

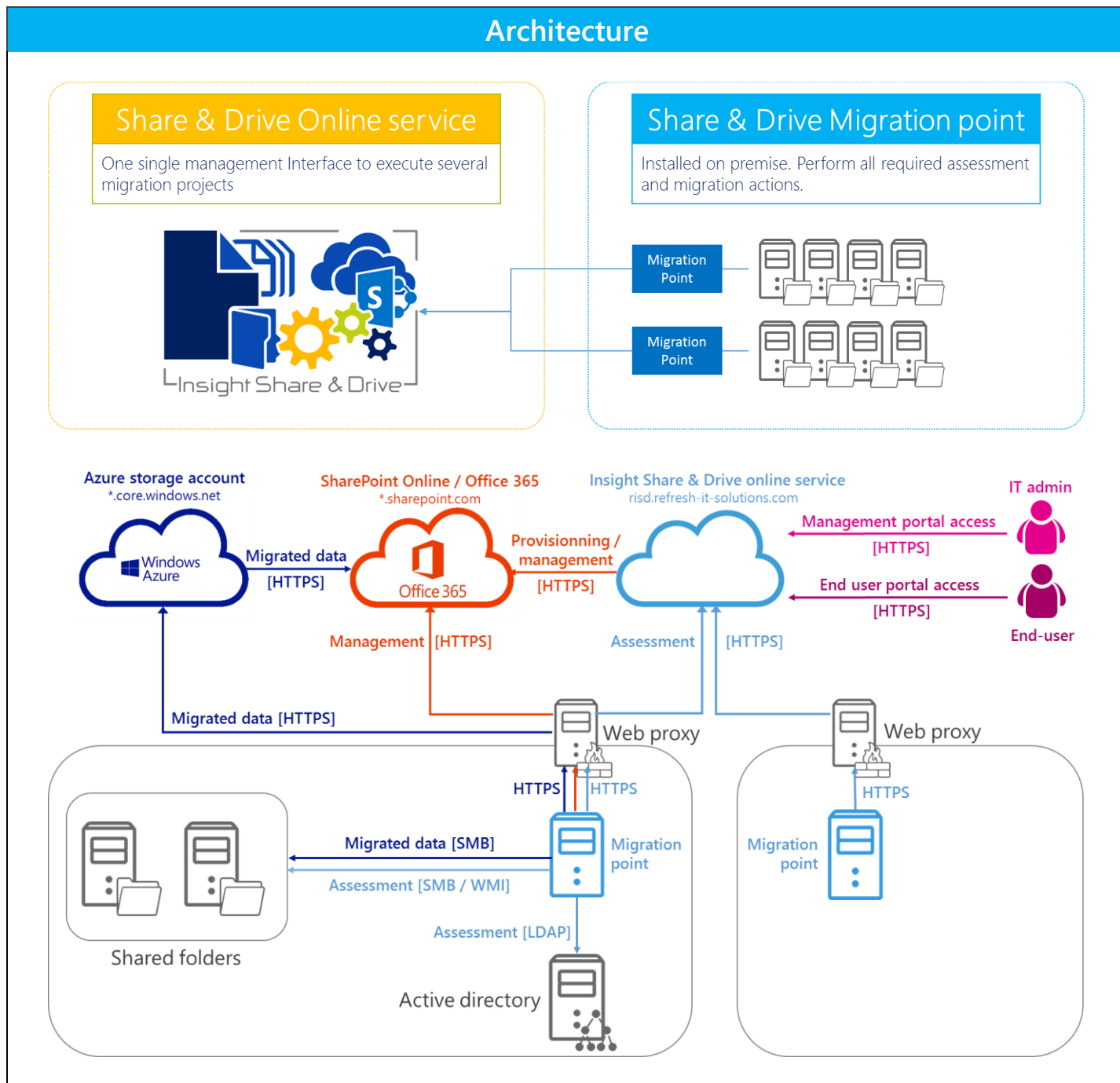
Refresh Insight Share & Drive

Architecture and requirements

Digital transformation, rapid Cloud adoption, collaboration and mobility challenges lead IT departments to adopt modern platforms including Microsoft® Office 365 and SharePoint Online to store enterprise data and increase users productivity.

Refresh Insight Share & Drive is a cloud service allowing to prepare and execute efficiently a migration project to SharePoint Online. The cloud service is hosted and provided by Refresh IT Solutions. One or more migration points need to be installed on premise to execute the assessment and migration actions.

Architecture



Migration point

Operating systems

- Windows 10, Windows Server 2016
- Windows 8, Windows 8.1, Windows Server 2012, Windows Server 2012 R2 with following components
.Net framework 4.6.2
- Windows 7, Windows Server 2008 R2 with following components
.Net framework 4.6.2
Windows management framework v3.0

Network connectivity

- Outbound HTTPS connections (Possible use of a proxy server, with or without authentication) from migration points to

risd.refresh-it-solutions.com

*.sharepoint.com

*.core.windows.net

Disk space

- Up to 10 GB required to store logs and temporary files

Supported targets

Office 365

Supported services

- SharePoint Online
- OneDrive For Business
- Office 365 groups / Microsoft teams

Tenant requirements

- Users and security groups provisioned into Azure AD
- Office 365 licenses assigned to users
- OneDrive For Business site collections provisioned for users to be migrated

Connection account requirements

- Connection account must be standard user of Azure AD and be granted [SharePoint administrator](#) role
- Connection account must be set with “English (United States)” language

Supported sources

Legacy shared folders

Account used to connect to the shared folder can be either a domain user account or the computer account of the migration point

Supported shared folders

- All SMB shared folders accessible using Active Directory accounts, whatever the underlying operating system

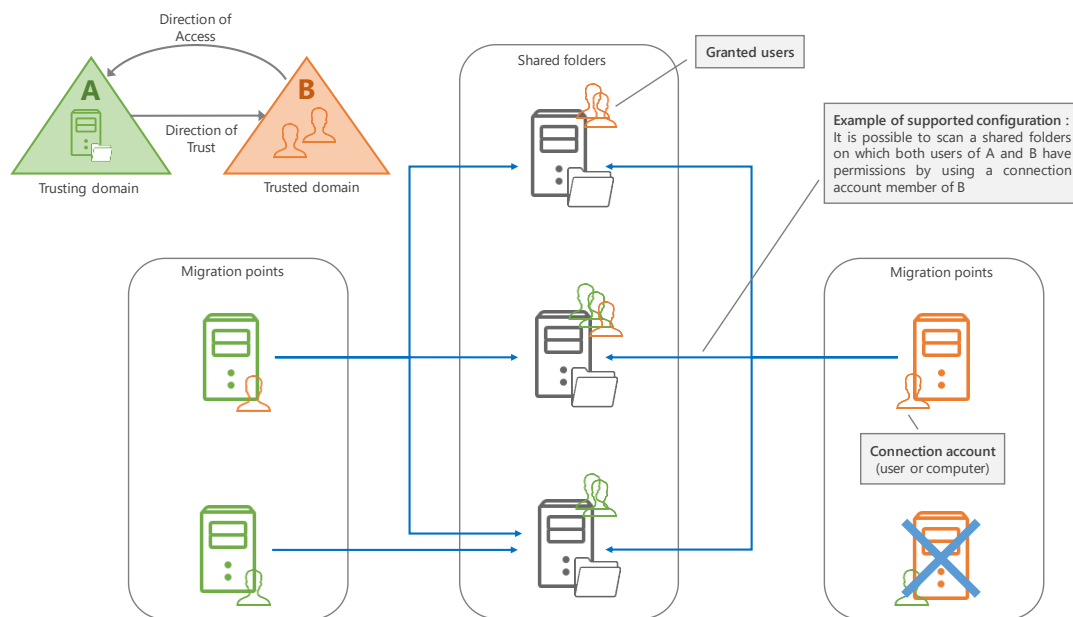
Network requirements

- SMB from assess points to servers hosting the shared folders
- LDAP from the migration point to Active directory domain controller
- On Windows servers, WMI access is required if getting share permissions is needed

Requirements for the connection account

- Read access on shared folders to assess (option to set source folders as read only after migration requires Full Control access)
- On Windows server, connection account must be local administrator of the server hosting the shared folders (only if getting share permissions is needed)
- All users/groups with permissions to the shared folders must be members of the same Active Directory domain than the connection account, or be members of trusting domains
- For an assessment of the FCI metadata, the migration point must be be installed on the server that host FCI and the migration point service account must be changed to "Local system".

Example: Supported configurations for 2 Active Directory domains with one-way trust relationship



Office 365 tenant assessment

SharePoint Online Site and library structure

- Site collections
 - Url
 - Language
 - Title
 - Default site template
 - Quota
 - Time zone
 - Users and groups (standard permission levels)
- Sites
 - Url
 - Description
 - Title
 - Template
 - Users and groups (standard permission levels)
- Document libraries
 - Url
 - Description
 - Title
 - Users and groups (standard permission levels)

OneDrive For Business

- Provisioned OneDrive For Business sites

Office 365 groups

- Group name
- Owners
- Members

Azure AD users

- Display name
- Mail
- UserPrincipalName
- Assigned license

Azure AD groups

- Display name
- Mail
- Members

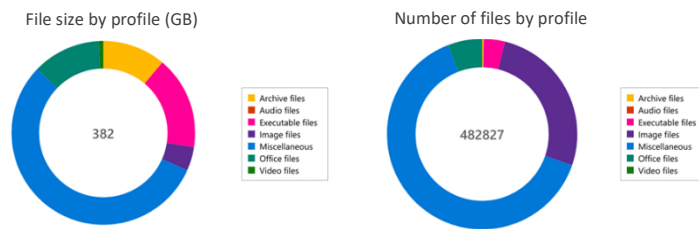
Legacy shared folders assessment

File and folder structure

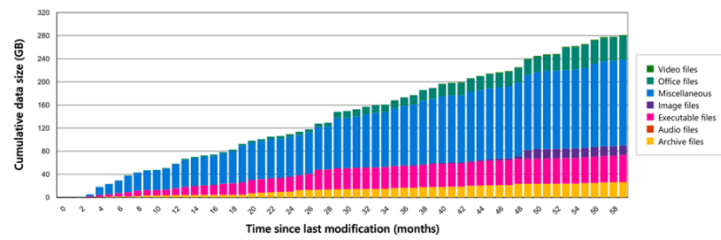
- File name
- File size
- Date created, Date modified
- Permissions granted to Active Directory users and security groups (Read, Write, Full Control)

Metadata and file profiles

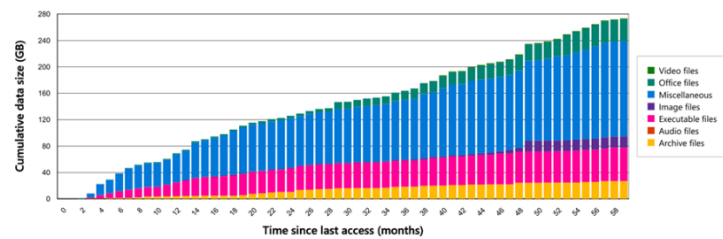
- Office and PDF metadata
- Microsoft FCI metadata
- Additional Excel files describing other business metadata
- Profiling of files following our custom rules based on file properties and metadata



File changes history



File access history



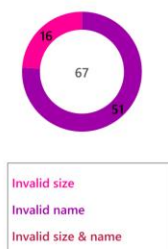
Compliance to SharePoint Online

- Files with invalid size, name or path length (see section [Restrictions and limitations during assessment and migration](#) below for more details)

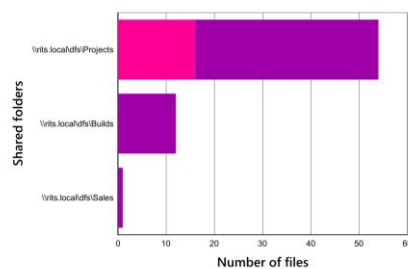
99,99 % compliant files



Not compliant files distribution



Top 5 of shared folders with the most not compliant files



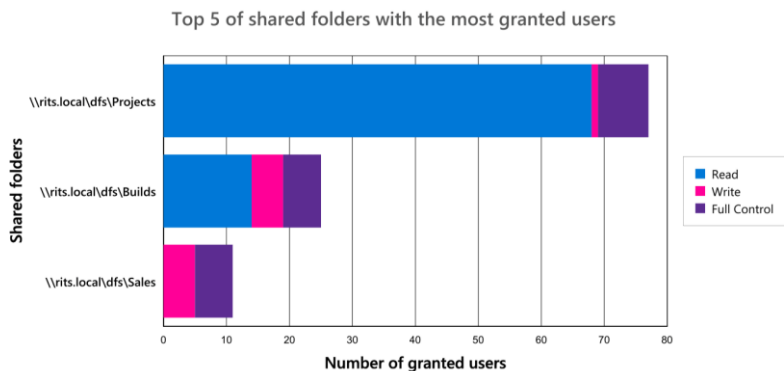
Active directory users

- Distinguished name
- Common name
- First name
- Last name
- Display name
- UserPrincipalName
- Mail

Active directory security groups

- Distinguished name
- Common name
- Name
- Members

User permissions by shared folder



Provisioning

SharePoint Online items

- Site collections
 - Url
 - Language
 - Title
 - Default site template
 - Quota
 - Time zone
 - Users and groups (standard permission levels)
- Sites
 - Url
 - Description
 - Title
 - Template
 - Users and groups (standard permission levels)
- Document libraries
 - Url
 - Description
 - Title
 - Users and groups (standard permissions levels)

Migration strategy

Migration strategy definition

- Mappings between source folders and target document libraries is defined using rules
- Content to be migrated for each rule can be filtered by name and/or last access/change date

Filtering capabilities

- Filtering by name
 - Migrate all files
 - Migrate only files whose name match some given patterns
 - Migrate all files except the ones matching some given patterns
- Filtering by date
 - Migrate all files
 - Migrate files last accessed until/from a given date
 - Migrate files last modified until/from a given date

Migration strategy validation

Technical limitations enforcement

- Check that total number of items migrated to a single document library will be under 5000
- Check there is no invalid files to migrate
- Check for SharePoint Online URL length limitation

User rights consistency

- For each migration rule, identify
 - Users and groups who will gain new rights during the migration (e.g. user with read access to a source folder migrated to a document library on which he is granted Contributor role)
 - Users and groups who will lose rights during the migration
- Mapping between source users and Office 365 users
 - Users mapped on their **UserPrincipalName** property
 - Groups mapped on source.**Name** and target.**DisplayName**
- Mapping between source and target rights
 - Read ⇔ View Only, Read
 - Write ⇔ Contribute, Edit
 - Full Control ⇔ Design, Full Control

Batching

- Automatic or manual batching of migration rules to migrate multiple source folders at the same time
- Take care of network bandwidth constraint
- Minimize end-user impact by migrating data accessed by the same sets of users at the same time

Scheduling

Migration calendar

- Restrict share data or personal data migrations to specific days

Schedule by the IT admin

- Automatic scheduling of batches with respect to constraint

Self-schedule by the end-user

- Customizable end-user portal allowing end-users to choose themselves their migration date
- Take care of network bandwidth constraints as defined by the IT admin
- Available dates configurable per end-users or groups of end-users
- Customized guidance and messages configurable per end-users or groups of end-users

Refresh Insight Share&Drive Schedule My company Alan Williams

Schedule your migration to OneDrive for Business

Please select your migration date

June 2017						
Mon	Tue	Wed	Thu	Fri	Sat	Sun
27	29	30	31	01	02	03
23	05	06	07	08	09	10
24	12	13	14	15	16	17
25	19	20	21	22	23	24
26	26	27	28	29	30	01
27	03	04	05	06	07	08

Please select your migration time

The evening (20:00 - 23:00)

Schedule

You are ready to migrate to OneDrive For Business !

After your migration, you will be able to access your personal data currently stored on your drive from all your devices and share it with your colleagues.

To start the migration process, please choose the best time for you to migrate. You will be then informed by email about your migration progress.

To know more on OneDriveForBusiness, please watch [this short video](#).

Migration

Legacy shared folders to SharePoint Online document libraries

- Data migration is performed using new SharePoint Online fast migration API. Data is first uploaded to an Azure storage account then imported into SharePoint Online

Requirements

- Azure storage account for storing temporary data (an Azure storage can be provided by Microsoft for free)
- Target document libraries must have been provisioned

Migrated information

- File and folder structure
- File content
- File basic metadata (date created, date modified, created by, last modified by)

Not compliant files management

- Files with invalid size can be skipped during migration
- Files with invalid name can be either skipped or renamed on the fly
- See section [Restrictions and limitations during assessment and migration](#) for more details on not compliance files handling

Communication

Communication workflow

Emails sent automatically

- Based on migration events (Migration scheduled, Migration start, Migration rescheduled, ...)
- At a specified date and time relative to the migration date (e.g. 2 days before migration at 9:00 AM)

Mail content

Html templates editable through Microsoft Word®, including images and dynamic fields

- User name
- User email
- Migration date (short or long format)
- Links to legacy shared folders on which the user is granted and to be migrated during the batch
- Links to target document libraries on which data will be moved during the batch

Mail recipients

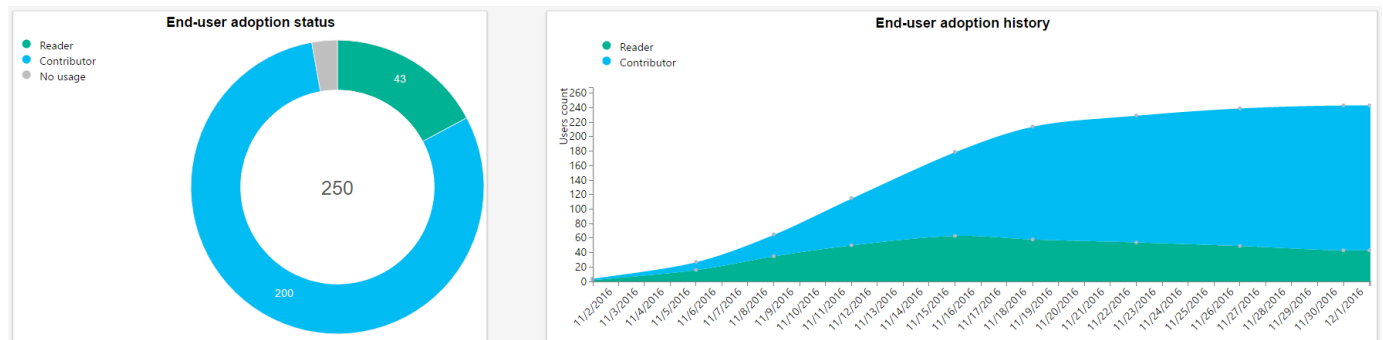
- For personal data migration to OneDrive For Business, emails are sent to the OneDrive owner
- For shared data migration to SharePoint Online or Office groups, emails are sent to all users involved in the migration batch (i.e. all users granted on data to be migrated during the batch execution)

Usage monitoring

SharePoint Online usage monitoring

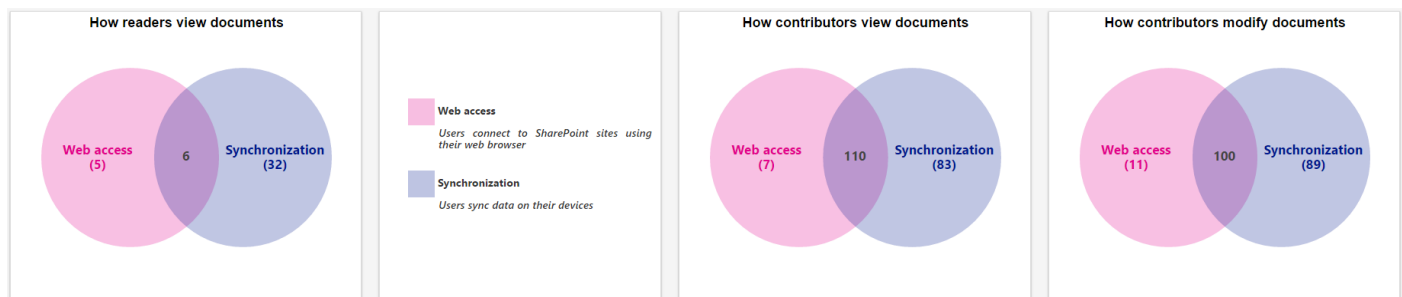
User adoption status

- Identify which users actually use SharePoint Online as readers or contributors



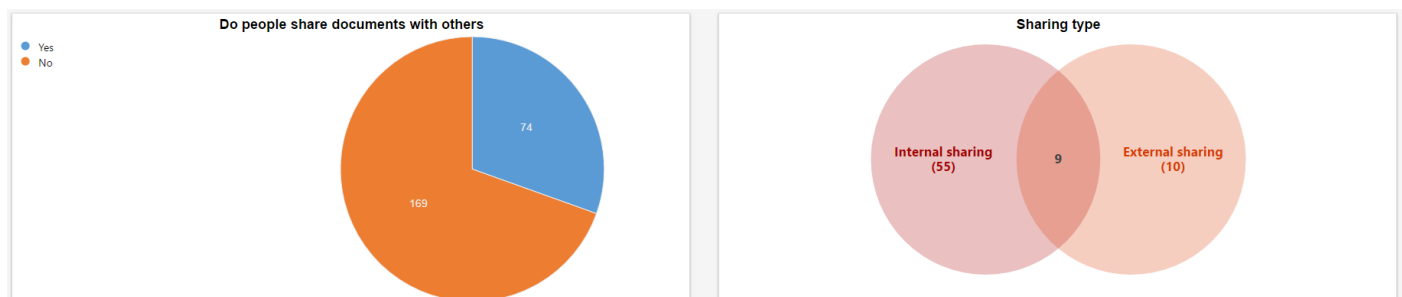
Document access workstyle

- Identify how users get access to their documents to read or to contribute on them



Sharing work style

- Identify which users actually use sharing capabilities of SharePoint Online



Detailed information for each user

- Global adoption status
- Adoption status by site collection or site
- Document access workstyle
- Sharing work style

Restrictions and limitations during assessment and migration					
		Assessment behaviour	Migration behaviour	Office 365 limits	SharePoint Online migration API limits
Ignored files and folders					
System folders	\$Recycle.bin System Volume Information	Items skipped without error: <ul style="list-style-type: none">Not visible in assessment resultsNot migrated			
System files	thumbs.db desktop.ini Files starting with ~\$				
Other Exclusion	File path containing characters of the private use area				
Files with invalid size					
Empty files		Files marked as Invalid size	Depends on Invalid size handling option: Ignore: Files skipped and reported as not compliant Error: Prerequisite error if at least one file to migrate has invalid size	Empty files not supported	
Files over 2 GB				Files over 15 GB not supported	Files over 2 GB not supported
Files and folders with invalid name					
Files and folders containing invalid characters	Invalid chars: # %	Items marked as Invalid name	Depends on Invalid name handling option: Ignore: Items skipped and reported as not compliant Rename: Items migrated & renamed by replacing invalid chars with - Error: Prerequisite error if at least one item to migrate has invalid name	Invalid chars (may be allowed by tenant config): # %	Invalid chars: # %
Invalid folder name patterns	Starts with ~ Contains _vti_			Not supported folder names pattern	
Invalid file name patterns	Contains _vti_		Depends on Invalid name handling option: Ignore: Items skipped and reported as not compliant Rename: Items skipped and reported as error Error: Prerequisite error if at least one item to migrate has invalid name	Not supported file pattern	File pattern incorrectly considered as valid therefore not renamed
Invalid folders	_t _w		Depends on Invalid name handling option: Ignore: Items skipped and reported as not compliant Rename: Items migrated but not renamed. Will cause sync errors Error: Prerequisite error if at least one item to migrate has invalid name	Folders valid in SPO but can't be synced	Folders successfully migrated but will cause sync errors
Files and folders with path too long					
Source files and folders with path > 260 chars	Full source UNC path length	Items marked as Invalid path length	Items skipped and reported as not compliant		Source files and folders with path <= 260 chars
Target URL path > 256 chars	URL length, not including a domain/server name	Items marked as valid	Items skipped and reported as error	Total URL length (without params) <= 400 chars	URL path without domain/server name <= 256 chars

Other					
Opened files	With exclusive lock	Items marked as valid	Files skipped and reported as error		
File date	Access or modification date in the future	Date is aligned to current date in the assessment result	The original date is considered for the migration		