Leveraging Office 365 to Reduce Costs and Management Overhead

Texas Tech Athletics

October 2020

The problem…

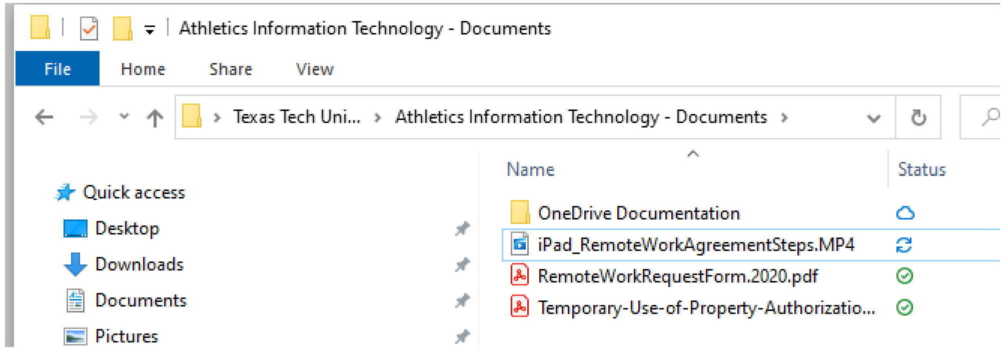
Legacy File Shares and Access Control Madness

- Windows file shares
- Hosted on leased servers in our campus data center
- Only accessible off campus with VPN
- Permissions are difficult to audit
- Manual processes when managing incoming/exiting employees
- Tons of direct access

The solution…

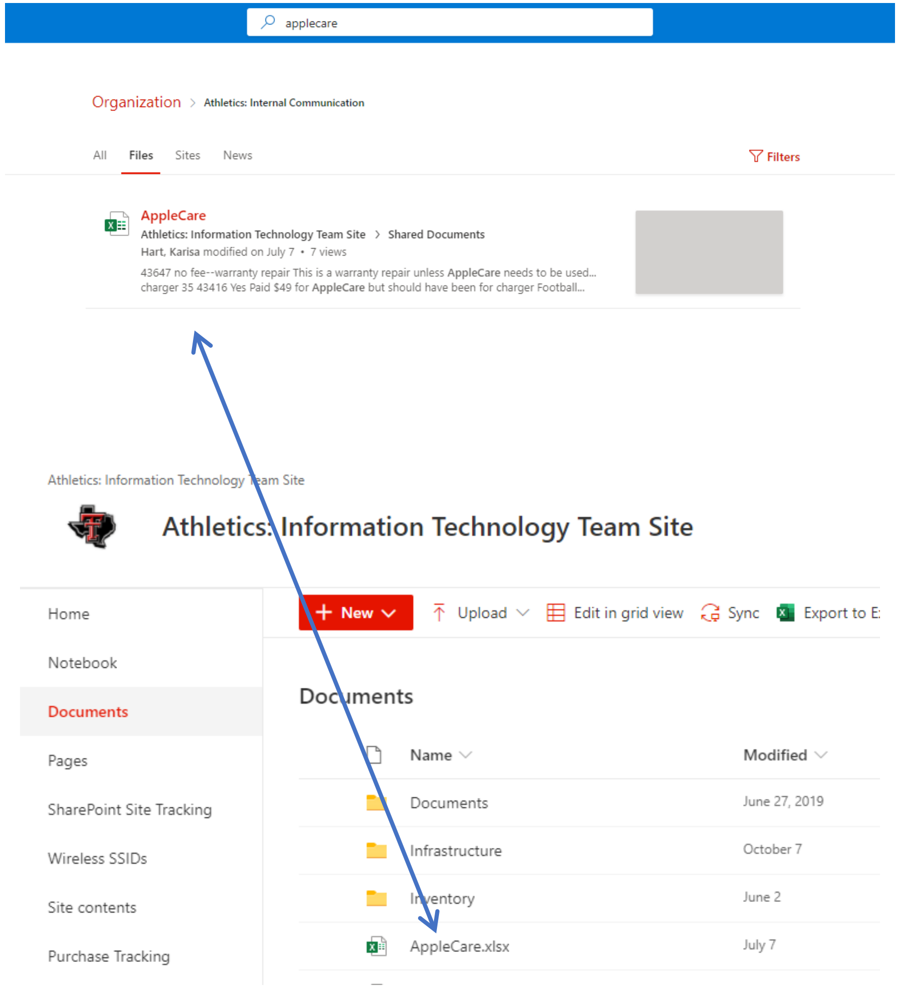
Part 1 – SharePoint

- Migrate legacy file shares to SharePoint Online
    - SharePoint Migration Tool
- Use of hub site for department and communication/team sites for units
- Unified search regardless of location
- Use of OneDrive client to sync document library


Athletics Information Technology - Documents

File
Home
Share
View
Texas Tech Uni… › Athletics Information Technology - Documents ›
Quick access
Desktop
Downloads
Documents
Pictures

Name	Status
OneDrive Documentation	☁
iPad_RemoteWorkAgreementSteps.MP4	⟳
RemoteWorkRequestForm.2020.pdf	✓
Temporary-Use-of-Property-Authorizatio…	✓



AppleCare
Athletics: Information Technology Team Site › Shared Documents
Hart, Karisa modified on July 7 • 7 views
43647 no fee--warranty repair This is a warranty repair unless AppleCare needs to be used… charger 35 43416 Yes Paid $49 for AppleCare but should have been for charger Football…

Athletics: Information Technology Team Site

Athletics: Information Technology Team Site

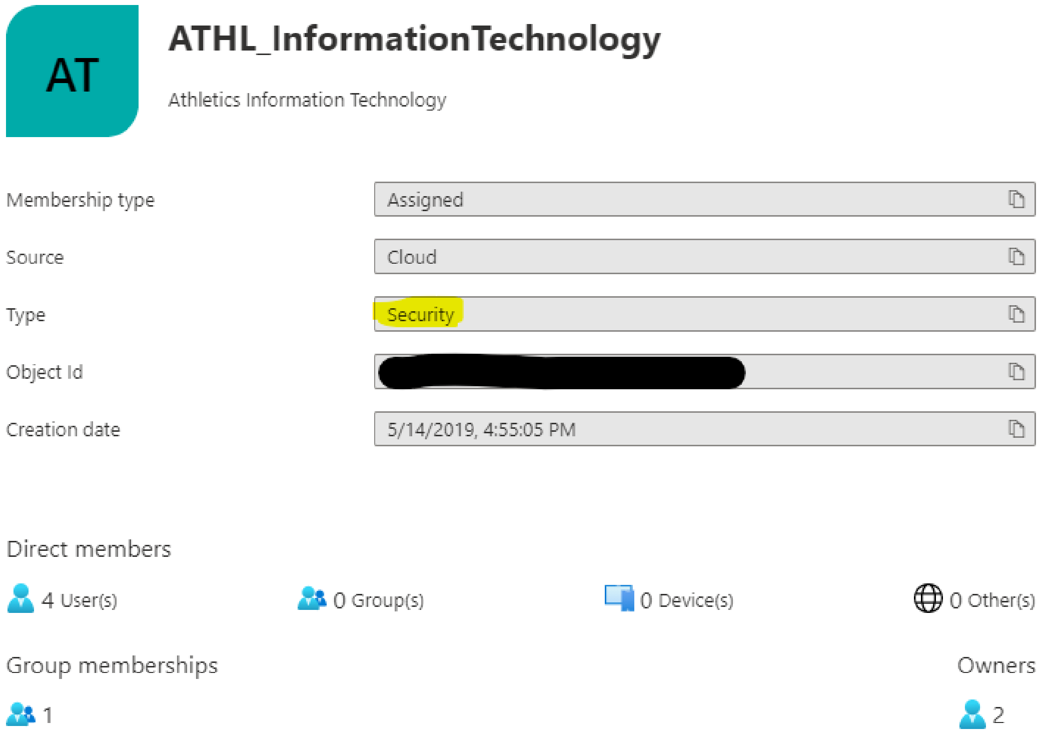
Documents

Name	Modified
Documents	June 27, 2019
Infrastructure	October 7
Inventory	June 2
AppleCare.xlsx	July 7

The solution…

Part 2 – Azure AD Security Groups

- Azure AD security groups created for each unit
- SharePoint access granted to Azure AD groups
- These are NOT Office 365 groups



AT

ATHL_InformationTechnology

Athletics Information Technology

Membership type	Assigned
Source	Cloud
Type	Security
Object Id	[redacted]
Creation date	5/14/2019, 4:55:05 PM

Direct members

4 User(s) 0 Group(s) 0 Device(s) 0 Other(s)

Group memberships

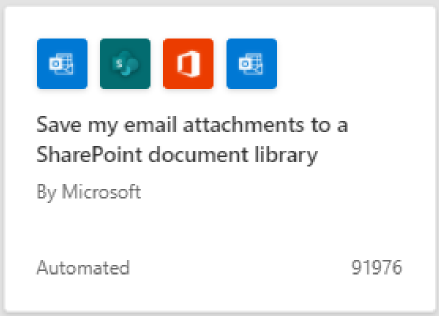
1

Owners

2

The solution…

Part 3 – Automation!

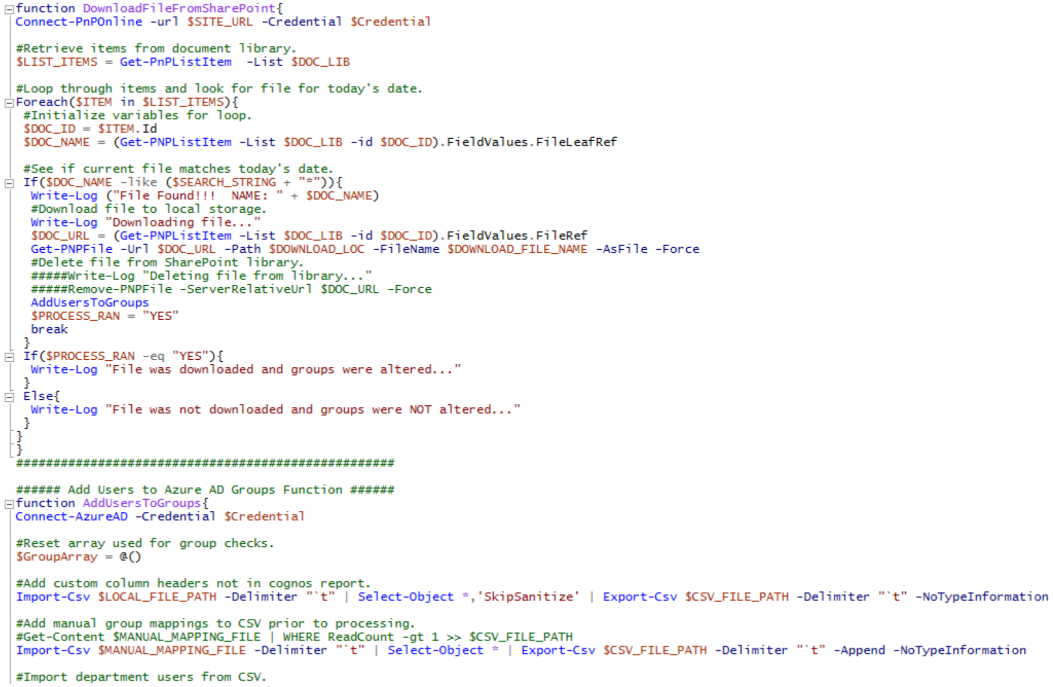


Save my email attachments to a SharePoint document library

By Microsoft

Automated 91976

- Employee data sourced from ERP via BI reporting
- Report delivered via email
- Report is moved and archived to SharePoint via Power Automate
- PowerShell script retrieves stored report and then…
  - Adds users to their unit’s group
  - Removes employees no longer part of the department
  - Moves individuals changing units



```
function DownloadFileFromSharePoint{
Connect-PnPOnline -url $SITE_URL -Credential $Credential

#Retrieve items from document library.
$LIST_ITEMS = Get-PnPListItem  -List $DOC_LIB

#Loop through items and look for file for today's date.
Foreach($ITEM in $LIST_ITEMS){
 #Initialize variables for loop.
 $DOC_ID = $ITEM.Id
 $DOC_NAME = (Get-PNPListItem -List $DOC_LIB -id $DOC_ID).FieldValues.FileLeafRef

 #See if current file matches today's date.
 If($DOC_NAME -like ($SEARCH_STRING + "*")){
  Write-Log ("File Found!!!  NAME: " + $DOC_NAME)
  #Download file to local storage.
  Write-Log "Downloading file..."
  $DOC_URL = (Get-PNPListItem -List $DOC_LIB -id $DOC_ID).FieldValues.FileRef
  Get-PNPFile -Url $DOC_URL -Path $DOWNLOAD_LOC -FileName $DOWNLOAD_FILE_NAME -AsFile -Force
  #Delete file from SharePoint library.
  #####Write-Log "Deleting file from library..."
  #####Remove-PNPFile -ServerRelativeUrl $DOC_URL -Force
  AddUsersToGroups
  $PROCESS_RAN = "YES"
  break
 }
 If($PROCESS_RAN -eq "YES"){
  Write-Log "File was downloaded and groups were altered..."
 }
 Else{
  Write-Log "File was not downloaded and groups were NOT altered..."
 }
}
}
###################################################

###### Add Users to Azure AD Groups Function ######
function AddUsersToGroups{
Connect-AzureAD -Credential $Credential

#Reset array used for group checks.
$GroupArray = @()

#Add custom column headers not in cognos report.
Import-Csv $LOCAL_FILE_PATH -Delimiter "`t" | Select-Object *,'SkipSanitize' | Export-Csv $CSV_FILE_PATH -Delimiter "`t" -NoTypeInformation

#Add manual group mappings to CSV prior to processing.
#Get-Content $MANUAL_MAPPING_FILE | WHERE ReadCount -gt 1 >> $CSV_FILE_PATH
Import-Csv $MANUAL_MAPPING_FILE -Delimiter "`t" | Select-Object * | Export-Csv $CSV_FILE_PATH -Delimiter "`t" -Append -NoTypeInformation

#Import department users from CSV.
```

Thank you!