

# Azure Data Lake Connected System



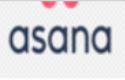









## Overview

Azure Data Lake is a cloud-based data storage and analytics service provided by Microsoft. It allows users to store and process big data sets in a secure and scalable manner, using tools and frameworks like Hadoop, Spark, and Data Lake Analytics. With Azure Data Lake, users can easily manage and analyze large volumes of data from various sources, and derive valuable insights using advanced analytics and machine learning capabilities. To call Azure Storage API, a connected system must be authenticated with the Microsoft identity platform. The access token contains information about your app and the permissions it has to access the resources and APIs available through Azure Storage. To get an access token, our app must be registered with the Microsoft identity platform(Azure Portal) and be authorized by either a user or an administrator to access the Azure Storage resources it needs.

# Connected System Configuration

## Create Connected System

Search Connected Systems...

 Amazon Machine Learning	 Appian RPA	 ASANA	 Aurora MySQL Data Source
 Aurora PostgreSQL Data Source	 Azure Data Lake Connected System	 Azure Face Recognition	 Blue Prism
 Box User Authentication	 Db2 Data Source	 Docmosis	 DocuSign

**Connect with Azure Data Lake**

CANCEL

# Create Connected System



## Azure Data Lake Connected System

Connect with Azure Data Lake  
Version: 1

Name \*

Description

### Azure Data Lake Connected System Configuration

Tenant Id \*

Client Id \*

Client Secret \*

Connection successful

TEST CONNECTION

GO BACK

CANCEL

USE IN NEW INTEGRATION

CREATE

Steps to get Credentials:

## 1. Register your Azure App

Microsoft Azure Search resources, services, and docs (G+)

Home > App registrations >

### Register an application

\* Name

The user-facing display name for this application (this can be changed later).

Sample App ✓

Supported account types

Who can use this application or access this API?

- Accounts in this organizational directory only (██████████ - Single tenant)
- Accounts in any organizational directory (Any Azure AD directory - Multitenant)
- Accounts in any organizational directory (Any Azure AD directory - Multitenant) and personal Microsoft accounts (e.g. Skype, Xbox)
- Personal Microsoft accounts only

[Help me choose...](#)

Redirect URI (optional)

We'll return the authentication response to this URI after successfully authenticating the user. Providing this now is optional and it can be changed later, but a value is required for most authentication scenarios.

Web https://provide.your.url.from.connected.system ✓

Register an app you're working on here. Integrate gallery apps and other apps from outside your organization by adding from [Enterprise applications](#).

By proceeding, you agree to the [Microsoft Platform Policies](#)

**Register**

2. Once registered, create Client Secret from App>Certificates & Secret>New Client Secret.

Microsoft Azure Search resources, services, and docs (G+)

Home > App registrations

## Certificates & secrets

Search (Ctrl+/) Got feedback?

Overview  
Quickstart  
Integration assistant

Manage

- Branding & properties
- Authentication
- Certificates & secrets**
- Token configuration
- API permissions
- Expose an API
- App roles
- Owners
- Roles and administrators
- Manifest

Support + Troubleshooting

- Troubleshooting
- New support request

Credentials enable confidential applications to identify themselves to the authentication service when receiving tokens at a web addressable location (using an HTTPS scheme). For a higher level of assurance, we recommend using a certificate (instead of a client secret) as a credential.

Application registration certificates, secrets and federated credentials can be found in the tabs below.

Certificates (0) **Client secrets (4)** Federated credentials (0)

A secret string that the application uses to prove its identity when requesting a token. Also can be referred to as application password.

+ New client secret

Description	New client secret Expires	Value	Secret ID
[REDACTED]	7/30/2022 ⚠	B4z*****	eecb2aff-de78-46c...
[REDACTED]	12/27/2022	TS0*****	3cea0829-4a81-47...
[REDACTED]	6/23/2023	bWI*****	dd532af8-80ff-4d1...
[REDACTED]	7/6/2024	LVA*****	79db51e5-855a-46...

3. After secret creation, keep it at a safe place as you can't get it another time.
4. Get the Client Id, Tenant Id and Secret Key from the application which will be used in this connected system.
5. After registering the application, we need to provide the application with API permissions. Each operation or API request needs special permission to access the graph api. For Data Lake, storage operations requires **Azure Storage** permission
6. After adding the required permissions, we need to provide admin consent. This admin consent can be provided only by user who has admin access

# Integrations

## File System Integrations

- Create File System
- Delete File System
- List File System

## Path Integrations

- Upload File
- Delete File
- List File
- Download File

# File System Integrations

## 1. Create File System

Creates a File System as a container in Azure Storage

### ADL\_INT\_createFileSystem

**Connected System \***  
ADL\_CS\_AzureDataLakeConnectedS... X

**Operation \***  
Create File System

Create File System

**Azure Storage Account Name \***  
[Redacted]  
Enter name of the storage account you are using

**File System Name \***  
adl-test

**TEST REQUEST**

Result Request Response

**Success!**

**Time**  
937 ms  
Prepare: < 1 ms - Execute: 937 ms (Send/Wait/Receive: 933 ms) - Transform: < 1 ms

**Value: Result ?**  
Dictionary  
Status "Success" (Text)

## 2. Delete File System

Deletes a File System in Azure Storage

### ADL\_INT\_deleteFileSystem

**Connected System \***  
ADL\_CS\_AzureDataLakeConnectedS... X

**Operation \***  
Delete File System  
Removes the specified file system

**Azure Storage Account Name \***  
[Redacted]  
Enter name of the storage account you are using

**File System Name \***  
adl-test

**TEST REQUEST**

Result Request Response

**Success!**

**Time**  
356 ms  
Prepare: < 1 ms - Execute: 356 ms (Send/Wait/Receive: 354 ms) - Transform: < 1 ms

**Value: Result ?**  
Dictionary  
Status "Success" (Text)



### 3. List File System

Lists all the file systems available in the Storage Account

#### ADL\_INT\_listFileSystem

**Connected System \***  
ADL\_CS\_AzureDataLakeConnectedS... X

**Operation \***  
List File System

Lists the available file systems.

**Azure Storage Account Name \***  
[Redacted]  
Enter name of the storage account you are using

**Time**  
558 ms  
Prepare: < 1 ms - Execute: 558 ms (Send/Wait/Receive: 557 ms) - Transform: < 1 ms

**Value: Result ?**

- Dictionary
  - filesystems List of Dictionary - 9 items
    - Dictionary
      - name "samplefilesystem" (Text)
      - etag "0x8DA9FBFAC6225DF" (Text)
      - lastModified "Mon, 26 Sep 2022 13:04:40 GMT" (Text)
    - Dictionary
      - name "teasd2e" (Text)
      - etag "0x8DA9AEE4ADA3581" (Text)
      - lastModified "Tue, 20 Sep 2022 09:55:47 GMT" (Text)
    - Dictionary
      - name "test" (Text)
      - etag "0x8DA97A17E68AF29" (Text)
      - lastModified "Fri, 16 Sep 2022 05:08:29 GMT" (Text)
    - Dictionary
      - name "test23" (Text)
      - etag "0x8DA9AEB5CCFF10" (Text)
      - lastModified "Tue, 20 Sep 2022 08:04:14 GMT" (Text)
    - Dictionary
      - name "testazure" (Text)
      - etag "0x8DA97A204319B1B" (Text)
      - lastModified "Fri, 16 Sep 2022 05:12:13 GMT" (Text)
    - Dictionary
      - name "testblob1" (Text)
      - etag "0x8DA96B5FBAD6F65" (Text)
      - lastModified "Thu, 15 Sep 2022 01:02:38 GMT" (Text)
    - Dictionary
      - name "testcontainer" (Text)
      - etag "0x8DA9BDFB95DFBF3" (Text)
      - lastModified "Wed, 21 Sep 2022 14:44:01 GMT" (Text)
    - Dictionary
      - name "testd23f" (Text)
      - etag "0x8DA9AEE1D05F3CE" (Text)
      - lastModified "Tue, 20 Sep 2022 09:54:30 GMT" (Text)
    - Dictionary
      - name "testfs3" (Text)
      - etag "0x8DA9983C952D341" (Text)
      - lastModified "Sun, 18 Sep 2022 14:40:52 GMT" (Text)

TEST REQUEST

# Path Integrations

## 1. Upload File

Uploads a file to the specified File System

### ADL\_INT\_uploadFile

**Connected System \***  
ADL\_CS\_AzureDataLakeConnectedS... X

**Operation \***  
Upload File

Upload files

**Azure Storage Account Name \***  
[Redacted]  
Enter name of the storage account you are using

**File System Name \***  
adl-test

**Path name \***  
test-path  
Enter Path name

**File name \***  
sample-file  
Enter File name

**File \***  
Sample File X +  
File to be uploaded

**TEST REQUEST**

Result Request Response

**Success!**

**Time**  
1,185 ms  
Prepare: < 1 ms - Execute: 1,185 ms (Send/Wait/Receive: 1,177 ms) - Transform: < 1 ms

**Value: Result ?**  
Dictionary

## 2. Delete File

Deletes a file in the specified File System

### ADL\_INT\_deleteFile

**Connected System \***  
ADL\_CS\_AzureDataLakeConnectedS... X

**Operation \***  
Delete File  
Delete files

**Azure Storage Account Name \***  
[Redacted]  
Enter name of the storage account you are using

**File System Name \***  
adl-test

**Path name \***  
test-path  
Enter Path name

**File name \***  
sample-file.pdf  
Enter File name

**TEST REQUEST**

Result Request Response

**Success!**

**Time**  
617 ms  
Prepare: < 1 ms - Execute: 617 ms (Send/Wait/Receive: 615 ms) - Transform: < 1 ms

**Value: Result ?**  
Dictionary  
Status "Success" (Text)

### 3. List Files

Lists all the files that are available in the specified file system.

The screenshot displays the ADL\_INT\_listFiles tool interface. On the left, the configuration panel includes:

- Connected System \***: ADL\_CS\_AzureDataLakeConnectedS... (with a close icon)
- Operation \***: List Files (selected in a dropdown menu)
- Azure Storage Account Name \***: [Redacted]
- File System Name \***: adl-test

Below the configuration is a blue button labeled "TEST REQUEST".

On the right, the results panel shows:

- Result**: Success! (highlighted in green)
- Time**: 537 ms
- Prepare**: < 1 ms - **Execute**: 537 ms (Send/Wait/Receive: 535 ms) - **Transform**: < 1 ms
- Value: Result** (with a help icon):
  - Dictionary
    - paths List of Dictionary - 6 items
      - Dictionary
        - owner "\$superuser" (Text)
        - permissions "rw-r-----" (Text)
        - name "sample-file-1.pdf" (Text)
        - contentLength "3567" (Text)
        - etag "0x8DAA058DD803010" (Text)
        - lastModified "Tue, 27 Sep 2022 07:21:16 GMT" (Text)
        - group "\$superuser" (Text)
      - Dictionary
        - owner "\$superuser" (Text)
        - permissions "rw-r-----" (Text)
        - name "sample-file-2.pdf" (Text)
        - contentLength "10206" (Text)
        - etag "0x8DAA058DD7F0B31" (Text)
        - lastModified "Tue, 27 Sep 2022 07:21:16 GMT" (Text)
        - group "\$superuser" (Text)
      - Dictionary
        - owner "\$superuser" (Text)
        - permissions "rw-r-----" (Text)
        - name "sample-file-3.pdf" (Text)
        - contentLength "78883" (Text)
        - etag "0x8DAA058DDA075C7" (Text)
        - lastModified "Tue, 27 Sep 2022 07:21:16 GMT" (Text)
        - group "\$superuser" (Text)
      - Dictionary
        - owner "\$superuser" (Text)
        - permissions "rw-r-----" (Text)
        - name "sample-file-4.pdf" (Text)
        - contentLength "11" (Text)
        - etag "0x8DAA058DD5DA650" (Text)
        - lastModified "Tue, 27 Sep 2022 07:21:15 GMT" (Text)
        - group "\$superuser" (Text)

## 4. Download File

Downloads a file from Azure Storage to Appian Folder.

### ADL\_INT\_downloadFile

**Connected System \***  
ADL\_CS\_AzureDataLakeConnectedS... X

**Operation \***  
Download File

Download file

**Azure Storage Account Name \***  
[Redacted]  
Enter name of the storage account you are using

**File System Name \***  
adl-test

**Path name \***  
test-path  
Enter Path name

**File name \***  
sample-file  
Enter File name

**Save to Folder ? \***  
ADL Temporary Folder X

**Result** | Request | Response

**Success!**

**Time**  
1,257 ms  
Prepare: < 1 ms - Execute: 1,256 ms (Send/Wait/Receive: 1,203 ms) - Transform: 1 ms

**Value: Result ?**  
Dictionary  
Status "Success" (Text)  
Document 508918 - sample-file. (Document)

**TEST REQUEST**