

# Backup to the cloud with Azure File Shares



**Azure Files** offers fully managed file shares in the cloud that are accessible via the industry standard Server Message Block (SMB) protocol.

Share access is fully secure using end to end AES encryption utilised in the SMB 3.0 protocol and **can be used directly for Macrium Reflect backup and restore and Site Manager repositories.**

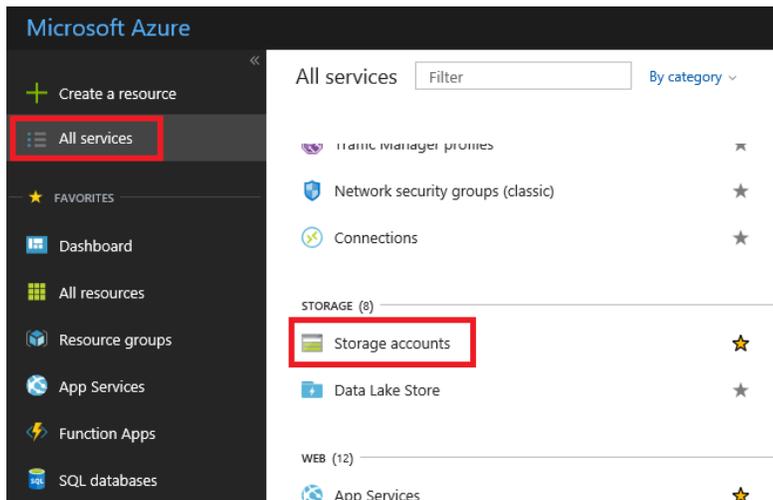
**Note:** SMB 3.0 is available with **Windows 8.1 or later and Windows Server 2012 or later** operating systems. **Earlier versions of Windows cannot mount Azure shares.**

**Port 445 (TCP outbound) must be open** to allow communication with Azure file shares. If you have problems **please check that your ISP isn't blocking this port.**

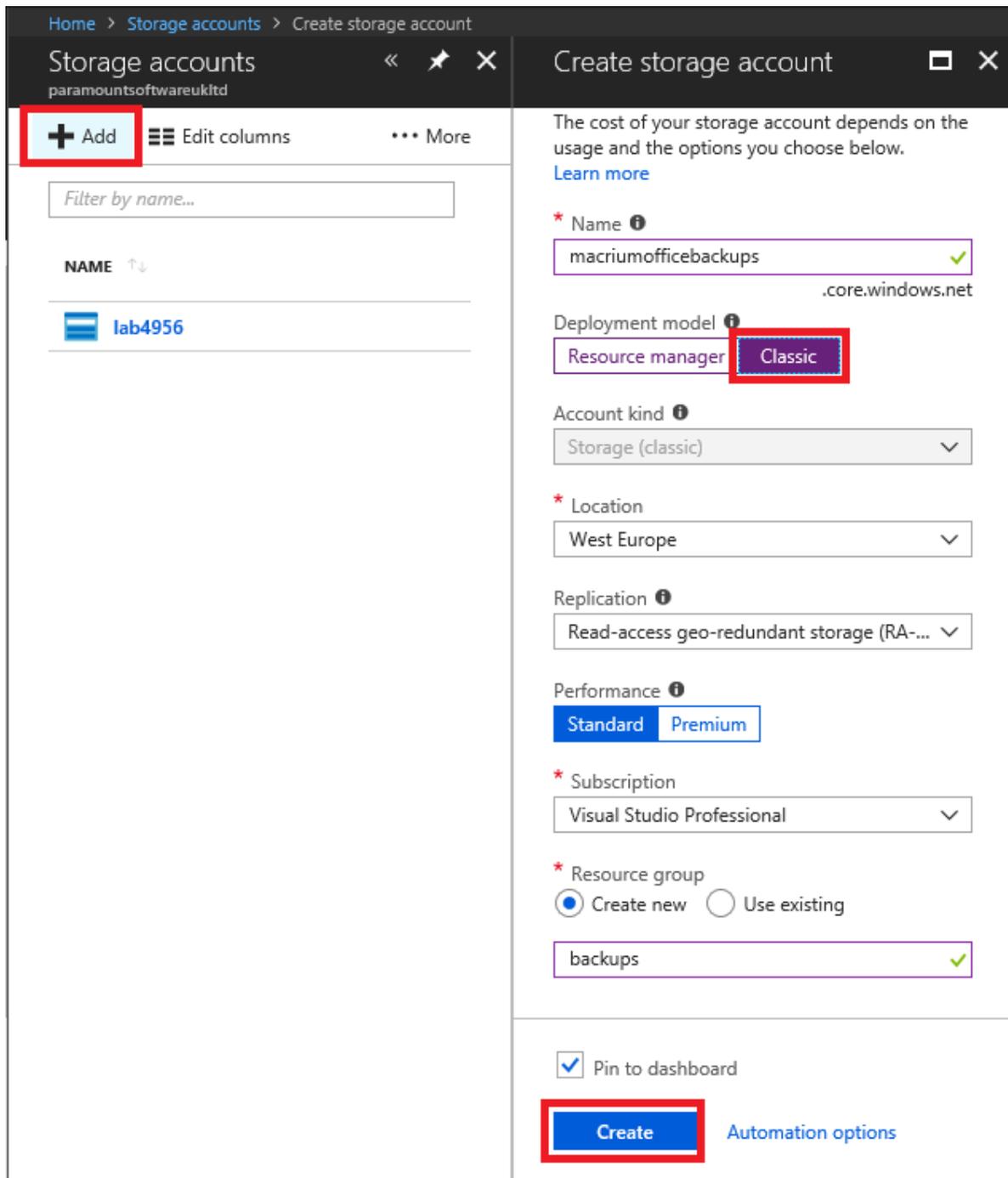
## How to setup an Azure File Share

It's easy and takes just 5 minutes! If you don't currently have an Azure account then it's easy to set one up. There's a Free tier and currently a free credit for full access when you first enrol. Please see here for more information: <https://azure.microsoft.com>

In the Azure Dashboard **select 'All Services'** then scroll to and **select 'Storage Accounts'** in the 'Storage' group:

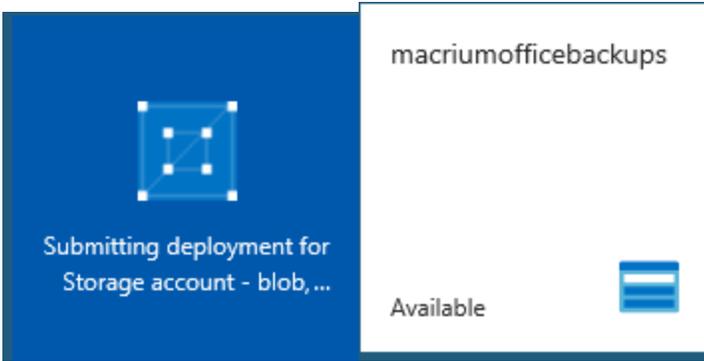


Click the **'Add'** button to reveal the share creation options.

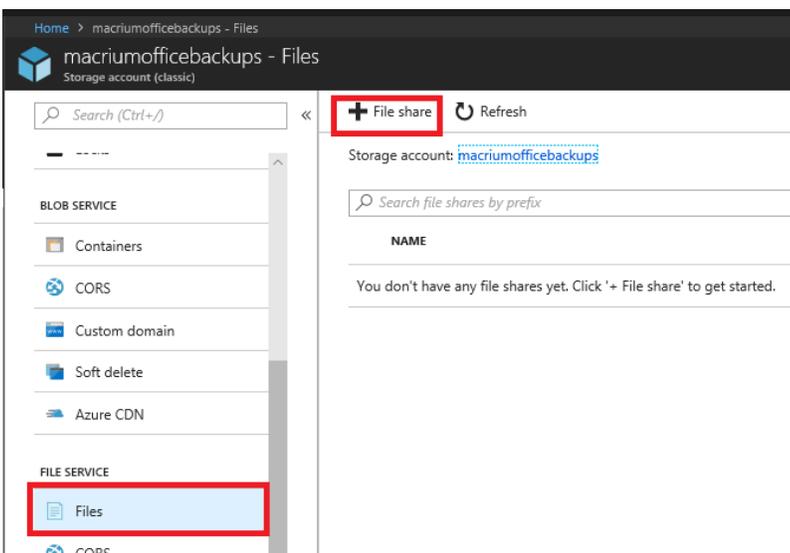


You must provide a **unique name**, across all Azure shares, for your share URL. I've used 'macriumofficebackups' for this example. **Select the 'Classic' deployment model** to keep things simple. Create a **new** and appropriately named '**Resource Group**'. I've used 'backups'. **Select 'Pin to dashboard'** for easy access.

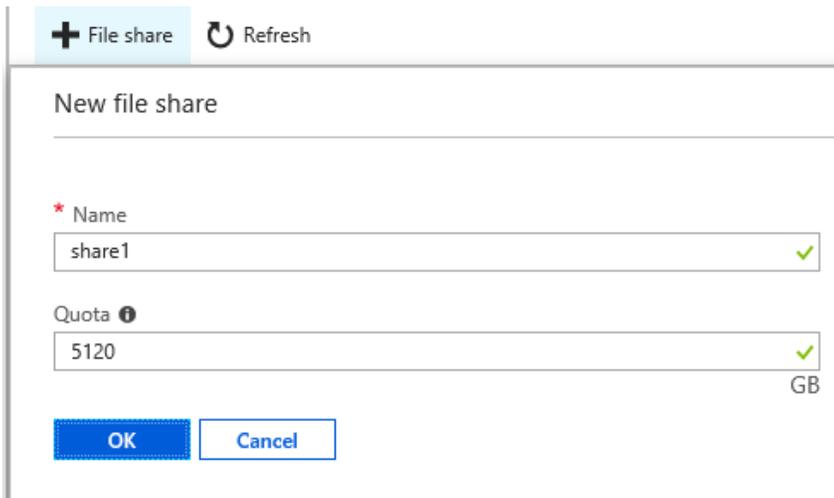
Finally, **click 'Create'** and you'll see the following activity widget on the dashboard followed by a new storage tile after a few seconds:



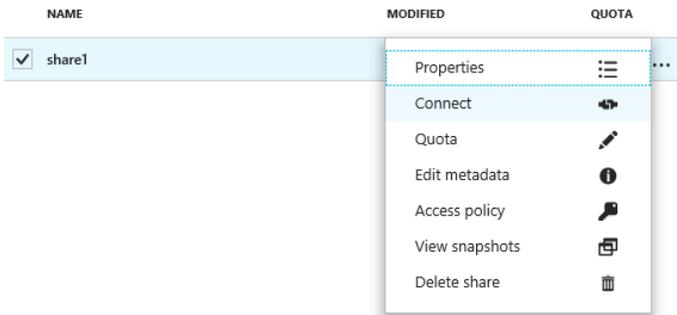
**Click the new storage tile, select 'Files'** in the storage account selections pane that opens, then **click 'Add File Share'**



Give your share a **meaningful name** and **set the size**. The max is 5TB / 5120 GB:



Click the '...' menu on the new share and select 'Connect'



You'll be presented with several scripts and command line options to connect to your new share from anywhere in the world

### Connect

share1

Connecting from Windows

Drive letter

To connect to this file share from a Windows computer, run these PowerShell commands:

```
$acctKey = ConvertTo-SecureString -
String "4FkHLDrmoaos2IYkwnLIR8Ls+6nVVATPlaMoCEWa1j6
GfvnHMDfAaVmFDA4IQkCzxtn4YPObl2Lc+lfXWZPjQw==" -
AsPlainText -Force
$credential = New-Object
```

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

```
net use Z:
\\macriumofficebackups.file.core.windows.net\share1 /u:AZURE\
macriumofficebackups
4FkHLDrmoaos2IYkwnLIR8Ls+6nVVATPlaMoCEWa1j6GfvnHMDf
AaVmFDA4IQkCzxtn4YPObl2Lc+lfXWZPjQw==
```

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

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

### Connecting from Linux

To connect to this file share from a Linux computer, run this command:

```
sudo mount -t
cifs //macriumofficebackups.file.core.windows.net/share1
[mount point] -o
vers=3.0,username=macriumofficebackups,password=4FkHLDr
moaos2IYkwnLIR8Ls+6nVVATPlaMoCEWa1j6GfvnHMDfAaVmFD
A4IQkCzxtn4YPObl2Lc+lfXWZPjQw==,dir_mode=0777,file_mod
e=0777,sec=ntlmssp
```

The Linux SMB3 client doesn't support share level encryption yet, so mounting a file share in Linux only works from virtual machines running in the same Azure region as the file share.

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

We just need to **select and copy the share path, username and password text from 'net use' command:**

Your details will obviously be different, but for this example:

Share path:	\\macriumofficebackups.file.core.windows.net\share1
User:	AZURE\macriumofficebackups
Password:	4FkHLDrmoaos2lYkwnLIR8Ls+6nVVATPIaMoCEWa1j6GfvnHMDfAaVmFDA4lQkCzxn4YPObl2Lc+lfXWZPjQw==

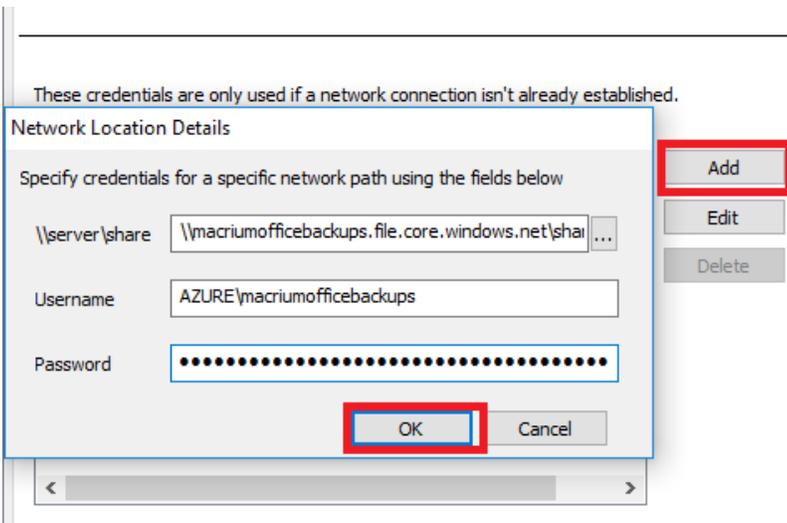
Creating the share is now complete and you have enough information to **connect to Azure for backup and restore from Macrium Reflect and for creating Site Manager repositories.**

More details on other setup methods and options can be found here: <https://docs.microsoft.com/en-us/azure/storage/files/storage-how-to-create-file-share>

## How to connect to the Azure Share in Macrium Reflect

Connecting is simple! Once you have the share details copied from the steps above you can begin backing up to the cloud in exactly the same way as you would any local network share.

Take the **'Other Tasks' > 'Edit Defaults' > 'Network'** menu option in Reflect. **Click 'Add'** and **enter the Azure share user name and password** then **click OK**.



You can now **backup directly to the cloud** by **entering the Azure share path** plus any sub folder if you want to:

In this example we're imaging directly to: \\macriumofficebackups.file.core.windows.net\share1\july\_backups

Disk Image



Select Source Drive(s) and Image Destination

Source

MBR Disk 1 [12A23975] - Samsung SSD 850 PRO 512GB EXM0486Q <476.94 GB>

<input checked="" type="checkbox"/>	1 - System Reserved (H:) NTFS Active 95.1 MB 500.0 MB	<input checked="" type="checkbox"/>	2 - (C:) NTFS Primary 429.56 GB 475.99 GB	<input type="checkbox"/>	3 - (None) NTFS Primary 382.6 MB 465.0 MB
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Total Selected: 95.1 MB

Destination

Folder  
 CD/DVD Burner

Use the Image ID as the file name. (Recommended)

Backup filename:

\\macriumvault.file.core.windows.net\reflect\{IMAGEID}-00-00.mring

[Advanced Options](#)

Success!

**Destination:**  
Backup Type: Full  
File Name: \\macriumofficebackups.file.core.windows.net\share1\july\_backups\7E7BD60A552280C9-00-00.mring  
Attempting to connect to: '\\macriumofficebackups.file.core.windows.net\share1\july\_backups'

**Operation 1 of 1**  
Hard Disk: 1  
Drive Letter: H  
File System: NTFS  
Label: System Reserved  
Size: 500.0 MB  
Free: 404.9 MB  
Used: 95.1 MB

**Starting Image - Tuesday, July 03, 2018 13:45:14**  
Initializing  
Destination Drive: Free Space 5.00 TB  
Free space threshold: Delete oldest backup sets when free space is less than 5.00 GB  
Creating Volume Snapshot - Please Wait

**Saving Partition - System Reserved (H:)**  
Reading File System Bitmap  
Saving Partition  
Saving Index

Overall Progress: 91%    Transfer Rate: 55.9 Mb/s    Time remaining: N/A  
Current Progress: 91%    Time remaining: 01 Seconds

Low Priority    High Priority    On completion: No Shutdown   

**Note:** When your login credentials are saved in the Reflect defaults you can even perform an **unattended system restore** and the **rescue media will automatically connect to Azure for you.**