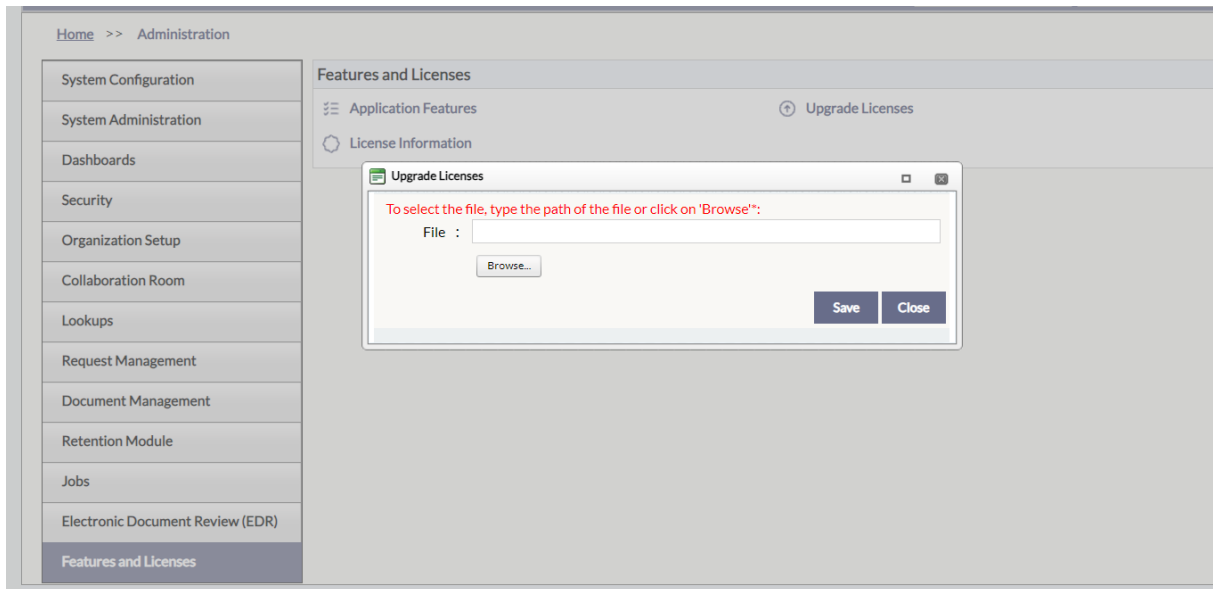
## 10.5 Update License

Follow the steps below to update the FOIAXpress license within the application:

1. Log in to FOIAXpress.
2. Navigate to **Administration > Features and Licenses**:



3. Select **Upgrade Licenses**.
4. The *Upgrade Licenses* window appears as shown below. Click Browse to locate and select the license file from your local machine or other network location.

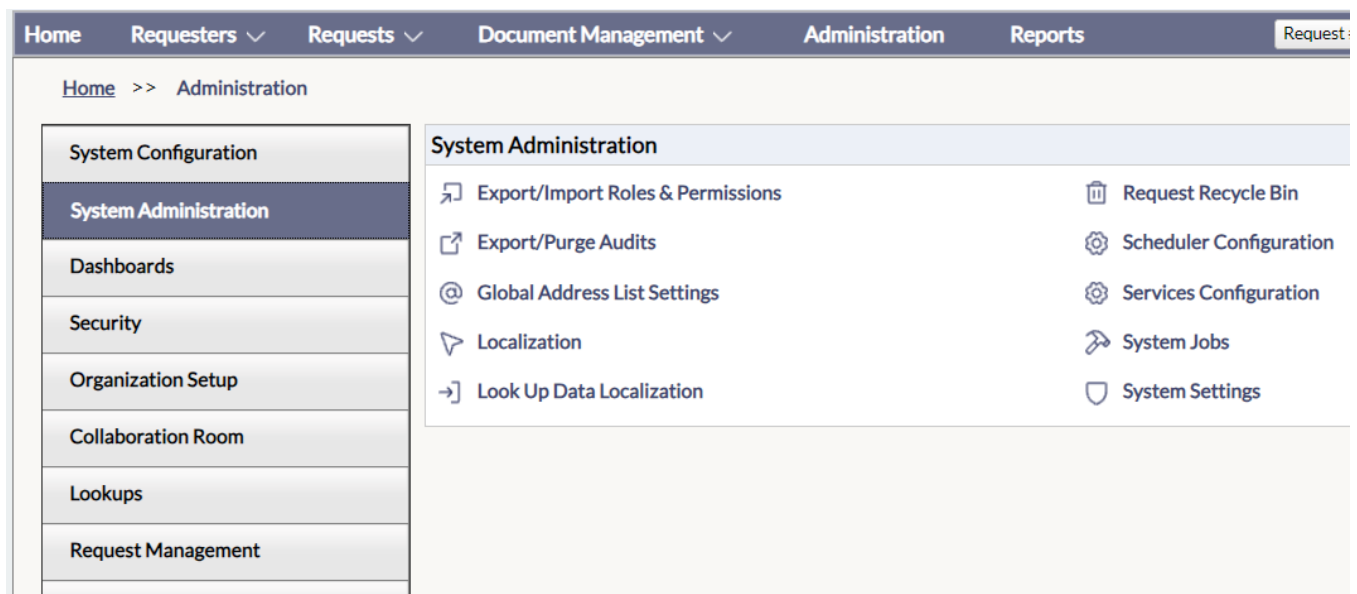


5. After selecting the file, click **Save** to save your application license.

## 10.6 Add Scheduler Jobs

After installing FOIAXpress, you must manually add any required scheduler jobs via FOIAXpress Administration:

1. Log in to FOIAXpress.
2. Navigate to **Administration > System Administration**





- Click **Scheduler Configuration**. The *Scheduler Configuration* screen appears as shown below:

Schedulers: SchedulerService@QA-FX-WIN2022 Remove Scheduler

SchedulerService@QA-FX-WIN2022 Allowed Jobs

Job Name	Is System Job?	Instances	Remove
Sends all outgoing email messages	Yes	1	X
EDR - Jobs	No	1	X
EDR Search Criteria	No	1	X
Send/Save Documents for Consultation	No	1	X
Add collaboration Documents to Request folder	No	1	X
Save To Disk	No	1	X
Document Delivery	No	1	X

Add New Jobs Save Refresh Close

- Select your respective scheduler and jobs from the drop-down lists. When you've configured your scheduled jobs, click **Save** to save the configuration.

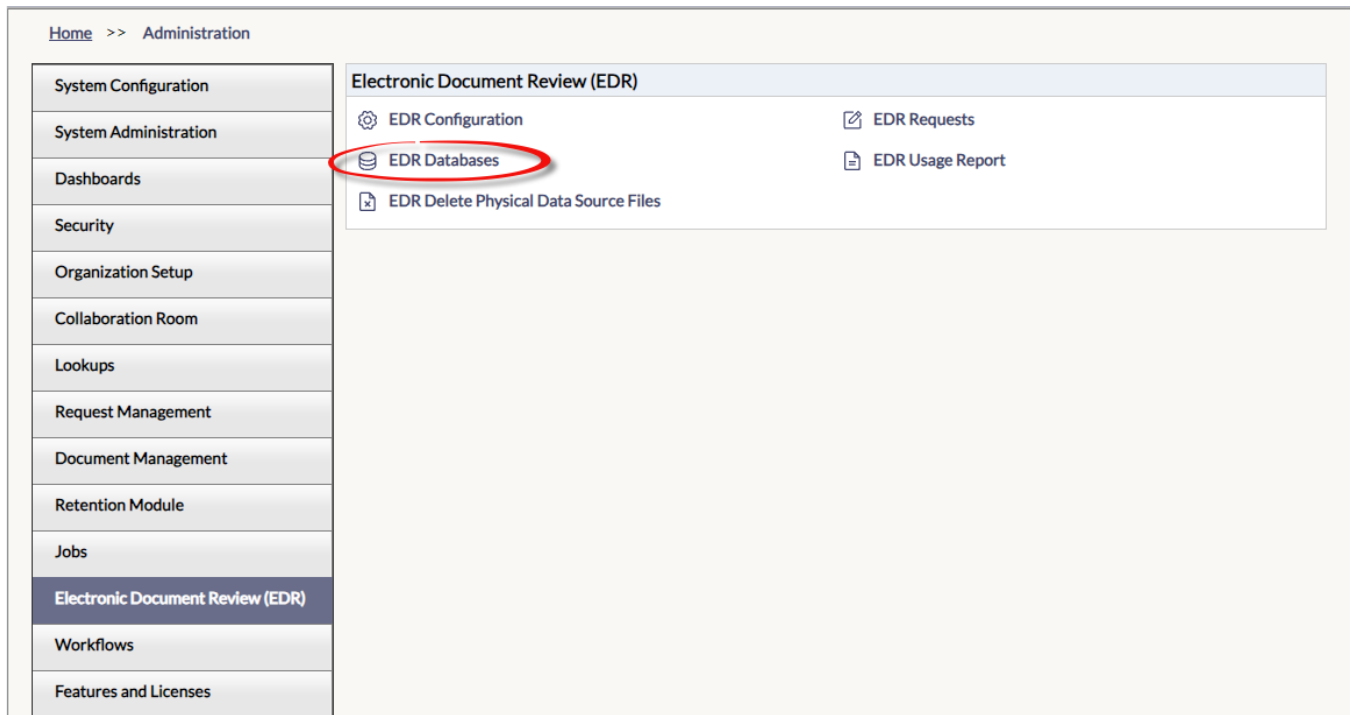
## 10.7 EDR Post Installation

### 10.7.1 EDR Database Password

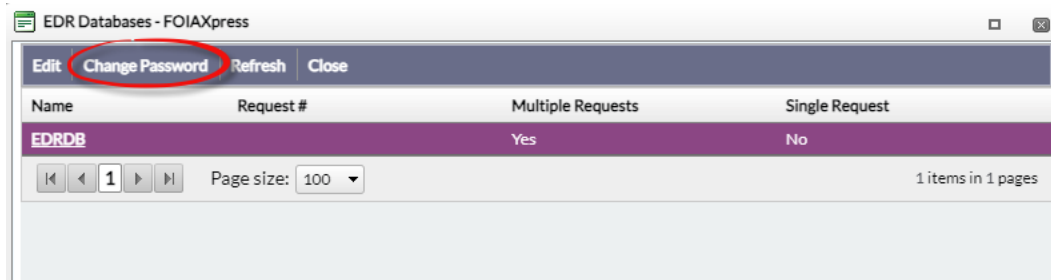
For new installations which include the EDR module, the EDR Database Password must be manually updated within the application to enable EDR access. Follow the steps below to update the EDR password following application deployment.

- Access the application as an Administrator and select **Administration > Electronic Document Review (EDR) > EDR Databases**:

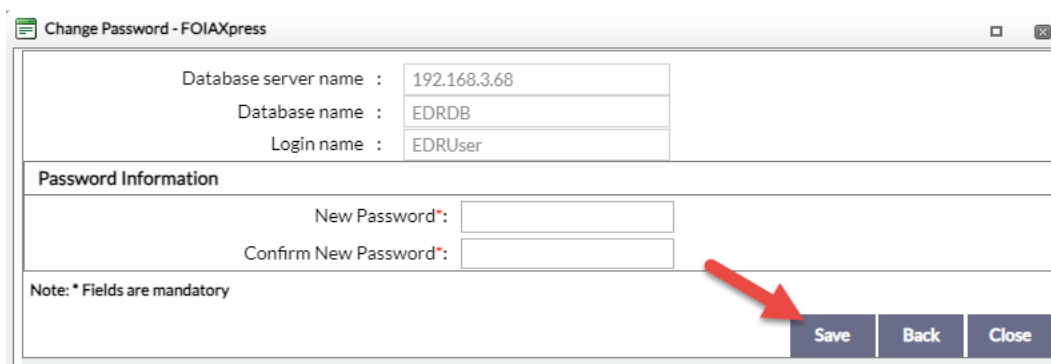




2. Select the EDR database from the list then click **Change Password**:



3. Enter the EDR database password in the **New Password** and **Confirm New Password** fields, then click **Save**:



## 10.7.2 Calculate Page Count Job

A new job was added to EDR for v11.8.0 to calculate page counts. When completing a new installation or upgrading from version 11.7.2 or earlier, add the new **EDR – Calculate Page Count** job to the *Scheduler Configuration* (**Administration > System Administration > Scheduler Configuration**) to enable the EDR Page Count:

The screenshot shows the 'Scheduler Configuration' window. At the top, there is a dropdown menu for 'Schedulers' set to 'SchedulerService@QA-AX-DAILY' and a 'Remove Scheduler' button. Below this, the text 'SchedulerService@QA-AX-DAILY Allowed Jobs' is displayed. A table lists the allowed jobs with columns: 'Job Name', 'Is System Job?', 'Instances', and 'Remove'. The first row in the table is 'EDR - Calculate Page Count', which is highlighted with a red border. This row shows 'No' for 'Is System Job?', '1' for 'Instances', and a red 'X' icon for 'Remove'. Below the table, there is an 'Add New Jobs' button. At the bottom right, there are 'Save', 'Refresh', and 'Close' buttons.

Job Name	Is System Job?	Instances	Remove
EDR - Calculate Page Count	No	1	X

## 10.8 Logs

There are multiple logs that are generated during the installation that provide more detail:

- *Databasedeploy.txt*: Contains FOIAXpress database detailed deployment information.
- *Edrdatabasedeploy.txt*: Contains EDR database detailed deployment information.
- *FOIAXpress\_Install\_LOG\_<date>.txt*: Contains the top-level deployment log.
- *Scheduler Logs*: Scheduler log files will be in the FOIAXpress application log folder.

## 10.9 Pendo Integration

For SaaS customers, Pendo integration must be enabled when upgrading from any version below 11.5.1. This integration only needs to be enabled once.



**Note: Pendo integration is only for SaaS customers and should not be enabled for on-prem installations.**

To enable Pendo integration for SaaS customers:

1. Update the 'PendoIntegration' value to 'Y' by running the following query in the database:  
*update tblConfig set vcValue='Y' where vcKey='PendoIntegration' and vcSection='General'*
2. Use the IISRESET command to restart IIS.

## 10.10 API Installation

We've created the FOIAXpress API to allow for integration with external data monitoring applications. This is a standalone API that is included in the FOIAXpress installation package. This API must be installed separately from the FOIAXpress application, and users of the API must be authenticated application users with permissions to access the data being queried.

### Notes:

- **The API is required for v11.7.0 and above.**
- **The API must be upgraded along with the application. If you already have the API installed, you're still required to upgrade the API to the latest version.**

### 10.10.1 API Installation Prerequisites

The following prerequisites must be fulfilled to use the API:

- The application and the API must be on the same version. Update the application to the latest version before installing or upgrading the API.
- You must install .Net Core Hosting Bundle v.8.0.6:  
<https://dotnet.microsoft.com/en-us/download/dotnet/thank-you/runtime-aspnetcore-8.0.6-windows-hosting-bundle-installer>

### 10.10.2 Unzip the Installation Package

The API installation package is included in the FOIAXpress application files. After downloading the package, follow the steps below to unzip the file:

1. Locate the downloaded .zip file, then right click it and select **Properties**.
2. On the *General* tab, select **Unblock**, then click **Apply**.
3. Next, unzip the contents of the folder. The contents of the package appear as shown in the following example:



<input type="checkbox"/> Name	Type	Compressed size
FOIAXpressAPI	File folder	
installscripts	File folder	
inputs	JSON File	1 KB
install	Windows PowerShell Script	6 KB
uninstall	Windows PowerShell Script	5 KB

### 10.10.3 About the Installation Package

There are two primary files you'll interact with during installation:

<input type="checkbox"/> Name	Type	Compressed size
FOIAXpressAPI	File folder	
installscripts	File folder	
inputs <b>1</b>	JSON File	1 KB
install <b>2</b>	Windows PowerShell Script	6 KB
uninstall	Windows PowerShell Script	5 KB

1. *Inputs.json*: Drives the installation of the API components. The file is in a standard json format and needs to remain a valid json file for successful installation.
2. *Install.ps1*: The executable file you will run to deploy the installation package with the parameters configured in the Inputs.json file.

### 10.10.4 Inputs.Json Settings for Installation

The Inputs.json file located in the root directory of the extracted deployment package zip file drives the installation of the different components of the FOIAXpress API. The file is in a standard json format and needs to remain a valid json file post updates prior to the installation.

The settings are grouped into sections, each addressing different parts of your installation. This section describes each part of the Inputs.Json file.

Use the “InstallType” section to determine if this is a new installation, or an upgrade for an existing system:



```
{
  "inputs": {
    "InstallType": {
      "New": "Y",
      "Upgrade": "N"
    },
  },
}
```

Setting	Description
<b>New</b>	Determine whether this is a new installation. For new installations this should be a “Y” value.
<b>Upgrade</b>	Determine whether this is an upgrade for an existing application. For new installations this should be a “N” value.

The “API” section has settings related to the Collaboration Portal application and scheduler installations. A value must be set for all fields in this section to successfully install the application:

**Notes:**

- **For the SSLCert and AppPool fields, use the same values provided for FOIAXpress installation**
- **Any files paths specified must have two backslashes where a path in windows explorer requires a single backslash.**

```
"API": {
  "Name": "FOIAXpressAPI",
  "InstallLocation": "C:\\\\Program Files",
  "BackupLocation": "C:\\\\backup",
  "SSLCert": {
    "SSLPort": "443",
    "CertPath": "<<Certificate Path>>",
    "CertPassword": "<<Certificate Password>>"
  },
  "AppPool": "<<AppPoolName>>"
}
```



Setting	Description
<b>Name</b>	Name for the API program file.
<b>InstallLocation</b>	Specify a path for the API installation. Note this must be a file path for the .json file the execute.
<b>BackupLocation</b>	Specify a path for the API backup location. Note this must be a file path for the .json file the execute.
<b>SSLCert</b>	The following lines contain the SSL Certificate information. No data is required on this line. This is the grouping for SSL Certification settings to be used for the installation.
<b>SSLPort</b>	The network port designated for your application's secure communications using SSL.
<b>CertPath</b>	Specify a path where the .pfx certificate file is located. Note this must be a file path for the .json file to execute.
<b>CertPassword</b>	Enter the password associated with the certificate linked in the "CertPath" field.
<b>DNSName</b>	Enter the Domain Name System (DNS) name for the domain associated with the application.
<b>AppPool</b>	Enter the name of the application pool associated with your FOIAXpress API.

The "DB" section contains the settings for installing or upgrading your API database. In case of a new installation, an agent account will be created.

**Note: Database details should be the same as used for the FOIAXpress installation.**



```
"DB": {
  "DBServer": "<<SQL Server Name>>",
  "DBName": "<<SQL DB Name>>",
  "DBUserId": "<<DB UserId>>",
  "DBUserPassword": "<<DB Password>>"
}
```

Setting	Description
<b>DBServer</b>	Name assigned to the server responsible for storing, retrieving, and managing API data.
<b>DBName</b>	Name given to the specific database used for FOIAXpress API.
<b>DBUserID</b>	Database User ID to be used for this installation. The DBUserId should have admin rights with the ability to create a new database or database object on the specified Database server.
<b>DBUserPassword</b>	Password associated with the account used in the "DBUserID" field.

### 10.10.5 Install the API

Before you are ready to run the Install.ps1 file, review the steps below to verify you've completed all the steps to this point:

- Make sure you have connectivity to the servers where the software is being installed.
- Download, verify, and extract the API Installation package.
- Configure the Inputs.json file for your installation.

Once the above prerequisites are complete, follow the steps below to deploy the API installation package.

1. Open Windows Powershell ISE.
2. Use PowerShell to navigate to the location where you extracted the installation package:

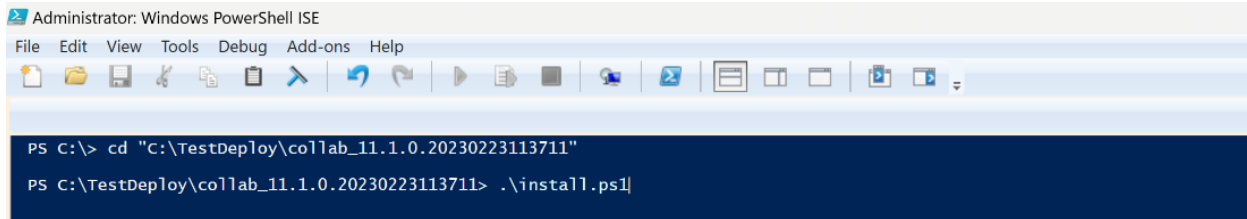






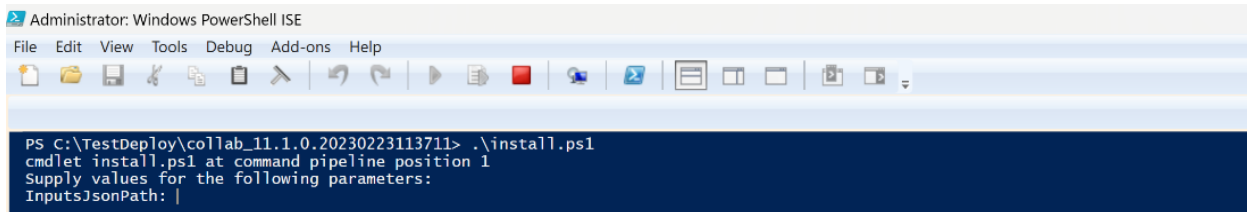
```
Administrator: Windows PowerShell ISE
File Edit View Tools Debug Add-ons Help
PS C:\> cd "C:\TestDeploy\collab_11.1.0.20230223113711"
```

3. Type `.\install.ps1` for either install or upgrade.



```
Administrator: Windows PowerShell ISE
File Edit View Tools Debug Add-ons Help
PS C:\> cd "C:\TestDeploy\collab_11.1.0.20230223113711"
PS C:\TestDeploy\collab_11.1.0.20230223113711> .\install.ps1
```

4. If the `inputs.json` file is in same location as the extracted installation files, simply click enter to execute the installation. Alternatively, if you have file in different location provide this file location, then execute the script.



```
Administrator: Windows PowerShell ISE
File Edit View Tools Debug Add-ons Help
PS C:\TestDeploy\collab_11.1.0.20230223113711> .\install.ps1
cmdlet install.ps1 at command pipeline position 1
Supply values for the following parameters:
InputsJsonPath: |
```

5. The installation procedure executes. To verify the installation, launch the API

## 10.10.6 Managing API Access

### 10.10.6.1 About Authentication

Each API user must be authenticated before they are able to use the API. To provision API access, we've created an Access Token Tool which you'll use to create tokens for each API user. These tokens are time limited and must be provisioned again after expiration. This expiration period is configurable, and we recommend a 30-day expiration period for these tokens.

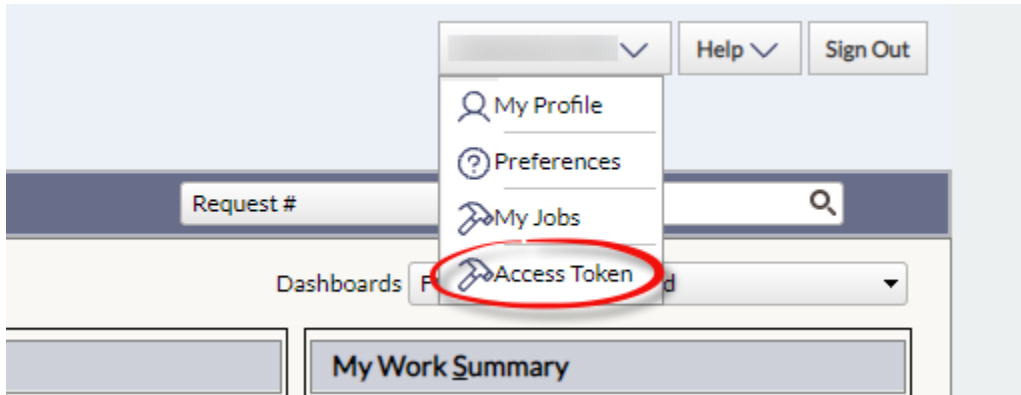
### 10.10.6.2 Authentication using Access Token Tool

Each API user must be authenticated before they are able to use the API. To provision API access, we've created an Access Token Tool which you'll use to create tokens for each API user. These tokens are time limited and must be provisioned again after expiration. This expiration period is configurable, and we recommend a 30-day expiration period for these tokens.

Follow the steps below to create access tokens for your API users:

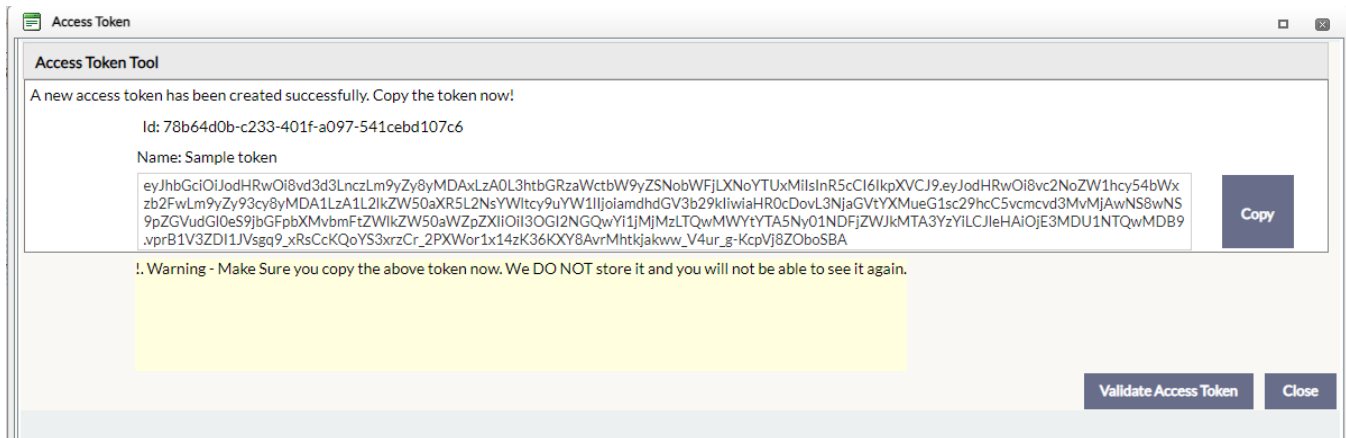


1. When logged into the application as an Administrator, click your **User Menu** then select **Access Token**:



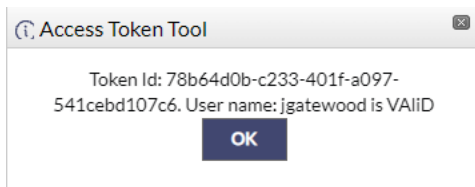
2. After selecting **Access Token**, the tool appears as shown in the following example:

3. You'll use the fields on this screen to configure tokens for your API users. These are described below:
  - a. The *AccessToken ID* is a random GUID which is assigned to each token. This is prepopulated.
  - b. Enter a name in the *Access Token Name* field, which should help reference back to the token's assignee.
  - c. In the *User* field, enter the application username for the user who will be assigned this token. This must be a valid application username, and the user must have application permissions to view the request data they will be querying using the API.
  - d. Enter an Expiration time for the token. The token will expire after the listed date, and a new token must be provided for that user to access the tool. Expiration options include **30 days**, **60 days**, **90 days**, or you can use the **Custom days** option to configure a custom expiration period. Use the **Calendar** to select the custom expiration date
4. Click the **Create** button to create the token with the provided details.
5. After clicking **Create**, the screen refreshes to display the generated token. You can manually copy the token, or click **Copy** to copy it to your clipboard.



**Note:** You must copy the token from this screen, as the token is not stored anywhere in the application and cannot be retrieved once this screen is closed.

6. Save the copied token to a secure location, where you can retrieve it to authenticate this user.
7. You can also click **Validate Access Token** to check whether the token is currently validated. If validated, a pop up appears as shown below:



### 10.10.6.3 API Logs

You can view logs of actions taken in the API. These are available in the following location:

`<FOIAXpress_Install_Location>\Logs\FOIAXpress\API`

If the default location is chosen, the logs should be located at:

`C:\Program Files\FOIAXpress\Logs\FOIAXpress\API`

## 10.11 AI Assistant Integration

To integrate with the FOIAXpress AI Assistant, you must complete the following:

- Install CoreNLP, either via Docker or Java (both processes are outlined in the following sections)
- Configure the application with the FOIAXpress API and AI API details



## 10.11.1 CoreNLP for Docker

Follow the steps in the section below to deploy CoreNLP using Docker.

### 10.11.1.1 Install Docker Desktop for Windows

You must have Docker Desktop installed. If you don't have Docker Desktop installed, follow the steps below:

1. **Download Docker Desktop:** Visit the official Docker website and download the Docker Desktop version for Windows. [Docker Desktop](#)
2. **Run the Installer:** Execute the installer and follow the instructions. You may need to enable virtualization in your BIOS if it's not already activated.
3. **Restart Your Computer:** Restarting ensures all necessary features are activated and functioning.
4. **Start Docker Desktop:** Open Docker Desktop from the **Start** menu. It might take a while to initiate for the first time as it sets everything up.

### 10.11.1.2 Configure Docker Desktop

**Check Settings:** Click on the **Docker** icon in the system tray and open **Settings** or **Preferences**. Make sure to adjust the memory and CPUs allocated according to the software's needs you plan to run CoreNLP.

### 10.11.1.3 Get the Docker Image for Stanford CoreNLP

1. **Open Command Prompt or PowerShell:** You can do this by searching for "cmd" or "PowerShell" in the **Start** menu and selecting the application.
2. **Download the CoreNLP Docker Image:** Run the following command to download the official image:

Bash:

```
docker pull nlpbox/corenlp
```

This command pulls the Docker image containing Stanford CoreNLP from Docker Hub.

### 10.11.1.4 Run CoreNLP Inside a Docker Container

**Start the Container with Custom Settings:** To use CoreNLP with extended timeout settings and a custom port, execute the following command:

Bash:



```
docker run -p 59000:59000 -e TIMEOUT_MILLISECONDS=600000 -d  
nlpbox/corenlp
```

This command starts the Docker container exposing port 59000 for local use and sets the server's timeout to 600,000 milliseconds (10 minutes). The -d option ensures the container runs in "detached" mode, freeing up the command line for other uses.

#### 10.11.1.5 Verify Execution

To check if the CoreNLP server is running correctly, you can try accessing <http://localhost:59000> in your browser. If configured correctly, you should be able to see the Stanford CoreNLP web interface.

With these steps, Docker and Stanford CoreNLP are now set up on your Windows system with specific customizations to better suit your analysis needs and extended timeout settings.

## 10.11.2 Install CoreNLP Using Java

### 10.11.2.1 Install Java

Stanford CoreNLP requires Java 8 or later. If you do not already have this application installed on the application server, follow the steps below:

1. Download Java:
  - a. Visit the Oracle website to download the Java JDK: [Oracle JDK Downloads](#).
  - b. Choose the appropriate Windows installer for your system architecture (32-bit or 64-bit).
2. Install Java:
  - a. Run the downloaded installer and follow the installation instructions.
3. Verify Java Installation:
  - a. Open Command Prompt and type:  
Bash:  

```
java -version
```
  - b. This should display the installed version of Java. Ensure it is Java 8 or higher.

### 10.11.2.2 Download and Set Up Stanford CoreNLP

Download Stanford CoreNLP:



1. Go to the Stanford CoreNLP official website:  
<https://stanfordnlp.github.io/CoreNLP/index.html>
2. Download the latest version of Stanford CoreNLP zip file.
3. Once downloaded, extract the zip file to a directory of your choice, for example, C:\StanfordNLP.

### 10.11.2.3 Run Stanford CoreNLP Server

1. Launch the Stanford CoreNLP Server:
2. Open **Command** Prompt.
3. Navigate to the directory where you extracted Stanford CoreNLP:

Bash (example):

```
cd C:\StanfordNLP
```

4. Use the following command to start the server:

Bash:

```
java -mx4g -cp "*"
edu.stanford.nlp.pipeline.StanfordCoreNLPServer -port 59000 -
timeout 15000
```

**Note: Port 59000 is an example, you are not required to use this port. If you change this value, use the updated value in the following section when entering the URL.**

5. This command starts the CoreNLP server on port 59000 with a timeout of 15000 milliseconds and allocates 4 GB of memory to the process.

### 10.11.2.4 Verify the Server

1. Open a web browser and go to <http://localhost:59000>

**Note: The "59000" value above is based on the port configured in the previous section. Use your configured port value in this URL.**

2. You should see the Stanford CoreNLP server interface, indicating that the server is running and ready to process text. Leave this browser tab open, you'll need to retrieve this URL and add it to FOIAXpress configuration later in this process



## 10.11.3 Application Configuration

### 10.11.3.1 General Configuration

1. Log in to the application as an administrator and access **Administration > System Configuration > General Configuration**.
2. Under *Application Next-Gen URL*, copy and paste the API This should follow the format `https://<IP>/FOIAXpressAPI` where <IP> is the installed IP for the API.
3. In the *AI API URL* field, copy and paste the AI URL (from step 2 in section 10.11.2.4).
4. Click **Save** to save the configuration.

### 10.11.3.2 AI Roles and Permissions

There are three types of AI user permissions within the application:

1. **AI Config Application Role Permission:** Users with the AI Config application role permission can view and edit three AI configuration pages. Click the links below to learn more about these configuration pages:
  - a. [AI Redaction Templates](#)
  - b. [Redaction Knowledge Base](#)
  - c. [AI Trainers](#)
2. **AI User Role:** Application users who are allowed to use the AI Assistant feature within document management. This is a license-based role, and all AI users must have an active license.
3. **AI Trainer Role:** A subset of the AI Users, AI Trainers are selected to feed redaction data into the Redaction Knowledge Base, which contains a repository of all redactions performed by AI Trainer to identify patterns and frequently encountered data.

### 10.11.3.3 Using the AI Assistant

There are two main components to the AI Assistant feature. AI Redaction Templates, and applying these templates to documents in Document Management. Follow the links below to learn more about using the AI Assistant with CoreNLP:

[Using the AI Assistant](#)

[AI Redaction Templates](#)

## 11 Azure Post-Installation Procedures

For environments using Azure, you must also complete the following procedures after running the installation file.

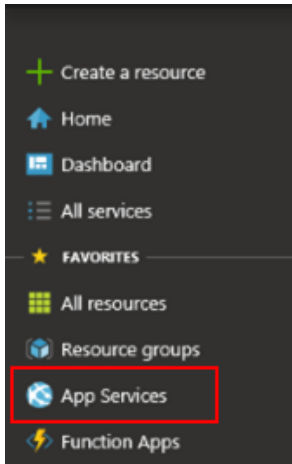


**Note: These steps only apply to Azure based environments.**

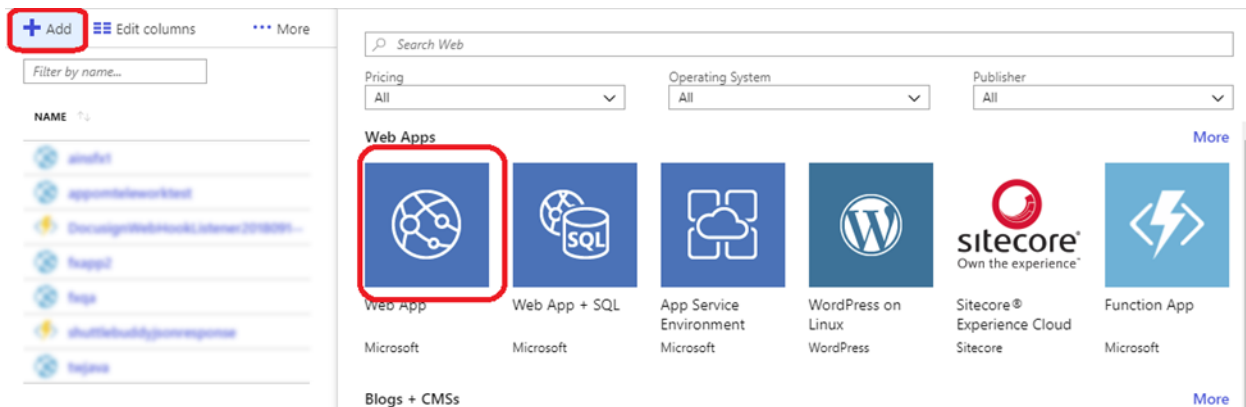
## 11.1 Creating App Service on Azure Portal

Follow the steps below to crate the app service on the Azure portal:

1. Log in to the Azure portal and navigate to **App Services** in the left sidebar.



2. Select **Add** to create a new App Service. Click the **Web App** option and click the **Create**.

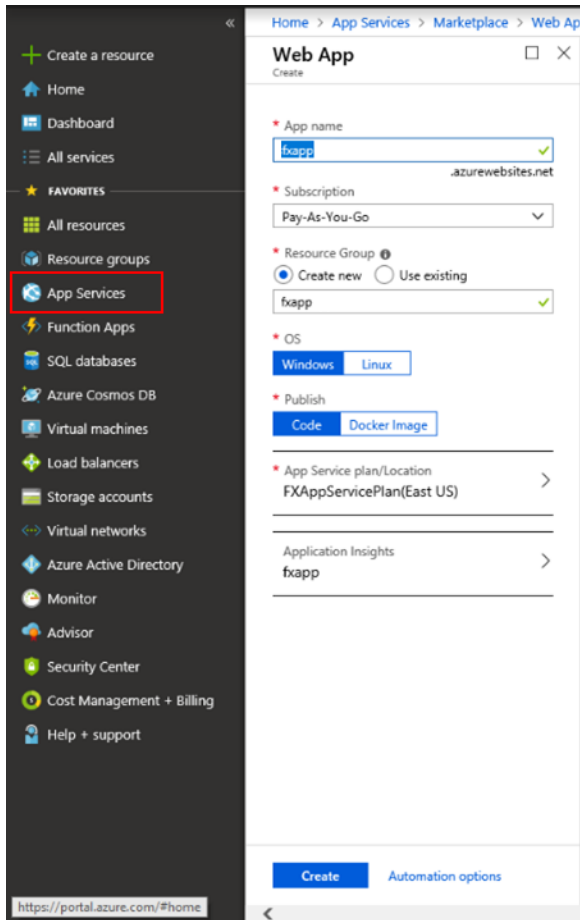


3. Enter the name the application ("**FXapp**") in the *App Name* field and click **Create**.

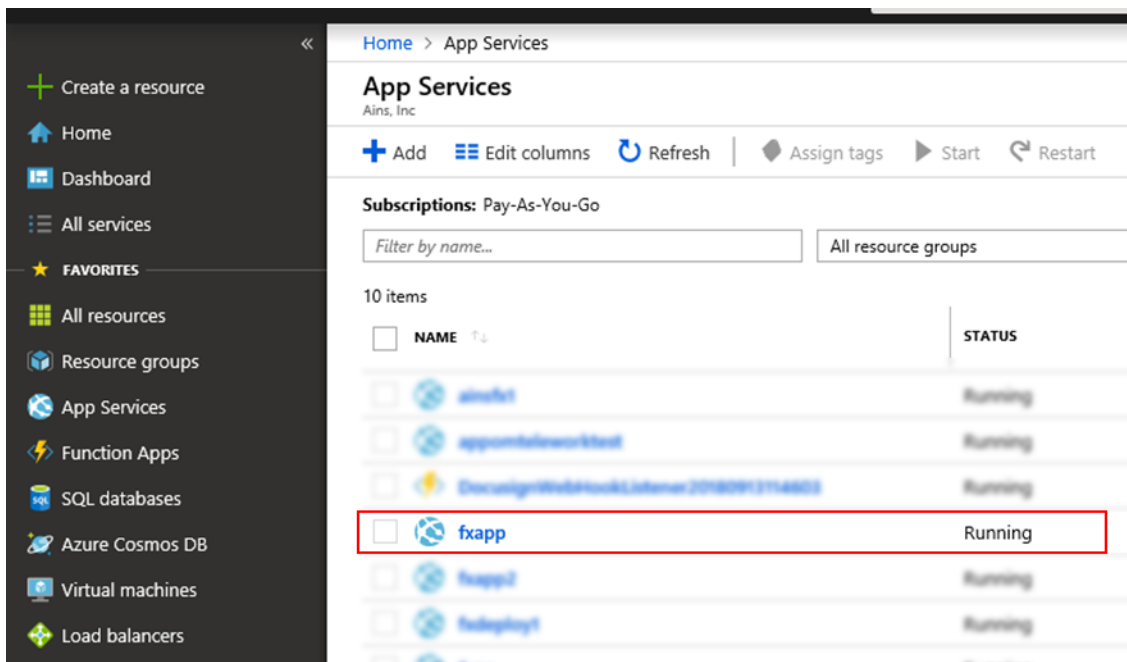




## Azure Post-Installation Procedures



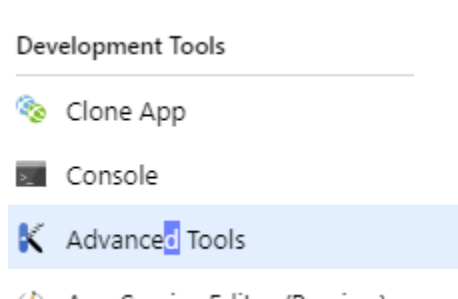
**Note:** The newly created App Service is not immediately accessible but will appear after a short time (<5 minutes).



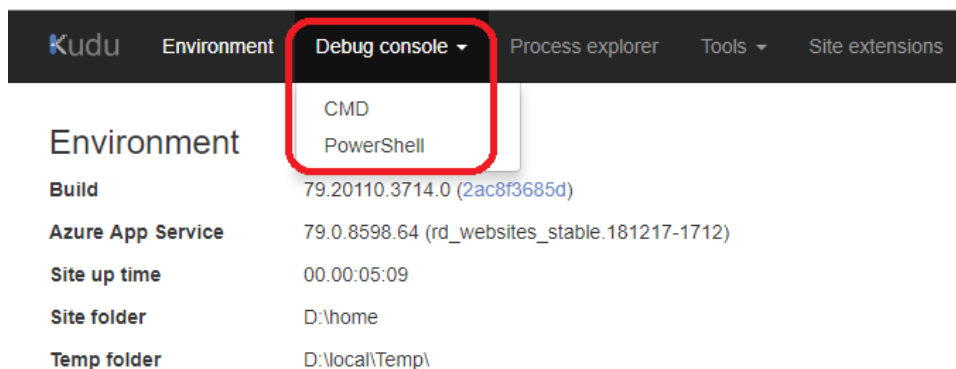
## 11.2 Zip Deploy FOIAXpress to the Azure App Service

Follow the steps below to zip deploy FX to the Azure app service:

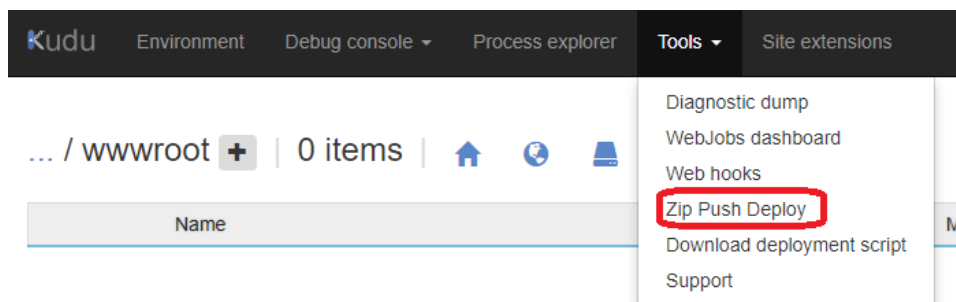
1. Click the newly created App Service (“**FXapp**”) and navigate to the *Development Tools* section in the middle pane. Select **Advanced Tools** and click **Go** in the right pane.



2. The site opens the *Diagnostic Console* in a new tab. Navigate to the new tab, click the **Debug console** drop-down list and select **CMD**.



3. Using either file browser at the top or the command line console at the bottom, add new folders for Application Logs by creating the path “**D:\home\site\Logs\FOIAXpress**”.
4. Navigate to *D:\home\site\wwwroot* and delete **hostingstart.html**.
5. Click the *Tools* drop down, and select **Zip Push Deploy**.



6. Locate the **AzureApp.zip** file provided in the FOIAXpress setup folder. Drag and drop the zip file onto the Kudu console and wait for 100% completion.


**Note: Use Google Chrome or Microsoft Edge to ensure Drag and Drop functionality is available in the Kudu console.**

FXAX10.7

Name	Date modified	Type	Size
PAL	12/1/2020 9:54 AM	File folder	
Sprint 1	12/8/2020 2:44 PM	File folder	

/wwwroot + 0 items

Drop here to deploy your ZIP



Move

Deployment Id :

/wwwroot + 0 items

Name	Modified	Size
		10%

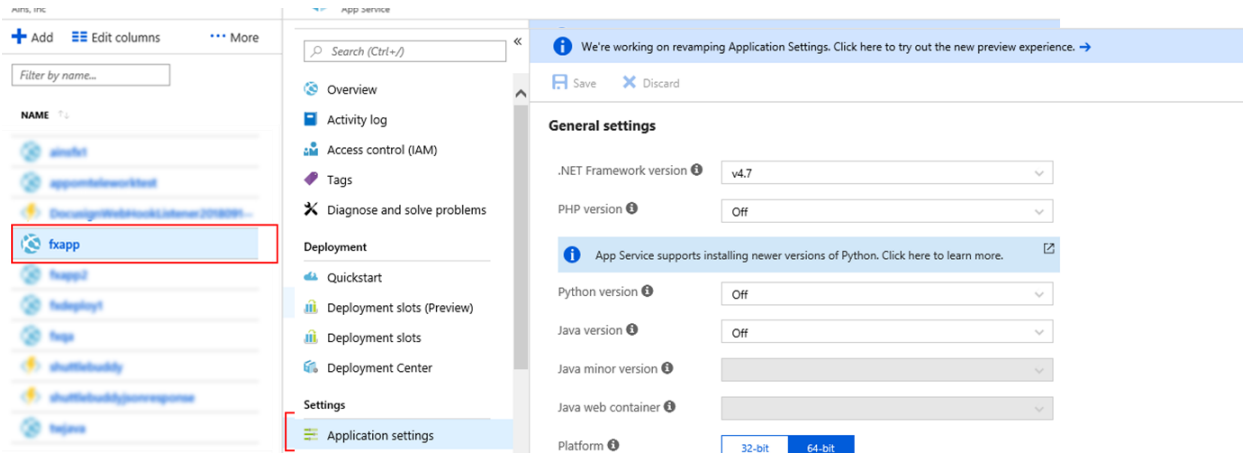
## 11.3 Configure the FOIAXpress App Service

Follow the steps below to configure the FX app service:

1. Navigate to the *Azure Portal* tab in your browser and select **Application Settings** within the *Settings* section in the middle pane.



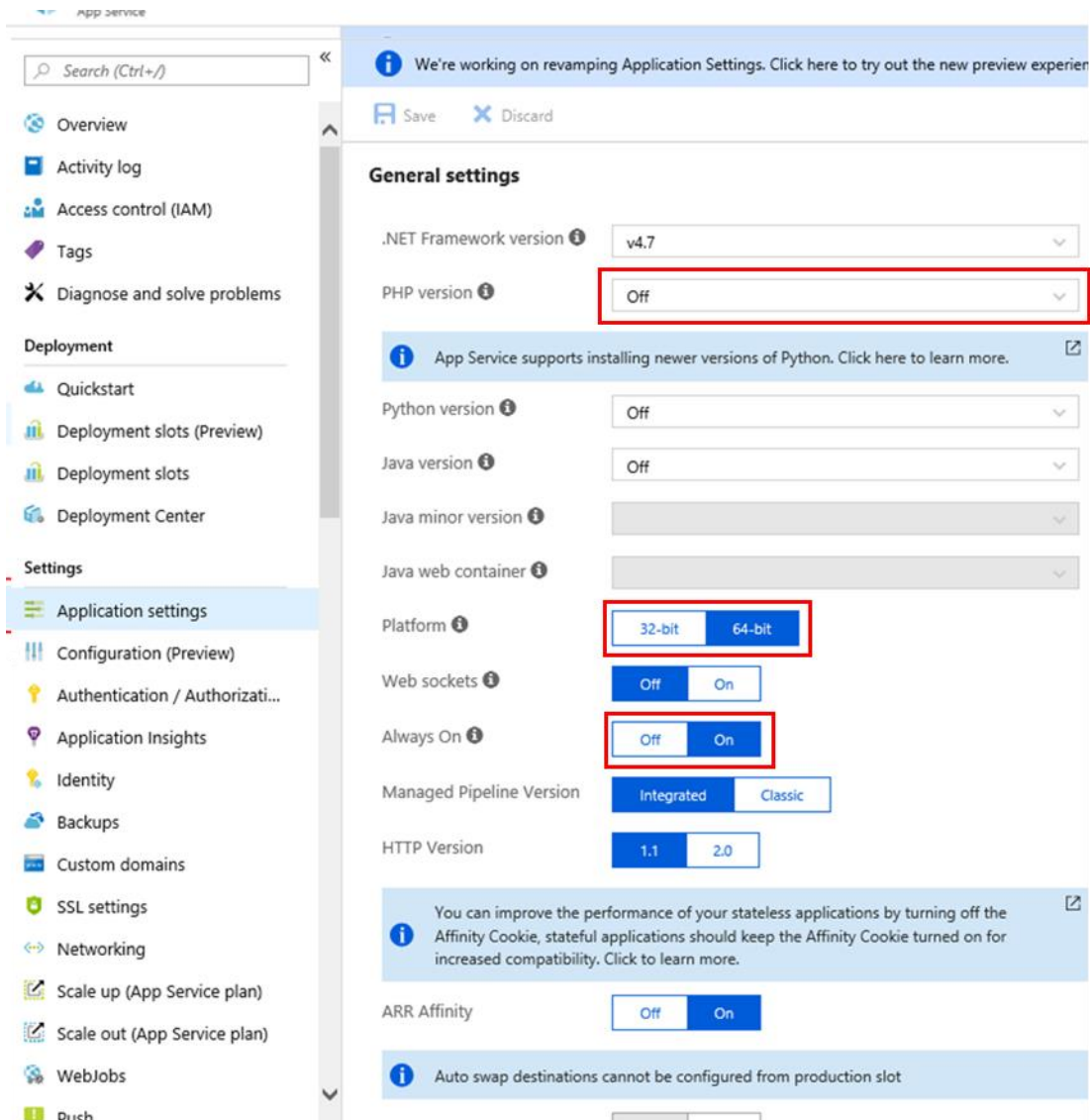
## Azure Post-Installation Procedures



2. Within *General Settings*, make the following changes and click **Save**.
3. Change the *PHP version* to **Off**.
4. Change the *Platform* setting to **64-bit**.
5. Change the *Always On* setting to **On**.



## Azure Post-Installation Procedures



6. Scroll down to *Application Settings*, click + **Add a new setting** to add each of the following settings and click **Save**:

App Setting Name	Value
WEBSITE_TIME_ZONE	Eastern Standard Time
APPINSIGHTS_PROFILERFEATURE_VERSION	Disabled
APPINSIGHTS_SNAPSHOTFEATURE_VERSION	Disabled



App Setting Name	Value
DiagnosticServices_EXTENSION_VERSION	Disabled
InstrumentationEngine_EXTENSION_VERSION	Disabled
SnapshotDebugger_EXTENSION_VERSION	Disabled
XDT_MicrosoftApplicationInsights_BaseExtensions	Disabled

Application settings

**i** Application Settings are encrypted at rest and transmitted over an encrypted channel. You can choose to display them in plain text in your browser by using the controls below.

**Hide Values** **Show Values**

APP SETTING NAME	VALUE	SLOT SETTING	DELETE
APPINSIGHTS_INSTRUMENTATIONKEY	Hidden value. Click to edit.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
APPINSIGHTS_PROFILERFEATURE_VERSION	Hidden value. Click to edit.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
APPINSIGHTS_SNAPSHOTFEATURE_VERSION	Hidden value. Click to edit.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ApplicationInsightsAgent_EXTENSION_VERSION	Hidden value. Click to edit.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DiagnosticServices_EXTENSION_VERSION	Hidden value. Click to edit.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
InstrumentationEngine_EXTENSION_VERSION	Hidden value. Click to edit.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SnapshotDebugger_EXTENSION_VERSION	Hidden value. Click to edit.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
WEBSITE_TIME_ZONE	Hidden value. Click to edit.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XDT_MicrosoftApplicationInsights_BaseExtensi...	Hidden value. Click to edit.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
XDT_MicrosoftApplicationInsights_Mode	Hidden value. Click to edit.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

- Within the *Connection Strings* section, click **+ Add** to add a new connection string. Enter the following values, substituting *YourSQLServerName*, *YourFXDatabaseName*, *YourFXDatabaseLoginID* and *YourFXDatabasePassword* that was provided during FOIAXpress database creation:

Name	ConnectionString
Value	Server= YourSQLServerName;Database= YourFXDatabaseName;Uid= YourFXDatabaseLoginID;Pwd= YourFXDatabasePassword;
Type	SQLServer



## Azure Post-Installation Procedures

### Connection strings

**i** Connection Strings are encrypted at rest and transmitted over an encrypted channel. You can choose to display them in plain text in your browser by clicking the **Show Values** button.

**Hide Values** **Show Values**

CONNECTION STRING NAME	VALUE	TYPE
ConnectionString	Hidden value. Click to edit.	SQLServer

[+ Add new connection string](#)

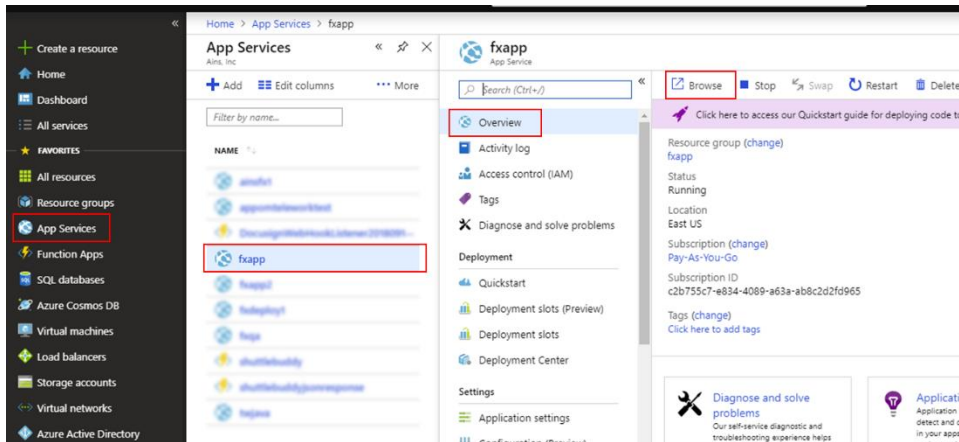
8. Click **Save**.
9. Navigate to the *Default Documents* section, remove all default entries, add login.aspx and click **Save** at the top of the pane.

### Default documents

DOCUMENT NAME
login.aspx

[+ Add new document](#)

10. Navigate back to the *Overview* section in the middle pane and click **Browse** to view the FOIAXpress application.



11. Once the application has finished loading, add FOIAXpress to your Trusted Sites.
12. Click the **cog** at the top right of the screen and select **Internet Options** from the drop-down list.
13. In the *Internet Options* window that appears, navigate to the *Security* tab.
14. Select the **Trusted sites zone** and click **Sites**. The *Trusted Sites* pop-up window appears.
15. Click **Add** and enter the FOIAXpress site to the list of Trusted sites.





## 11.4 Services Server Setup

The next step in the FOIAXpress Azure setup installs and configures the FOIAXpress Scheduler Service in an Azure VM environment. Complete the following steps for each Service server in the FOIAXpress Azure environment.

### 11.4.1 Install Required Dependencies

Follow the steps below to install required dependencies:

1. In the local copy of the setup files, locate the FOIAXpress\Server\Setup\VCRedist folder.
2. Install both versions of the Microsoft Visual C++ Redistributables: "vcredist2015\_x64.exe" and "vcredist2010\_x64.exe".

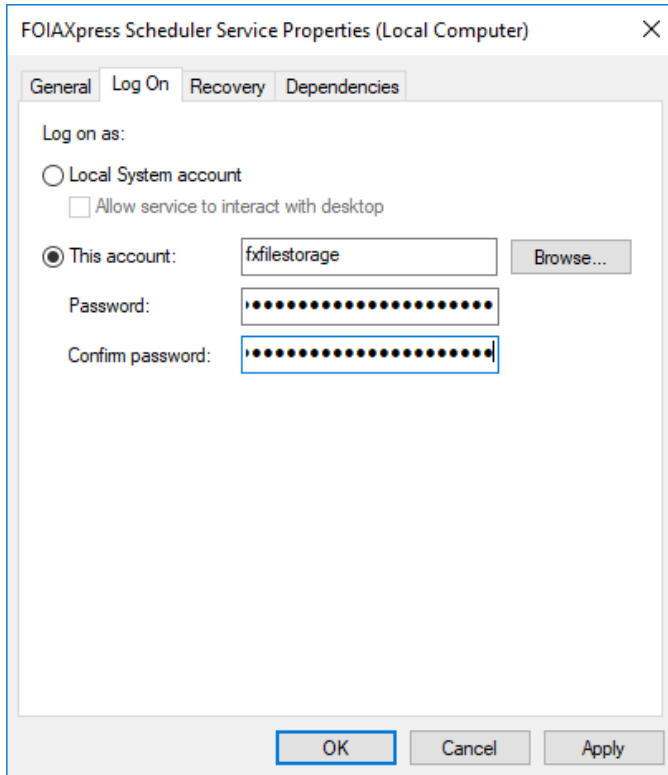
### 11.4.2 Configure the FOIAXpress Scheduler Service

Once the installation is finished, the FOIAXpress Scheduler Service is further configured to permit access to the Azure File Shares created in the first step of the FOIAXpress Azure setup process. Follow the steps below to configure the FX scheduler service.

1. Create a new user account on the FOIAXpress Services server using the username and password information obtained after creating the Azure File Shares.
2. In the example provided, username is "FXfilestorage" and password is "44yH0quDSOAmapeAKVGoNhqh3vEhD169U8n8SSyYS2jNNSmj5Z7n2znBQ2tTZSElw4GbE9RB/CwGesjesjyGlg==".



3. Grant Read and Write permissions to the newly created user for the FOIAXpress Scheduler Service installation folder ("C:\Program Files\AINS FOIAXpress\").
4. Grant Read and Write permissions to the newly-created user to the Windows system folder ("C:\Windows\Temp") to permit access to the Temp folder and .NET Framework resources.



5. Navigate to *Services* from the start menu and locate the *FOIAXpress Scheduler Service*. Right click on the service and select **Properties**. Click on the **Log On** tab and configure the Service to log on using the newly created user account.

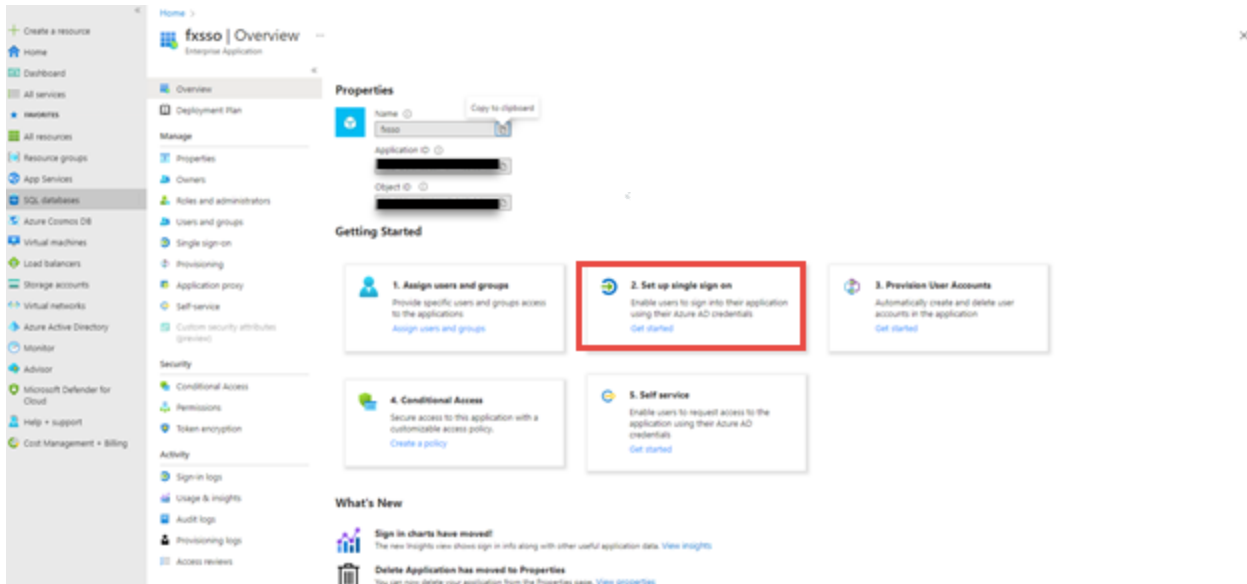
## 11.5 Steps to Configure Single Sign-On in Azure AD

The process to configure SSO in AD is described in the following steps:

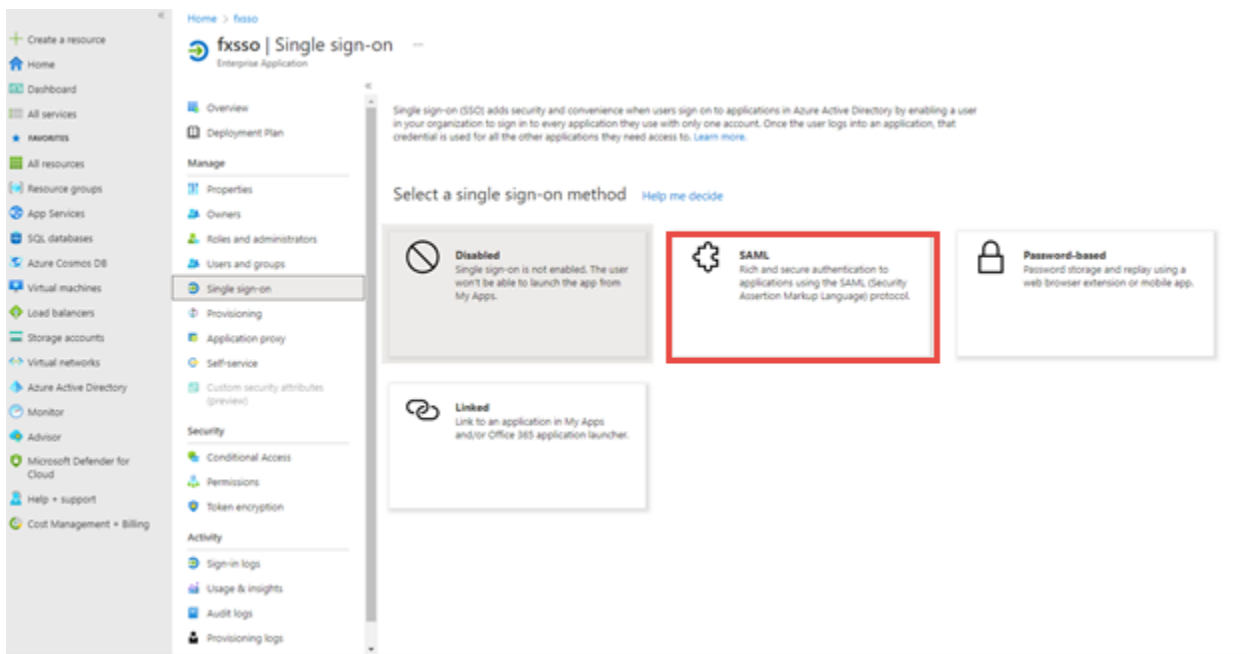
1. Login to the Azure portal and create an application for FOIAXpress (under **Enterprise Application**), and Select **Set up Single Sign On**:



## Azure Post-Installation Procedures



### 2. Next, select **SAML**:



### 3. Under Basic SAML Configuration, click **Edit**:



## Azure Post-Installation Procedures

Microsoft Azure

Home > Ains, Inc > fxsso > fxsso

### fxsso | SAML-based Sign-on

Enterprise Application

Overview | Deployment Plan | Manage

Properties | Owners | Roles and administrators | Users and groups | Single sign-on | Provisioning | Application proxy | Self-service | Custom security attributes (preview) | Security

Read the configuration guide for help integrating fxsso.

- Basic SAML Configuration**
  - Identifier (Entity ID): ATIPXPRESS
  - Reply URL (Assertion Consumer Service URL): https://dev.ains.com/atipxpress/HomePage.aspx
  - Sign on URL: Optional
  - Relay State (Optional): Optional
  - Logout URL (Optional): Optional
- Attributes & Claims**
  - givenname: user.givenname
  - surname: user.surname
  - emailaddress: user.mail
  - name: user.userprincipalname
  - Unique User Identifier: user.userprincipalname

4. Next, provide the (A) Identifier (Entity ID) and (B) Reply URL:
  - a. Identifier (Entity ID): Enter the name of your application site, i.e. FOIAXpressTest
  - b. Reply URL: Enter the following, using your org's app URL:  
https://[YOUR APPLICATION URL]/foiexpress/homepage.aspx

fxsso | SAML-based Sign-on

### Basic SAML Configuration

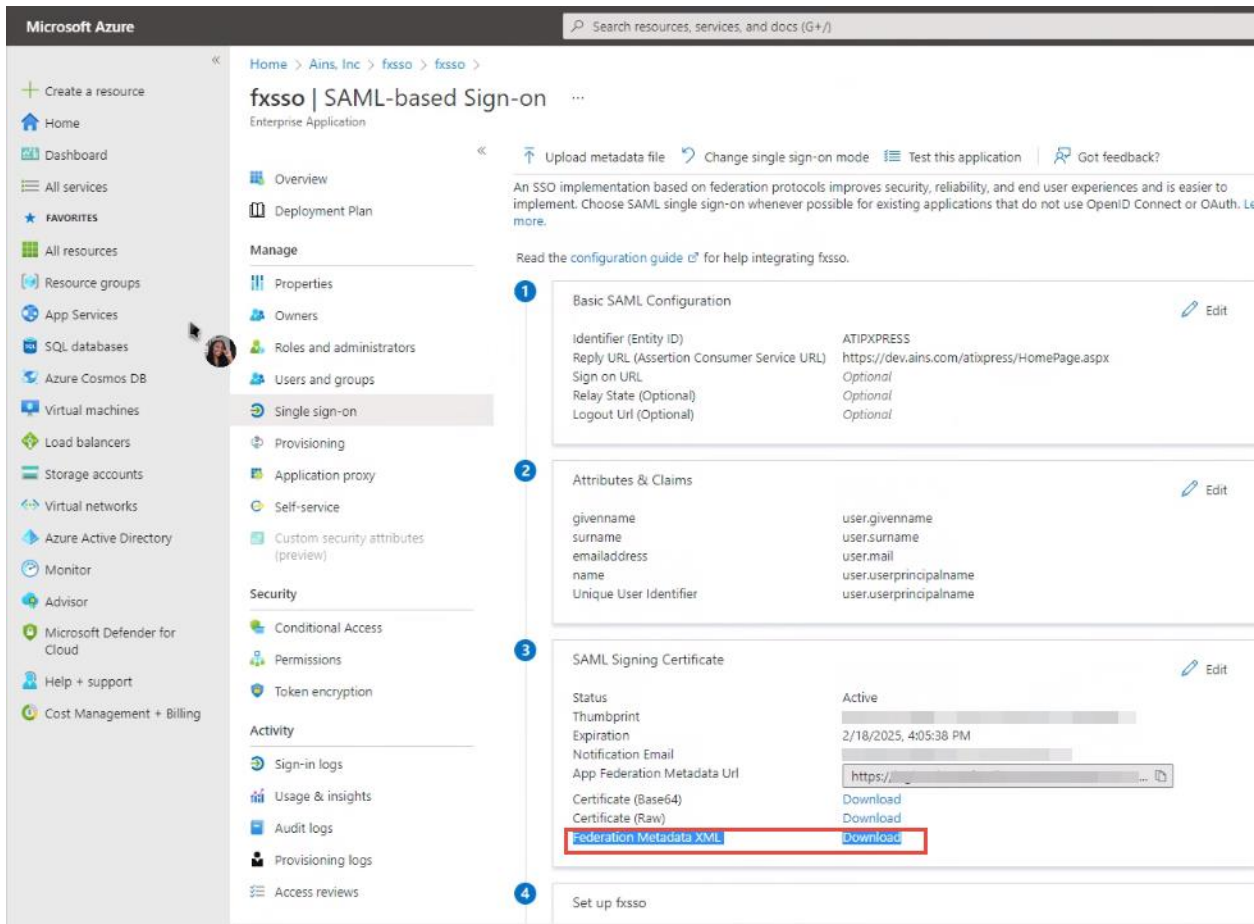
Identifier (Entity ID): ATIPXPRESS

Reply URL (Assertion Consumer Service URL): https://dev.ains.com/atipxpress/HomePage.aspx

Save | Get feedback?

5. Mark both the Identifier and Reply URL as **Default**, then click **Save**.
6. Once complete, download the **Federation Metadata XML** and email it to your OPEXUS Project Manager or Implementation Specialist.



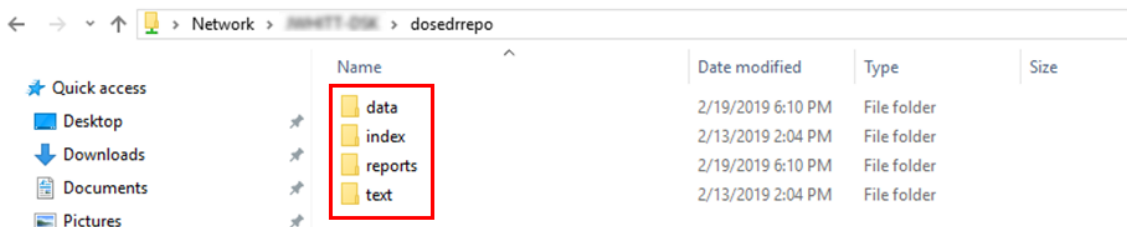


## 11.6 EDR in Azure

### 11.6.1 EDR File Repository Setup

The file repository required by the EDR module is created on one of the Azure VM instances in the FOIAXpress Azure environment. Follow the steps below to create the repository:

1. Create a root-level repository folder in C:\ ("edrrepo"). Add the following subfolders: data, index, reports, and text.
2. Share the root folder with the user account created on the FOIAXpress Services server ("FXfilestorage") with Read/Write access and note the UNC path that is designated for the share ("\\MachineName\edrrepo").



## 11.6.2 EDR File Repository Configuration

The FOIAXpress Database will also store information about the location of the EDR File Repository folders. Once the EDR File Repository folders are created, this information can be updated through the FOIAXpress web application.

1. Log in to the FOIAXpress web application using the admin user account.
2. Navigate to the *Administration* screen, select the **Electronic Document Review (EDR)** section in the sidebar and open the **EDR Configuration** menu.
3. Provide the relevant path information to the *Path* sections:
  - a. *Data Path Root*, *Index Path Root*, *Reports Path* and *Text Path Root* are the UNC location of the corresponding Azure VM shared folders.
  - b. *EDR File Download Url* is the URL associated with the EDRFileDownload web service (“http://<EDRServerIP>/EDRFILEDOWNLOAD”).

The screenshot shows the 'EDR Configuration' web application interface. It features a sidebar with the 'EDR Configuration' menu item selected. The main content area contains several configuration fields:

- File extensions to exclude from indexing \***: A text box containing a list of file extensions: db, mdb, exp, ilk, res, trg, tlh, idb, pdb, pch, opt, lib, cab, mov, psp, bmp, chi, c, hm, com, dll, exe, gif, hlp, ivt, ixt, jpeg, jpg, msi, nls, obj, odc, rmi, tif, tiff, tmp, vb, wpg. Below the text box is a note: "(Note: To enter multiple extensions use a comma as a separator with NO SPACES between file extensions)".
- Data Path Root \***: A text box containing the UNC path: "\\<EDRRepoVM>\dosedrrrepo\Data". Below the text box is a format hint: "(Format: \\ServerName\FolderName)".
- Index Path Root \***: A text box containing the UNC path: "\\<EDRRepoVM>\dosedrrrepo\Index". Below the text box is a format hint: "(Format: \\ServerName\FolderName)".
- Text Path Root \***: A text box containing the UNC path: "\\<EDRRepoVM>\dosedrrrepo\Text". Below the text box is a format hint: "(Format: \\ServerName\FolderName)".
- Reports Path \***: A text box containing the UNC path: "\\<EDRRepoVM>\dosedrrrepo\Reports". Below the text box is a format hint: "(Format: \\ServerName\FolderName)".
- Edr File Download Url \***: A text box containing the URL: "http://<WebServiceIP>/EDRFILEDOWNLOAD".