ADOPTEQ

ARCHIVE VIEWER PLUS ADMINISTRATORS GUIDE

Product Version 3.0
Updated 31 August 2023

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About Archive Viewer Plus Documentation

Documentation for Adopteq's Archive Viewer Plus Product(s):

- User Guide – summary of Archive Viewer Plus's primary components and features, overviews of component and process instructions and applications notes for searching and retrieving archived content from your company determined File store(s).
  - There are two sections to the User Guide which focus on different versions of the product. Section 1 contains instructions and guidance for Archive Viewer Plus Web edition and Section 2 contains instructions and guidance for Archive Viewer Plus Desktop edition.
  - The Administrators Guide contains the processes for setup, configuration, and ongoing management of Archive Viewer Plus and includes any known issues or limitations.
- Release Notes – Describes the current release of the product and any new and enhanced features, resolved issues, and known issues.

Purpose & Audience

The purpose of this document is to provide information on how to configure both Archive Viewer Plus Web edition and Desktop.

This document assumes the reader has administrative experience with the Microsoft platform, can navigate Azure, SQL configuration and implement and configure IIS (web version).

This guide does not aim to contain exhaustive content related to Microsoft technologies. Please refer to https://learn.microsoft.com/en-us/docs/ for further information.

Overview

Archive Viewer Plus has two (2) versions. The web edition has been created with larger user base organizations in mind. No desktop deployment is required but the management and ongoing maintenance of the web edition has an initial greater administration and hardware requirements.

The desktop version requires installation of user's workstations but does not have web server component nor further management requirements. Archive Viewer Plus desktop has the possibility to be deployed to the workstations desktop using software deployment and to pre-configure the archive folders/databases for users which can be obtained with consulting from Adopteq.
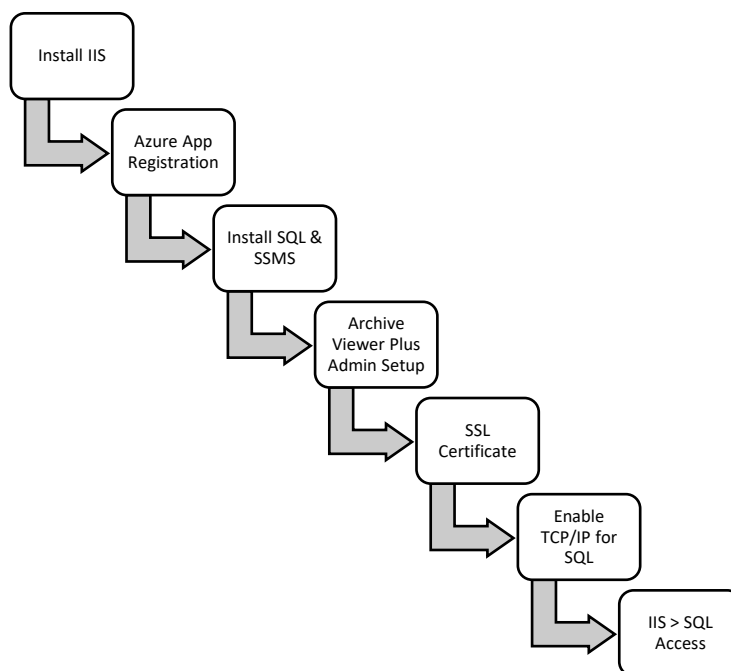
1. Archive Viewer Plus Web Setup

To host Archive Viewer Plus web, a web server, SSL certificate, website name resolution will be required to host the archive website. The application must also be registered in Azure for authentication to function. Once registered and configured, your end users will use a web browser to access Archive Viewer Plus.

During the setup, you will be asked to provide information to generate the license file for Archive Viewer Plus.

Access to the archive folders is managed using Active Directory users and groups as you would any file share.

To search the stored archive folders, the indexing service must be running on the file share (server based) or cognitive search (for Azure storage).

The final part of the setup is to configure the Archive Viewer Plus web edition to connect to SQL, the admin group to manage Archive Viewer Plus, creation of policy to name your AD security groups (pre-created) consistently, which controls how your groups are shown in Archive Viewer Plus, the archive location(s) and the UNC path(s) for the top folder location.

```
Install IIS
   ↓
Azure App Registration
   ↓
Install SQL & SSMS
   ↓
Archive Viewer Plus Admin Setup
   ↓
SSL Certificate
   ↓
Enable TCP/IP for SQL
   ↓
IIS > SQL Access
```
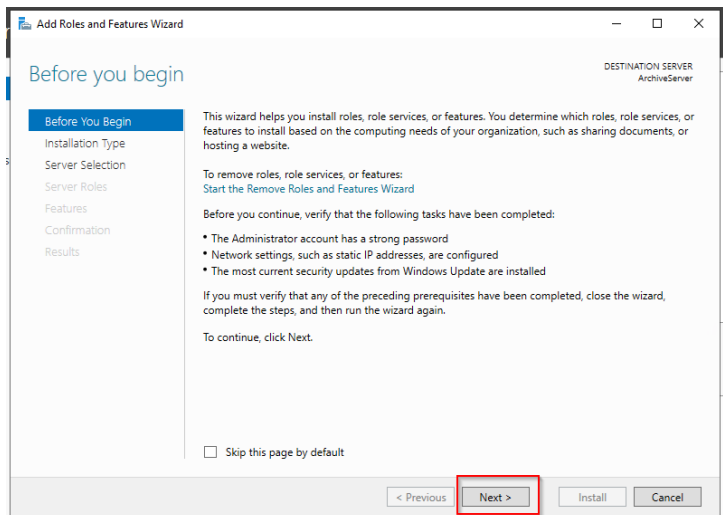
A. Step 1 - Installation of an IIS Web Server

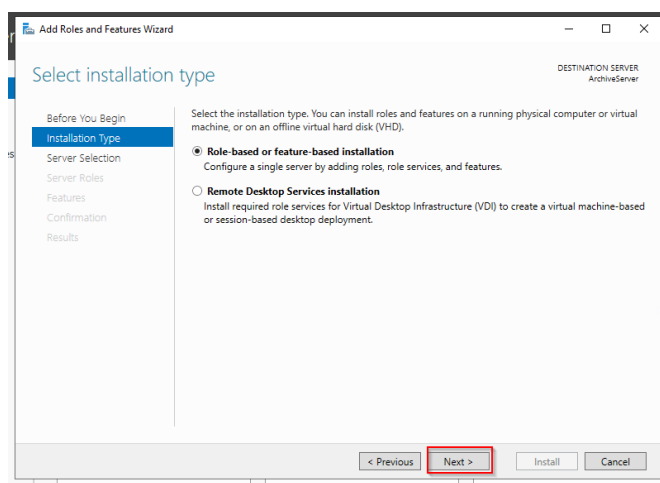Open the server manager dashboard on the server you wish to install IIS on.

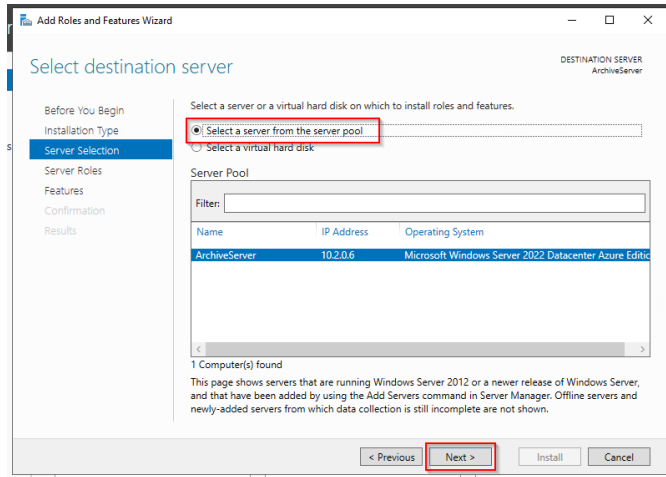1. Select in the drop-down 'Add roles and features'.
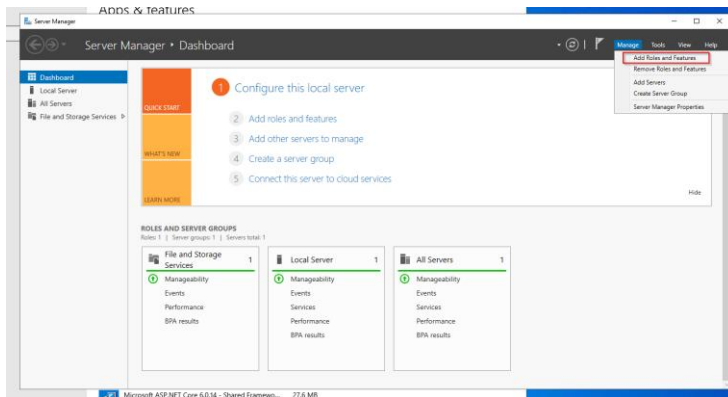
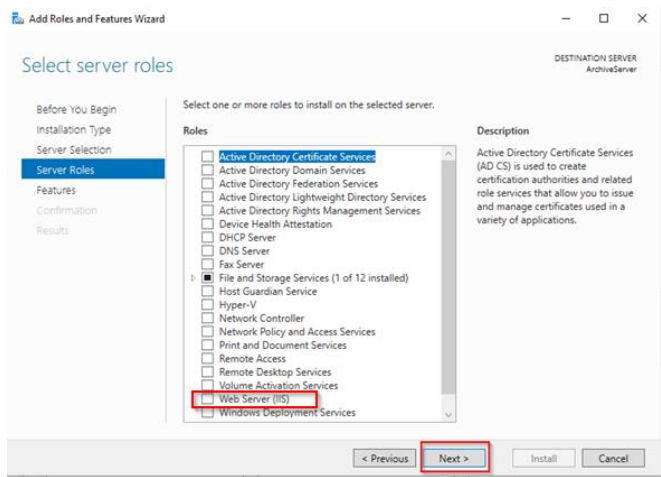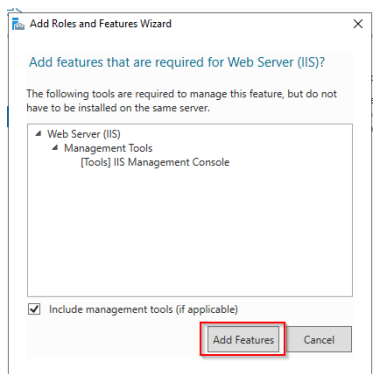2. Complete the wizard to create the IIS server.

   a. Click Next.

   b. Select 'Role Based or feature-based installation' and click Next.

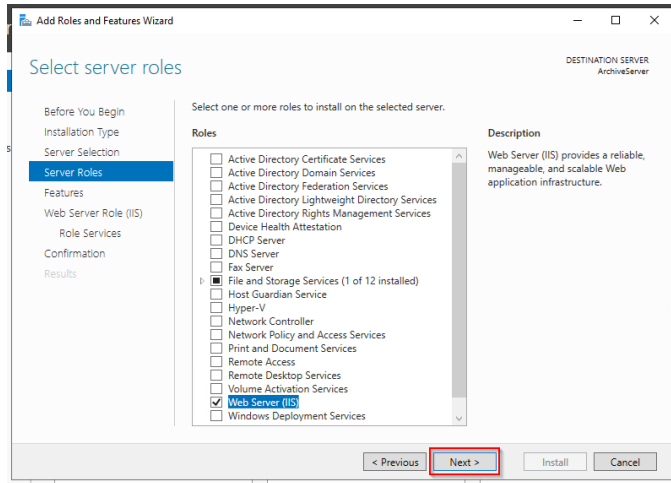c. Select the server where you wish to install IIS and click Next.

d. Select 'Web Server (IIS)' as an additional role and click Next.

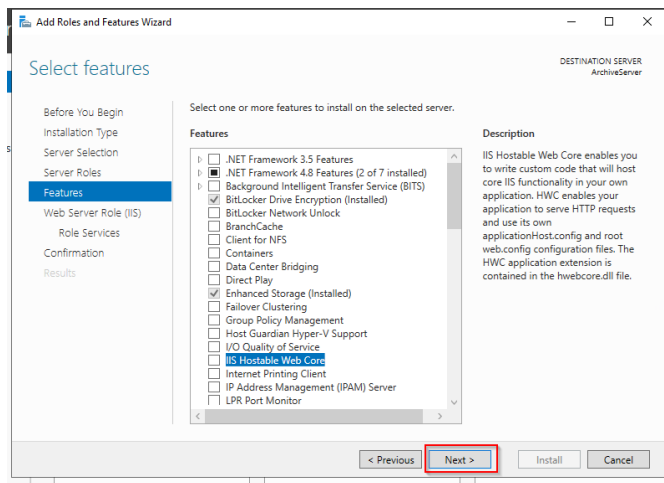
e. Click on the 'Add Features' button.
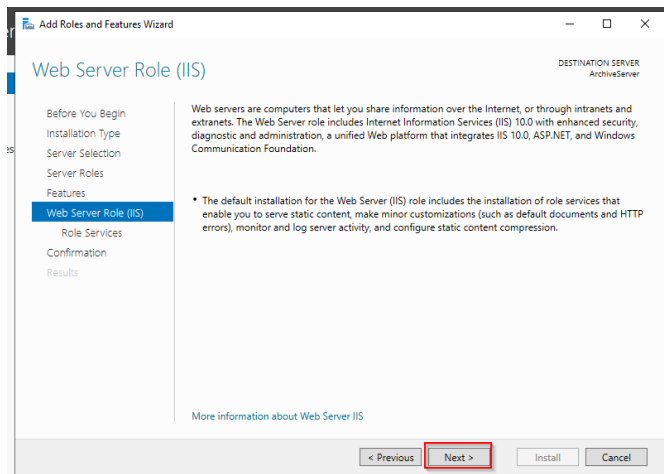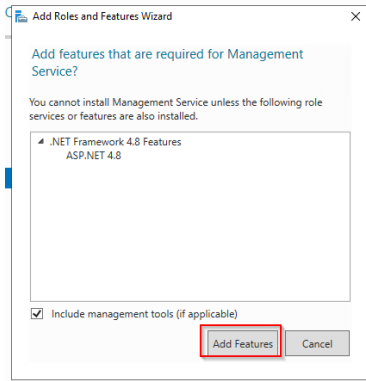f. Select 'Web Server (IIS) and click Next.

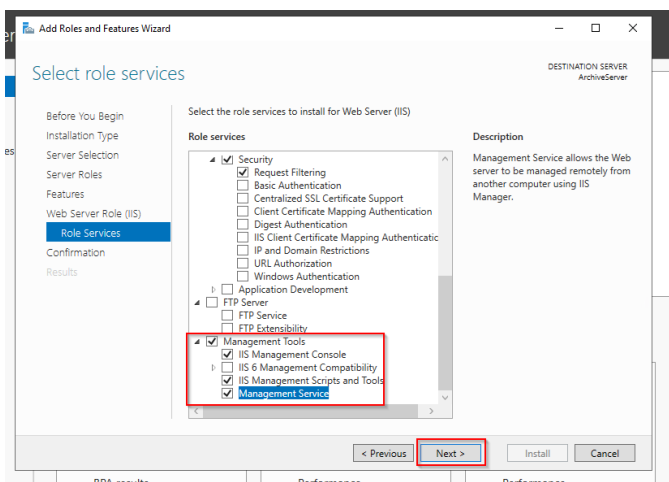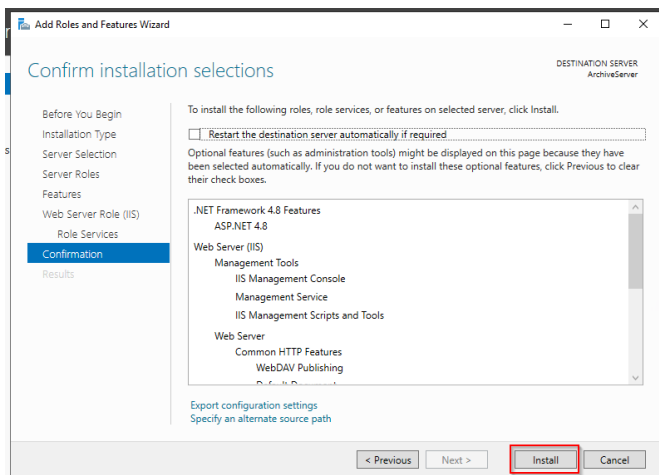g. Select .NET framework and IIS Hostable Web Core and click Next.

h. Click Next.

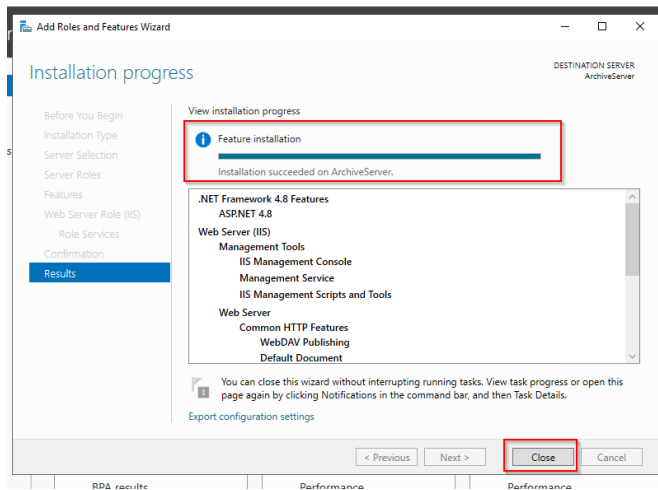i. Continue with the setup of .NET framework features, click Add Features.

j. Within the Management Tools, ensure the IIS Management Console and Management Service is selected and click Next.

k. Review your setup.

l. Click Install if correct.

m. Click 'Close' to exit the wizard.

Service Account Configuration for IIS

IIS must have access to the archive folders which will require the implementation of a Service Account.

a. Create a service account in Active directory with which to run the world wide web publishing service in IIS

b. Add this Service account to the administrator group (which will manage Archive Viewer Plus)

c. Apply the group permissions to top level folder structure containing the archives.

d. Click on the Application Pool in the IIS configuration

e. Right-click on the 'DefaultAppPool'

f. Click on 'Advanced settings'
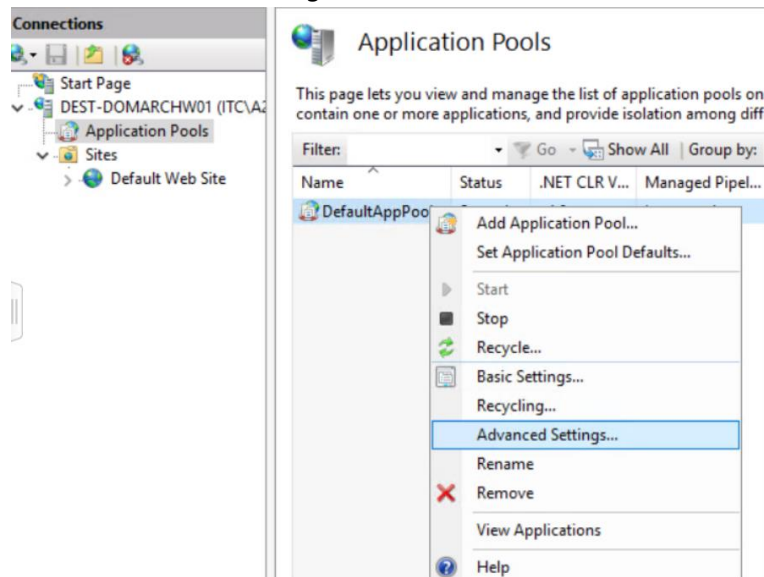
g. A dialog box will open. Scroll down to 'Process Model', click on the 3 dots (...)
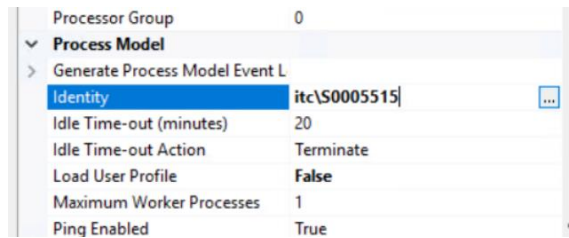
h. This opens a new dialog box
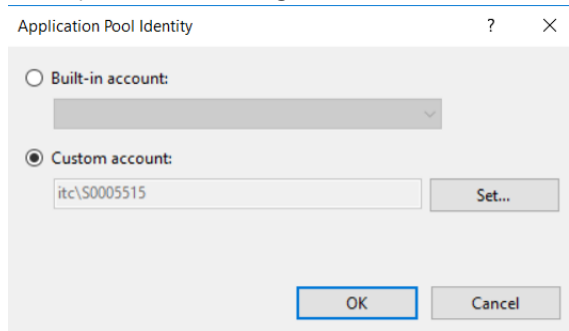
i. Select custom account and enter the credentials of the service account.
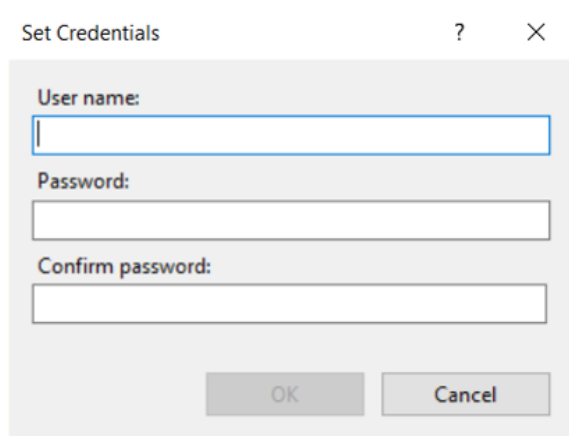
j. Click OK
k. Restart IIS for updates to take effect

B. Step 2 - Azure App Registration of Archive Viewer Plus Web Edition

App Registration Steps

Register Archive Viewer Plus as a new application in Azure, perform the following steps:

1. Login to azure
2. Search for App registration to register the new app.

3. Click on 'New Registration'
4. Complete the following details in the wizard:
    a. 'Name', Your app name.
    b. 'Supported account types' (depending upon your Azure tenant architecture)
    c. 'Redirect URL' chose Web from dropdown and in text field add your website URL which website URL followed by '/signin-oidc' so full URL example would show as https://nameofarchiveurl/signin-oidc
5. Click register.
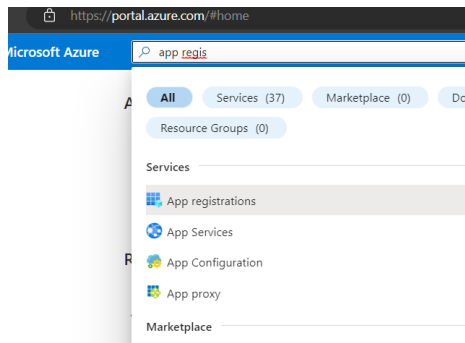6. Once your app registration is complete, you will see App Registration details in the overview tab. Under the authentication tab you will see the redirect URL which you have added while creating the app.
7. If you did not add a URL you can add under the Authentication tab or if you want to add a new website URL you can do it here.
8. Add the new URL, click on Add URL link, and paste your URL followed by '/signin-oidc' then click save to save the changes.

Note: you can skip this step if you have already added your website to authentication in the previous step.

Certificate Creation

The next step is to create the certificate.

1. Navigate to the 'overview' tab and click on 'add a certificate or secret' button.

2. After selecting 'add certificate' it will navigate you to 'Certificate & Secret' tab.
3. Click on 'New client secret' button and enter the description and expiry date then click add.
   Note: The certificate will expire based on the expiry date. Once this has expired, you will not be able to access the website. If the certificate lapses, you must create a new certificate.
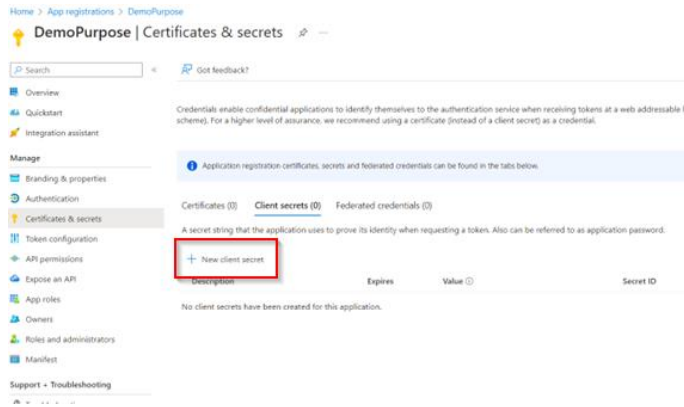
IMPORTANT: Once the secret is generated in the wizard, write it down because after this view, values will be hidden in the future.

API Permissions

1. The next step is to add API permissions. Archive Viewer Plus web edition requires four (4) permissions:

   - Group.Read.All
   - User.Read
   - GroupMember.Read.All
   - User.ReadBasic.All

2. The App registration process is now complete.

C. Step 3 - SQL express and SSMS installation

Steps to install SQL Server

Download SQL express. Click here to navigate to the SQL download page. If the link doesn't connect, please download it directly from Microsoft.com.

Follow the website information and click 'Download Now' option for SQL express.
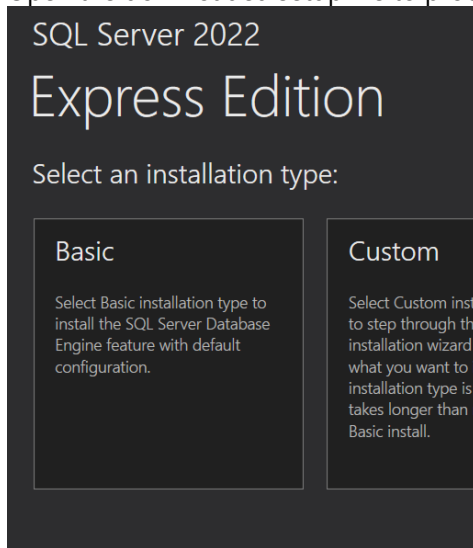

Express

SQL Server 2022 Express is a free edition of SQL Server, ideal for development and production for desktop, web, and small server applications.
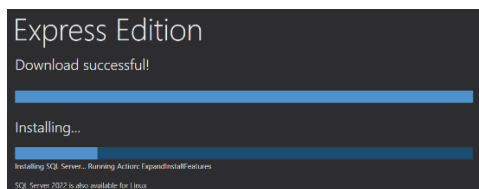
Download now

1. Click on the download button to download.

2. Open the downloaded setup file to proceed selecting 'Basic Edition'.

3. Accept the terms and conditions and proceed with installation.

4. SQL installer will download and install the packages which may take up to 20 minutes to complete.

5. Once downloaded and installed, you will see 'Installation has completed successfully' dialog box.
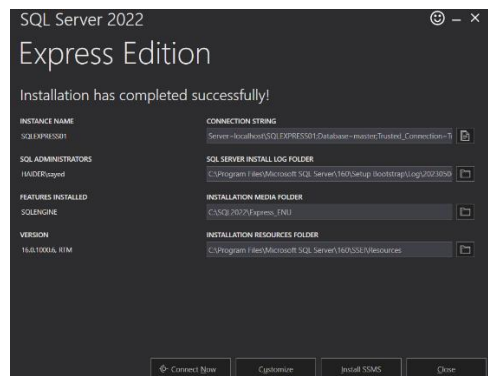
6. Click on the copy icon to copy the connection string and keep it safe for further input.
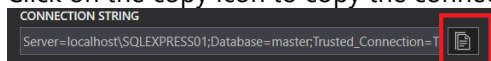
Steps to install SSMS

The SQL Server Management Suite (SSMS) is required to assign SQL permissions to IIS.

1. Click here to redirect to Microsoft page to download SSMS. Download the setup and then install.

D. Step 4 - Archive Viewer Plus Admin Setup Installation

After following the previous steps, we can install the administrative features of Archive Viewer Plus.

1. Run admin setup exe file.

2. The overview screen presents a customer key.

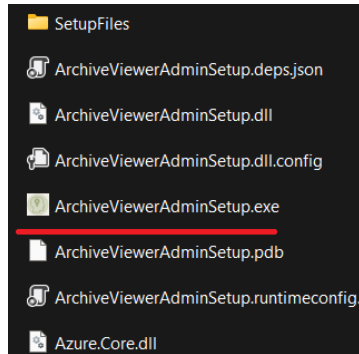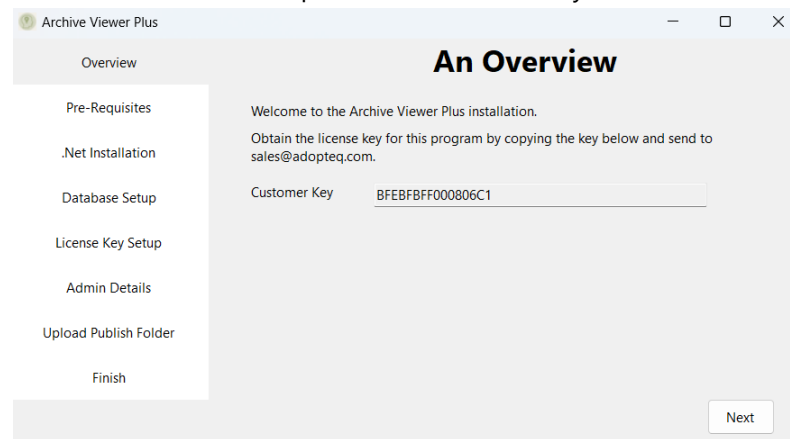3. Please copy this customer key and send it to sales@adopteq.com to receive your license key. Upon receipt of your key from Adopteq team please click next to proceed.

4. The installation package will perform the IIS background check to verify IIS is installed. The installation will not proceed without IIS.

5. The installation package will check for .Net and install where required .Net packages. You will be presented with a prompt to install .Net hosting package if not found.

6. SQL Express will install if it is not already available on your computer. You cannot proceed without SQL.

7. The next step is database setup. In this step you must fill SQL details for connection string. You must enter 'SQL Server name', 'Username' and 'Password'.

    a. Username and password are not mandatory filed you can proceed with server name as well.

    b. Once you have entered the above details click test connection to test if connection with SQL is successful or not. You will get success prompt if connection is correct.

    c. Then click on 'Generate Database' button to create the database, tables etc.
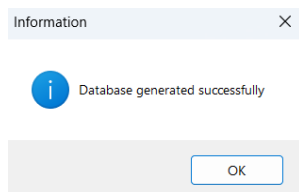
8. The next step is registering an application with a license key.
    a. Enter the License key received from Adopteq.

b. click the 'Register' button to register the license.

License Key Setup

Customer Name

Customer Key

License Key wB2Ucapid2O7XjgbryVmzI/WwuXap+VxYF+I0IMvBEfc5

Total 0   Used 0   Register

☐ Click here to continue without a license key

c. Once registered you will get 'Details Saved Successfully' prompt.

Information   ✕

ⓘ Details Saved Successfully.

OK

d. Click next to proceed.

During the next stage, you will need to provide information related to the administration of Archive Viewer Plus and the location of your archive folder structure. This admin group secures Admin view within Archive Viewer Plus

9. Enter the location UNC/NFC path for the top-level folder your archives will be stored in.

10. Enter the Group name unique value for your security groups related to folder access.

   a. Group name function is to limit the number of groups enumerated and shown in Archive Viewer Plus.

   b. **Recommendation:** Create a standard group naming convention for security groups managing access to the user(s) archives. For example, you have thousands of group in you azure and not you want only few group implementation with archive viewer which starts with ARC then you just must put ARC under group name, it will filter all group starts with ARC and in admin management console app you will see only group starts with ARC then you can map this ARC groups with NFC folder.

Archive Viewer Plus   — ☐ ✕

Overview

Pre-Requisites   **Administrator Details**

.Net Installation   Please enter information about who will administer and configure Archive Viewer Plus.
                        The location of your archives and the Active Directory groups which manage access.

Database Setup   Admin Group Id (Located in azure AD)

License Key Setup   Top Level Folder Path

                        Group Name   Starts With ⌄

Admin Details

Upload Publish Folder

Finish

   Back   Next

11. The final step is to upload the publish folder, which will upload the 'Archive Viewer Plus' website package file to root directory.

12. Setup is now complete.

Step 5 - SSL certificate setup to IIS

Prior to installation of the product, you need to determine the website name, the IP address and procurement of an SSL certificate. Since each organization will have a different operating model for these actions, this document lists requirements only.
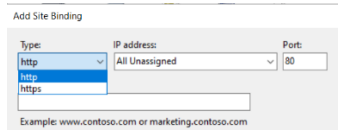
Steps to apply SSL certificate on IIS:

1. Right click on Default/Your Published Web Site on IIS. You will see these options:
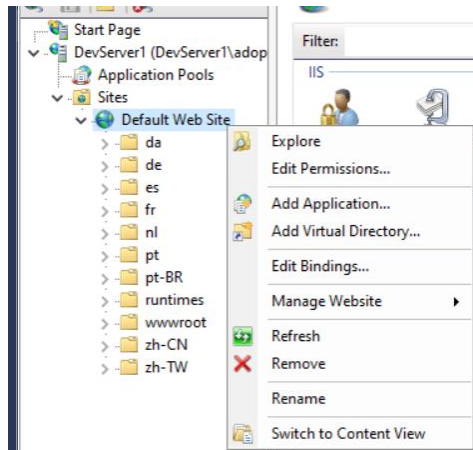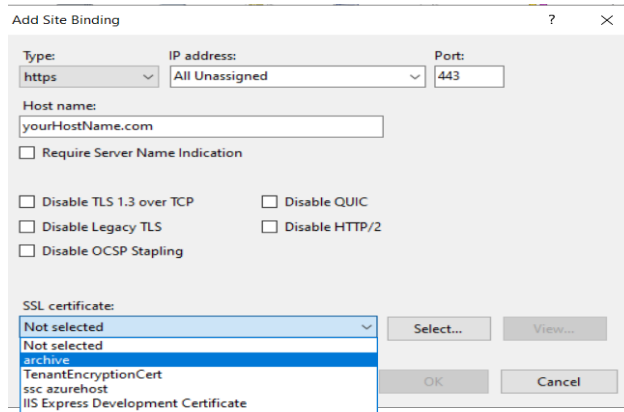

2. Click on Edit Bindings, opening a dialog box.
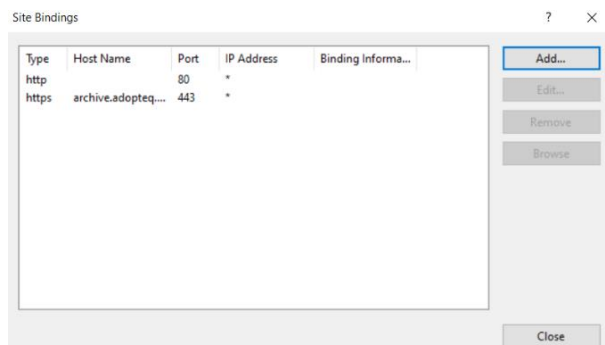
3. If you already have https bindings, then click on the edit button or click on Add button.
4. Add or Edit Binding
   a. Change the HTTP setting to HTTPS
   b. Once HTTPS is selected, take note of the host name

   c. Select SSL certificate from the dropdown option

d. Click 'OK' to proceed

e. Once complete, the Site Bindings window will present the host name which you entered, port and type as HTTPS.
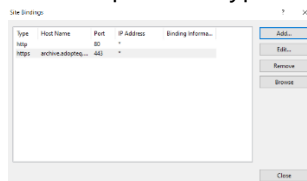
f. Click on the 'Close' button to close the dialog box.

5. Restart IIS.

E. Step 6 – Enable TCP/IP for SQL Express

For IIS to connect to SQL, you must enable the TCP/IP protocol of SQL express to make a SQL connection. Steps to enable TCP/IP'

1. Open 'SQL Server Configuration Manager'

2. Click on 'SQL Server Network Configuration' then 'Protocols for SQL Express'. Finally, right click on TCP/IP you will see prompt to enable the settings.
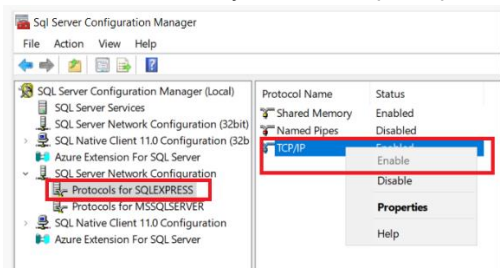
3. Click on 'enable' to apply.

4. Right click on 'TCP/IP', select Properties then select 'IP Addresses' tab.

5. Navigate to the last entry 'IP All'.
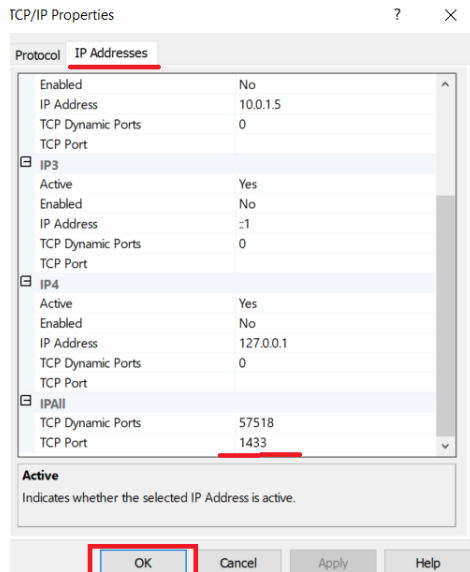
6. Enter 'TCP Port' 1433
7. Restart SQL Server express using the 'services.msc' (winKey+R)
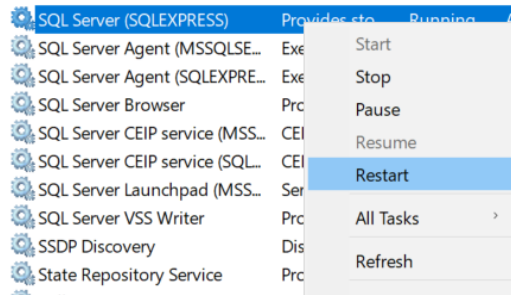
F. Step 7 - IIS access to SQL Express

The final step is to configure IIS to access the SQL database for Archive Viewer Plus. Steps to give SQL permission to IIS:
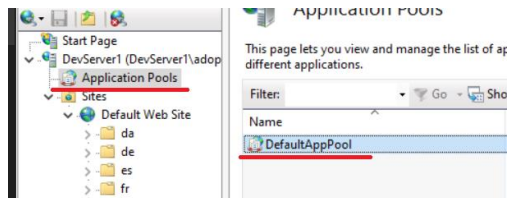
1. Login with SQL server, then expand 'security'.
2. Right-click on 'logins' and select the 'New Login' option.
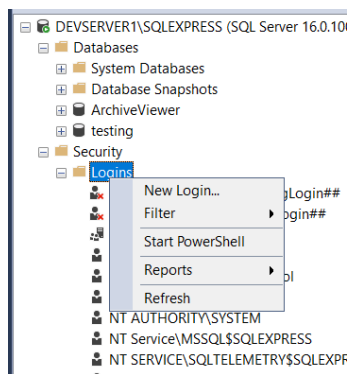
3. In the open dialog box, complete Login name as your pool name 'IIS APPPOOL\{IIS Pool Name}'. If you are unsure of the name check in IIS.
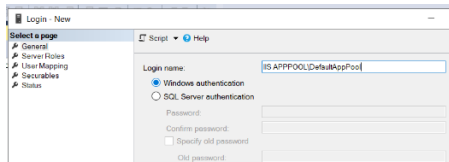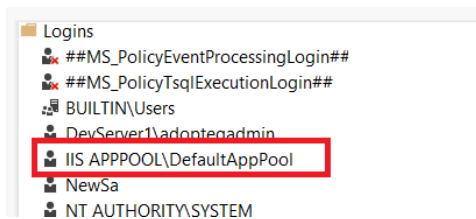
    a. Open IIS

    b. Click on application pool.

    c. Your pool name will be displayed.

    d. In this example, the pool name is 'DefaultAppPool'.

4. Once you have added the pool name in the SQL login dialog box, click OK.

5. You will now see the newly updated pool in the SQL login view.

6. Read/write permissions must now be allocated to this pool. To add permission right click on 'IIS APPPOOL\DefaultAppPool' then click on properties.

7. Right click the login for the app pool, select Properties and select 'User Mapping'. Check the appropriate database, and the appropriate roles.

8. Select db_datareader and db_datawriter. Click OK to apply the settings.
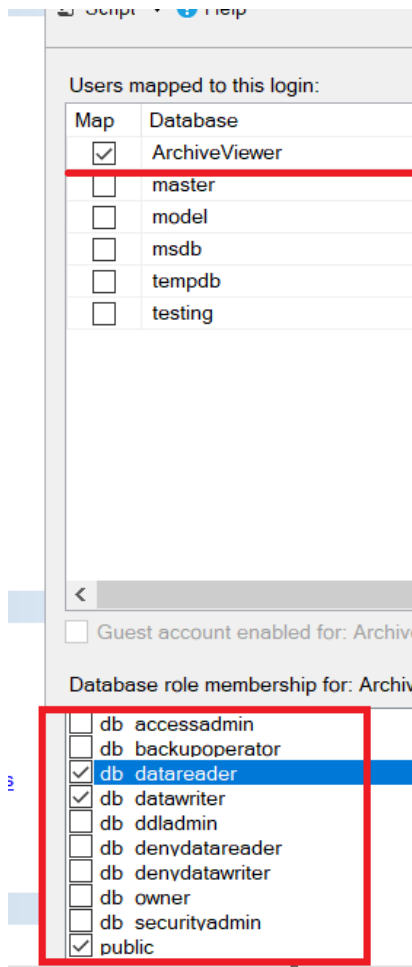
## G. Configuring Network File Storage Access

Archive Viewer Plus leverages both Window Indexing service and the Azure Cognitive search capability (for further information on Azure, refer to section Step 2 – configuring Azure Storage within Archive Viewer Plus Desktop section). The indexing service must be enabled locally on the server storing the archive folders and remain persistent.

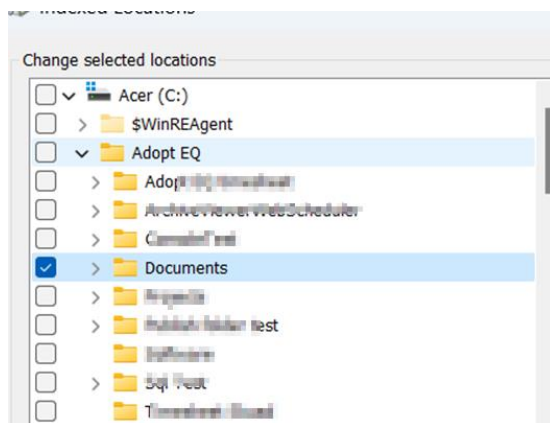Below are the instructions for implementing this service.

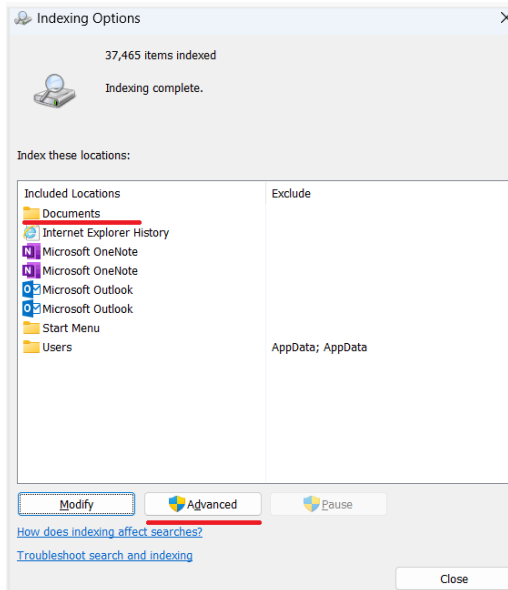1. Navigate to 'Indexing Options' in control panel
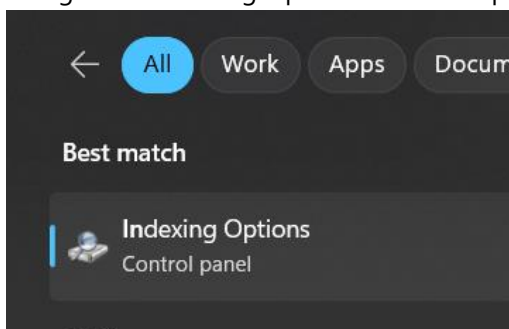

2. Open Indexing Options where a dialog box will open
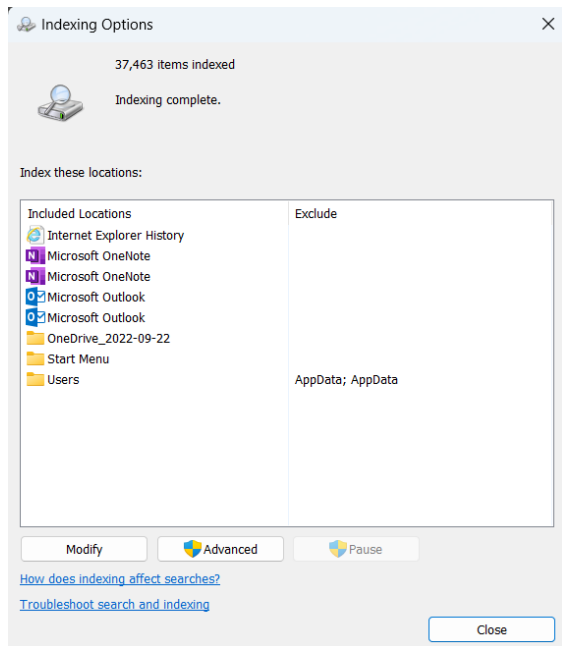
3. Click on the 'Modify' button

4. Select the folder path to be indexed (the below image depicts c:\Adopt eq\Documents' and is for example purposes only)

5. Click 'OK' to apply the changes

6. Once Indexing is applied, you will see the folder in the Indexing Options list

7. Select the folder previously set to Index and click on the 'Advanced' button to make further changes

8. The 'Advanced Options' dialog box will appear. Select the 'File Types' tab at the top
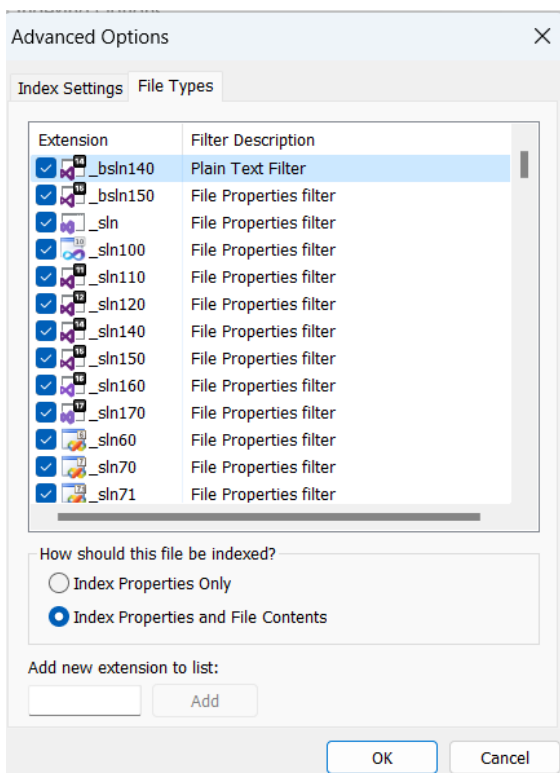
9. Select the radio button 'Index Properties and File Contents'

10. Click OK

   Note! Indexing only occurs when the server is idle. Any disruption (even a mouse click) will stop indexing until the machine becomes idle again. To index as efficiently as possible, ensure no actions are executed on the server until Indexing completes.

H. Administration Portal for Archive Viewer Plus

Access to this page is managed by the membership of the administrator's group created prior to the installation of Archive Viewer Plus.

For admin access you must add members to a dedicated admin group. For example, your admin group name is 'Admin Archive Viewer' then you need to add members to this group, and these members can view Admin button on Archive viewer website.
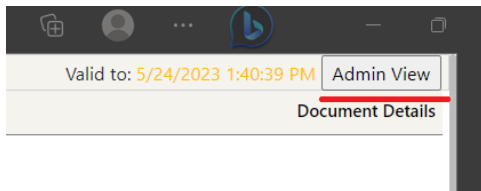
On click of admin view you will see this. The goal of the admin site is not to set permissions and over-ride any organizational security policies but to view a group, a folder or a user's access to the archives stored in your organization.
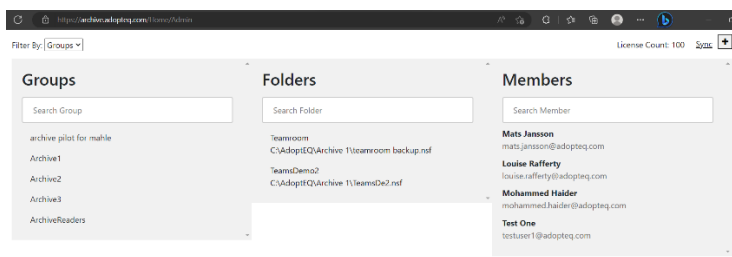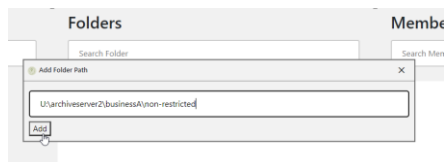

There are two (2) options to make changes in the admin site.

- Add additional top-level folder tree (for re-organizational purposes or extension of your archive environment)
- Sync changes made to the folder structure.
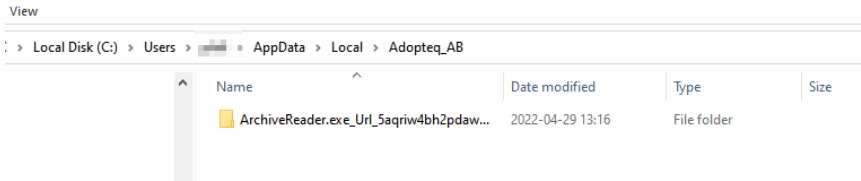
Addition of a Top-Level Folder

1. Click on the + button in the top-right hand corner.
2. Add the new location of your folder structure (UNC or File share).

3. Click 'add'
4. Click 'sync'
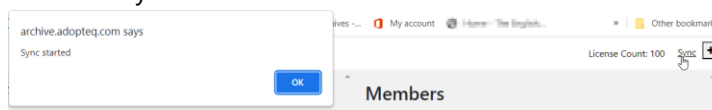
This will now sync the new folder structure and display the results of the folder contents in the admin view.

View

: › Local Disk (C:) › Users › ▨▨▨ ▪ AppData › Local › Adopteq_AB

Name	Date modified	Type	Size
📁 ArchiveReader.exe_Url_5aqriw4bh2pdaw...	2022-04-29 13:16	File folder	

Note! The IIS Service Account must have permissions to read the contents of the top-level folder for users to select archives in the product to view.

2. Archive Viewer Plus Desktop

Archive Viewer Desktop is an installed client available to end users to search and view archives previously migrated with Migrator Plus.

Archive Viewer allows users to access their archives stored on a Network File share or in Azure. This section will describe configuring the product for access to both.
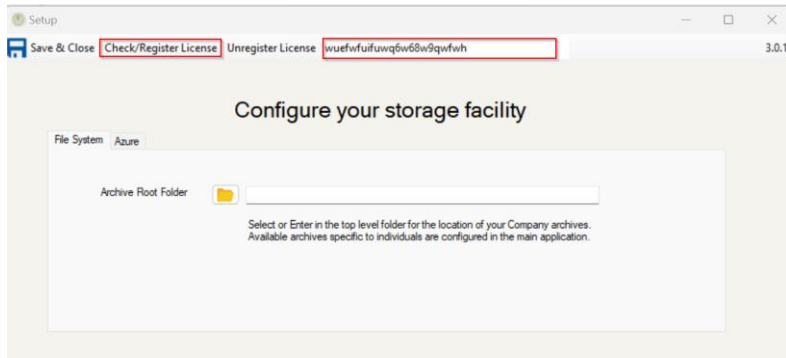
I.   Registering the Product

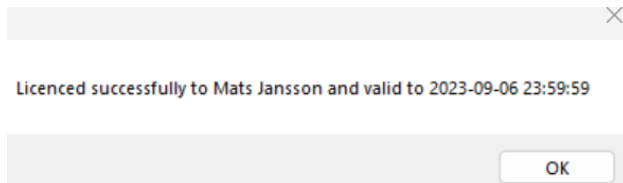Before you can access your stored archives, the user must register their installation of the product.

1. In the Archive Viewer Plus main window, click on 'setup'.
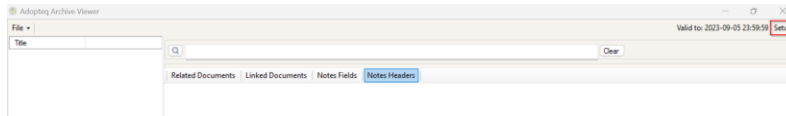
2. Enter the license key provided by us and then click on Check/Register.

3. When registered successfully a message will appear with a valid till date. Click on Ok to continue.


J.   Configuring Network File Storage Access

If Indexing has not been enabled on the folder structure you are navigating to, please refer to Section G in Archive Viewer Plus Web earlier in this document.
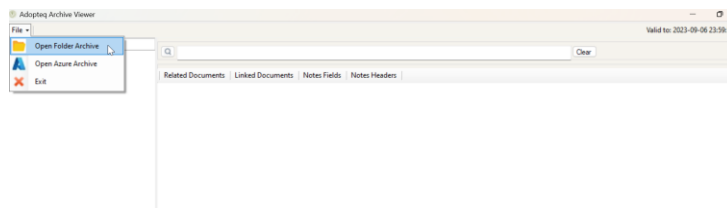
1. To open archives stored in your file system Click on the folder icon and navigate to the folder where you have archives.
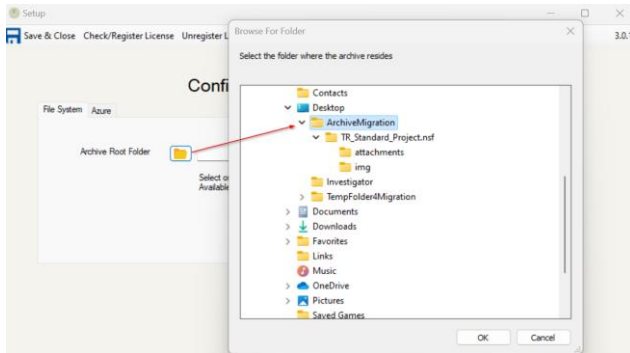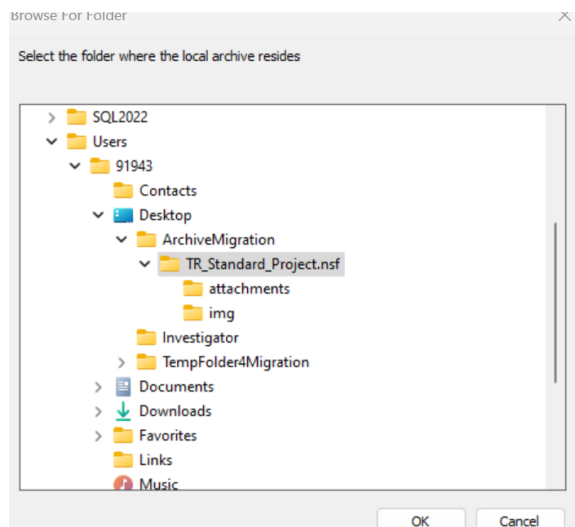
2. Click on Save and close to save the configuration.
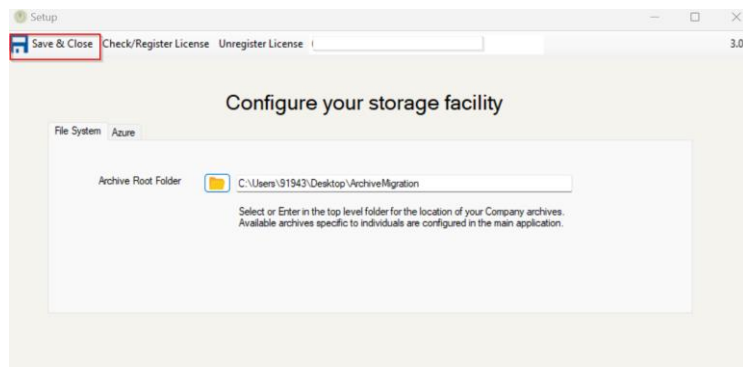
3. To open the Archive folder, Go to File and select **Open Folder Archive**

4. Navigate to the Archive nsf location and click on OK.

You can see the titles archived using Adopteq's Migrator Plus product. The index.json file in the location creates the clickable links in the left panel.

Further information on the usage of Archive Viewer Plus is available in the User Guide.

K. Archive Viewer Azure File Storage Access

Storage of archives in Azure requires further setup to access storage containers and app registration is required. Azure can be architected in a more complex way than Network File storage and can be single or multi-tenant. This section covers the registration of the application, the creation of storage account, and access to the stored archives in Azure.

- Step 1 - Azure App Registration of Archive Viewer Plus Desktop
- Step 2 - Configure Azure Storage in Archive Viewer Plus Desktop
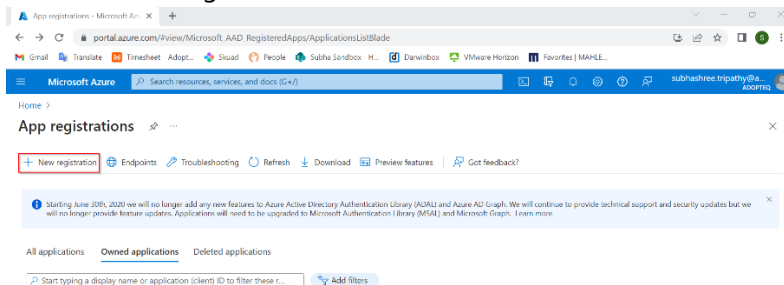- Multi-tenant architecture overview

Step 1 - Azure App Registration of Archive Viewer Plus Desktop

To access Azure storage, you must first create a user in your Azure tenant and assign the correct permissions.
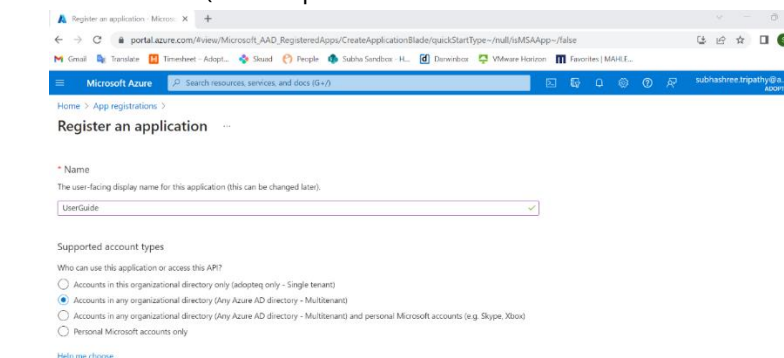
1. To create a new user, navigate to your Azure home portal and select 'App Registration'.
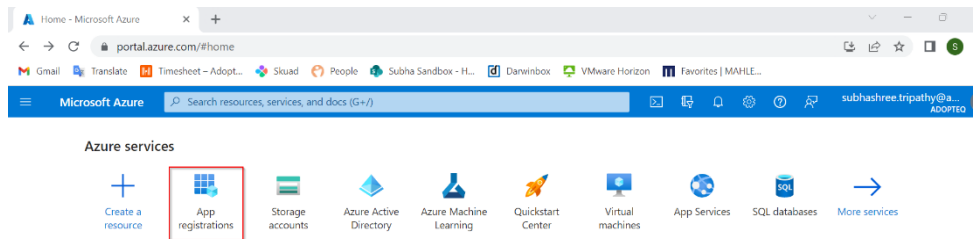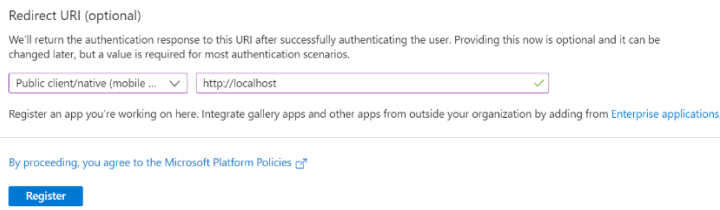

2. Click on 'New Registration'.

3. Enter a name for the new app registration and select the supported account type.
   a. Single Tenant
   b. Multi-tenant (a description of this architecture follows later in the document)
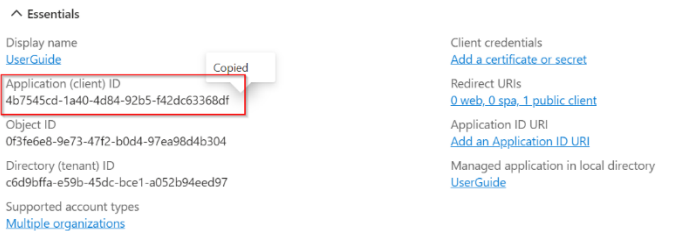

4. Select Public client/native (mobile & desktop) from the Redirect URL drop-down and add localhost in the URL field as shown in the image below.
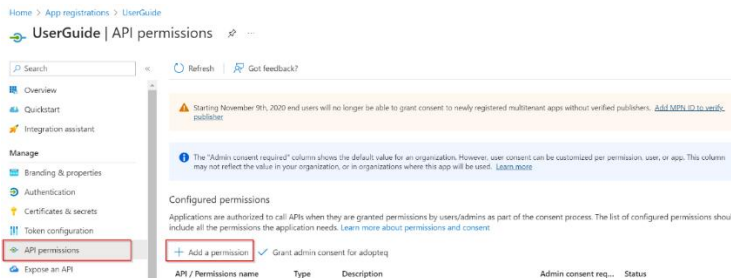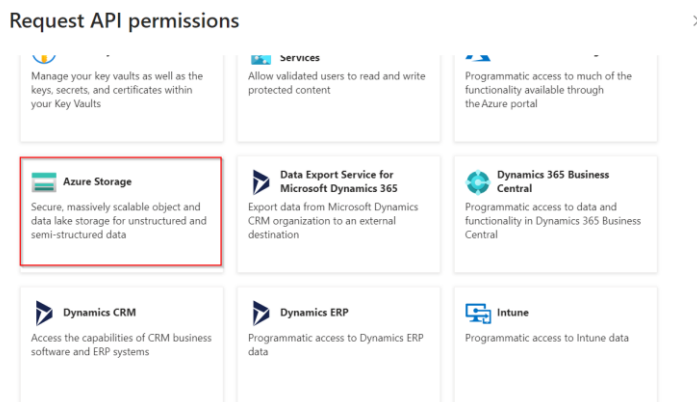
5. Click 'Register'.

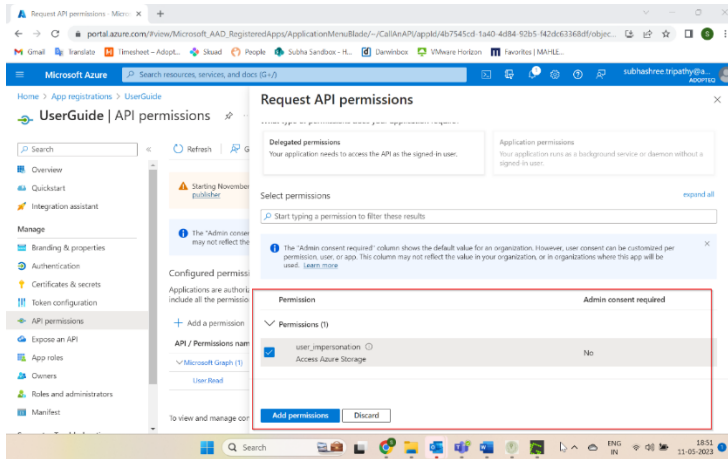6. **IMPORTANT:** Note the Client ID for Configuration.

7. Click on 'API permissions' and add a permission.

8. Select 'Azure Storage' from the Request API permissions window.

9. In the Permissions section, check user impersonation, Access Azure Storage and click on Add Permission.

10. Navigate to 'Authentication' and make sure there is an entry for localhost in Redirect URIs. You can also change (single or multiple tenant(s)) the Supported account types from Authentication.
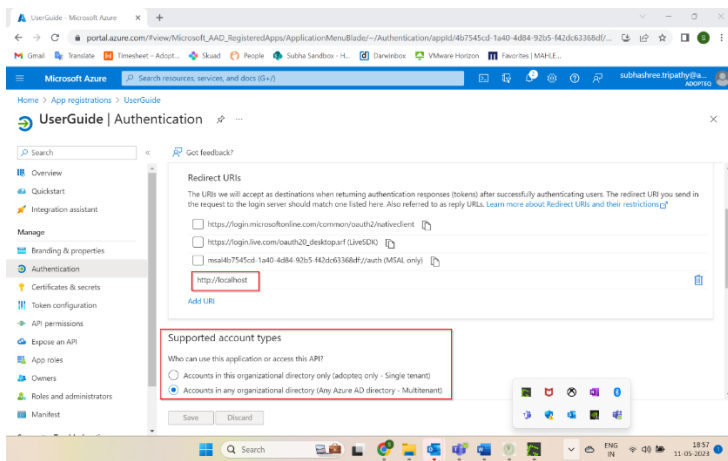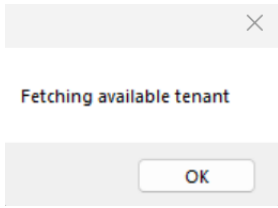

Step 2 – Configure Azure Storage

If you are storing archives in Azure, please use the following section for setup and configuration.
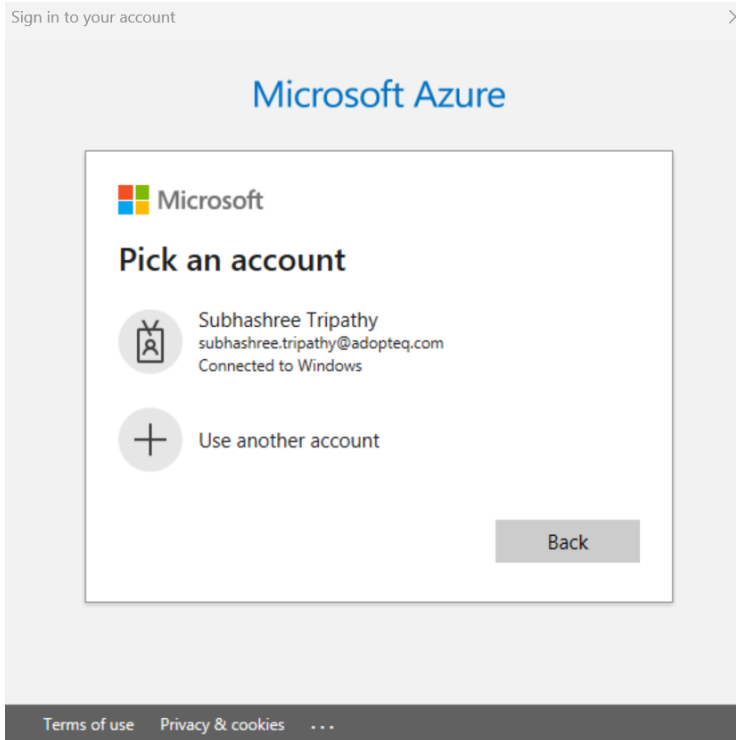
1. Navigate to 'setup' in Archive Viewer Plus and click on 'Azure'.
2. Enter the Azure storage account and default Azure container.
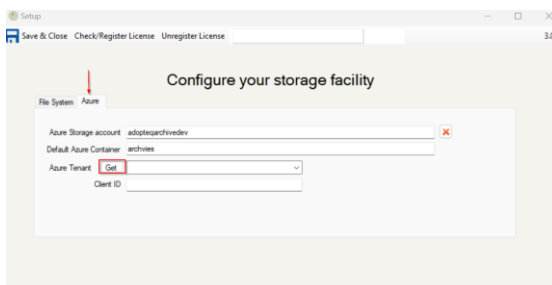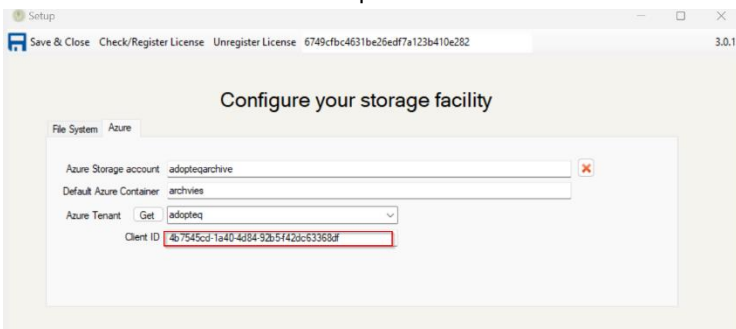

3. To retrieve available tenants in the choice, click on 'Get'

Fetching available tenant

OK

4. Enter valid credentials to sign into your Azure account.

5. Select the tenant from the dropdown. Enter the Client ID from point 5 in the previous section.

6. Click on 'Save & Close' to save the configuration.
   Important! If the storage container is in a different tenant, make sure to select the tenant where the container is located and that you have storage owner privileges of the container.
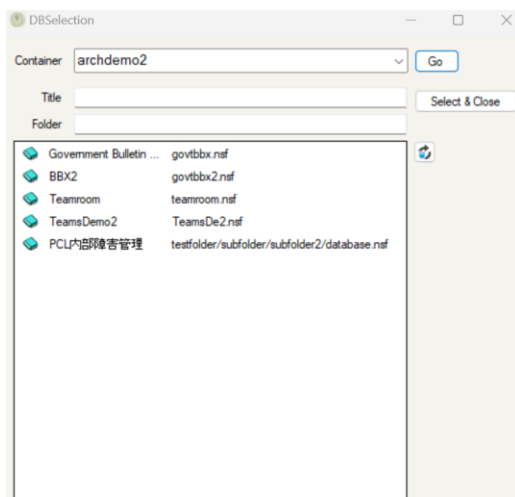
7. In the Archive Viewer Plus main window, click on 'Files' and select 'Open Azure Archive'.
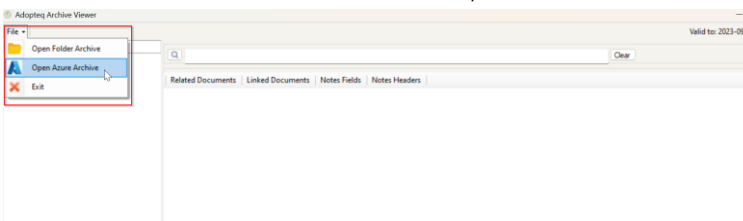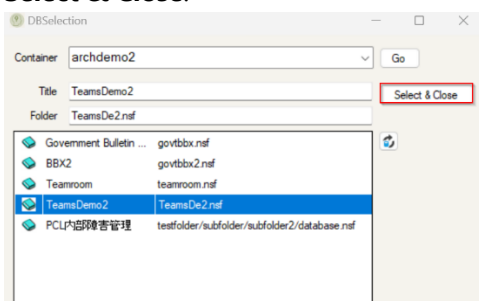
8. Select the account you use for accessing Azure then check 'Consent on behalf of your organization' and click 'Accept'.
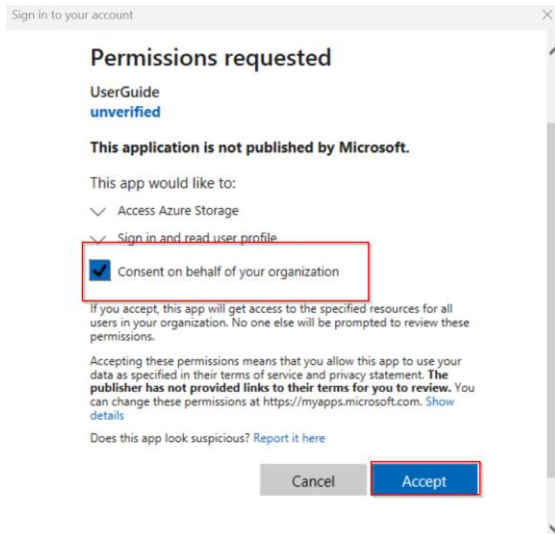
9. Select the container from the dropdown and click 'Go'.

10. When you see the available archives double click on the archive you want to open and click on **Select & Close**.


Further instructions on the user of Archive Viewer Plus are available in the User Guide.

L. Multi-tenant Considerations

The setup and configuration of a multi-tenant storage implementation follows the same path as single tenant but in the App Registration, you select multi-tenant and ensure that when navigating to the storage container of your choice in Archive Viewer Plus setup, the correct tenant is listed.

The security architecture of multi-tenant can differ because of where the users or the storage container account has been registered. The diagram below shows how authentication and access work with a multi-tenant setup.
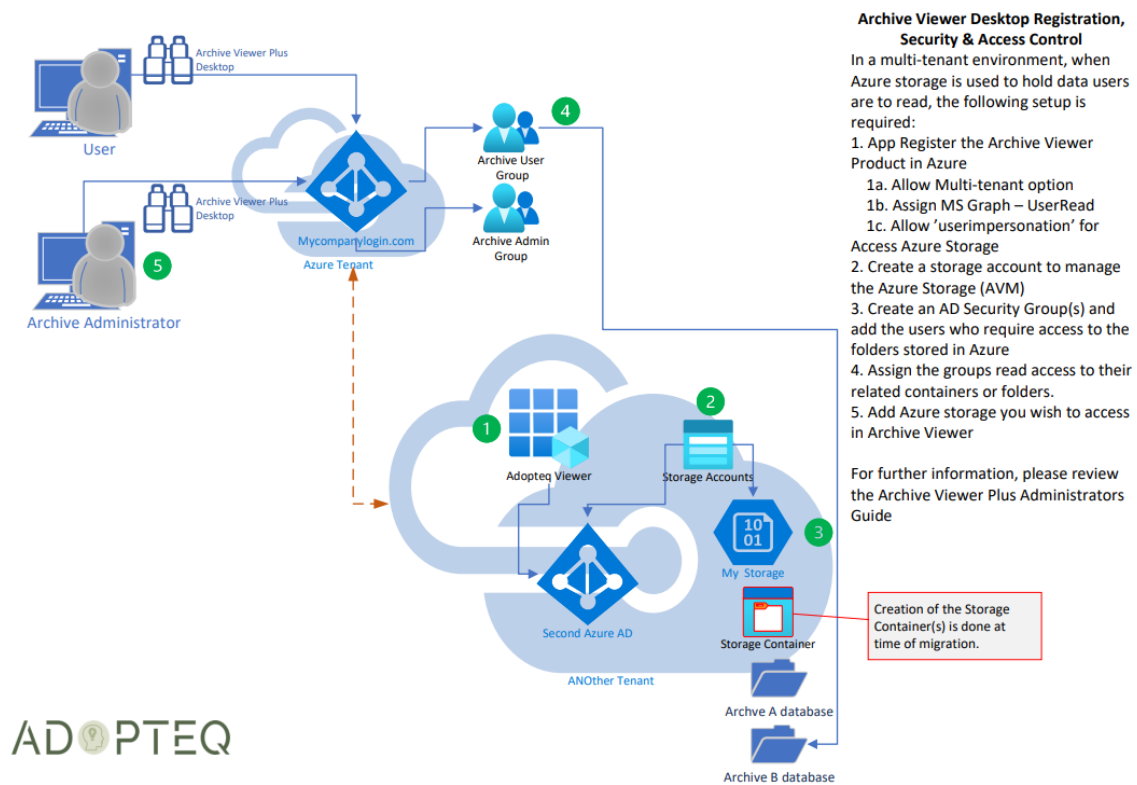
The diagram above shows a standard deployment. Where you have configured accounts may differ and we advise the implementation to be performed with the guidance of the Azure security team within your organization.

M. Failed upgrade

When the user upgrades to Archive Viewer Plus, there may be instances where the application can enter a 'setup' loop (which presents the setup screen each time a user opens the Archive Viewer Plus product). The resolution is to remove the application folder containing the user config, and then restart the product. It will require the setup information to be reentered but once this has been added, the product will work consistently.
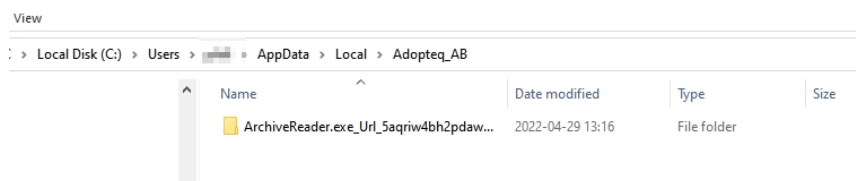
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