🧪 Lab: Azure File Movement Using AzCopy & Azure File Sync

🎯 Lab Objectives

- Upload files from your local machine to Azure File Share using **AzCopy**
- Configure and use **Azure File Sync** to synchronize an on-premises Windows Server folder with Azure File Share

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👩‍💻 Prerequisites

- Azure Subscription
- Storage Account with Azure File Share created
- Windows machine (local or server) with internet access
- Azure Storage Explorer (optional)
- AzCopy installed (Download: https://aka.ms/downloadazcopy)
- Windows Server (2012 R2 or later) with PowerShell access for Azure File Sync
- Azure File Sync Agent installed on the Windows Server (Download here)

Part 1: Upload Files to Azure File Share using AzCopy

Step 1: Prepare Azure Storage Account and File Share

1. Log into Azure Portal
2. Navigate to your **Storage Account**
3. Under **Data storage**, click **File shares**
4. Click **+ File share**, name it `azcopyfileshare` and create it

Step 2: Get Storage Account Connection Info

1. In the storage account, go to **Access keys**
2. Copy the **Storage account name** and **key**

Step 3: Install AzCopy (if not installed)

- Download and install AzCopy from here

Verify installation:

```
azcopy --version
```

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Step 4: Upload Files with AzCopy

1. Open **Command Prompt** or **PowerShell**

Login to storage account (optional for SAS usage):

```
azcopy login
```

2.

3. Use the following command to upload files (replace placeholders):

azcopy copy "C:\LocalFolder*" "https://<storageaccount>.file.core.windows.net/azcopyfileshare" --recursive --account-name <storageaccount> --account-key <storagekey>

4. Verify files uploaded by navigating to the file share in Azure Portal or using Storage Explorer.

Part 2: Synchronize Files Using Azure File Sync

Step 1: Create Azure File Share (if not already created)

1. In Azure Portal, create a new file share named `filesyncshare` in your storage account.

Step 2: Create Storage Sync Service

1. In Azure Portal, search **Storage Sync Services**
2. Click **+ Create**, name it `filesyncservice`, and create it.

Step 3: Register Windows Server with Storage Sync Service

1. On your Windows Server machine:
    - Download and install the **Azure File Sync agent** from here

After installation, open **Azure File Sync** agent UI or use PowerShell to register the server:

Register-AzStorageSyncServer -ResourceGroupName <resource-group> -StorageSyncServiceName filesyncservice -SubscriptionId <subscription-id>

2.
3. Alternatively, register server from Azure Portal under your Storage Sync Service blade.

Step 4: Create Sync Group

1. In Azure Portal, under your **Storage Sync Service**, click **+ Sync Group**
2. Name it `filesyncgroup`, select the storage account and `filesyncshare` file share as cloud endpoint.

Step 5: Add Server Endpoint

1. In the sync group, click **+ Add server endpoint**
2. Select your registered Windows Server and provide a path to the local folder to sync, e.g., `D:\SyncFolder`
3. Click **OK**

Step 6: Test Sync

1. Add files to the local sync folder on your Windows Server (`D:\SyncFolder`)
2. Wait for sync (monitor via Azure Portal or PowerShell)
3. Verify files appear in the Azure file share (`filesyncshare`) in the portal or Storage Explorer.

🧹 Cleanup

- Delete created file shares and Storage Sync Service to avoid charges.

- Unregister servers if no longer needed.

✅ Lab Complete!

You have successfully:

- Uploaded files to Azure Files using AzCopy
- Configured Azure File Sync for hybrid file synchronization
