ATIPXpress

OPEXUS

PAL Deployment Manual

Version 1.2

v11.1.0

May 2023
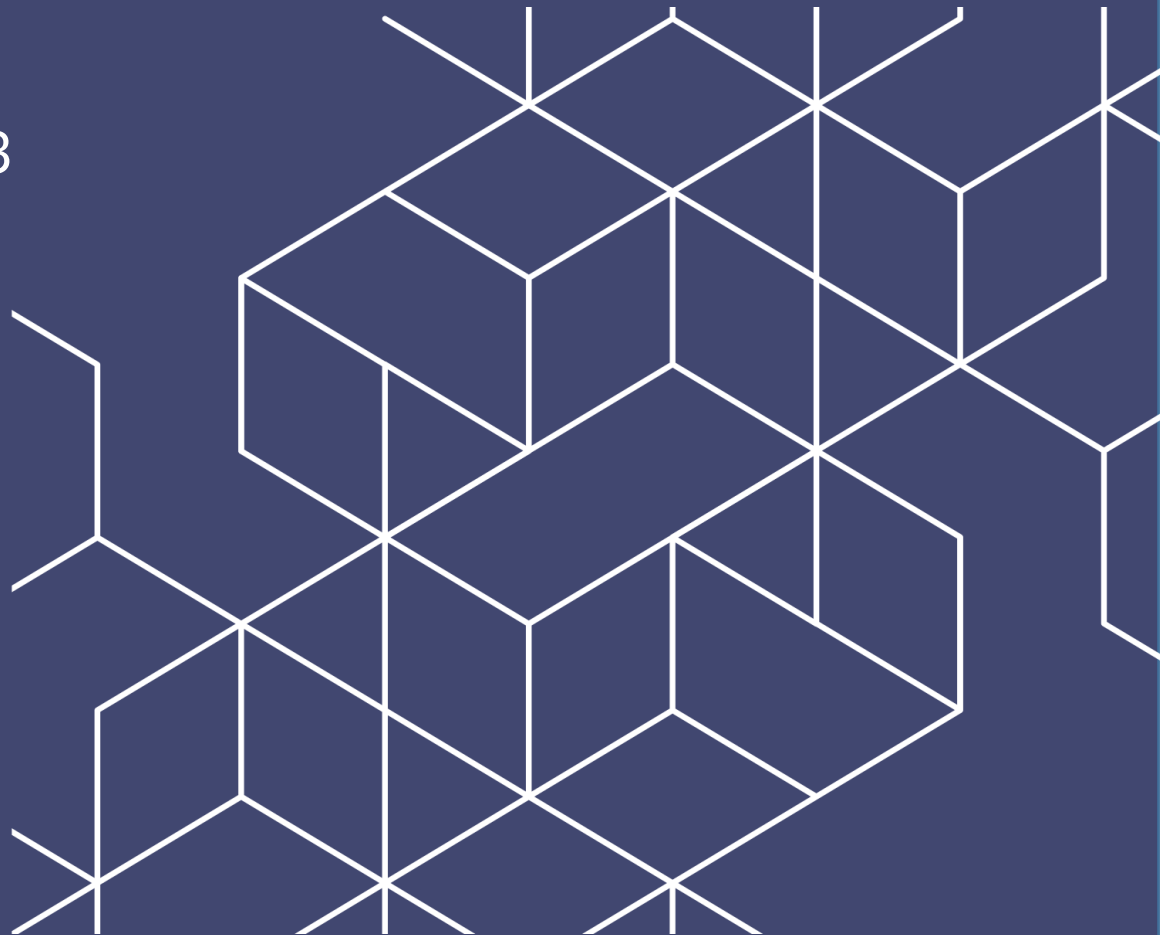
AX 11.1.0 PAL Deployment Manual

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Version History

#	Date	Description
1.0	3/1/2023	New document for v11.1.0
1.1	4/10/2023	Updated the Deployment System Requirements to specify compatibility with only Windows 2016 and 2019.
1.2	5/3/2023	- Updated *Install SQL Server Module* (2.3) to include steps to unblock the .zip file. - Added the *Download the Installation Package* (3) section, as well as steps to unblock the .zip file.

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1 ATIPXpress PAL Deployment Introduction

The purpose of this document is to provide instructions for creating the ATIPXpress Public Access Link (PAL) database and installing the ATIPXpress PAL application.

ATIPXpress PAL facilitates the submission of Freedom of Information Act (ATIP) requests over the internet and allows information to be published to the Electronic Reading Room. ATIPXpress PAL supports SQL Databases.

(!!) Notes:

- **This document does not provide instructions for installing windows server or Microsoft .net. Please consult your software vendor for further details concerning these installations.**
- **A single server can be used to install ATIPXpress PAL and all its components, however it is highly recommended to configure separate servers for the ATIPXpress application, database, and repository due to the processing demands of the CPU.**

1.1 Installation Option 1: External PAL Database

The PAL application URL will be accessible by the public for submitting ATIP requests to your agency. However, the web server and database server must remain secure. Installation option 1 includes the following configuration:

- The PAL Database, PAL Application, and PAL File Server are installed in the External network (DMZ).
- The ATIPXpress Application, ATIPXpress Database, and all applicable services are installed in the local intranet.
- The Database Port and HTTPS port are enabled to allow the PAL modules to communicate with ATIPXpress.

The figure below shows a diagram of Installation Option 1.

1.2   Installation Option 2: Intranet PAL Database

The PAL application URL will be accessible by the public for submitting ATIP requests to your agency. However, the web server and database server must remain secure. Installation Option 2 includes the following configuration:

- The PAL Application and PAL File Server are installed in the External network (DMZ).
- The PAL Database, ATIPXpress Application, ATIPXpress Database, and all applicable services are installed in the local intranet. This option offers more security on the PAL database side.
- The HTTPS port is enabled to allow the PAL File Server to communicate with ATIPXpress.

The figure below shows a diagram of Installation Option 2.

ATIPXpress PAL Installation Option 2
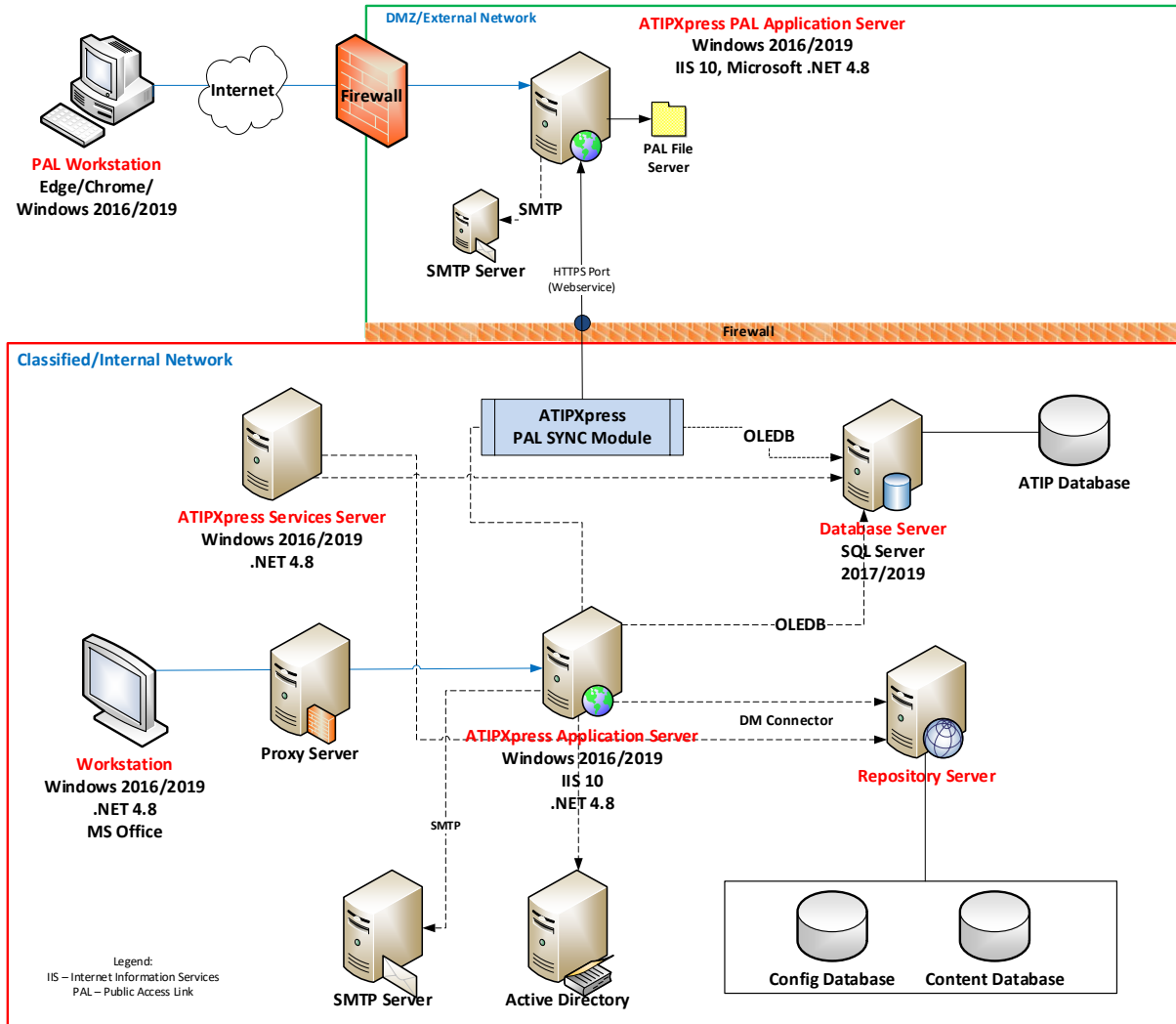
2 PAL Installation Prerequisites

2.1 ATIPXpress PAL Deployment System Requirements

Before proceeding with the installation, it is necessary to do the following:

- Install Microsoft SQL Server 2017/2019 on the database server.
- Configure the SMTP Server to relay email to the email server while using ATIPXpress PAL. The SMTP server must be configured to relay e-mail messages to other domains.
- Before installing the ATIPXpress PAL database, make sure SQL Server collation is configured for case-insensitive.

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.
Operating System Requirements	Windows 2016/2019
URL Rewrite	Install the Microsoft IIS URL Rewrite extension, available via https://www.iis.net/downloads/microsoft/url-rewrite

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

2.2 ATIPXpress PAL Database Account Requirements

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

Account	Purpose	Requirement
Application Setup	This user installs and configures the ATIPXpress PAL application and its components.	This account is set up as a Domain/Local User and is a member of the Administrators on server groups.
ATIPXpress PAL Database Creation	This user sets up the PAL database user account and grants any required permissions.	This account is added to the following SQL Server security roles for the user that will create the database either in SQL Server (Windows User) or Windows Authentication Mode (NT User): • dbcreator • securityadmin
ATIPXpress PAL Database User	This user performs all ATIPXpress PAL database transactions required for the ATIPXpress PAL Application.	This account must be assigned as a member of the db_owner database role for the ATIPXpressPAL SQL Server database.

2.3 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**:

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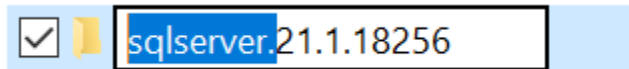
8. Navigate to *C:\ProgramFiles\WindowsPowerShell\Modules* and create a folder called **SqlServer**.
9. Copy the renamed .zip folder from the downloaded location to the *SqlServer* folder created in the previous step (*C:\ProgramFiles\WindowsPowerShell\Modules\SqlServer*)

2.4 Enabling Windows Search Service

Windows Search Service allows users to perform search operations on the server. This service is required to perform content searches on documents located in the PAL Reading Room.

(!!) Notes:

- **Administrators are not be able to install windows search services if the indexing service is installed on the server. They must uninstall the indexing service then install the windows search service.**
- **This service must be enabled on the application server.**

Follow the steps below to enable Windows Search Service:

10. Click **Start > Server Manager**. The *Server Manager* application appears.
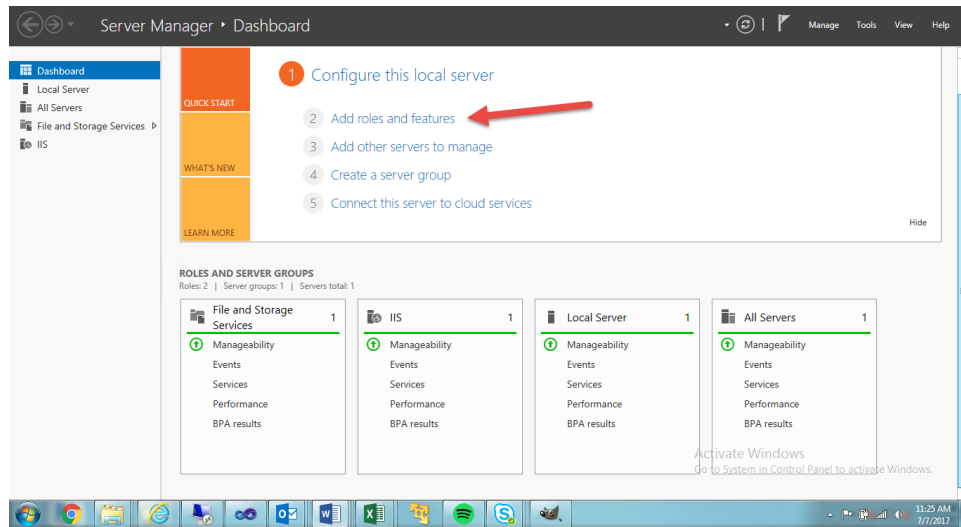
11. Click **Add roles and features**. The *Add Roles and Features Wizard* pop up window appears.
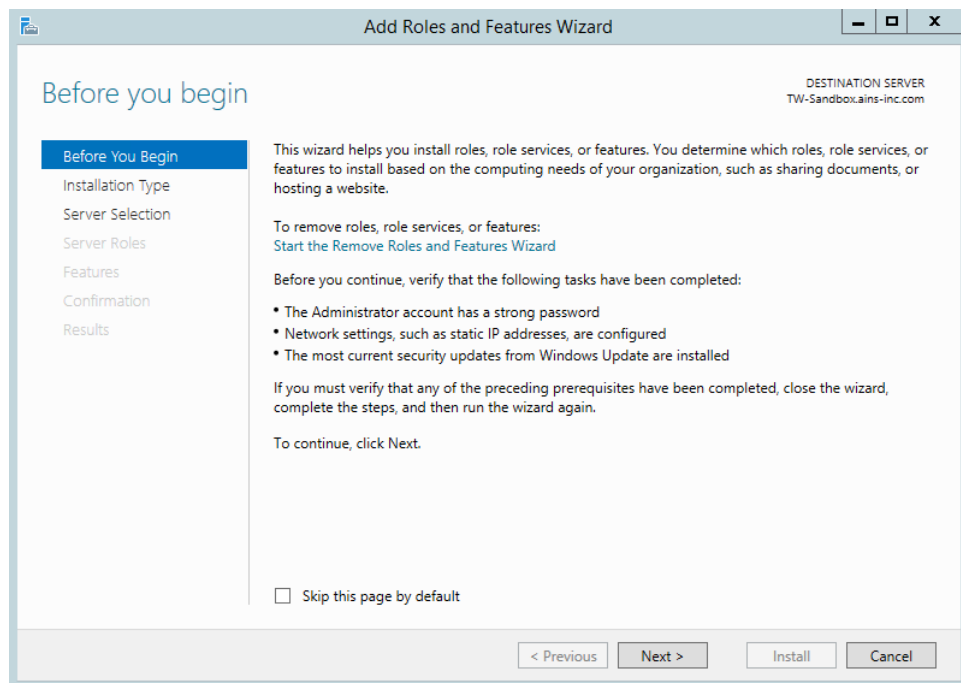
12. Click **Next**. The *Select installation type* window appears.

13. Select **Role-based** or **Feature-based** installation using the radio buttons.

14. Click **Next**. The *Select Destination Server* pop up window appears.

15. Select **a server or a virtual hard disk** using the radio buttons.

16. Click **Next**. The *Select server roles* pop up window appears.
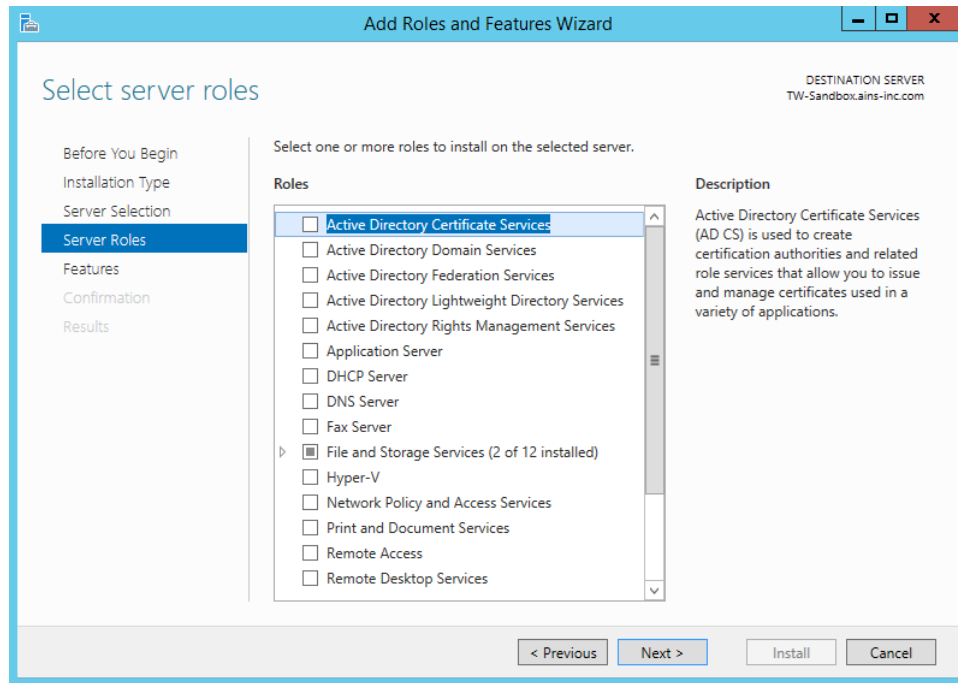
17. Click **Features** from the left-hand menu, then select **Windows Search Service**.
18. Click **Next**. The *Confirm installation selections* pop up window appears.
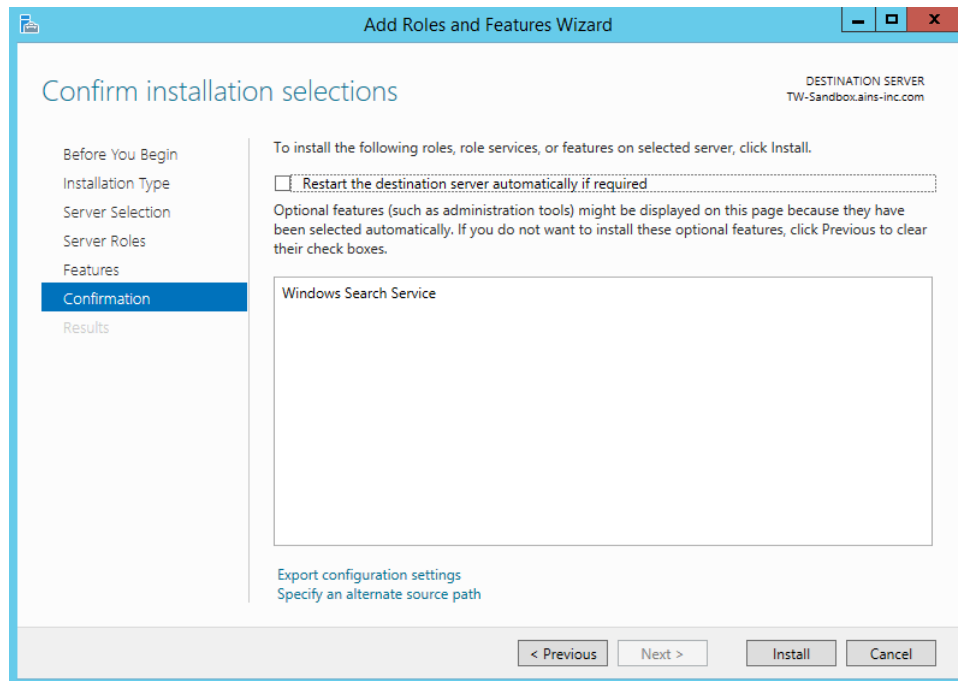
19. Click **Install** to start the installation process. The *Installation progress* pop up window appears:
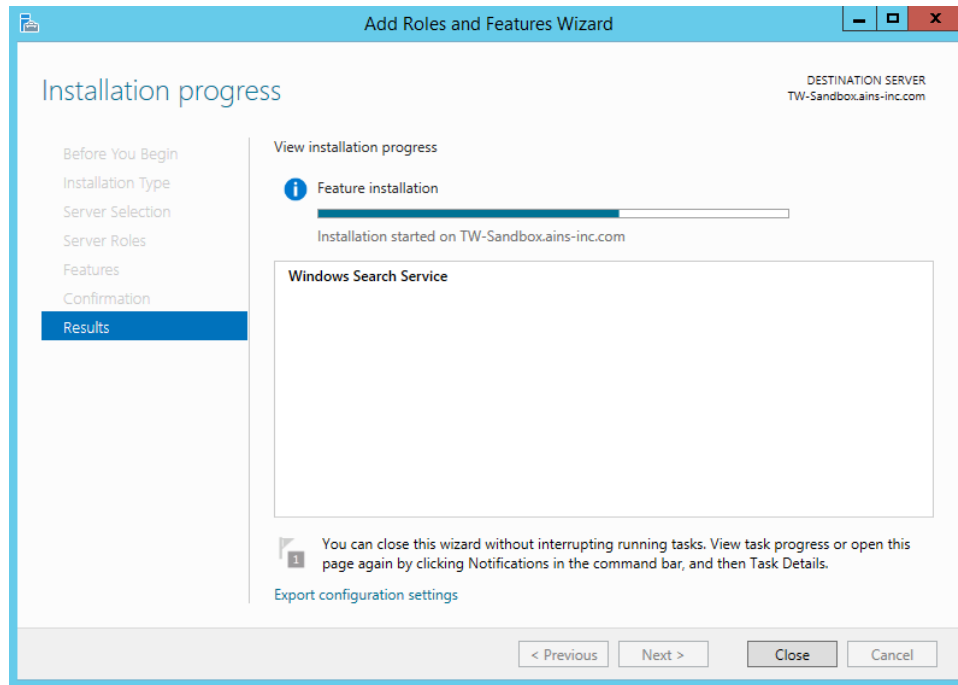
20. The installation process begins. This may take a few moments. After the installation completes a confirmation window appears.
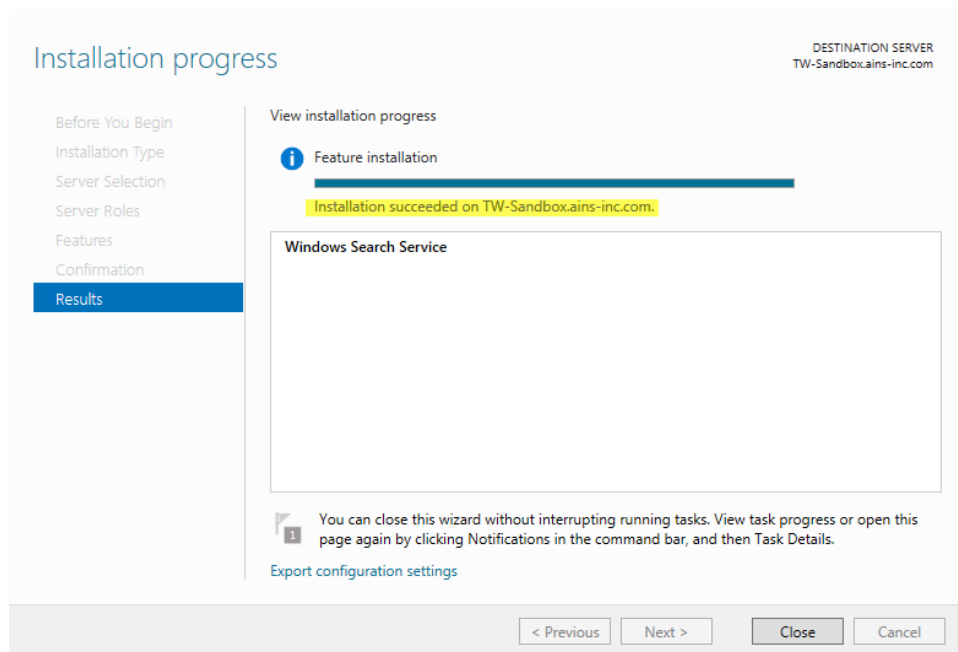
21. Click **Close** to exit the *Add Roles Wizard*.

2.5 Enable TIFF files in Windows Search Service

TIFF is a file format for storing images. TIFF files are not enabled for search by default; therefore you must enable the Windows TIFF IFilter feature in order to search TIFF files.

22. Click **Start > Server Manager**. The *Server Manager* application launches, as shown below.
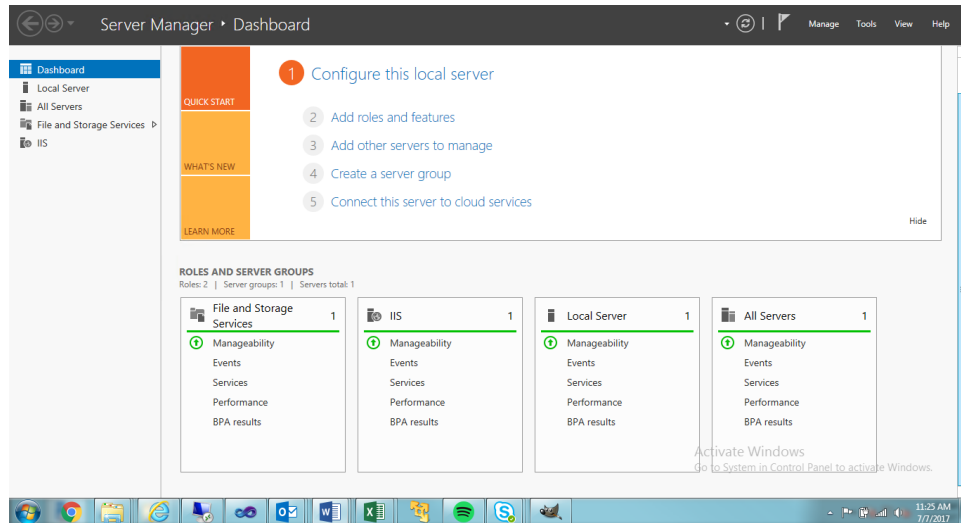
23. Click **Add roles and features**. The *Add Roles* and *Features Wizard* pop up window appears.

24. Click **Next.**

25. Select Role-based or feature-based installation.
26. Click **Next**.

27. Select from the available options.
28. Click **Next**.
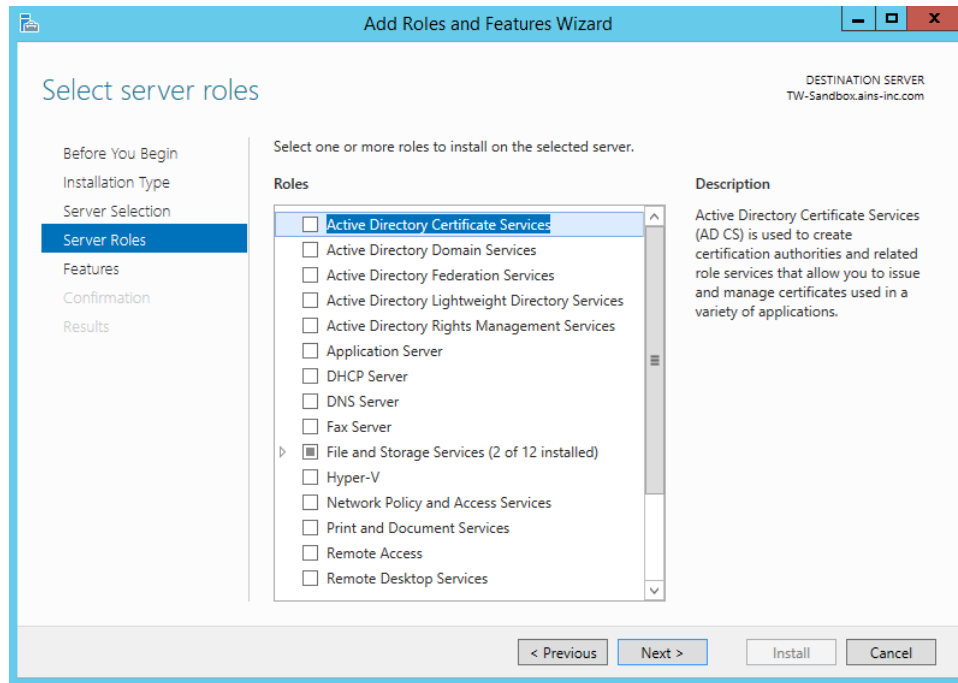
29. Select **Features**.
30. Select Windows TIFF IFilter.
31. Click **Next**.
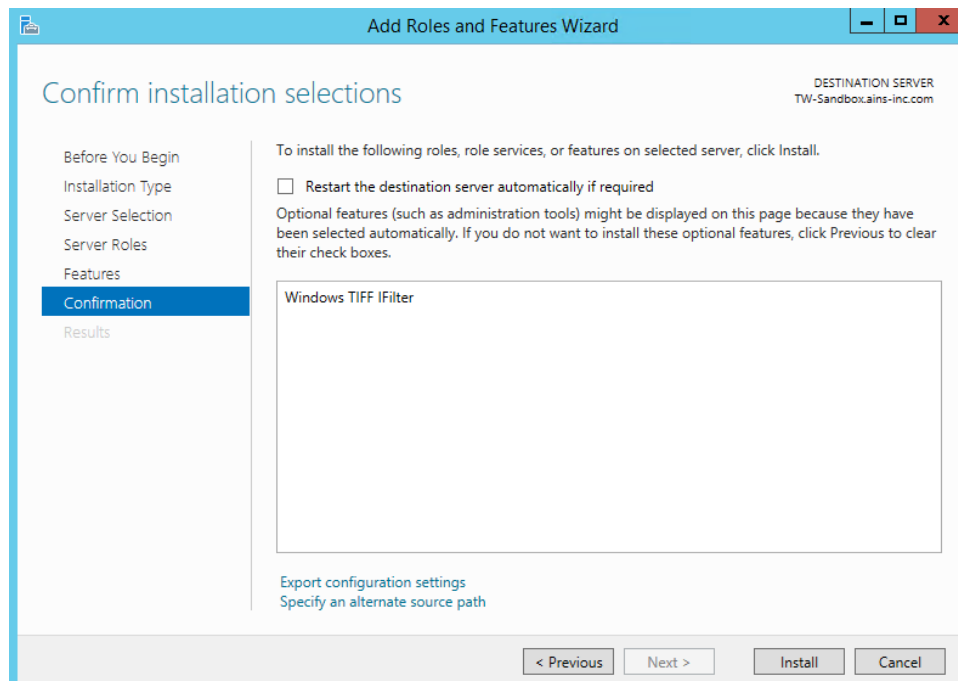
32. Click **Install**.
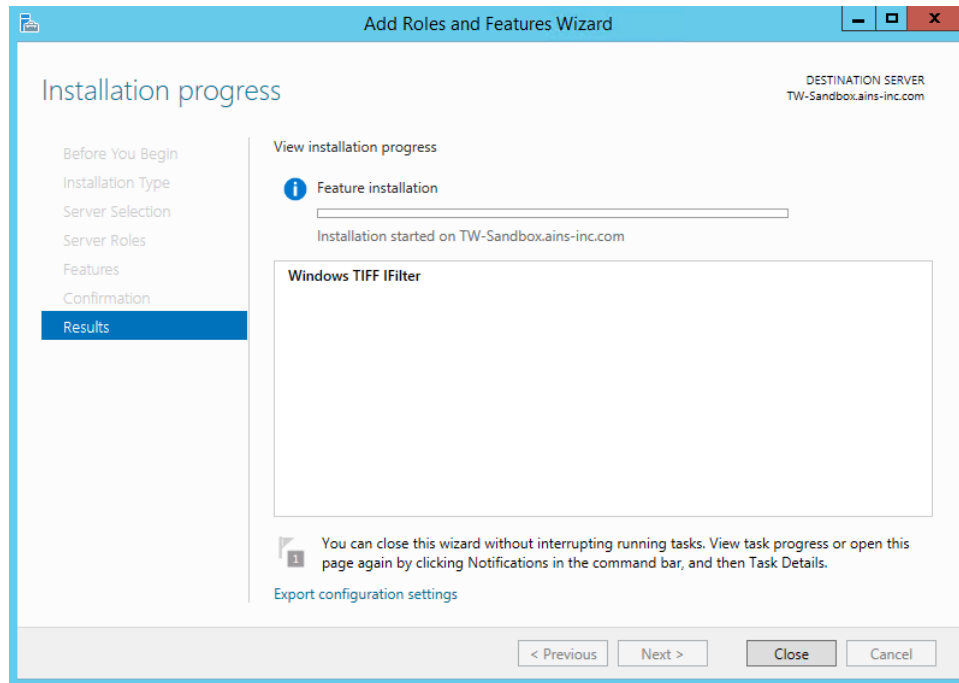
33. The installation process continues. This may take a few minutes. On conclusion, an installation confirmation appears:
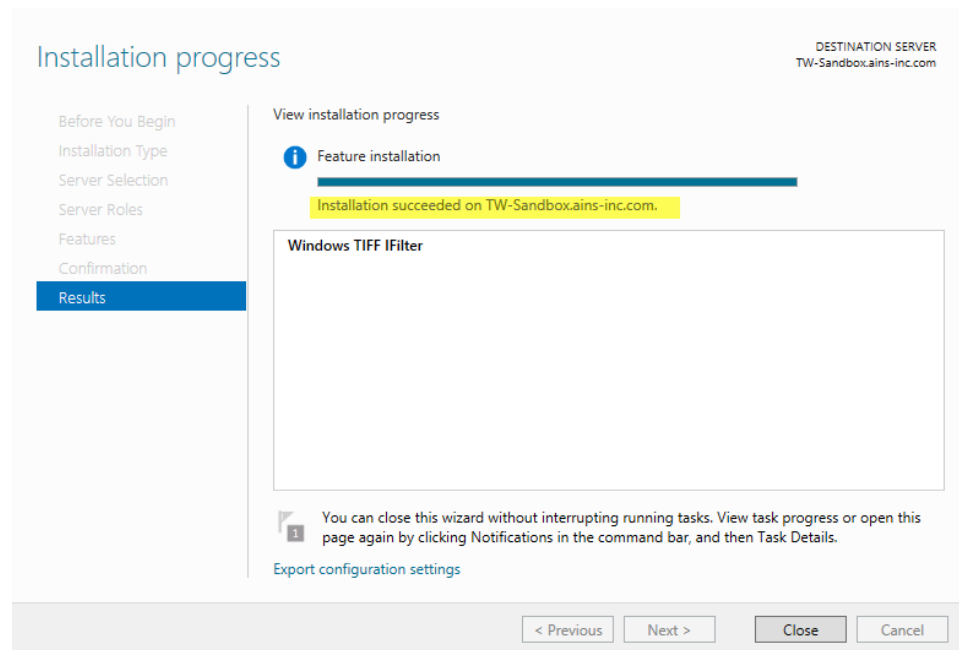
34. Click **Close** to exit the *Add Roles Wizard*.

2.6 Enable PDF in Windows Search Service

PDF files are not enabled for search by default; you must install the Adobe PDF IFilter feature in order to search PDF files. Follow the steps below to enable PDF in Windows Search Service.

1. Download and install Adobe PDF IFilter 9 from the following link:
    ftp://ftp.adobe.com/pub/adobe/acrobat/win/9.x/.
2. Restart the Windows Search Service after installing Adobe PDF IFilter 9/11:
    a. Click **Start > Administrative Tools > Services**. The *Services* application launches.
    b. Scroll down and select **Windows Search**.
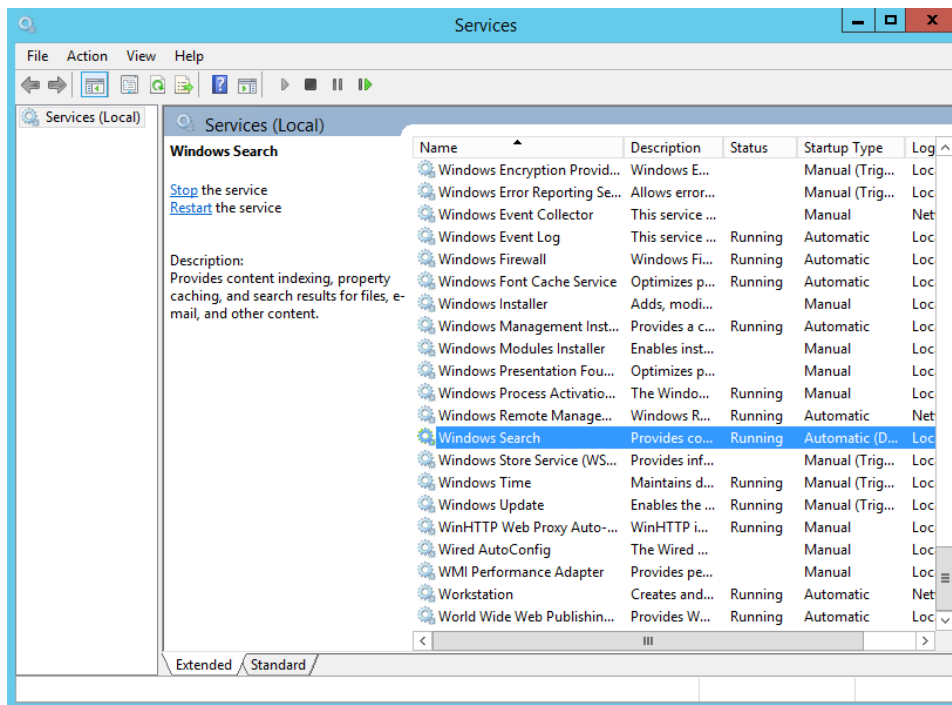
3. Click **Action > Restart**. The Service *Control* pop up window appears.
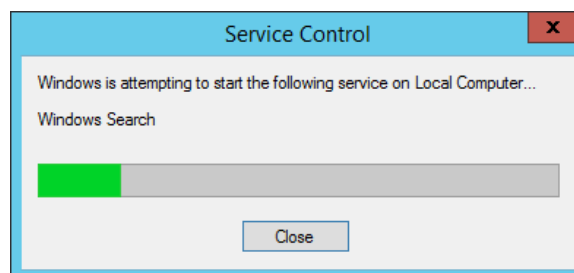
4. Select **File > Exit** to close the *Services* application.

5. Click **Start > Control Panel > Indexing Options**. The *Indexing Options* pop up window appears.
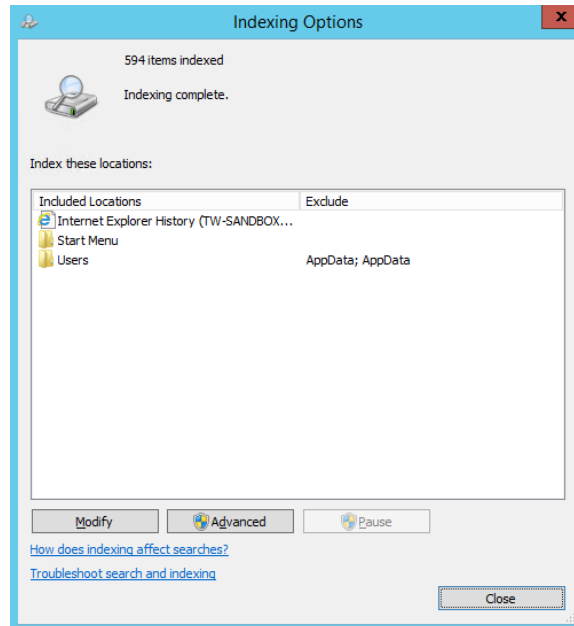
6. Click **Advanced**. The *Advanced Options* pop up window appears.
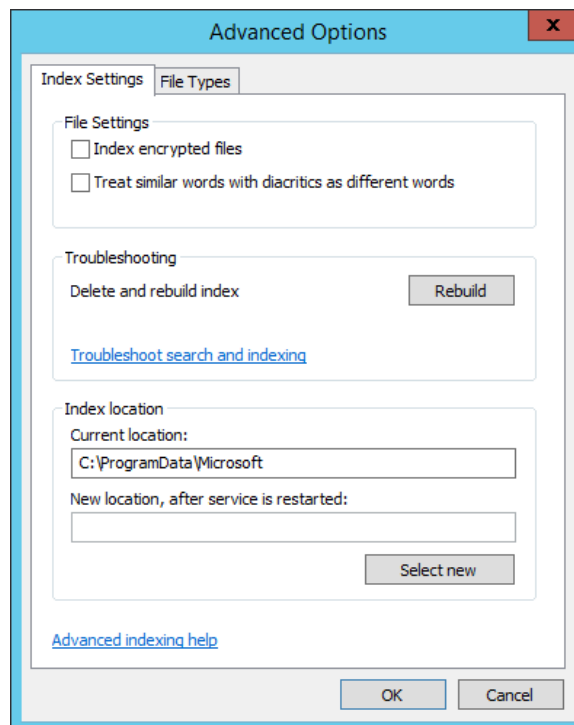
7. Click the **Rebuild** button located in the *Troubleshooting* section. The *Rebuild Index* pop up window appears.
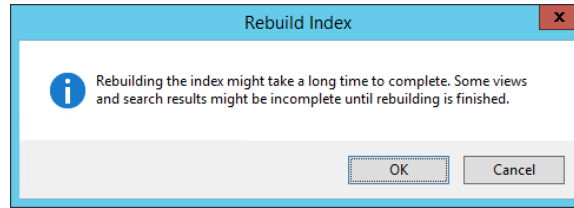
8. Click **OK**. The *Indexing* Options window changes to display the rebuild progress. This may take several minutes to complete. Once the rebuild is completed, the *Indexing Options* window will indicate the total number of items rebuilt.
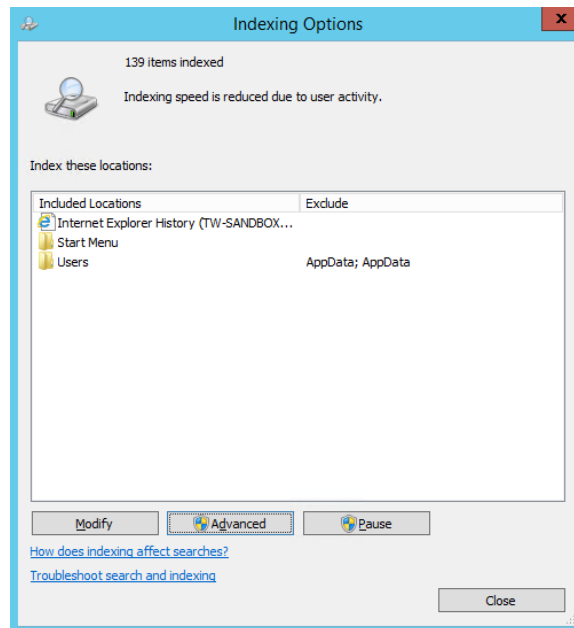
9. Click **Close** to exit the Indexing Options feature.
10. Close the *Control Panel* window.

3   Download the Installation Package

The FOIAXpress installation package contains the files needed to install ATIPXpress PAL. Contact OPEXUS support at 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:

□ 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

3.1   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:

3.2   About the Installation Package

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

4. *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.

5. *Install.ps1*: The executable file you will run to deploy the installation package with the parameters configured in the Inputs.json file.

4 Inputs.Json Settings for New Installations

4.1 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 ATIPXpress PAL 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": {
```

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.

4.2 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
New	Determine whether this is a new installation. For new installations this should be a "Y" value
Upgrade	Determine whether this is an upgrade for an existing application. For new installations this should be a "N" value

4.3 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",
    "DB": "N"
```

Setting	Description
APP	Include the ATIPXpress PAL Application in this installation procedure. This should be a "Y" value for new installations.
DB	Include the ATIPXpress PAL Database in this installation procedure. This should be a "Y" value for new installations.

4.4 Application and Scheduler

The "APPANDSCHEDULER" section has settings related to the ATIPXpress PAL 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.

```
"APP": {
  "InstallLocation": "C:\\Program Files",
  "BackupLocation": "C:\\Backup",
  "SSLCert": {
    "CertPath": "<<CERTIFICATE PATH>>",
    "CertPassword": "<<CERTIFICATE PASSWORD>>"
  },
  "PALSSLCert": {
    "SSLPort": "<<PAL SSL PORT>>",
    "DnsName": "PAL"
  },
  "PALConfigSSLCert": {
    "SSLPort": "<<PAL CONFIG SSL PORT>>",
    "DnsName": "PALConfig"
  },
  "AppPool": "PALAppPool"
```

Setting	Description
InstallLocation	Specify a path for the application installation. Note this must be a file path for the .json file the execute.

Setting	Description
BackupLocation	Specify a path for the application backup location. Note this must be a file path for the .json file the execute
SSLCert	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.
CertPath	Specify a path where the .pfx certificate file is located. Note this must a file path for the .json file to execute
CertPassword	Enter the password associated with the certificate linked in the "CertPath" field
PALSSLCert	The following lines contain the PAL SSL Certificate information
SSLPort	The network port designated for PAL's secure communications using SSL
DnsName	DNS name associated with the PAL application
PALConfigSSLCert	The following lines contain the PAL Configuration SSL Certificate information
SSLPort	The network port designated for PAL Configuration to communicate securely using SSL
DnsName	DNS name associated with PAL Configuration
AppPool	Enter the name of the application pool associated with your ATIPXpress application,

4.5 Database Settings

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

```
"DB": {
  "DBServer": "PROJ-FX-SQL01",
  "DBName": "FXPALDB_ASHOK_0216231",
  "CreaterDBUserId": "sa",
  "CreaterDBUserPassword": "Ains$400",
  "IntegratedSecurity": "N",
  "AgentAccount": "<<AGENT NAME TO CONNECT PAL DB>>",
  "AgentAccountPassword": "<<AGENT PWD>>",
  "AgentAccountIntegratedSecurity": "N"
```

Setting	Description
DBServer	Name assigned to the server responsible for storing, retrieving, and managing ATIPXpress data
DBName	Name given to the specific database used for ATIPXpress
CreaterDBUserID	Database User ID to be used for this installation. The CreaterDBUserId should have admin rights with the ability to create a new database or database object on the specified Database server
CreaterDBUserPassword	Password associated with the account used in the "CreaterDBUserID" field
IntegratedSecurity	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.

Setting	Description
AgentAccount	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
AgentAccountPassword	The SQL server Agent Account password specified in the AgentAcount setting
AgentAccountIntegratedSecurity	Whether integrated security should be used when connecting to the database, default is "N"

4.6 Configuration Settings

Settings to configure the PAL Administration user details as well as the basic Organization details.

```
"Configuration": {
  "AdminUser": {
    "FirstName": "Admin",
    "LastName": "Admin",
    "Email": "<<EMAIL ID>>",
    "Login": "Administrator",
    "Password": "<<PASSWORD>>"
  },
  "Organization": {
    "Name": "<<ORGANIZATION NAME>",
    "Email": "<<ORG EMAIL ID>>"
```

Setting	Description
AdminUser	Fields to configure the PAL Administration admin user details
FirstName	First name for the PAL Admin user
LastName	Last name for the PAL Admin user

Setting	Description
Email	Email ID associated with the PAL Admin user
Login	Login ID for the PAL Admin user
Password	Password associated with the Login ID provided above
Organization	Details about the organization as configured for PAL
Name	Organization name
Email	Email ID associated with the organization

5   Inputs.json Settings for PAL Upgrade

This section discusses the inputs.json settings used when upgrading an existing AX PAL 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.

5.1   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
New	Determine whether this is a new installation. For upgrades this should be a "N" value
Upgrade	Determine whether this is an upgrade for an existing application. For upgrades this should be a "Y" value

5.2   Install Components

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

```
      },
      "Components": {
        "APP": "Y",
        "DB": "N"
```

Setting	Description
APP	Include the ATIPXpress PAL Application in this upgrade procedure.
DB	Include the ATIPXpress PAL Database in this upgrade procedure.

5.3 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.

```
"APP": {
  "InstallLocation": "C:\\Program Files",
  "BackupLocation": "C:\\Backup",
  "SSLCert": {
    "CertPath": "<<CERTIFICATE PATH>>",
    "CertPassword": "<<CERTIFICATE PASSWORD>>"
  },
  "PALSSLCert": {
    "SSLPort": "<<PAL SSL PORT>>",
    "DnsName": "PAL"
  },
  "PALConfigSSLCert": {
    "SSLPort": "<<PAL CONFIG SSL PORT>>",
    "DnsName": "PALConfig"
  },
  "AppPool": "PALAppPool"
```

Setting	Description
InstallLocation	Specify a path for the application installation. Note this must be a file path for the .json file the execute.
BackupLocation	Specify a path for the application backup location. Note this must be a file path for the .json file the execute

5.4 Database Settings

The "DB" section contains the settings for installing or upgrading your ATIPXpress 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": "PROJ-FX-SQL01",
    "DBName": "FXPALDB_ASHOK_0216231",
    "CreaterDBUserId": "sa",
    "CreaterDBUserPassword": "Ains$400",
    "IntegratedSecurity": "N",
    "AgentAccount": "<<AGENT NAME TO CONNECT PAL DB>>",
    "AgentAccountPassword": "<<AGENT PWD>>",
    "AgentAccountIntegratedSecurity": "N"
```

Setting	Description
DBServer	Name assigned to the server responsible for storing, retrieving, and managing ATIPXpress data
DBName	Name given to the specific database used for ATIPXpress

Setting	Description
CreaterDBUserID	Database User ID to be used for this installation. The CreaterDBUserId should have admin rights with the ability to create a new database or database object on the specified Database server
CreaterDBUserPassword	Password associated with the account used in the "CreaterDBUserID" field
IntegratedSecurity	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.

5.5 Configuration Settings

Settings to configure the PAL Administration user details as well as the basic Organization details.

(!!) Note: These fields can remain as-is during the upgrade.
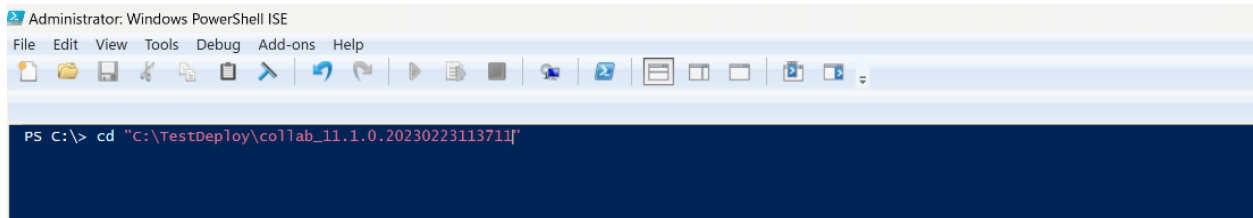
6   Install PAL

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.
- Complete the procedures described in the PAL Installation Prerequisites section.
- Download, verify, and extract the ATIPXpress PAL Installation package.
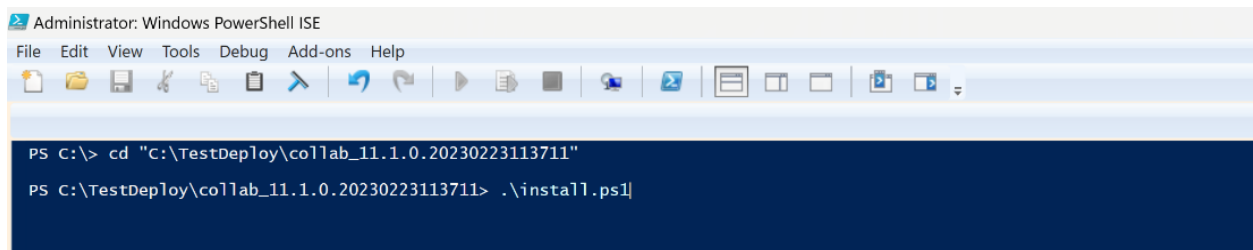- Configure the Inputs.json file for your installation.

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

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

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

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.

7   Sync Service (PAL)

This section provides instructions to configure the ATIPXpress Sync Service (PAL) and permissions. This section is relevant only if PAL is installed on your Web server.

7.1   Public Module Database Server and Database Information

(!!) Notes:

- **Prior to configuring ATIPXpress Sync Service, ensure that the PAL Database has been created.**
- **The Download Document location is with respect to the ATIPXpress Sync Service only if you are using database configuration for your Sync Service. The configured user of the ATIPXpress Sync Service should have Full Control Security permissions on the Download Document location.**
- **The Download Document folder should be manually created on the local or remote system. Ensure that the ATIPXpress PAL application and the Download Document folder path (local or UNC) is accessible by the IIS user on the system where the ATIPXpress PAL application is installed. The path for the Download Document folder should be accessible by creating the virtual directory (DOWNLOADDOCUMENTS) on the ATIPXpress PAL application server.**
- **The Electronic Reading Room folder should be manually created on the local or remote system. Ensure that before the IIS user accesses the ATIPXpress PAL application, the Electronic Reading Room folder path (local or UNC) is accessible to the system on which the ATIPXpress PAL application is installed. The path for the Electronic Reading Room folder should be accessible by creating the virtual directory (ELECTRONICREADINGROOMDOCUMENTS) on the ATIPXpress PAL application server.**

To configure ATIPXpress Sync Service, perform the following steps:

1. Select **Start > All Programs > AINS ATIPXpress**.
2. Right-click **ATIPXpress Sync Configuration** and select **Run as administrator**.
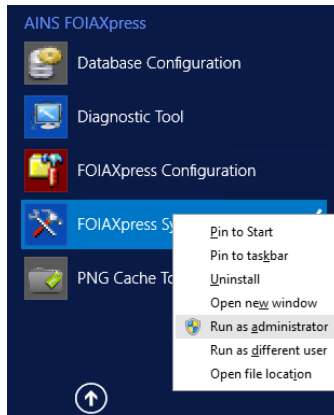
3. The *Sync Service Configuration* window will appear with the fields described in the table below based on the database server type (**MS SQL Server**) you configured earlier. Enter the required information and click **Configure**. The screen below uses MS SQL Server.

Field Name	Description
Server Type	MS SQL Server.
Server Name	The title given to the server where the **PAL** database resides.
Database Name	The title given to the PAL database during creation.
Login ID	The unique identifier of the database owner (for example, ATIPAgent).
Password	The password associated with the database owner ID.
Dashboard	When selected, allows you to set the sync interval in number of minutes.
Auto Merge Requester Profile	When selected, automatically merges a requester's ATIPXpress profile data with a newly created requester's profile in PAL.
When Requester Address is Updated, Updated	Determines whether to update the requester's address in PAL if it is modified in the ATIPXpress application. The system will update the address for **Open**, **Closed**, **Open and Closed**, or **None** of the requests. If the Billing/Shipping address is modified in the ATIPXpress application, the system will update the **Billing**, **Shipping**, **Billing and Shipping** or **None** of the addresses in PAL.
SMTP Server	The title given to the SMTP server.
SMTP Server Port No.	The number assigned to the SMTP Server port. By default, the port number is 25.

| Field Name	Description
Reprocess Failed jobs for every	How often and at what interval failed jobs will be reprocessed. The field specifies a unit of time and frequency (how often the reprocess has to be invoked). If the process fails, it automatically is reprocessed.
Send E-mail Alert for every	A time interval to send an email alert for failed jobs.
Sync Service Interval (Mins.)	The time gap after which the synchronization process starts again and will process all jobs within the queue. Effectively, this is the sleep time between which the synchronization service stops and resumes another cycle of the sync process. When the sync process starts, the ATIPXpress PAL database is updated with the latest requesters and request information. If the sync process interval time is more than the number of jobs to be processed in a synchronization process, the cycle will also increase, and vice versa. The sync service must be set to a number greater than zero.
Contact Email	The electronic mail address where failed job notifications will be sent.
Download Document Location	This location stores the requested documents where the requested delivery mode is 'PAL.' This location must be on a remote system that is accessible to the ATIPXpress Sync Service. (For example: \\systemname\foldername) The Download Document Folder must be shared prior to installing the sync service so it is available for selection during the configuration process.

Field Name	Description
PAL Reading Room Location	This location stores the electronic reading room documents and must be on a remote system, which is accessible to the ATIPXpress Sync Service.

7.2 Using the WebService to Connect to PAL

Using the WebService to connect to PAL does not require database access. However, you must configure the WebService in IIS in order to have a successful connection.

(!!) Note: The below steps should be taken on the server where PAL is configured.

1. Click **Start > Administrative Tools > Internet Information Services (IIS) Manager**.
2. Expand Start Page > Sites > PALConfig and select the WebServices folder.
3. Double-click **Authentication** in the middle pane and enable **Windows Authentication**.
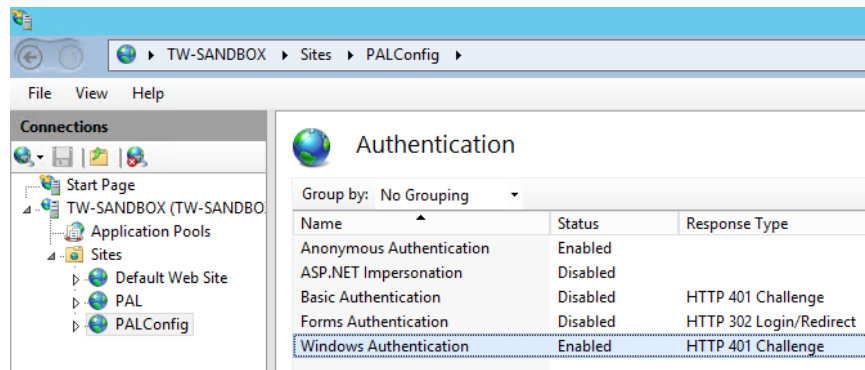
4. Click the **WebServices** folder on the **Connections** pane to return to the WebServices Home screen.
5. Right-click the **PALConfig** node and select **Edit Bindings**.
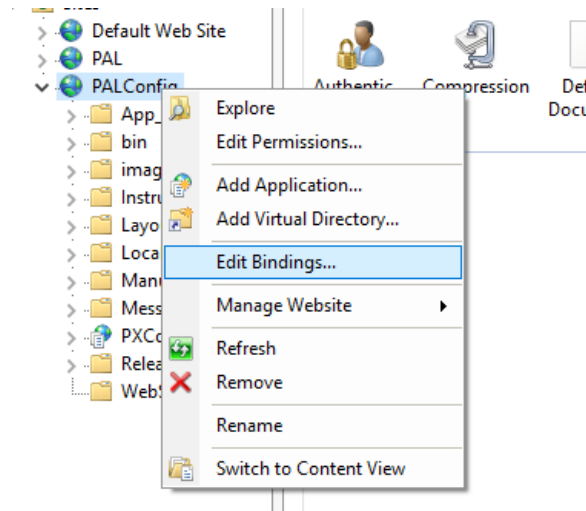
6. Add the **HTTP Secure Socket Layer** port assignment. Click **Add**. The *Add Site Binding* window appears.
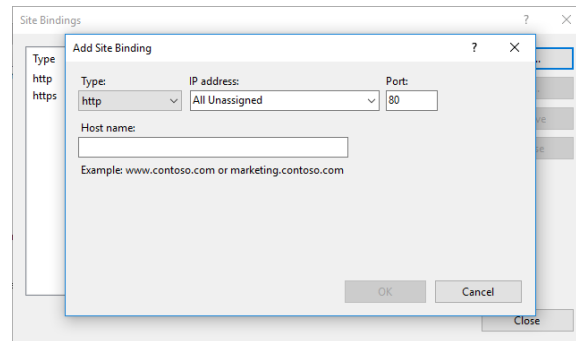
a. Select **https** from the *Type* dropdown menu.

b. Select the **SSL Certificate** provided in the drop-down list. For example, WMSvc-TW-AINSDOCSAX.
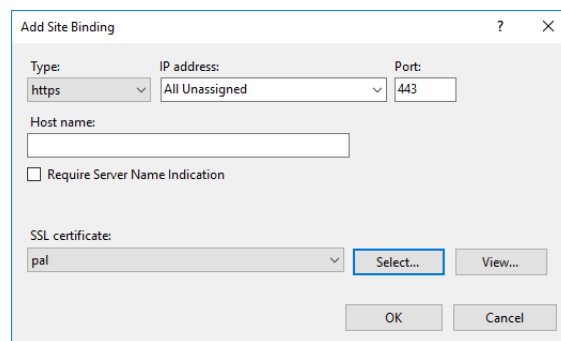
c. Click **OK** to retain the settings or click **Cancel** to exit from the *Site Bindings* window.

7. Add the SSL Certificate. If a certificate is not available in the **SSL Certificate** drop-down list:

a. Select the Start Page (name of the server).

    b. Click the Server Certificates option in the middle pane.
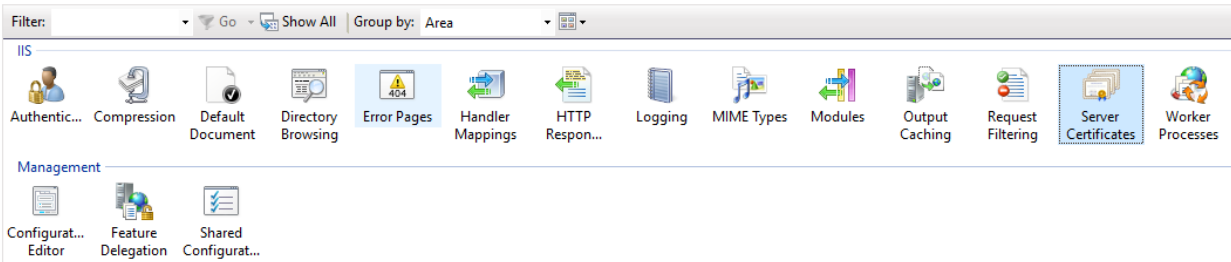
    c. Click **Create Certificate Request** in the *Actions* pane. For further instructions, go to http://technet.microsoft.com/en-us/library/cc732906.aspx.

    d. Click **Complete Certificate Request** in the *Actions* pane. For further instructions, go to http://technet.microsoft.com/en-us/library/cc771816.aspx.

8. Configure SSL Settings:

    a. Double-click **SSL Settings**.

    b. Select the **Require SSL** checkbox.

    c. Accept **client certificates**.

    d. Click **Apply** in the *Actions* pane.

9. Click the **PALConfig** node in the *Connections* pane to return to the home page.

10. Click the **Connect PAL Using WebService** option on the *ATIPXpress Sync Service Configuration* window.

(!!) Note: This should be done on the server where the ATIPXpress Sync Service is installed.

11. Provide the PAL WebService URL in the **URL** field. For example: https://palserver/webservices/syncservice.svc.

(!!) Note: The palserver portion of the URL above needs to reflect your PAL server name.

12. Enter the **Windows Login ID** and **Password** for the PAL Server.

13. Enter the required information, and click **Configure**.
14. A confirmation message appears once the information is accepted. Click **OK**.

7.3 ATIPXpress Failed Requests and Requesters

Within the ATIPXpress Sync. Service Configuration window, you can view the number of ATIPXpress failed requests and requesters, and Public Access Link failed requests and requesters. Based on this information, you can take an appropriate action, such as retrying failed jobs. These fields are represented as links that will be enabled only when there are failed requesters and/or requests of ATIPXpress and/or PAL respectively. You must click the links on the bottom-left of the ATIPXpress Sync Service Configuration window in order to view the failed jobs.
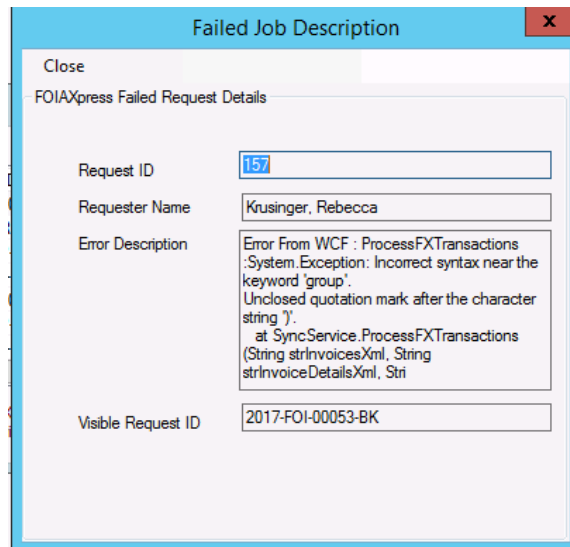
1. After clicking the **ATIPXpress Failed Requesters/Requests** link the *ATIPXpress Failed Requests* window appears.
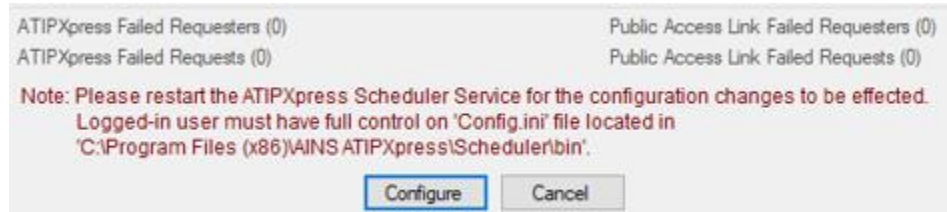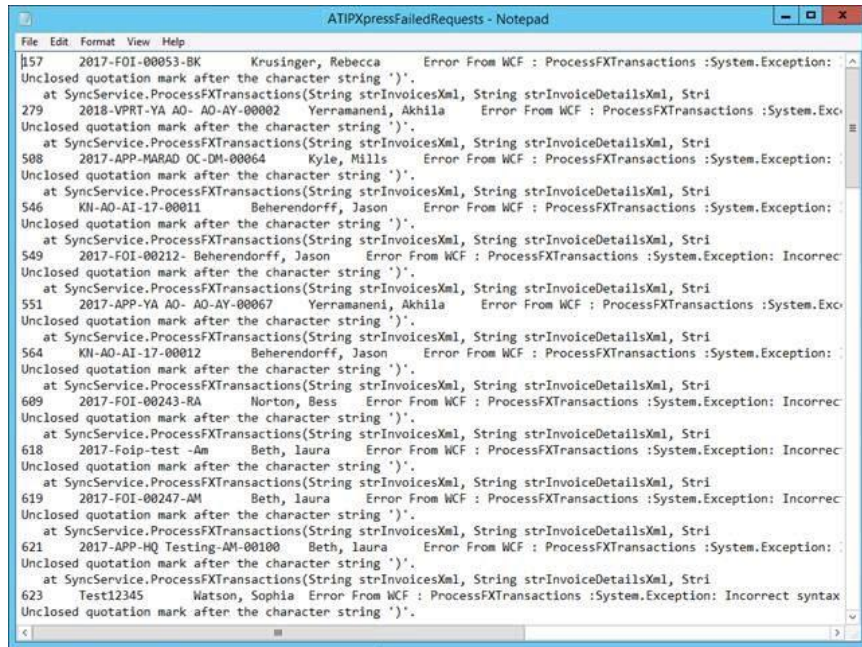

2. To retry the failed requests/requesters, select the checkbox for each job and click **Retry.**

(!!) Note: All failed jobs will be sent to the sync service.

3. To view the details of the failed jobs, select a job and click **View** or double-click the selected job.

4. To export failed jobs to a log file, click **Export Failed Jobs to Log**.

7.4 Public Access Link Failed Requests and Requesters

You must click the links on the bottom-right of the *ATIPXpress Sync Service Configuration* window in order to view the failed jobs.

(!!) Note: The below screenshots show the Public Access Link Failed Requests screens, however, the Public Access Link Failed Requesters screens look very similar.
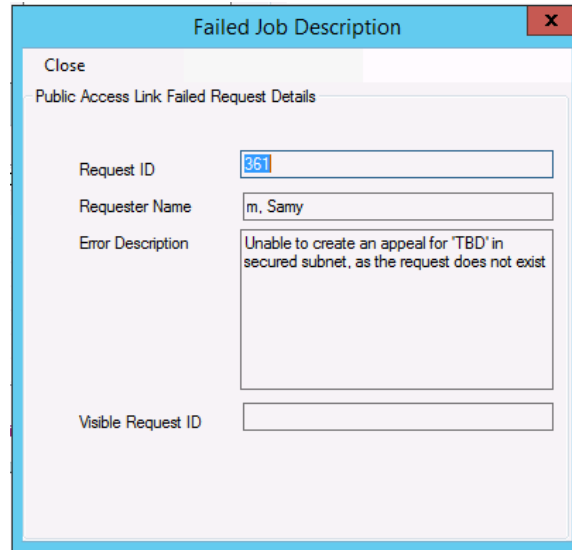
1. After clicking the **Public Access Link Failed Requesters/Requests** link, the *Public Access Link Failed Requests* window appears.
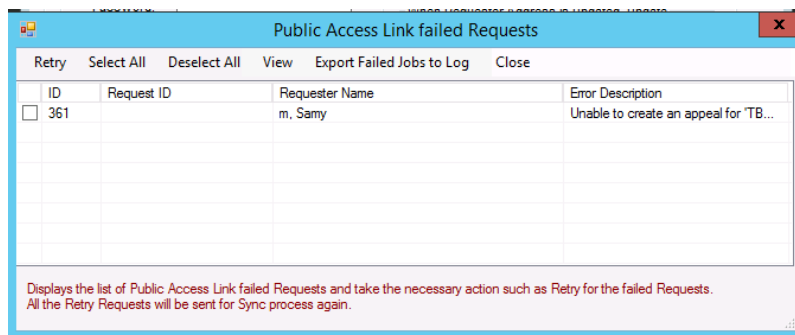
2. To retry the failed requests/requesters, select the checkbox for each job and click **Retry**. All failed jobs will be sent to the sync service.

3. To view the details of the failed jobs, select an **ID** and click **View** or double-click the selected job.

4. To export failed jobs to the log file, click **Export Failed Jobs to Log**.

8 Required Privileges for ATIPXpress PAL Application Server

The following section lists the directories that are relevant to ATIPXpress PAL as well as the level of permissions that should be applied to these directories.

8.1 Required Permissions for Network Service User (ASP.NET Process Identity)

On a Web server running Microsoft Windows Server 2016/2019 and Internet Information Services (IIS) 7.5/8/10, the ASP.NET process runs in the application pool for the Web application. ATIPXpress PAL setup will set the application pool identity as NETWORK SERVICE account by default.

The file and folder permissions listed in table below must have the ASP.NET Process Identity of ATIPXpress PAL Web application (Network Service User/configured impersonate user).

Location	Access type	Comments
%SystemRoot%\Microsoft.NET\ Framework\versionNumber\ Temporary ASP.NET Files	Read, List Folder Contents, Read & Execute, Write	This is the location for dynamically compiled files. Beneath this location, application code generation takes place in a discrete directory for each application.
%SystemRoot%\assembly	Read, List Folder Contents, Read & Execute	This is the location of the global assembly cache (GAC).
%SystemRoot%\System32	Read, List Folder Contents, Read & Execute	This location contains system DLLs loaded by .NET Framework.

Location	Access type	Comments
%SystemRoot%\Temp	Full Control	This location is used for Web services support.
User profile directory	Read, List Folder Contents, Read & Execute, Write	This directory is used by the GAC cache lock files and the security configuration caching mechanism of the common language runtime. If the user profile directory for the account does not exist, ASP.NET uses the default user profile directory.
Electronic Reading Room Documents Location	Read, List Folder Contents, Read & Execute, Write	All ATIPXpress PAL electronic reading room documents are stored in this location.
Download Documents Location	Read, List Folder Contents, Read & Execute, Write	All ATIPXpress PAL download documents are stored in this location.
Inetpub\wwwroot\ PublicAccessLink\PAL\imag es	Modify, Read & Execute, List Folder Contents, Read, Write	This location stores the images of the PAL website.
Inetpub\wwwroot\ PublicAccessLink\PALConfi g\ images	Modify, Read & Execute, List Folder Contents, Read, Write	This location stores the images of PAL Config website.

Location	Access type	Comments
Inetpub\wwwroot\ PublicAccessLink\ PALConfig\App_Data	Modify, Read, & Execute, List Folder Contents, Read, Write	This location contains dictionary file information
Program Files\PAL\pallog.txt **-OR-** **Program Files (x86)\PAL\pallog.txt**	Modify, Read & Execute, List Folder Contents, Read, Write	This file records the error log information for PAL.
Program Files\PAL\Errorlog.txt **-OR-** **Program Files (x86)\ PAL\Errorlog.txt**	Modify, Read & Execute, List Folder Contents, Read, Write	This file records the error log information for PortalXpress

(!!) Note: If file repository folders (Download Documents and Electronic Reading Room documents locations) are located on another server other than the ATIPXpress PAL application server, set the required security and sharing permissions for the ATIPXpress PAL application server account (network service user). Example: palserver$.
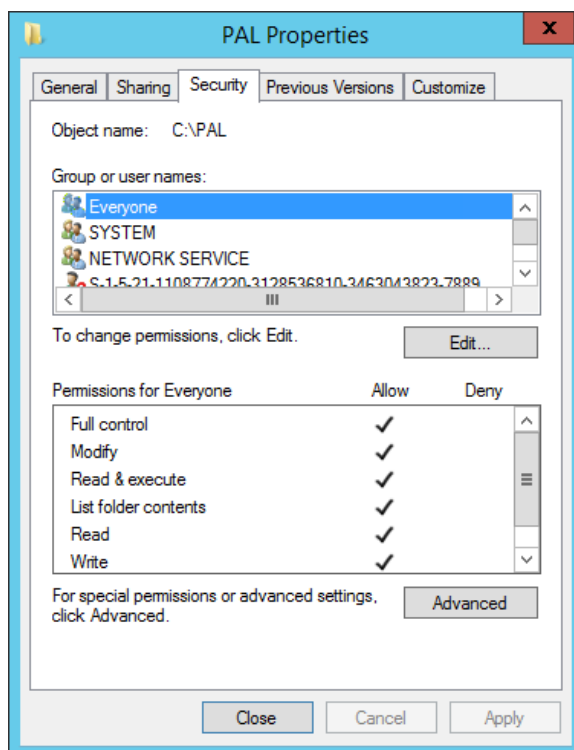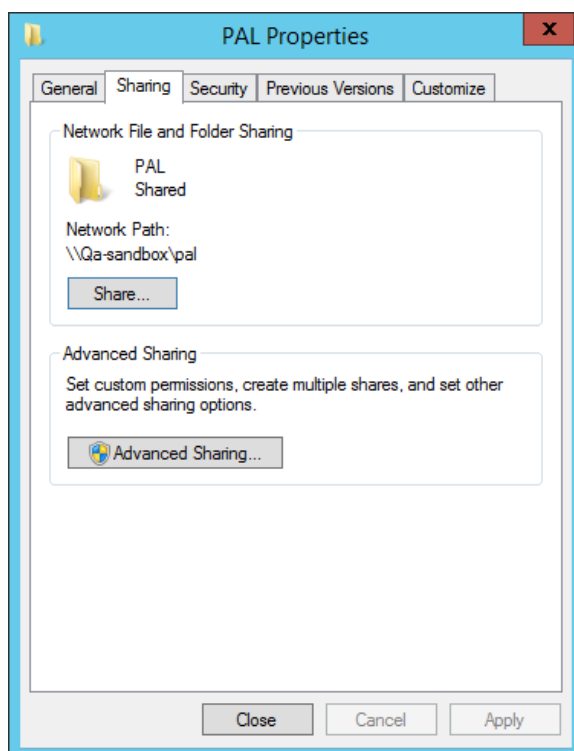
The File Repository folder located on the file server should have the Read and Write permissions for File Sharing and Full control for Security permissions. Please refer to the above screenshots to view the permissions.

8.2 ATIPXpress Sync Service Required Privileges

The following table shows which type of file and folder permissions the user must have in order to function properly.

Location	Access Type	Account	Comments
%SystemRoot%\assembly	Read, List Folder Contents, Read & Execute	Service User	This is the location of the global assembly cache (GAC).
%SystemRoot%\System32	Read, List Folder Contents, Read & Execute	Service User	This location contains system DLLs loaded by the .NET Framework.
User profile directory	Read, List Folder Contents, Read & Execute, Write	Service User	This location stores the cache files of the Sync Service.
%SystemRoot%\Microsoft.NET \Framework\version and subdirectories	Read, List Folder Contents, Read & Execute	Service User	ASP .NET must be able to access the system assemblies referenced in the Machine.config file in the CONFIG subdirectory under %SystemRoot%\Microsoft.NET\ Framework\version.

Location	Access Type	Account	Comments
AFXWDOFL	Read & Execute, List Folder Contents and Read	Service User	All ATIPXpress original documents are stored in this location.
AFXWERR	Full Control	Service User	All ATIPXpress electronic reading room documents are stored in this location.
Program Files\AINS\\ ATIPXpress\bin **-OR-** **Program Files (x86)\AINS \ATIPXpress\bin**	Full Control	Service User	Installed application files will be stored in this location.
Program Files\AINS\\Logs -OR- Program Files (x86)\AINS \Logs	Modify, Read & Execute, Read, Write	Service User	The application error log and configuration files will be stored in this folder
Documents Download Location	Full Control	Service User	This is provided in the Sync Service configuration. If request delivery mode is set to web download, the documents will be stored in this location.

Location	Access Type	Account	Comments
Electronic Reading Room location	Full Control	Service User	This is provided in the Sync Service configuration. The documents published from ATIPXpress will be stored in this location.

(!!) Notes:

- **The above specified Download Document Location and Electronic Reading Room Location should be the same as the location specified in the <u>ATIPXpress Sync Service Configuration</u>.**
- **The folders \AFXWDOFL and \AFXWERR are the ATIPXpress File Repository folders.**
- **The folder %SystemRoot% is the Microsoft Windows installation folder.**