

# Azure File Sync Your Cloud Fileserver

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Since October Microsoft MVP for Azure ☺

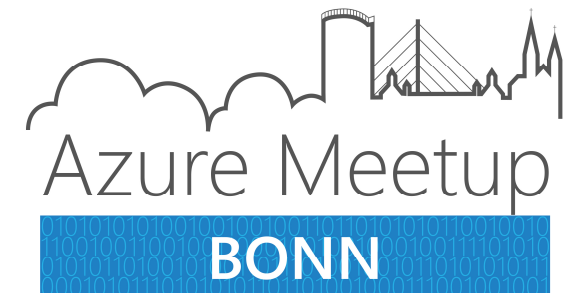
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# Azure File Sync — Agenda

General

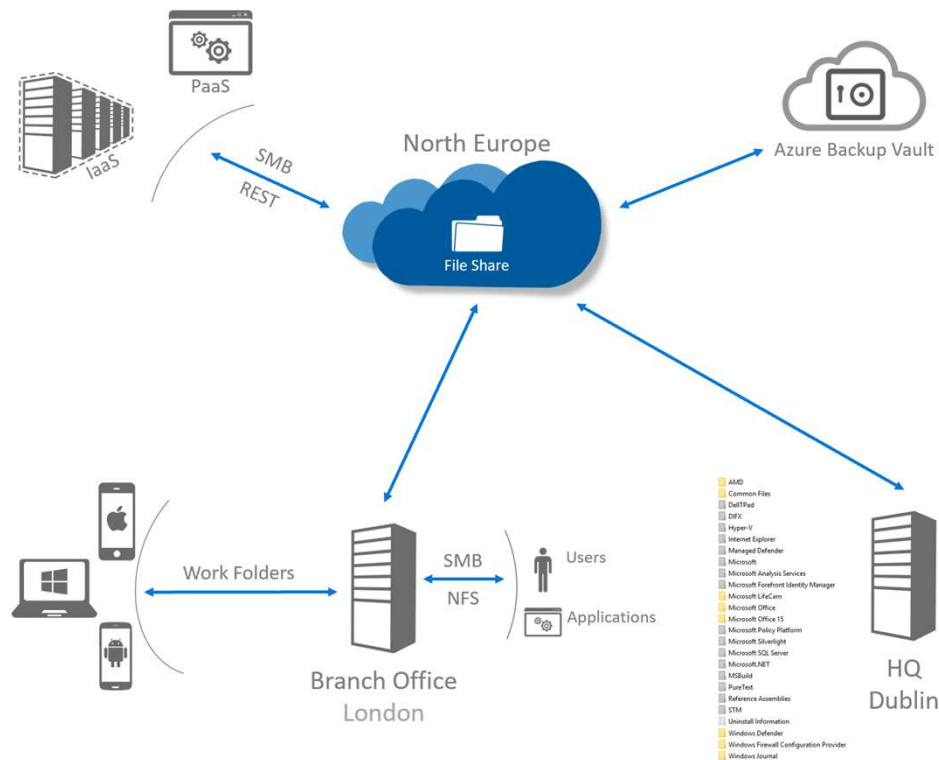
Functions

Demo & Configuration

Migration & Backup

Conclusion

Links





# AFS - General

AzureFileSync = AFS

Synchronize Fileserver between Company Boundaries

General Availability since July 2018

Fileserver need Agent for syncing

- Agent registered Fileserver in Azure
- Monitoring and Syncing
- Transparent for User

Files will be synced to an Azure Fileshare



# AFS - General

All files in enabled folder will be synced

This also includes ACL's

ACL's not accessible via Azure Portal

Syncgroup contains all Server for duplication

All files will be synced to Azure Files (Fileshare)

The sync will always connect to Azure Files

- Syncing changes directly between the server is not possible

# Azure Files

FIRST SOME BASICALLY INTRODUCTION INTO AZURE FILES



# Azure Files

Hosted SMB 3.1 Share for you on Azure

PaaS solution

You don't need to spin up and manage VM's

No Volume layout

Unique namespace, based on Azure Storage

- `mctsummit.blob.core.windows.net` -> Storageaccount Name
- `mctsummit.file.core.windows.net` -> Fileshare Name



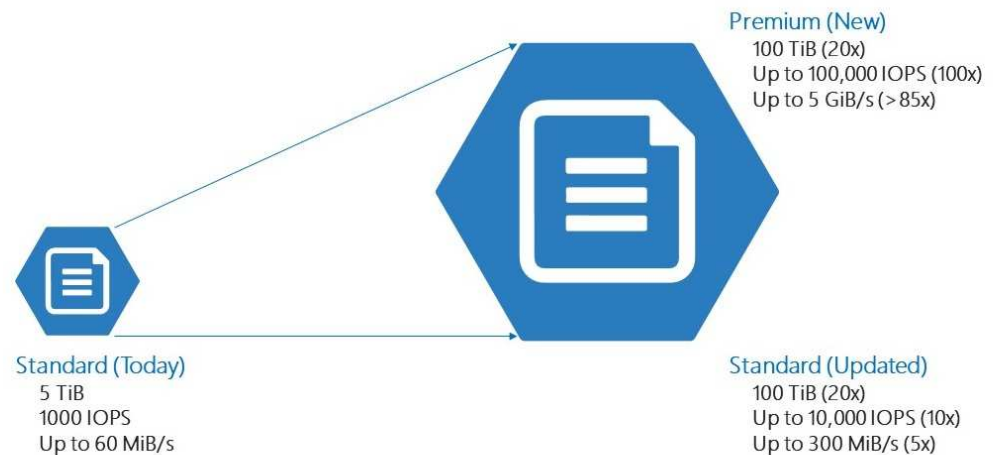
# Azure Files — MSIgnite Announcements

## Standard

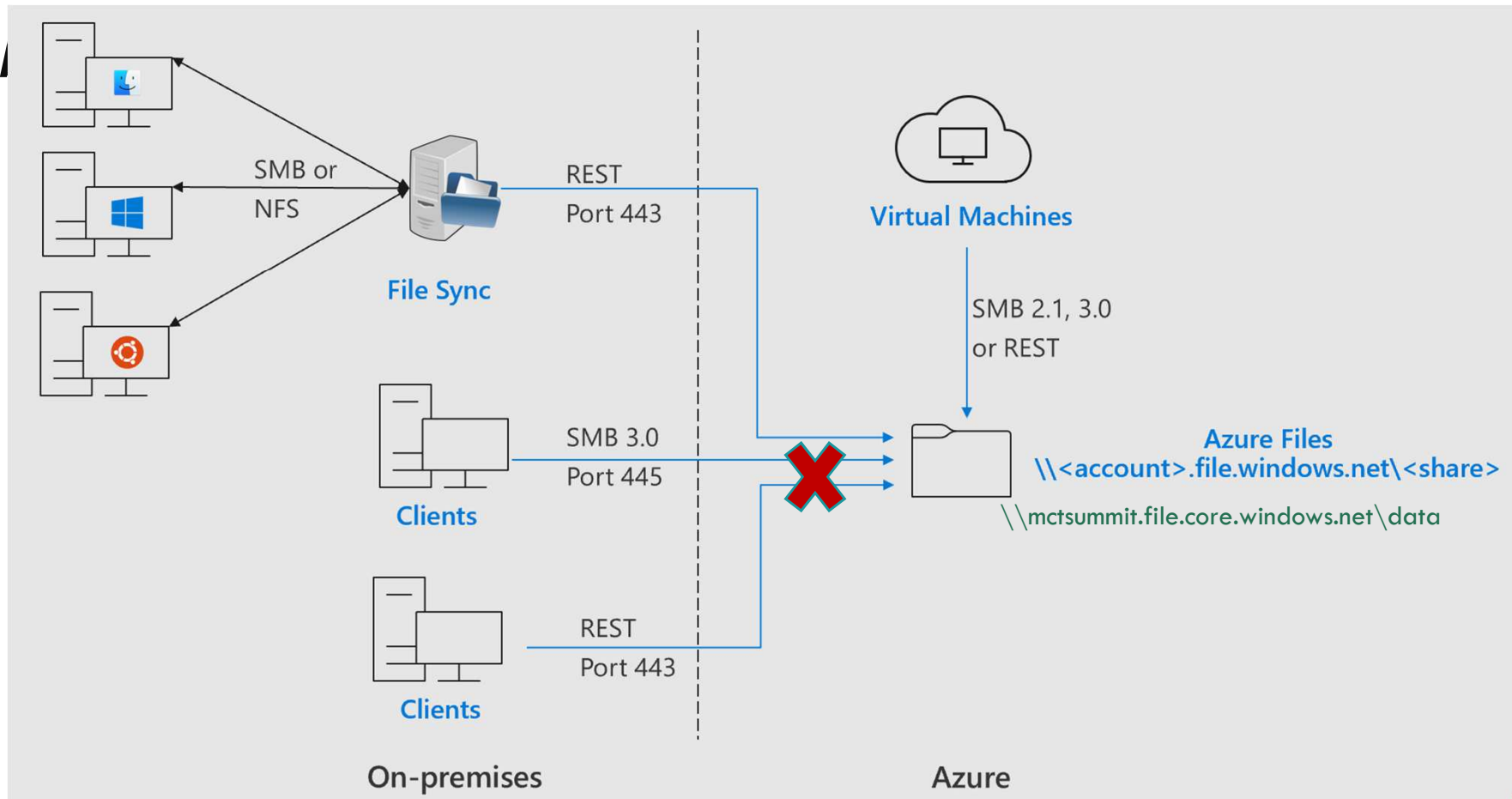
- ~~5TB~~ -> 100TB Fileshare
- ~~1000~~ -> up to 10000 IOPS
- ~~60MB/sec~~ -> up to 300MB/sec

## Premium (new model)

- Up to 100.000 IOPS\*
- Up to 5GB/sec\*
- Based on the fileshare size



<https://azure.microsoft.com/en-us/blog/a-new-era-for-azure-files-bigger-faster-better/>



<https://www.youtube.com/watch?v=GMzh2M66E9o>

# AFS - Limitations

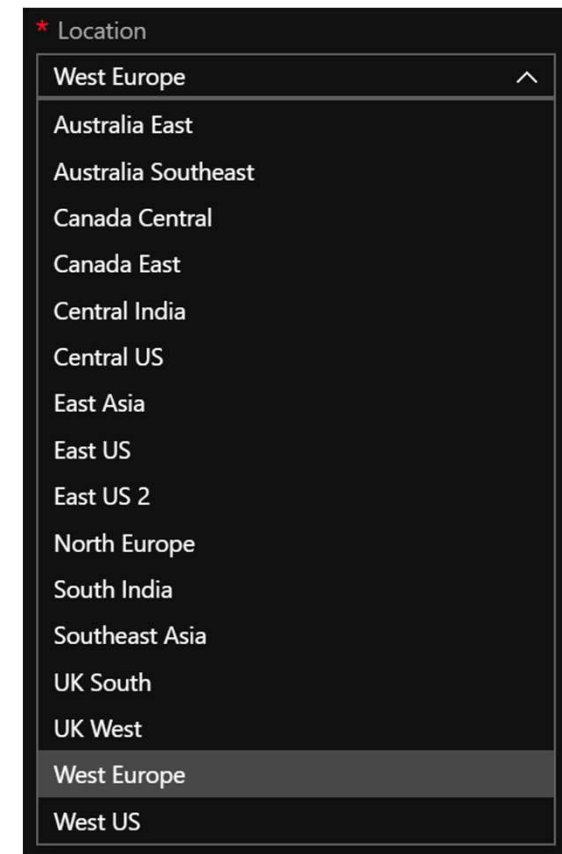
Max. Size of Azure Fileshare 5TB (100TB coming Nov)

- Using more than one Fileshare possible (max. 500TB)

Servers can only registered in one AFS group

Filesystem only NTFS – No ReFS is supported

Data duplication possible -> without Cloud Tiering



# AFS - Requirements

WS2012R2 GUI + PowerShell 5.1

WS2016 GUI

Internet Connection (HTTPS)

Dedicated Storage account (Recommended)

Azure Fileshare

Fileserver needed Powershell Module AzureRM

Agent Installation

Availability regions



## Pre-requisites are missing

Retry server registration after performing the following actions:

Install the latest AzureRM PowerShell module by following the documentation: <https://go.microsoft.com/fwlink/?linkid=856959>.



# AFS – Components

Storage Sync Service

Sync Group

Registered Server

- Associate with Sync Group (1:1)

Cloud Endpoint

- Azure Fileshare

Server Endpoint

- Serverpath

Azure File Sync Service Agent

[Update Rollup for Azure File Sync Agent \(General Availability\) – September 2018 \(KB4457484\)](#)

[Update Rollup for Azure File Sync Agent \(General Availability\) – September 2018 \(KB4457484\)](#)



# AFS — Cloud Tiering

Bring your Fileserver in caching mode

Sync agent build a heatmap of local files

Hottest data will be stored locally

Cold data only available in the Cloud

Each server has different files locally, based on User usage

Transparent for the User

Local file have an pointer to the cloud file

- User open cached files, sync agent starts background download

# AFS — Preparation steps

Create Storageaccount &  
Fileshare

Creating Storage Sync  
Service (Azure File Sync)

Creating Syncgroup  
(will also create an Cloud  
Endpoint)

Install-Module AzureRM  
On the Fileserver

Installing Azure File  
Sync Agent

Registering Server on  
Cloudendpoint

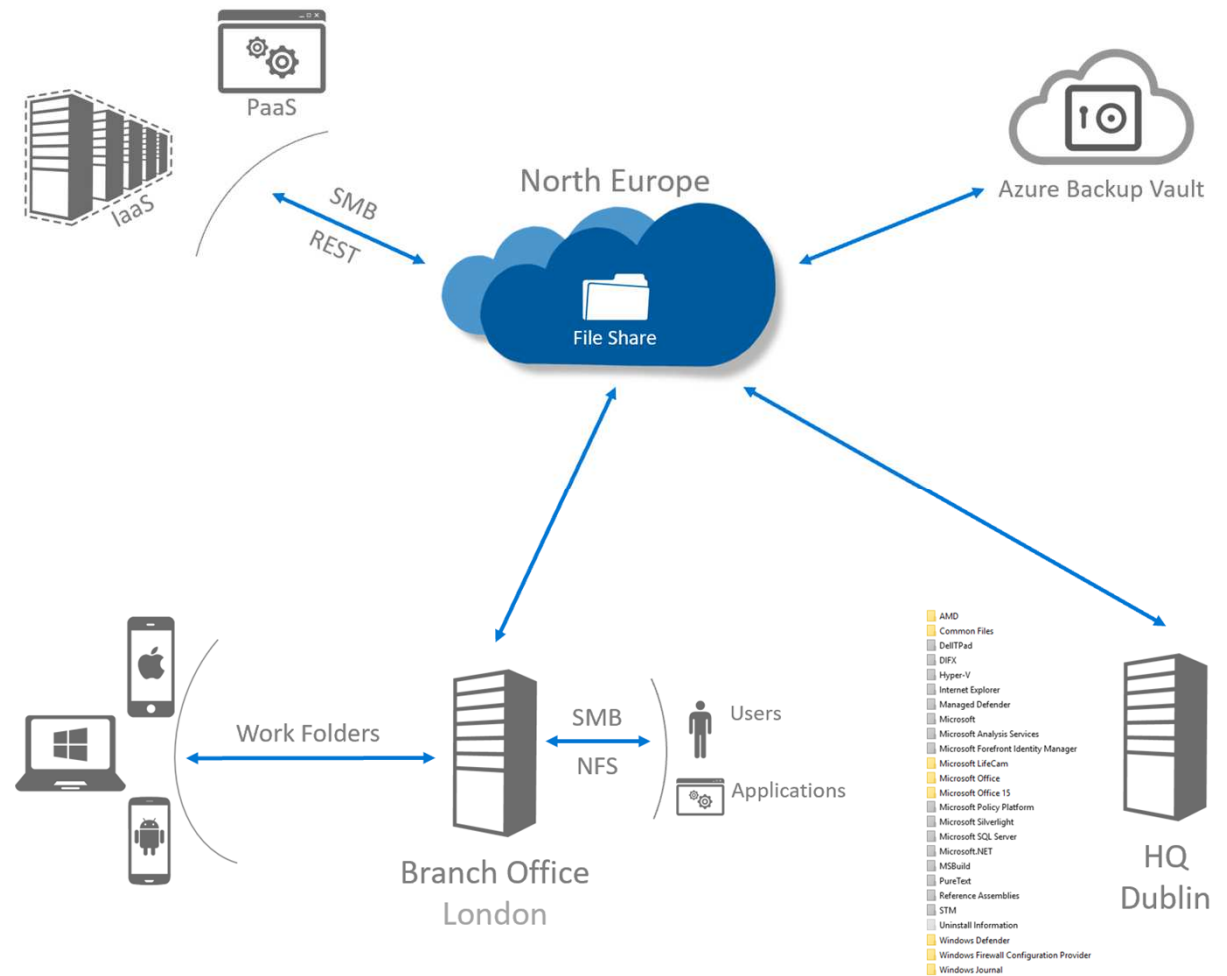
Create Serverendpoint  
(Select Path for  
syncing)

After finishing register  
additional servers

Done! 😊

# DEMO Time

AZURE FILE SYNC





# Azure File Sync - Migrate

MIGRATE BIG CONTENT TO AZURE

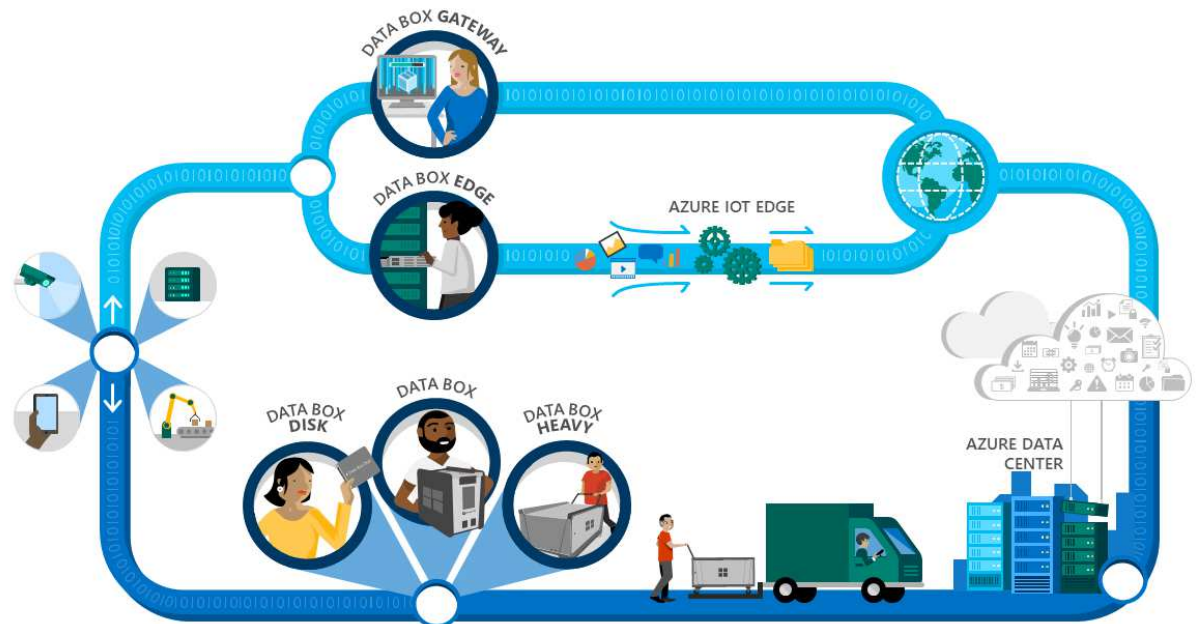
# Azure Data Box

GA since MS Ignite 2018

For offline data transfer

Different sizes available

- 40TB, 100TB, 1 PB



<https://azure.microsoft.com/en-us/blog/expanding-the-azure-data-box-family/>

# Azure File Sync — Backup

HOW CAN WE BACKUP THE CONTENT



# AFS — Backup

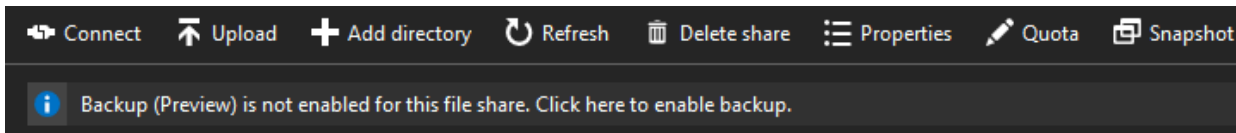
Simple, central backup

Shift On-Prem Backup to Cloud

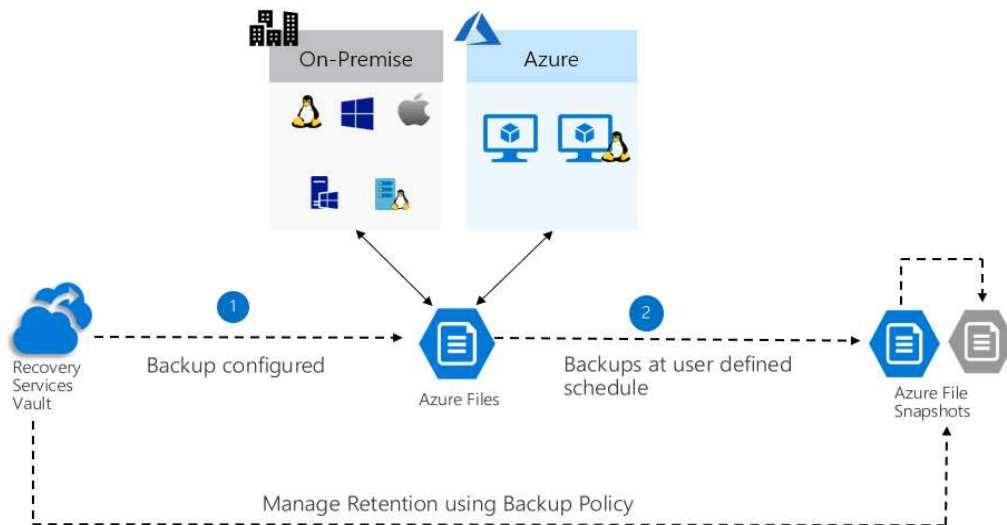
Backup via Azure Fileshare (Preview)

Don't use VSS when Cloudtiering is enabled

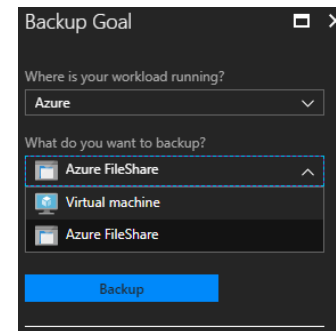
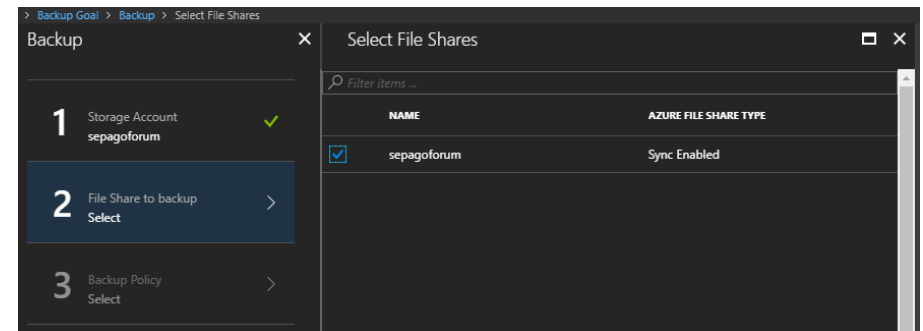
# AFS — Backup



## Backup for Azure File Shares



- Simple Configuration
- User-Defined Retention
- Zero Infrastructure
- File-Level Restore
- Cost-Effective





# AFS — AzureAD Integration (Preview)

Today only for AzureAD Domain Services (AAD DS)

Enables SMB access to Azure Fileshare using AAD credentials

Support share level permission using RBAC

Enforce NTFS folder and file permission in Azure Files

[Get started](#)



# AFS — Need to know

## Troubleshooting

- Don't remove Server Endpoint and add them a new — can cause data lost
- Did you enable Cloudtiering, then disable it first via Powershell

## Bandwith

- It depends on fileshare size
- Possible to set bandwidth limits
  - Import-Module "C:\Program Files\Azure\StorageSyncAgent\StorageSync.Management.ServerCmdlets.dll"
  - New-StorageSyncNetworkLimit -Day Monday, Wednesday, Friday -StartHour 9 -EndHour 17 -LimitKbps 10000

# AFS — On-Prem Hardware Config

DataOn Kepler 47

2 Node Storage Spaces Direct Cluster

Built for Branch-offices

Will be pre-configured with Azure File Sync

More coming soon



\* Image by DataOn





# AFS — Conclusion

Fast installing and stable sincronizing 😊

Costs: 1 Server Free, 5\$ each additional server 😊

DRaaS for Fileservers 😊

Supporting for DFS-R and SOFS 😊

Easily migrate Backup 😊

Fileshare Limit 100TB since MSIgnite 😊

Can not change sync frequency 😊

No support for ACLs in Azure Files (will be coming) 😊

1:1 binding between Server and Sync Group 😊



# AFS - Links

[Planning for an Azure File Sync deployment](#)

[Manage registered servers with Azure File Sync](#)

[Release notes for the Azure File Sync agent](#)

[Introducing backup for Azure file shares](#)

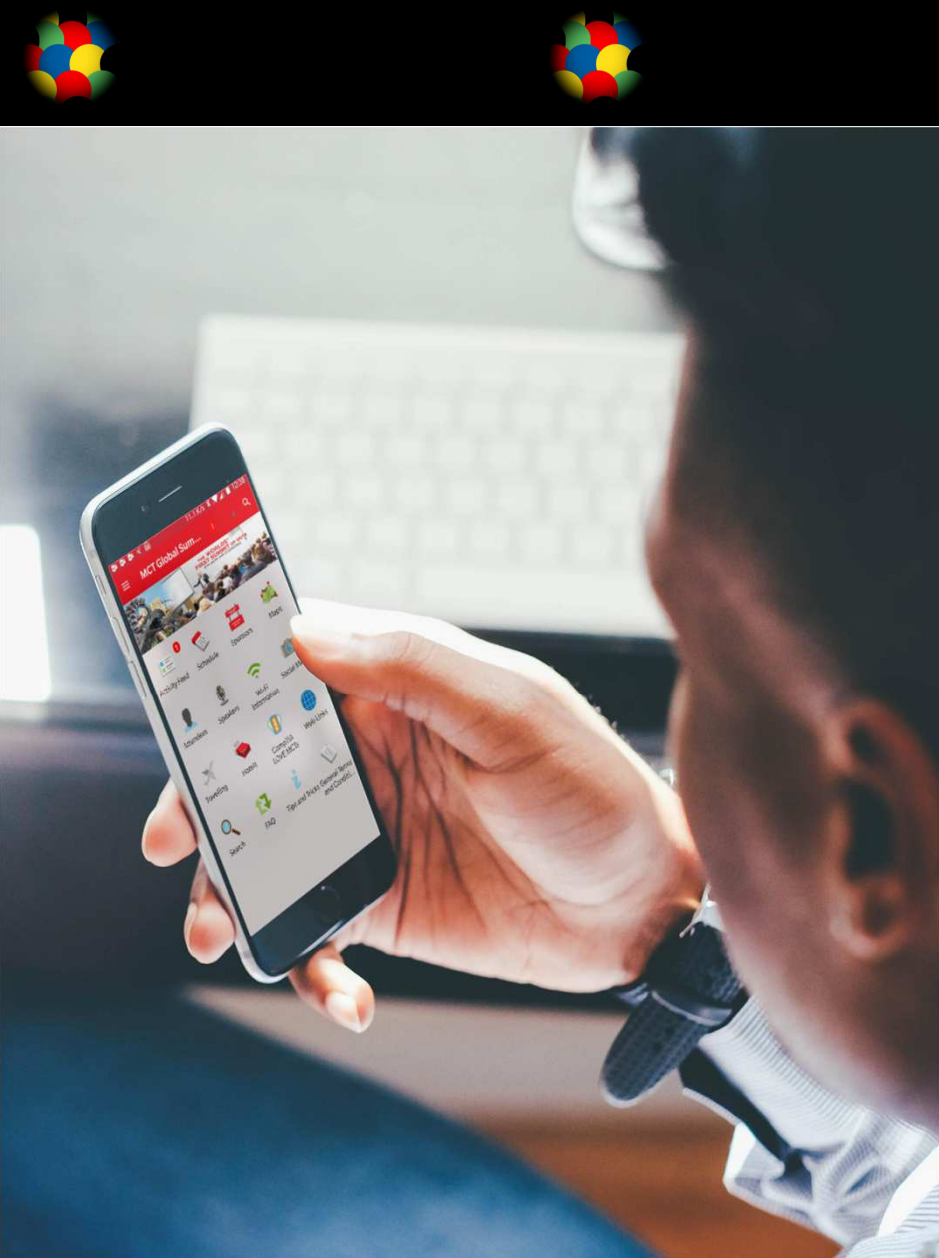
[Feedback for AzureFiles Product Group](#)

[MS Ignite 2018 – A new era for Azure Files: Bigger, faster, better!](#)

[MS Ignite 2018 – Azure Files in 2018: Bigger faster better! - BRK2379](#)

[MS Ignite 2018 – Azure Files & Azure File Sync technical foundation THR2253](#)

[Azure Pricing Calculator](#)



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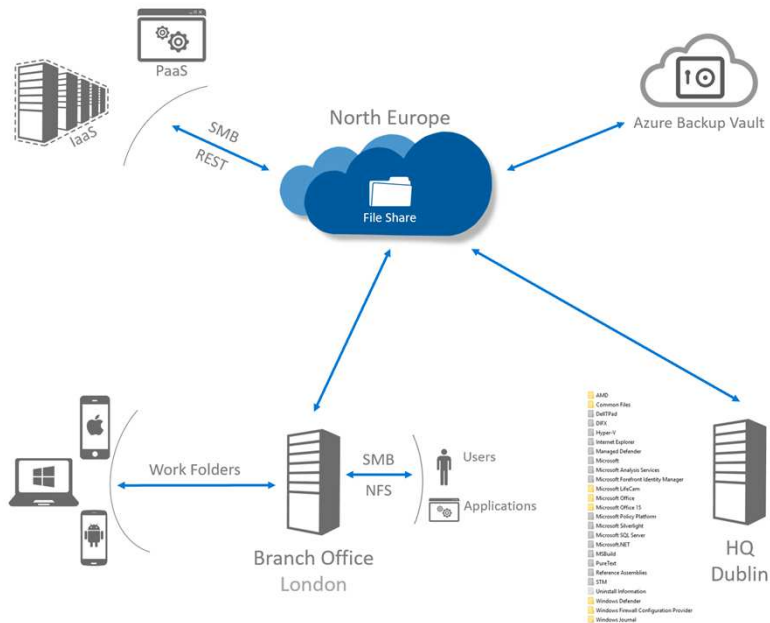
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<https://l.ead.me/mct-mobileapp>

Go to the website:

<https://events.crowdcompass.com/mctsummit>





Q&A

Thank you

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