Online-Backup.dk v9 Office 365 Backup & Restore Guide for Windows

Ahsay Systems Corporation Limited

25 January 2022

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Revision History

Date	Descriptions	Version
25 January 2022	■ Ch. 4 – added migrate data	9.1.0.0

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1 Overview

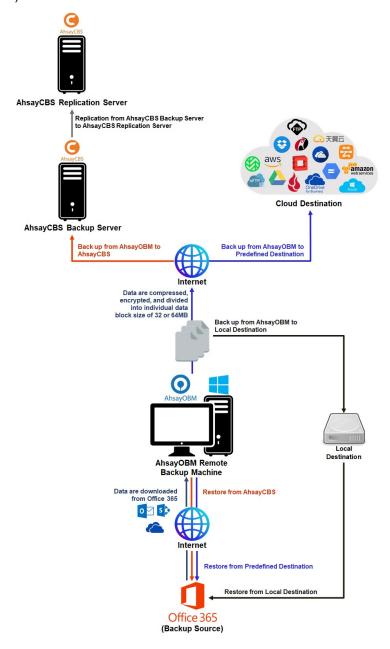
1.1 What is this software?

Ahsay brings you specialized client backup software, namely AhsayOBM, to provide a set of tools to protect your Office 365 user accounts. This includes backup and recovery of individual emails, contacts, calendars and other mail items in your Office 365 Outlook, files on OneDrive and SharePoint, with snapshots / versioning, and retention policy to protect even items that you may have accidentally deleted from your Office 365 user account.

1.2 System Architecture

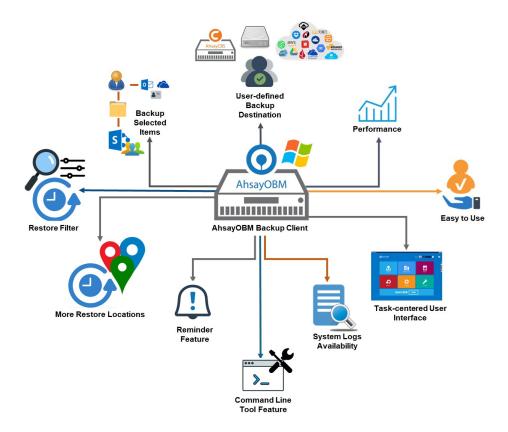
Below is the system architecture diagram illustrating the major elements involved in the backup process among the Office 365 service, AhsayOBM and AhsayCBS.

In this user guide, we will focus on the end-to-end backup and restore process of AhsayOBM (Agent-based).



1.3 Why should I use AhsayOBM Run on Client (Agent-based) solution to back up my Office 365 data?

We are committed to bringing you a comprehensive Office 365 backup solution with AhsayOBM. Below are some key areas that we can help to make your backup experience a better one.



User-defined Backup Destination

Backup users have more options in assigning a backup destination (i.e. AhsayCBS, Cloud or Predefined destinations, and standard and local destination).

Performance

Agent-based backup is performed on a physical machine or computer with resources that is dedicated for backup and restore operations. Once the backup client is deployed on the machine, the user has more control on the hardware which affects the overall backup and restore performance.

The Change Key API has significantly improved backup performance for backup jobs, which means backup sets with a large number of Office 365 accounts for backup can be completed within hours.

Easy to Use

Agent-based backup solution has a traditional backup approach that is well understood by most administrators and end users who would only need minimal effort and time to understand the backup and/or restore operations.

Task-centered User Interface

Agent-based backup solution make it a good option for users to have more control on the individual backup/restore and resources management.

System Logs Availability

System logs for Data Integrity Check and Space Freeing Up results is accessible for the end users and can be reviewed anytime. Unlike with the agentless backup where system logs will only be available upon request from the backup service provider.

Command Line Tool

Agent-based backup solution has a feature that allows user to configure a pre and/or post-backup command which can be an operating system level command, script or batch file, or third-party utilities that will run before and/or after a backup job.

Reminder Feature

With the agent-based backup, a reminder feature is provided which will display a backup confirmation dialog box that will prompt user to run a backup job during machine log off, restart or shut down when enabled.

More Restore Locations

Agent-based backup offers you three (3) restore locations such as the local machine, original location (or the cloud storage where your backed up files are located) and alternate location (which is through the same cloud storage but on a different folder).

Restore Filter

Agent-based backup has a restore filter feature which allows users to easily search directories, files, and/or folders to restore.

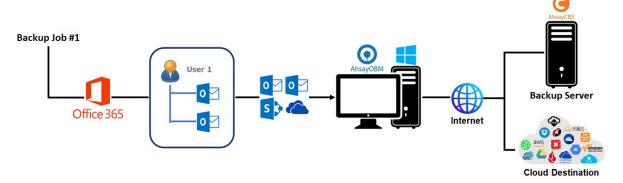
Fast and Efficient

We understand that backup could be a time and resources consuming process, which is why AhsayOBM is designed with advanced technologies to make backup a fast and efficient process.

We also understand that you may wish to run backup at a specified time interval of your choice, that's why we also allow you to set your own backup schedules so that you can take full control of the time when to perform backup.

• Multi-threading – this technology utilizes the computing power of multiple CPU cores for creating multiple backup and restore threads to produce fast backup and restore performance.

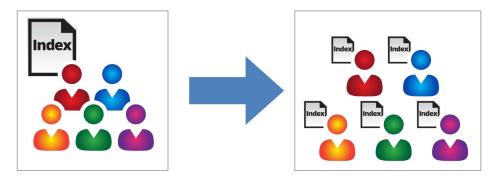
Backup job uses a maximum of 4 concurrent threads.



As shown the technology translate into a total of 4 concurrent threads.

Index File Structure – The index file structure has been re-designed to improve the backup and restore performance.

Each Office 365 user will have its own individual index file instead of a single index file for all users within the backup set.



This new design eliminates any potential I/O performance bottlenecks when the index files are updated during each backup job, which can occur when using single index file structure for multi-thread concurrent backup.

Block Level Incremental Backup – this technology breaks down the backup files into multiple blocks and only the changed blocks will be backed up each time.

Backup of Selected Items

To back up the Office 365 user accounts, the backup resources can be user level, site collection level and even item level.

- Flexible backup options:
 - Only select the required users, specific site collection or items for backup.
- Flexible restore options:
 - Restore all the users or just one user or restore the whole site collection or just one site or restore the whole user contents or just one item.
 - Restore items to the original location or an alternate location.

High Level of Security

We understand your Office 365 users may contain sensitive information that requires to be protected, that is why your backup data will be encrypted with the highest level of security measure.

- Un-hackable Encryption Key to provide the best protection to your backup data, you can turn on the encryption feature which will be default encrypt the backup data locally with AES 256-bit truly randomized encryption key.
- Encryption Key Recovery a last resort for you to recover your encryption key in case you have lost it. Your backup service provider can make it mandatory for you to upload the encryption key to the centralized management console, the encryption key will be uploaded in hashed format and will only be used when you request for a recovery.

Centralized Management Console

Our enriched features on the centralized web console offers you a one-stop location for monitoring and managing your backup and restore. Below is an overview of what you can do with it. For more details regarding the setup and operations of the centralized management console, refer to the AhsayCBS v9 User's Guide for details.

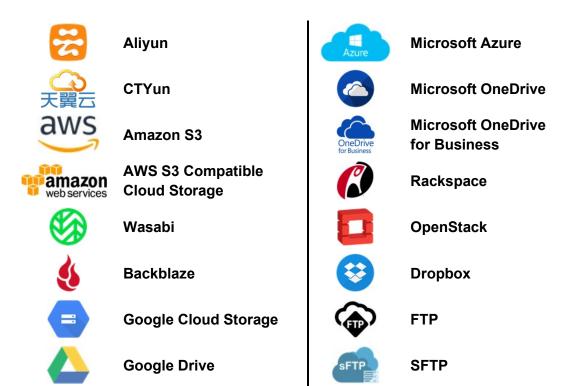
- Create/ update/ delete backup set
- Restore backup set
- Configure user settings
- Configure backup settings
- View and download backup and restore reports
- Monitor backup and restore live activities
- Monitor storage statistic



Cloud Destinations Backup

To offer you with the highest flexibility of backup destination, you can now back up Office 365 user to a wide range of cloud storage destinations. Utilizing cloud destination backup gives you an extra layer of protection in the event of a local drive corruption, where you will still be able to retrieve data from the cloud destination.

Below is a list of supported cloud destinations.



<u>Differences between a Run on Server and Run on Client Backup Set</u>

The following table summarizes the differences in backup options available between a Run on Server and Run on Client Office 365 backup set, and the tool to use (web console or client agent) when performing a backup and restore:

Features/Functions	Run on Client Office 365 Backup Set	Run on Server Office 365 Backup Set
General Settings	✓	✓
Backup Source	✓	✓
Backup Schedule	✓	✓
Destination	AhsayCBS, Predefined Destinations, Standard and Local	AhsayCBS and Predefined Destinations only
Multiple Destinations	✓	×
Deduplication	AhsayOBM	✓
Retention Policy	✓	✓
Command Line Tool	AhsayOBM	×
Reminder	AhsayOBM / AhsayACB for Windows only	×
Bandwidth Control	✓	✓
IP Allowed for Restore	✓	×
System Logs of Data Integrity Check and Space Freeing Up	✓	×
Others	✓	✓
To Run a Backup	AhsayOBM / AhsayACB	AhsayCBS User Web Console only
To Run a Restore	AhsayOBM / AhsayACB / AhsayOBR	AhsayCBS User Web Console only

Aside from backup options, the table below shows other operations that can be performed using web console and client agent:

Features/Functions	Run on Client Office 365 Backup Set	Run on Server Office 365 Backup Set
Data Integrity Check	✓	✓
Space Freeing Up	✓	×
Delete Backup Data	✓	✓
Decrypt Backup Data	✓	×

NOTE

For more details on the Run on Server backup option, please refer to the following guides: AhsayCBS v9 User Guide – Office 365 Run on Server (Agentless) Backup and Restore Guide

1.4 Why should I use AhsayOBM to backup/restore my Office 365 domain?

You may be wondering why you need to use AhsayOBM to backup/restore your Office 365. Well, people assume that Microsoft is responsible for backing up everything from your calendars and your emails to your files in SharePoint and OneDrive. As the backups performed by Microsoft are to provide a system wide recovery rather than to facilitate the recovery of individual items for the end user.

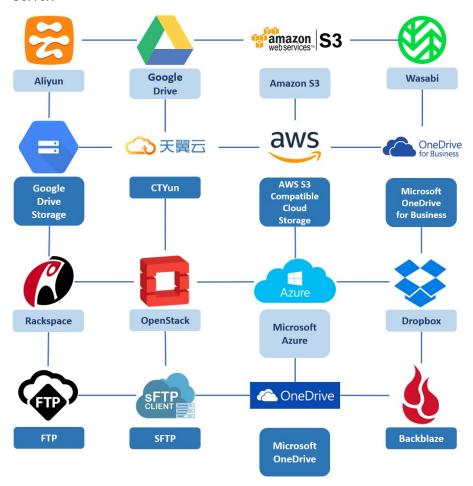
Let's take a look at some of the Microsoft's Office 365 backup capabilities and limitations

- Microsoft is only responsible for the Office 365 infrastructure and uptime of the cloud and apps with Office 365. So, if you are relying on Microsoft to protect your organization from data loss, your data and organization are at high risk if you do not implement additional data protection. These are some of the scenarios that Microsoft is responsible for on their cloud platform:
 - Hardware Failure
 - Software Failure
 - Natural Disaster
 - Power Outage
- On the other hand, Microsoft is not responsible in any of these scenarios, and you have to face the harsh reality that there's no guarantee a complete and speedy restore incase these happens:
 - Accidental Data Deletion (Human error)
 - Malicious Attacks
 - Viruses/Malware
- Microsoft has a retention policy for mailbox and public folder that are only up to 14 days to 30 days. To support this, please refer to this article for more information: <u>Microsoft: Overview of retention policy</u>.
- Microsoft has set the same limitations for SharePoint Online and OneDrive. It only stores deleted items for a period of 93 days, once you exceed the retention period, the data is gone indefinitely.
- End users do not have control over what were backed up and what can be restored.
- End users have no direct access to their backup data of their Office 365 domains/accounts.

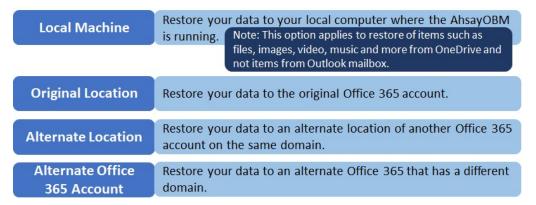
Now, let's check the capabilities of AhsayOBM for Office 365

- AhsayOBM ensures protection from data loss, ensuring that all information in your Office 365 environment are protected to avoid disruptions to day-to-day operations.
- We offer fully flexible retention policy that can be configured by days, weekly, monthly, quarterly, years compare to Microsoft's limited retention period which is 14 to 30 days only.
- Using AhsayOBM, end user has access or control over items that will be backed up or restore, whether it is individual item, calendar entries, notes or even corrupted mailbox and more.

AhsayOBM also provides multiple backup destinations from your Office 365 to your local machine, to any of our supported cloud destinations, and to our AhsayCBS Server.



• Flexible restore is also a key feature of AhsayOBM that is designed to have multiple restore options.



Ahsay has automated backups and manual (on demand) backups You are also able to check the restore and backup status with corresponding backup and restore reports.

1.5 About This Document

What is the purpose of this document?

This document aims at providing all necessary information for you to get started with setting up your system for Office 365 backup and restore, followed by step-by-step instructions on creating backup set, running backup job and restoring backed up data, using AhsayOBM.

The document can be divided into three (3) main parts.

Part 1: Preparing for Office 365 Backup & Restore

Requirements

Requirements on hardware & software for installation

Best Practices and Recommendations

Items recommended to pay attention to before backup and restore

Part 2: Performing Office 365 Backup

Logging in to Client Agent

Log in to AhsayOBM

Creating a Backup Set

Create a backup set using AhsayOBM

Running a Backup Set

Run a backup set using the AhsayOBM

Configuring an Automated Backup

Configure backup schedule for automated backup

Part 3: Restoring Office 365 Backup

Restoring a Backup Set using AhsayOBM

Restore a backup using the AhsayOBM

What should I expect from this document?

After reading through this documentation, you can expect to have sufficient knowledge to set up your system to backup Office 365 on AhsayOBM, as well as to carry out an end-to-end backup and restore process.

Who should read this document?

This documentation is intended for backup administrators and IT professionals who are responsible for the Office 365 backup and restore.

2 Preparing for Backup and Restore

2.1 Hardware Requirement

To achieve the optimal performance when AhsayOBM is running on your machine, refer to the following article for the list of hardware requirements.

FAQ: Ahsay Hardware Requirement List (HRL) for version 9.1 or above

2.2 Software Requirement

Make sure the operating system where you have the Office 365 installed is compatible with the AhsayOBM. Refer to the following article for the list of compatible operating systems and application versions.

FAQ: Ahsay Software Compatibility List (SCL) for version 9.1 or above

2.3 AhsayOBM Installation

For agent-based backup and restore, make sure that the latest version of AhsayOBM is installed on your computer with Internet access for connection to your Office 365 account.

User should also stay up-to-date when newer version of AhsayOBM is released. To get our latest product and company news through email, please subscribe to our mailing list. https://www.ahsay.com/jsp/en/home/subscribe mail list.jsp

2.4 Antivirus Exclusion Requirement

To optimize performance of AhsayOBM on Windows, and to avoid conflict with your antivirus software, refer to the following Wiki article the list of processes and directory paths that should be added to all antivirus software white-list / exclusion list:

FAQ: Suggestion on antivirus exclusions to improve performance of Ahsay software on Windows

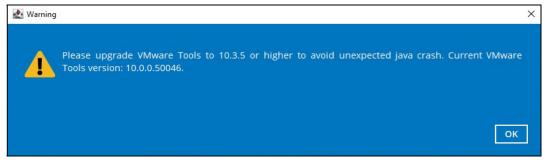
NOTE

The bJW.exe process is automatically added to Windows Defender exclusion list for Windows 10 and 2016, and 2019 during installation / upgrade via installer or upgrade via AUA.

2.5 Upgrade VMware Tools Requirement

To avoid unexpected java crash, if the Windows machine is a guest VM hosted on a VMware Host then it is highly recommended that the VMware tools version installed on the guest VM must be 10.0.5 or above.

Below is the warning message that will be displayed if the version of the VMware Tools is less than 10.0.5.



NOTE

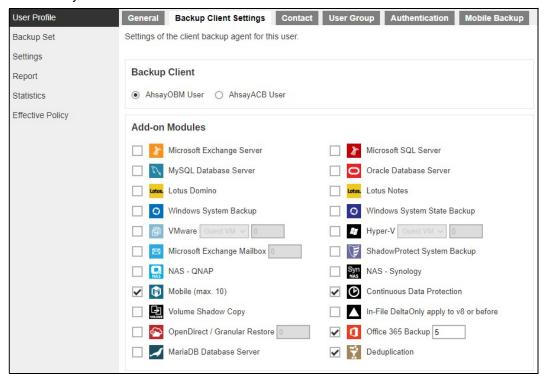
For more information about the upgrade of VMware Tools, refer to this article,

ISSUE: AhsayOBM / ACB crash when performing backup or restore on a VMware virtual machine with VMware Tools pre-10.3.5 installed.

2.6 Add-on Module Requirement

Make sure that the Office 365 Backup feature has been enabled as an add-on module in your AhsayOBM user account and there is enough Office 365 Backup license quota to cover the backup of your users.

Please contact your backup service provider for more details. Below is a sample screen shot of an AhsayOBM User with an add-on module of Office 365 with 5 licenses.



The Ahsay licenses for the Office 365 module are calculated by the number of unique licensed or unlicensed Office 365 user accounts. If same Office 365 account is backed up on multiple backup sets with an AhsayOBM user account would be counted as one Office 365 license.

- Each licensed or unlicensed Office 365 user account selected for backup requires one Office 365 license.
- Each Equipment Mailbox, Room Mailbox, or Shared Mailbox selected for backup requires one Office 365 license.
- If just only SharePoint Sites under the Site Collections and/or files of folders under Public Folder are selected for backup, this requires zero Office 365 license but a minimum of one Office 365 license is needed to perform a backup. The Office 365 license is only needed to start the backup but it will not be counted as used license.

However, if any items from either Outlook, Items from OneDrive, or Personal Sites under Users are selected for backup, the Office 365 license count will be calculated based on the number of the user account selected.

For more detailed examples about the Office 365 license requirement and usage, refer to Appendix A: Example Scenarios for Office 365 License Requirement and Usage.

2.7 Access for AhsayCBS User Web Console

It is now possible to perform agentless backup and restore, which can be done via the AhsayCBS User Web Console without using the AhsayOBM client agent. In order to access the User Web Console, make sure you have Internet connection and a web browser installed on your computer or mobile device.

Please contact your backup service provider for more details.

2.8 Backup Quota Requirement

Make sure that your AhsayOBM user account has sufficient quota assigned to accommodate the storage of the Office 365 users for the new backup set and retention policy. Please contact your backup service provider for more details.

To get an accurate estimate of the backup quota requirement, it is recommended to check the actual usage of the Office 365 Organization in the Microsoft 365 Admin Centre. Please refer to this link: Appendix I: How to view Item count and Storage used in Microsoft 365 Admin Center

2.9 Public Folder Backup

A licensed Exchange Administrator or a licensed user with Public Folder permission is required, otherwise you will not be able to access the public folder to select items and for backup or restore.

2.10 SharePoint Site Backup

To be able to backup Personal Sites and/or SharePoint Sites, ensure that you use Hybrid Authentication when creating a backup set. Due to the current limitation with Microsoft API, Modern Authentication is currently not suitable for backup sets with Personal Sites and/or SharePoint Sites selected. As backup and restore of SharePoint metadata are not fully supported.

2.11 Java Heap Size

The default Java setting heap 2048M, is sufficient for Office 365 backups based on the default 4 concurrent backup threads.

The Java heap size should only be increased if the number of current backup threads is increased as more backup threads is expected to consume more memory. But this does not guarantee that the overall backup speed will be faster since there will be an increased chance of throttling.

As the value of 4 concurrent backup threads is found to be the optimal setting for Office 365 backups, to ensure best backup performance, minimal resource usage, and lowest probability of throttling of Ahsay backup requests by Microsoft Office 365.

For more detailed information on how to increase the backup thread, please refer to this link: Appendix H: How to Increase the Number of Concurrent Backup Threads.

2.12 AhsayOBM License Requirements

AhsayOBM licenses are calculated on a per device basis:

To backup users with one (1) backup client computer

Example: If one AhsayOBM is installed then, one AhsayOBM license is required.

To backup users with multiple backup client computers, the number of AhsayOBM licenses required is equal to the number of devices.

Example: If there are ten (10) backup sets to backed-up across three (3) backup client computers, then 3 AhsayOBM licenses are required.

2.13 Office 365 License Requirements

Office 365 Subscription Plan

The following subscription plans with Office 365 email services are supported to run backup and restore on AhsayOBM or AhsayCBS User Web Console.

Office 365 Business	Office 365 Business Essentials
Office 365 Business Premium	Office 365 Enterprise E1
Office 365 Enterprise E3	Office 365 Enterprise E4
Office 365 Enterprise E5	Office 365 Education

Office 365 Subscription Status

Make sure your Office 365 subscription with Microsoft is active in order to enjoy all privileges that come along with our backup services. If your account has expired, renew it with Microsoft as soon as possible so that you can continue enjoy the Office 365 backup services provided by Ahsay.

When your account is expired, depending on your role, certain access restrictions will be applied to your account. Refer to the URL below for more details.

Microsoft Office 365 Subscription Status

Restore Requirement

When restoring data of Office 365 user, the account which the data will be restored to requires valid license(s):

Requires Exchange License

Example: Exchange Online Plan and Office 365 E3 are required when restoring Outlook's / Public Folder's items.

Requires SharePoint License

Example: SharePoint Online Plan and Office 365 E3 are required when restoring OneDrive's / Personal Site's items.

2.14 Office 365 Permission Requirements

The basic permissions required by an Office user account for authentication of an Office 365 backup set is as follows:

Global Admin Role

The Office 365 account used for authentication must have Global Admin Role, since Modern Authentication will be used.

This is to ensure that the authorization configuration requirements will be fulfilled (e.g. connect to Microsoft Azure AD to obtain the App Access Token). To assign the role, please refer to Ch. 2.14.1.

Term Store Administrator Role

The Term Store Administrator Role may be required for backup and restore of SharePoint items. To assign the role, please refer to <u>Ch. 2.14.2</u>.

• A member of **Discovery Management** security group

The **Discovery Management** security group must be assigned the following roles. To assign the role, please refer to Ch. 2.14.3.

- ApplicationImpersonation
- Legal Hold
- Mailbox Import Export
- Mailbox Search
- Public Folders

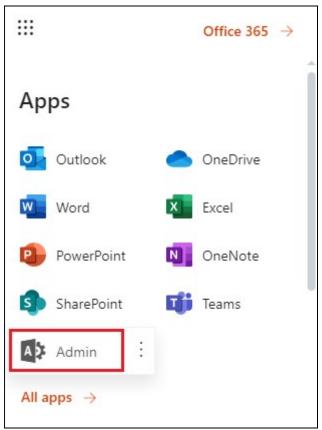
Otherwise, proceed to grant all necessary permissions to the Office user account as shown in the following chapters <u>2.14.1</u>, <u>2.14.2</u>, <u>2.14.3</u>, <u>2.14.4</u>, and <u>2.14.5</u>.

2.14.1 Assigning Global Admin Role to Accounts

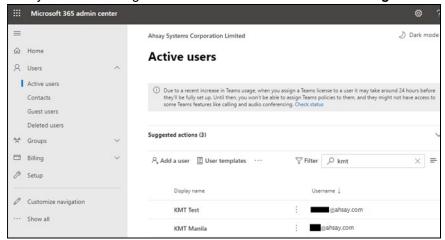
To assign the Global Admin role to accounts, follow the steps below:

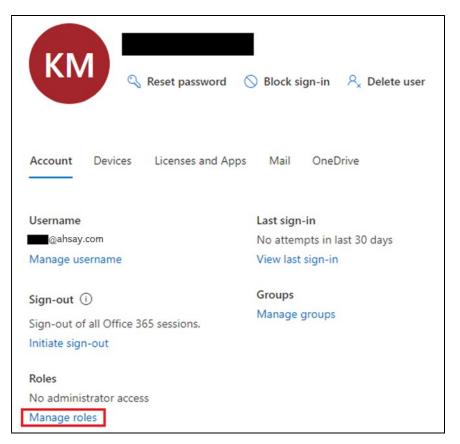
i. Click the App launcher in the upper left side then click **Admin** to go to the Microsoft 365 admin center.



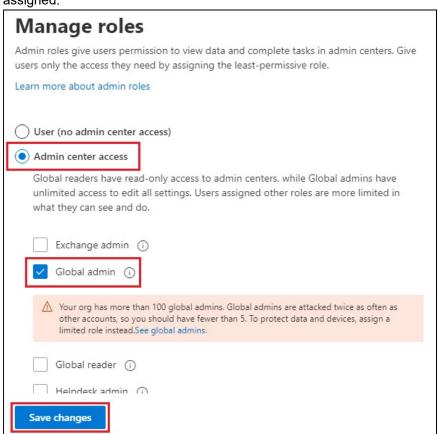


ii. In the Microsoft 365 admin center, on the left panel click **Users**. Find the user you want to assign the Global Admin role and select **Manage roles**.





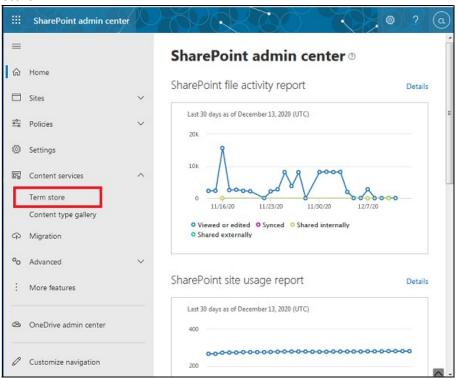
iii. In the Manage roles window, select Admin center access then check the box beside Global admin. Click Save Changes to save the role you assigned.



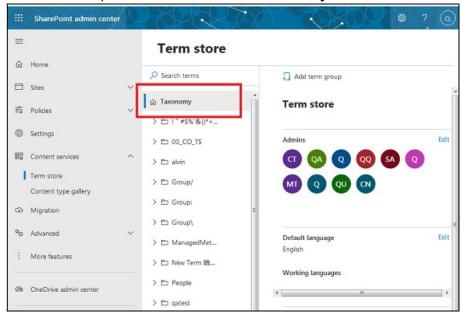
2.14.2 Granting Term Store Administrator Role

To add Term Store Administrator role to the Office 365 user account used to authenticate the Office 365 backup set.

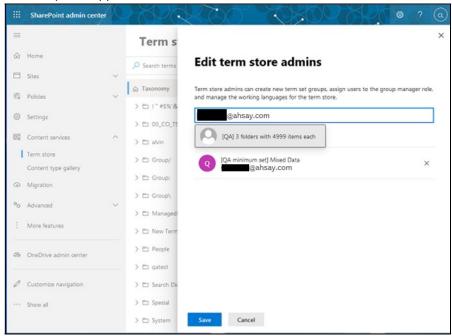
i. In the SharePoint admin center, under **Content services**, click **Term** store.



ii. In the tree view pane on the left, select the **Taxonomy**.



iii. In the Term store page, for Admins, select Edit. The **Edit term store admins** panel appears.

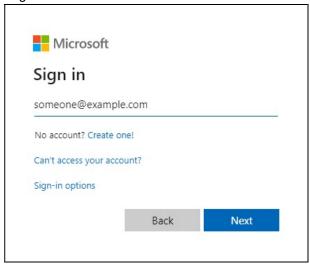


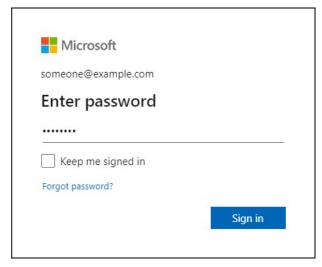
iv. Enter the names or email addresses of the Office 365 user who you want to add as term store admins. Select **Save**.

2.14.3 Granting Permission Discovery Management Group

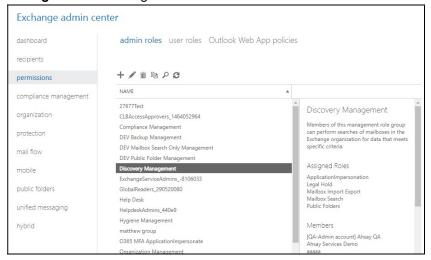
This permission allows users added under the **Members** section of the **Discovery Management** group (refer to <u>Ch. 2.14.4</u> for setup) to back up and/or restore user item(s) not only for their own account, but also the accounts of other users in the same **Members** section.

- i. Open https://outlook.office365.com/ecp
- ii. Log in to the Office 365 as an account administrator.

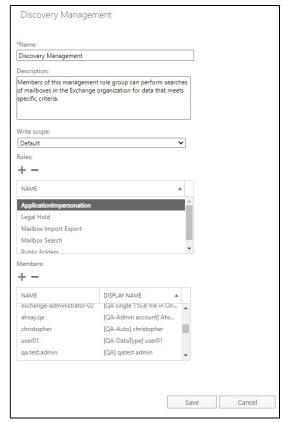




iii. Select the **permissions** menu on the left, then double click on **Discovery Management** on the right.



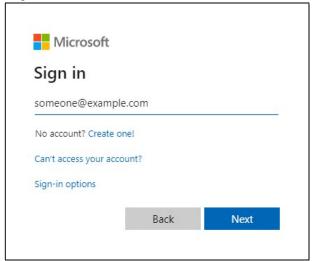
- iv. Click the + icon under the **Roles** section. These are the following roles:
 - ApplicationImpersonation
 - Legal Hold
 - Mailbox Import Export
 - Mailbox Search
 - Public Folders

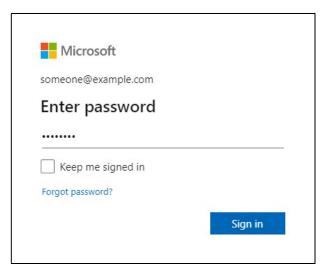


 $\boldsymbol{v}.$ Click \boldsymbol{Save} to confirm and exit the setting.

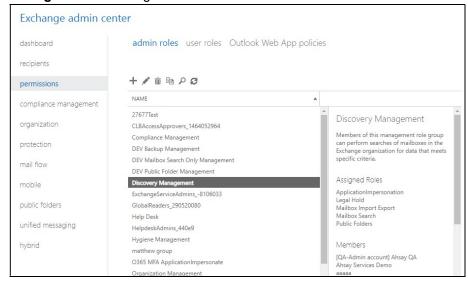
2.14.4 Granting Permission to Accounts for Creating Backup Set

- i. Open https://outlook.office365.com/ecp
- ii. Log in to the Office 365 as an account administrator.

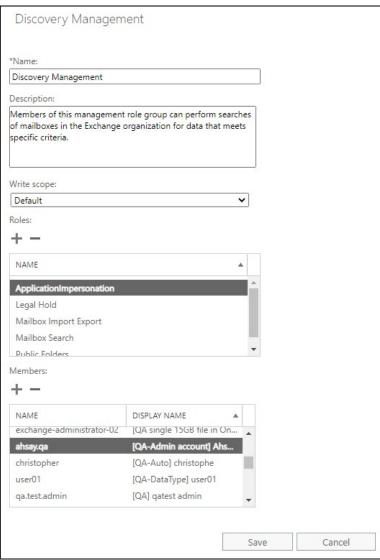




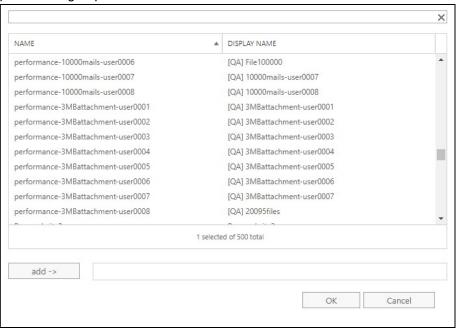
iii. Select the **permissions** menu on the left, then double click on **Discovery Management** on the right.



iv. You can now add users to this group. Click the **+** icon under the **Members** section.



v. Look for the username(s) of the account that you would like to add permission for, then click add > OK to add the corresponding user(s) to the permission group.



vi. Click Save to confirm and exit the setting.

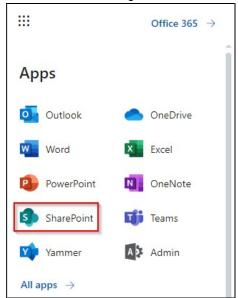
2.14.5 Granting Permission to restore all share link types to alternate location in Office 365

To successfully restore all share link types to alternate location of the same organization in Office 365, follow the settings below:

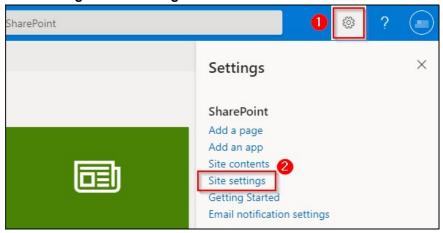
- Allowing anonymous users to access application pages
 - i. Click the App launcher in the upper left side.



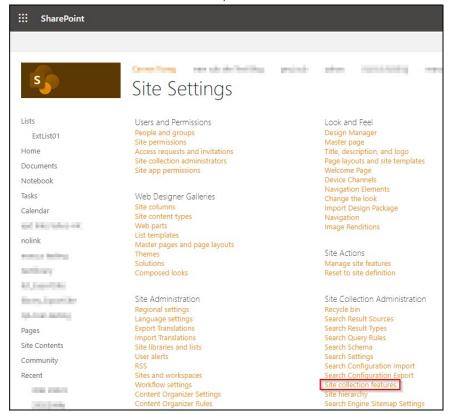
ii. Click SharePoint to go to the SharePoint page.



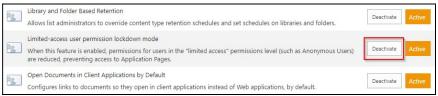
iii. Click Settings > Site Settings.



iv. Under Site Collection Administration, click Site collection features.



v. Scroll down and look for "Limited-Access user permission lockdown mode", click the Deactivate button.



vi. Click Deactivate this feature.

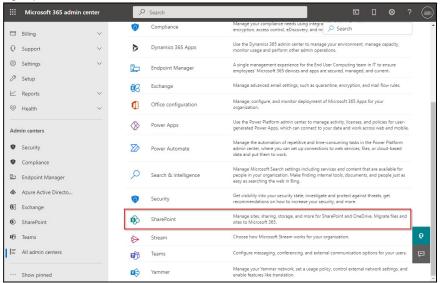


Once deactivated, the Deactivate button will no longer be available.

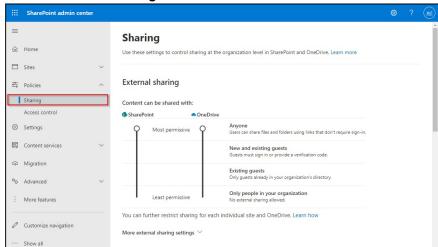


Allowing sharing to external users

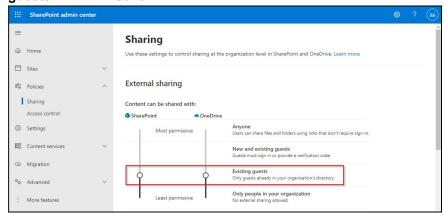
i. Go to your **Microsoft 365 Admin Center > All admin centers >** in the right pane select **SharePoint**



ii. Go to Policies > Sharing.



iii. Under <u>External sharing</u> the button must be in line with "**Existing** guests" and click **Save**.



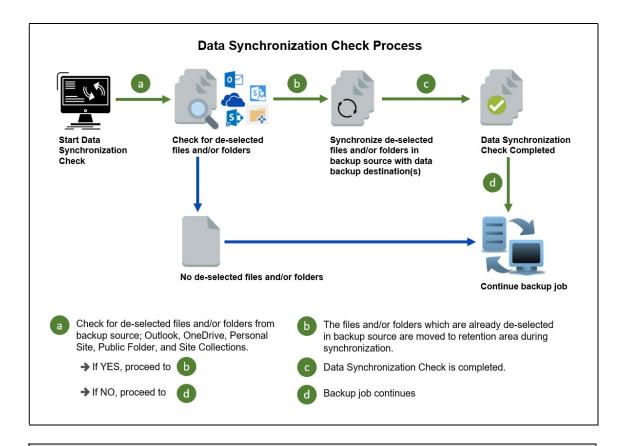
2.15 Data Synchronization Check (DSC) Setup

To compensate for the significant backup performance increase, there is a tradeoff made by the Change Key API, which skips the checking of de-selected files in the backup source, which over time can result in a discrepancy between the items or files/folders selected in the backup sources and the those in the backup destination(s). However, the Change Key API will continue to check for de-selected Office 365 user accounts or Site Collections. Un-selected individual Office 365 user accounts or Site Collections detected during a backup job and will be automatically moved to retention area.

To overcome this, it is necessary in some cases to run a Data Synchronization Check (DSC) periodically. The DSC is similar to a regular Office 365 Change Key API backup job but with the additional checking and handling of de-selected files and/or folders in the backup source. So that it will synchronize the data in the backup source and backup destination(s) to avoid data build-up and the freeing up of storage quota.

Here are the pros and cons of performing the data synchronization check.

	Enabled	Disabled
Backup time	Since data synchronization check is enabled, it will only run on the set interval. For example, the default number of interval is 60 days.	As data synchronization check is disabled, the backup time will not be affected.
	The backup time for the data synchronization job will take longer than the usual backup as it is checking the de-selected files and/or folders in the backup source and data in backup destination(s).	
Storage	Management of storage quota will be more efficient as it will detect items that are de-selected and moved it to retention and will be removed after it exceeds the retention policy freeing up the storage quota.	Management of storage quota will be less efficient even though files and/or folders are already de-selected from the backup source, these files will remain in the data area of backup destination(s).



NOTE

To setup the Data Synchronization Check (DSC), refer to <u>Appendix G: Setting the Data Synchronization Check (DSC)</u>

2.16 Authentication

To comply with Microsoft's product roadmap for Office 365, Basic Authentication (Authentication using Office 365 login credentials) will no longer be utilized. Instead all new Office 365 backup sets created will use either Modern Authentication or Hybrid Authentication.

By second half of 2021, it will be a mandatory requirement for organizations still using Basic Authentication or Hybrid Authentication to migrate to Modern Authentication.

Modern Authentication provides a more secure user authentication by using app token for authentication aside from using the Office 365 login credentials. In order to use Modern Authentication, the Office 365 account is registered under Global region and the Office 365 backup is configured to use Global region. Since, neither Germany nor China region support Modern Authentication.

Existing backup sets using Basic Authentication created prior to AhsayOBM v8.3.6.0 can be migrated to Hybrid Authentication or Modern Authentication. However, once the authentication process is completed, the authentication can never be reverted back to Basic Authentication. For more information on how to migrate to Hybrid Authentication or Modern Authentication please refer to Appendix J: Migrating Authentication of Office 365 Backup Set. After the upgrade to AhsayOBM v9.0.0.0 or above, the backup and restore process of existing Office 365 backup sets still using Basic Authentication will not be affected during this transition period since Modern Authentication is not yet enforced by Microsoft.

In order to migrate existing backup sets to Hybrid Authentication or Modern Authentication there are two (2) methods:

- The first method is the Office 365 account used for the backup set is assigned the Global Admin role.
- The second method is the Office 365 account used for the backup set is an ordinary account. When changing the settings of the backup set, the user can ask an Office 365 Global Admin account to login their credentials first to authorize the migration of authentication. This is only required in migrating from Basic Authentication to Modern Authentication. This only needs to be done once per backup set.

NOTE

Please note that Modern Authentication with enabled security in Azure Active Directory (AD) will be made default if there is zero-usage on any Office 365 organization.

To check the current authentication being used in your Office 365 backup set, see criteria below:

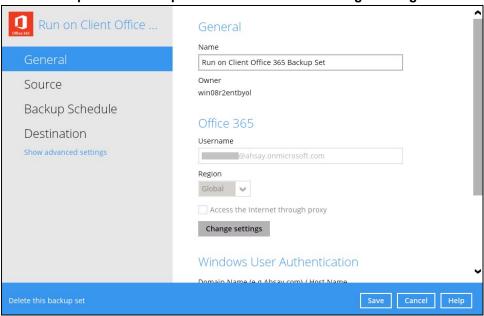
Basic Authentication

If you click on the backup set and the following pop up message is displayed, then the backup set is using Basic Authentication.

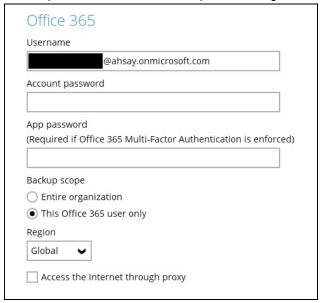


Modern Authentication

Go to Backup Sets > backup set name > General > Change settings.



In the Office 365 credentials page, if the region is Global and the Username exists but has no password, then the backup set is using Modern Authentication.



Hybrid Authentication

- 1. There is no pop up authentication alert.
- 2. In the Office 365 credentials page, if the region is Global and there is a Username and Account password, then the backup set is using Hybrid Authentication.



2.17 Supported Services

Below are the supported services of Office 365 Backup module. It is also specified in the table some services that are currently not yet supported by the Office 365 Backup module.



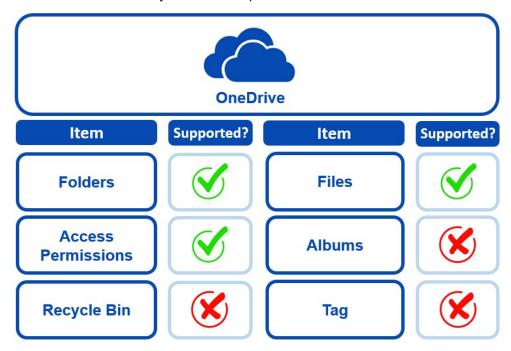
Below are the supported Outlook Mailbox types of Office 365 Backup.



Below are the items that you can back up or restore from an Outlook mailbox.



Below are the items that you can back up or restore from OneDrive.



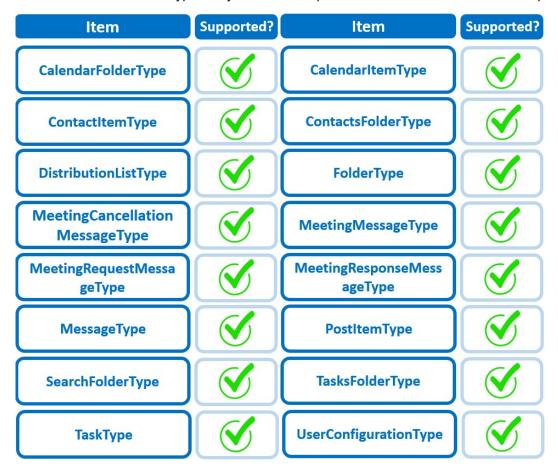
Below are the Site Collections/Personal Site items that you can back up or restore from an Office 365 backup set.



Below are the SharePoint Site Collections template that you can back up or restore from an Office 365 backup set.



Below is the Site Column Type that you can back up or restore from an Office 365 backup set.



Below are the items from the Public Folder that you can backup and restore from an Office 365 backup set.



2.18 Maximum Supported File Size

The following table shows the maximum supported file size per item for backup and restore of each service.



2.19 Limitations

2.19.1 Ahsay Limitations

Modern Authentication

- Modern Authentication is only supported for Office 365 account that is registered in Global region and the Office 365 backup is configured to use Global region.
- Migration to Modern Authentication is not supported on an Office 365 account without a Global Admin role; or during the migration process, the Office 365 account used to authenticate the migration does not have Global Admin role.
- Backup and restore of the site features setting for SharePoint Site Collection and/or Personal Site using Modern Authentication is not supported.
- Due to limitations in Microsoft API, when using Modern Authentication, backup and restore of SharePoint Web Parts and Metadata are not fully supported.
- Backup sets using Modern Authentication do not support backup of external content types (through the linkage from selected lists).

- Backup sets using Modern Authentication do not support backup and restore of the following:
 - Some list settings, currently known as Survey Options on survey list.
 - Feature setting for SharePoint Site and Personal Site.

SharePoint

- Document Libraries, List Items and their default Column Types will be supported, excluding customized Apps and SharePoint App Store applications.
- Most of site lists will be supported, except for certain list types that will be skipped to restore due to API limitation, for example is Microfeed in Classic Team Site.
- Site logos will NOT be restored, it is suggested revisiting the site setting page and manually add the missing images if necessary.
- User-defined workflow templates will NOT be supported for backup and restore.
- Recycle Bin will NOT be supported for backup and restore.
- Most of Site level settings will NOT be restored, except for those essential to support the successful restore of the backup items e.g. Manage Site Feature / Site Collection Feature.
- Most of List level settings (including List view) will NOT be restored, except for those essential to support the successful restore of backup items, e.g. item checkout settings. Following restore, it is suggested revisiting the relevant settings if necessary. This may affect list column ordering and visibility after restoring.
- Restoring External Data column is NOT supported if external content type has been deleted via SharePoint Designer.
- Restoring of multiple Value of managed metadata column when the key name (column name) contains space is NOT supported.
- Restoring of list with local managed metadata column to alternate location is NOT supported.
- The restore of SharePoint documents or folders with the following characters: / \ | *: " < > in item name to a Windows local computer is not supported. As Windows does not support these characters for either a file or folder name.
- Restoring Newsfeed items in Modern Team Site will not publish the items to Homepage automatically, user will need to navigate to Site Content > Page Library> click on each individual news item and "Post" the news one by one manually.
 - Backup User (except for Global Admin) may not have permission to back up the site collection even if he/she can view it in the backup source tree. FOR EACH site collection, the user can backup it only if he/she is assigned as a site admin of that site collection.
 - If the user is assigned as site admin of the root level site collection only, he/she is not automatically added as site admin of other site collection under that root level site collection (i.e. If user is to backup specific site collection under the root, he/she has to be added as site admin of that specific site collection under the root also).

- For site collection that can be viewed by user in the source tree which he/she is not yet assigned as a site administrator:
 - when user expand the node of that site collection, access denied error pop up will be given.
 - when user tick such site collection to backup, access denied error will be given in the backup log.

OneDrive

- Backup and restore of file share links will be supported for OneDrive and SharePoint Documents only, and only for restore to the same Office 365 organization.
- Backup and restore of all versions will be supported for OneDrive and SharePoint Documents only, except for ".aspx" files.

Outlook

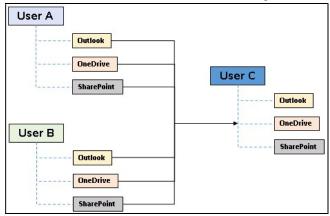
- Online Archive Mailbox will NOT be supported for backup and restore.
- For Outlook mail item, after using restore to original location to overwrite a mail item (and hence id of the mail id is changed), then
 - o In the backup source tree of the same backup set:
 - the original ticked item still use the old mail id to reference and becomes red item.
 - there is another item (with the latest mail id) created for that mail item

User will need to deselect the red item and tick the mail item again in the backup source tree in order to do the next backup properly. As per development team, the issue will not be handled as user's selected source should not be modified by system

Restore to Alternate location

- Only administrator account or user account with administrative authority can restore backup items to an alternate location.
- If you are trying to restore item(s) from one user to an alternate location user, AhsayOBM will restore the item(s) to their respective destination folder(s) with the same name as the original folder(s).
 - Example: Item from Outlook of User-A will be restored to the Outlook of the alternate location User-B; Item from SharePoint of User-A will be restored to the SharePoint of the alternate location User-B.
- Restore of item(s) in public folder to an alternate location public folder is not supported.
 - **Example**: Restore of item(s) in public folder from User-A to alternate location User-B is not supported.
- When restoring to alternate location, data type "Person or Group" will not be restored. Following restore, it is suggested revisiting the relevant settings if necessary. This also affects "Assigned To" column values of some list templates (e.g. Tasks list), and "Target Audience" column values of some list templates (e.g. Content and Structure Reports).

If you are trying to restore item(s) from several users to an alternate location user, AhsayOBM will restore the item(s) to their respective destination folder(s) in alternate location user with the same name as the original folder(s).



Example: Item from Outlook of User-A and User-B will be restored to the Outlook of the alternate location User-C.

Restore to Alternate Office 365 account

If you are trying to restore item(s) from multiple Office 365 user account to an alternate Office 365 user account, AhsayOBM can only restore one Office 365 user account at a time.

Restore to Alternate Organization

- Restoring of document library (including OneDrive) items 'Share Link to alternate organization will trigger a warning message.
- Skip to restore People and groups and Site permissions to alternate origination.

Restore data to a destination user which has a different language

If you are trying to restore the item to a destination user which has a different language setting than the original user, AhsayOBM will restore item(s) to their respective destination folder based on the translation listed below.

For folders such as 'Calendar' or 'Notes', a new folder 'Calendar' or 'Notes' will be created.

For folders in OneDrive and SharePoint, a new folder will be created.

Restore existing documents in checked-out status

Restoring of existing documents in **checked out** status is supported only when the user who has **checked out** the file is the same user who is performing the restore.

Backup source (English)	Action	Destination User with Chinese as default language settings
Inbox	Merge	收件箱
Outbox	Merge	寄件匣
Sent Items	Merge	寄件備份
Deleted Items	Merge	刪除的郵件
Drafts	Merge	草稿
Junk E-Mail	Merge	垃圾電郵
Calendar	Create new folder	Calendar
Notes	Create new folder	Notes
OneDrive Folder	Create new folder	OneDrive Folder
SharePoint Folder	Create new folder	SharePoint Folder

2.19.2 Microsoft Limitations

Exchange Online

For more detailed information on the limitations of Exchange Online, please refer to this Microsoft article, <u>Exchange Online Limits</u>. These are some of the limitations that will be discussed in the Exchange Online Limits article:

- Address book
- Mailbox storage
- Capacity alerts
- Mailbox folder
- Message
- Receiving and sending
- Retention
- Distribution group
- Journal, Transport, and Inbox rule
- Moderation
- Exchange ActiveSync

OneDrive

For more detailed information on the limitations of OneDrive, please refer to this Microsoft article, <u>OneDrive Limits</u>. These are some of the limitations that will be discussed in the OneDrive Limits article:

- File name and path lengths
- Thumbnails and previews
- Number of items to be synced
- Information rights management
- Differential sync
- Libraries with specific columns
- Windows specific limitations

SharePoint

For more detailed information on the limitations of SharePoint Online, please refer to this Microsoft article, <u>SharePoint Online Limits</u>. These are some of the limitations that will be discussed in the SharePoint Online article:

Limits by plan

Feature	Office 365 Business Essentials or Business Premium	Office 365 Enterprise E1, E3, or E5, or SharePoint Online Plan 1 or 2	Office 365 Enterprise F1
Total storage per organization ^{1, 2}	1 TB plus 10 GB per license purchased	1 TB plus 10 GB per license purchased ³	1 TB ³
Max storage per site collection ⁴	25 TB	25 TB	25 TB ⁵
Site collections per organization	1 million ⁶	1 million ⁶	1 million
Number of users	Up to 300	1- 500,000 ⁷	1- 500,000 ⁷

Service limits for all plans, such as: items in lists and libraries, file size and file path length, moving and copying across site collections, sync, versions, SharePoint groups, managed metadata, subsites, etc.

2.20 Best Practices and Recommendations

The following are some best practices or recommendations we strongly recommend you follow before you start any Office 365 backup and restore.

Temporary Directory Folder Location (For backup and restore running on AhsayOBM only)

Temporary directory folder is used by AhsayOBM for storing backup set index files and any incremental or differential backup files generated during a backup job. To ensure optimal backup/restoration performance, it is recommended that the temporary directory folder is set to a local drive with sufficient free disk space.

Performance Recommendations

Consider the following best practices for optimized performance of the backup operations:

- Enable schedule backup jobs when system activity is low to achieve the best possible performance.
- Perform test restores periodically to ensure your backup is set up and performed properly. Performing recovery test can also help identify potential issues or gaps in your recovery plan. It is important that you do not try to make the test easier, as the objective of a successful test is not to demonstrate that everything is flawless. There might be flaws identified in the plan throughout the test and it is important to identify those flaws.

Set Backup Destination

After creating the backup set-in Run-on **Client** mode on AhsayCBS user web console, please remember to login AhsayOBM to set the backup destination if you want the backup destination to be Local/ Mapped Drive/ Removable Drive.

Backup Destination

To provide maximum data protection and flexible restore options for agent-based backup, it is recommended to configure:

- At least one offsite or cloud destination
- At least one local destination for fast recovery

Log in to AhsayOBM

After modifying the backup schedule setting of the **Run on Client** backup set on AhsayCBS user web console, please remember to log in to the AhsayOBM client once to synchronize the changes immediately.

Periodic Backup Schedule

The periodic backup schedule should be reviewed regularly to ensure that the interval is sufficient to handle the data volume on the machine. Over time, data usage pattern may change on a production server, i.e., the number of new files which are created, the number of files which are updated/deleted, and new users may be added etc. schedule.

Consider the following key points to efficiently handle backup sets with periodic backup schedule.

- Hardware to achieve optimal performance, compatible hardware requirements is a must. Ensure you have the backup machine's appropriate hardware specifications to accommodate frequency of backups,
 - so that the data is always backed up within the periodic backup interval
 - so that the backup frequency does not affect the performance of the production server
- Network make sure to have enough network bandwidth to accommodate the volume of data within the backup interval.
- Retention Policy also make sure to consider the retention policy settings and retention area storage management which can grow because of the changes in the backup data for each backup job.

Authentication

Although Microsoft has moved the enforcement date for Modern Authentication from end of 2020 to the second half of 2021, since this new authentication is already available starting with AhsayOBM v8.3.6.0 or above, it is recommended that backup sets are migrated to Modern Authentication. All newly created Office 365 backup sets on AhsayOBM automatically use Modern Authentication.

However, due to the current limitation with Microsoft API, Modern Authentication is currently not suitable for backup sets with Personal Sites and/or SharePoint Sites selected. As a temporary workaround for Office 365 backup sets which require backup of Personal Sites and/or SharePoint Sites selected should be migrated to Hybrid Authentication until the issue has been resolved by Microsoft.

Large number of Office 365 users to Backup

In general, we recommend that each Office 365 backup set does not contain more than 2000 Office 365 users, to ensure a daily incremental backup job completes within 24 hours assuming that only small incremental daily changes will be made on the backup set.

However, the actual number of Office 365 users in a backup set may vary depending on the total number of Outlook, OneDrive, and SharePoint items, as well as the total size of these items. The actual number of Office 365 users in a backup set could be considerably less or could be more than 2000.

For details on the actual item count and size of Office 365 user, it is recommended to check in the Microsoft 365 Admin Centre, please refer to <u>Appendix I: How to view Item</u> count and Storage used in Microsoft 365 Admin Center.

Also, by splitting up all the users into separate backup sets, the more backup sets, the faster the backup process can achieve.

It is also a requirement that for every split backup sets should have its own unique user account for authentication to minimize the probability of throttling from Microsoft.

Example: If there are <u>10 split backup sets</u>, then there should be <u>10 unique user accounts for authentication</u>.

For more detailed example, refer to <u>Appendix B: Example for backup of large numbers</u> of Office 365 users.

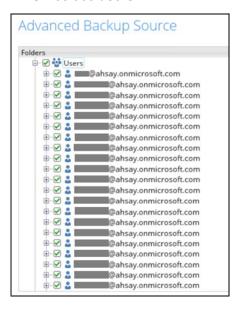
Concurrent Backup Thread

The value of 4 concurrent backup threads is found to be the optimal setting for Office 365 backups, to ensure best backup performance, minimal resource usage, and lowest probability of throttling of Ahsay backup requests by Microsoft Office 365.

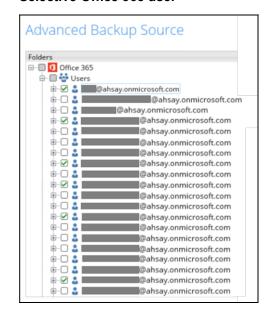
Backup Source

For Office 365 backup sets there are two approaches for backup source selection. Below are the sample screenshots of the selection <u>All Office 365 users</u> and <u>Selective 365 users</u>.

All Office 365 users



Selective Office 365 user



All Office 365 users

If you tick the "Users" checkbox, all of the sub Office 365 user accounts will automatically be selected.

Selective Office 365 user

If you tick selective Office 365 user accounts, you will notice that the "Users" checkbox is highlighted with gray color. This indicates that not all the users are selected.

These are the Pros and Cons when selecting a backup source from <u>all Office 365 users</u> and <u>selective Office 365 user</u>.

	All Office 365 users	Selective Office 365 user
Backup Set Maintenance	The Admin does not need to manage the backup set, i.e. to select or unselect use when an Office 365 user account was added or removed, the changes are automatically updated in the backup source.	The Admin will have to select or unselect users manually when an Office 365 user account was added or removed, as the changes are not automatically updated in the backup source this can be very time consuming.
		If an Office 365 user account is removed from the domain and

		the admin forgets to unselect the Office 365 user account from the backup source, then this will cause a warning that the user does not exist. For more details on the backup set maintenance, please see, Appendix E: Example Scenario for Backup Set Maintenance
Office 365 License	The backup user account must have additional Office 365 license modules assigned to cover any increases Office 365 users. Otherwise, if additional users are added without sufficient modules, then this will cause backup quota exceeded warning and additional users will not be backed up. For more details on the computation on the required license, please see, Appendix A: Example Scenarios for Office 365 License Requirement and Usage	This will allow the admin to easily control or manage the number of license modules used for the backup set.
Backup Time	All Office 365 user accounts will be backed up. This means the initial of full backup job will take longer, any subsequent incremental backup will take longer.	Only selective Office 365 user accounts will be backed up. This will mean the initial of full backup job will be faster, any subsequent incremental backup will be faster.
Storage	As all Office 365 user accounts are backed up, more storage will be required.	As only selective Office 365 user accounts will be backed up, the backup set will require relatively less storage.

3 Creating an Office 365 Backup Set

Basic Authentication will not be utilized anymore, but instead there are two types of authentication that can be used in creating a backup set namely <u>Modern Authentication</u> or <u>Hybrid Authentication</u>.

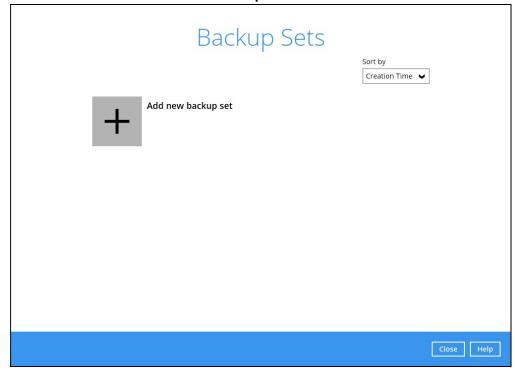
1. Log in to AhsayOBM.

For instructions on how to do this please refer to <u>Chapter 8</u> of the AhsayOBM v9 Quick Start Guide for Windows.

2. In the AhsayOBM main interface, click **Backup Sets**.

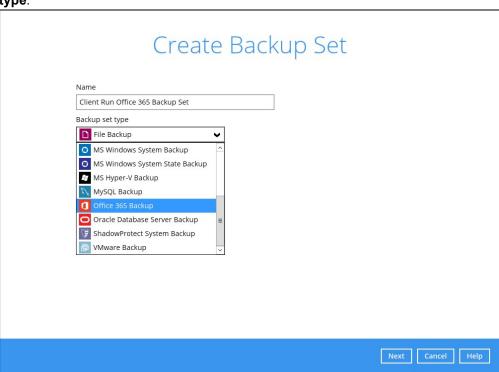


3. Click the "+" icon next to Add new backup set.

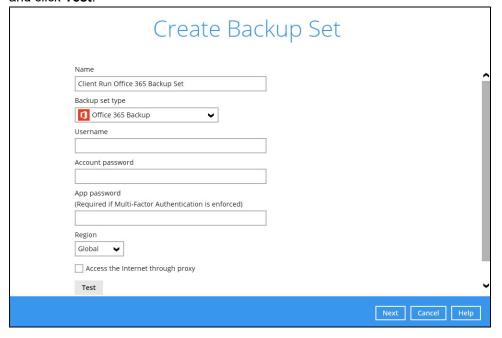


4. This step will determine if the backup set created will use Modern Authentication or Hybrid Authentication.

Enter a **Name** for your backup set and select **Office 365 Backup** as the **Backup set type**.



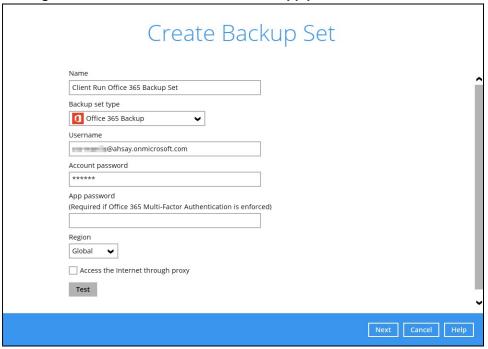
For Modern Authentication, leave the Username and Account password blank and click Test.

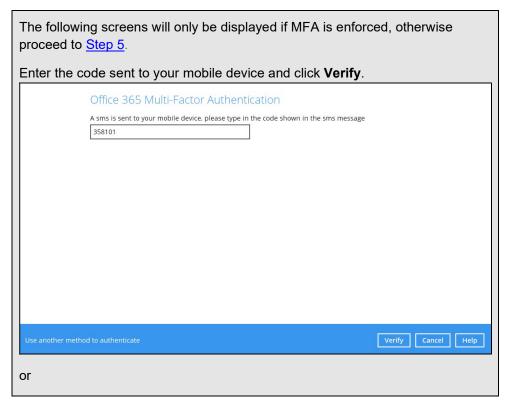


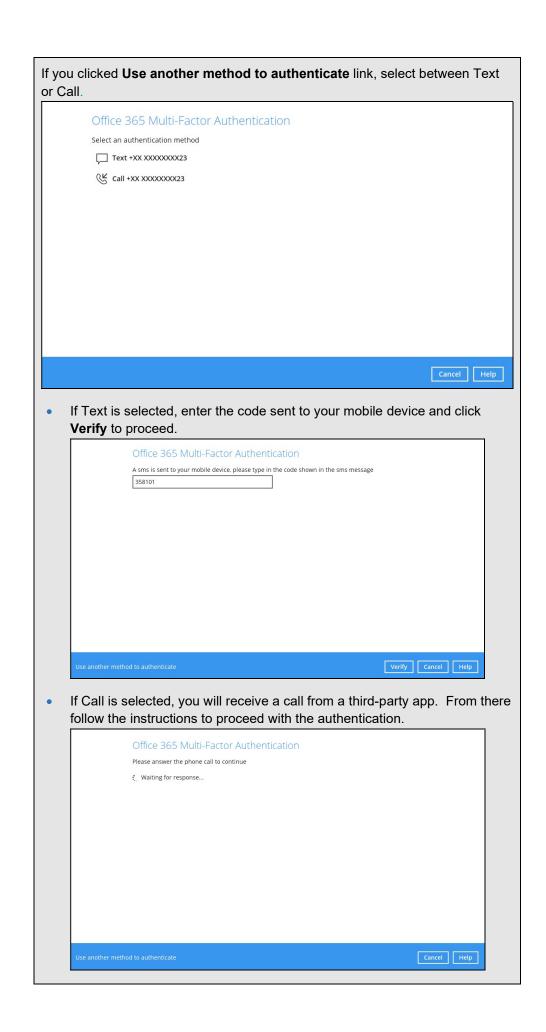
Click I understand the limitation and confirm to proceed.



For **Hybrid Authentication**, enter the **Username**, **Account password** and select the **Region**. If MFA is enforced, also enter the **App password**. Then click **Test**.







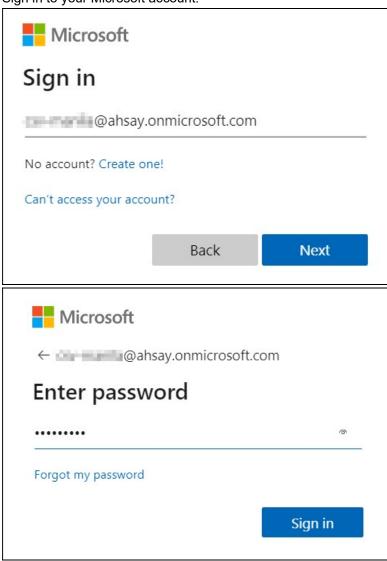
NOTE

- The App password is only required if the MFA status of an Office 365 account is enforced
- If the MFA of the Office 365 user account will be enabled later on, it is highly
 advisable to login to AhsayOBM and re-authenticate the Office 365 user account's
 credential using the MFA App password. Otherwise the scheduled backups of the
 Office 365 backup set will stop working.
- 5. Click Authorize to start the authentication process.

Click [Authorize] and in the pop-up browser window, sign in your Microsoft account and authorize the backup application (if necessary), copy and paste the authorization code to the textbox and hit [OK] to complete the authentication.

Authorize Cancel

Sign in to your Microsoft account.



If MFA is enforced for the Office 365 user account used to authenticate the backup set, enter the code and click **Verify**.



NOTE

The verification code is only required if the MFA status of an Office 365 account is enforced.

Copy the authorization code.



Authorization Code for Microsoft 365

0.ASsA_lShkza7uEGrYiY1I1VMXiGl8nVBhARCgjmGnRa

Please copy and paste the above Authorization Code into Ahsay's product to complete the setup.

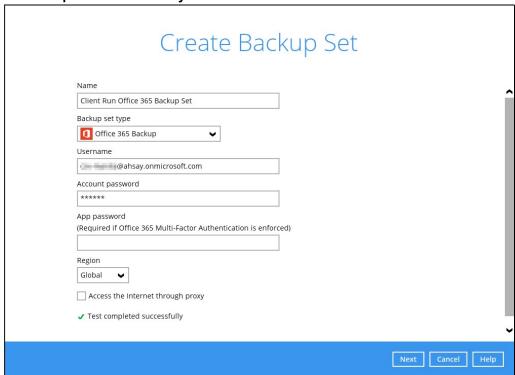
Go back to AhsayOBM and paste the authorization code. Click **OK** to proceed.

In the pop-up browser window, sign in your Microsoft account and authorize the backup application (if necessary), copy and paste the authorization code to the textbox and hit [OK] to complete the authentication.

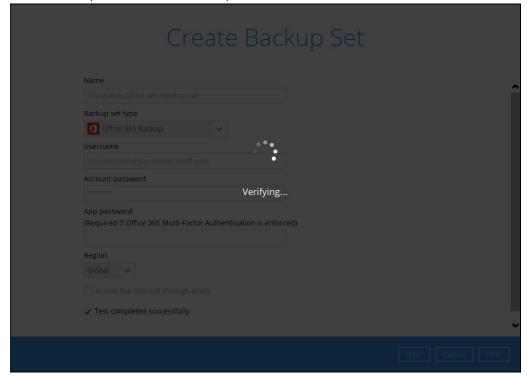
J6IIWZxNEthLJYgwVRKS8zoK82CJMghHtCzW7-xEdl4jN88quVnHtS5ULKIAA

OK Cancel

Test completed successfully shows when the validation is successful.



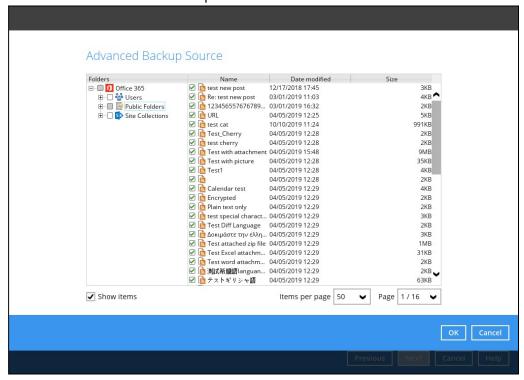
Click Next to proceed to the next step.



6. In the Backup Source window, select the desired Outlook, OneDrive, Personal Site, Public Folders or Site Collections for backup.

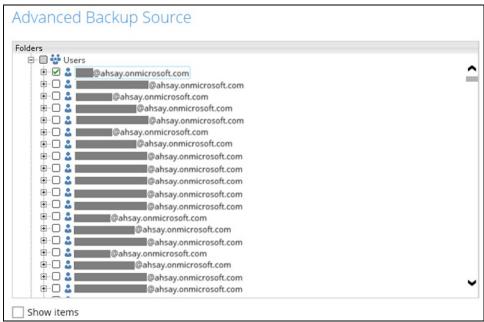


Or click **I would like to choose the items to backup** to choose the detailed items to backup. Tick the **Show items** checkbox at the bottom left corner if you would like to choose individual items for backup.

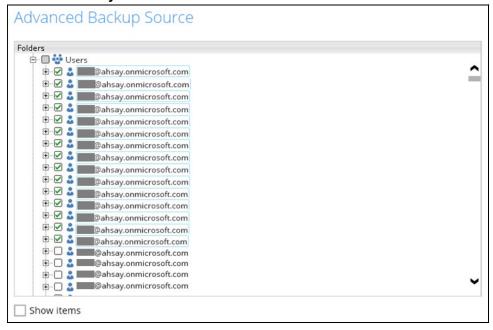


If you will select a large number of items to backup, like 1000 items, you need to click on these 1000 items to select/deselect them individually. Now there is a shortcut that you can use to lessen the burden of selecting/deselecting every 1000 item. You can select/deselect all 100 items at once by using the Shift key. As an example, we will only show how to do this by selecting only 15 users which would fit in our screen. Follow the steps below on how to do this:

i. Select the first user.

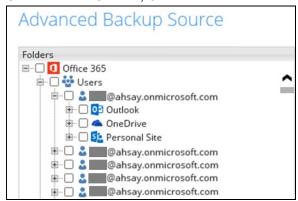


- ii. Scroll down to the 15th user.
- iii. Hold the **Shift key** then click the 15th user. All the 15 users are now selected.

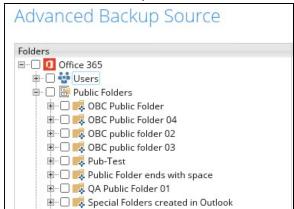


Below are example screenshots for the Users, Public Folders, and Site Collections.

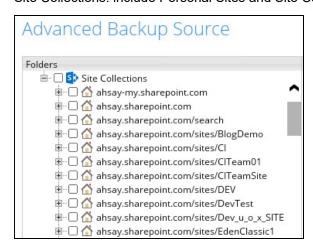
Users: include Outlook, OneDrive and Personal Sites



Public Folders: include public folders

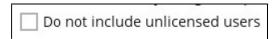


Site Collections: include Personal Sites and Site Collections



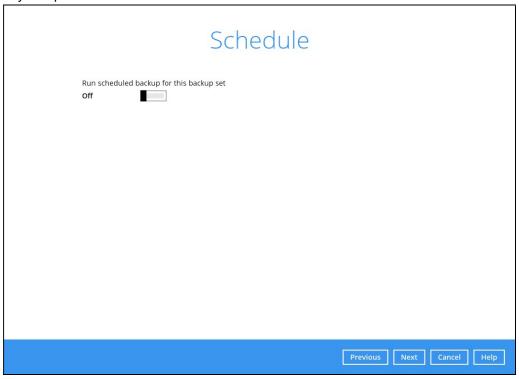
Click **OK** when you are done with the selection to proceed.

You also have the option not to include unlicensed users in the backup by ticking the **Do not include unlicensed users** checkbox.

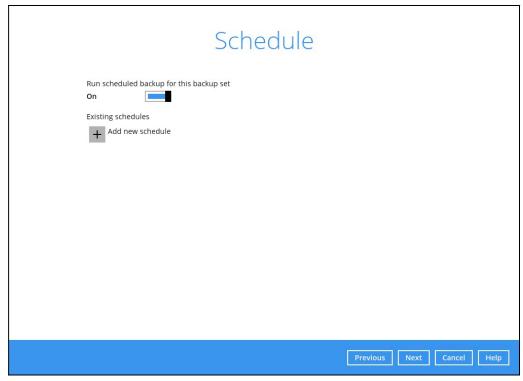


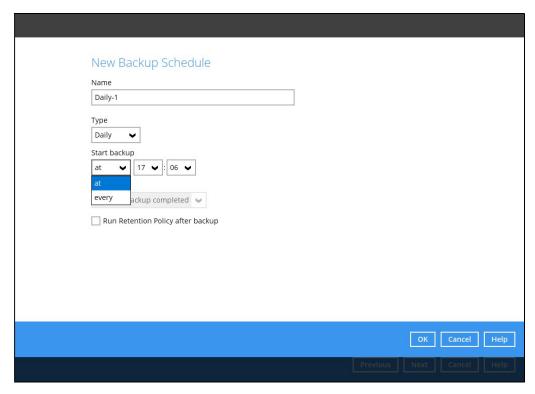
Click **Next** to continue.

7. In the Schedule window, configure a backup schedule for backup job to run automatically at your specified time interval.



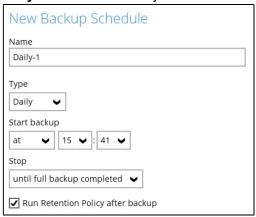
Slide the on/off button to turn on this feature, then click **Add new schedule** to add a new schedule.



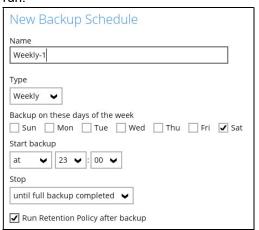


In the New Backup Schedule window, configure the following backup schedule settings.

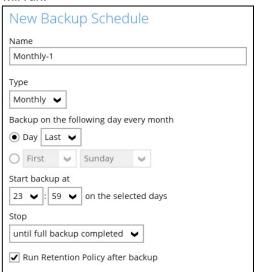
- Name the name of the backup schedule.
- Type the type of the backup schedule. There are four (4) different types of backup schedule: Daily, Weekly, Monthly and Custom.
 - Daily the time of the day when the backup job will run.



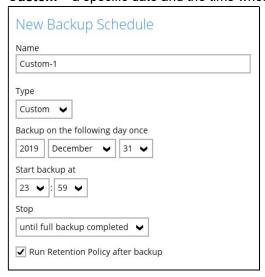
Weekly – the day of the week and the time of the day when the backup job will



 Monthly – the day of the month and the time of the day when the backup job will run.

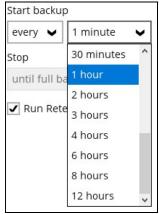


Custom – a specific date and the time when the backup job will run.

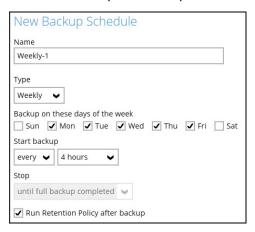


- Start backup the start time of the backup job.
 - at this option will start a backup job at a specific time.
 - every this option will start a backup job in intervals of minutes or hours.





Here is an example of backup set that has a periodic and normal backup schedule.



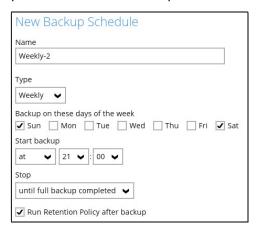


Figure 1.1

Figure 1.2

Figure 1.1 – Periodic schedule every 4 hours Monday - Friday during business hours **Figure 1.2** – Normal schedule run at 21:00 or 9:00 PM on Saturday & Sunday on weekend during non-business hours

- Stop the stop time of the backup job. This only applies to schedules with start backup "at" and is not supported for periodic backup schedule (start backup "every")
 - until full backup completed this option will stop a backup job once it is complete. This is the configured stop time of the backup job by default.
 - after (defined no. of hrs.) this option will stop a backup job after a certain number of hours regardless of whether the backup job has completed or not. This can range from 1 to 24 hrs.

The number of hours must be enough to complete a backup of all files in the backup set. For small files in a backup, if the number of hours is not enough to back up all files, then the outstanding files will be backed up in the next backup job. However, if the backup set contains large files, this may result in partially backed up files.

For example, if a backup set has 100GB file size which will take approximately 15 hours to complete on your environment, but you set the "stop" after 10 hours, the file will be partially backed up and cannot be restored. The next backup will upload the files from scratch again.

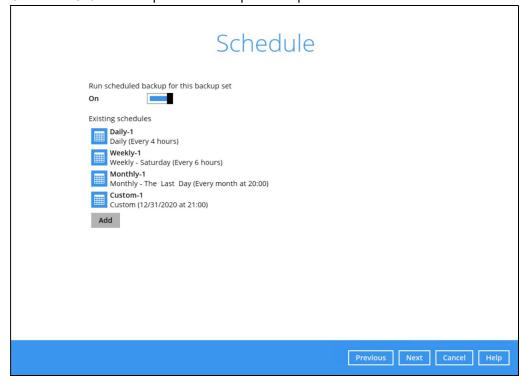
The partially backed up data will have to be removed by running the data integrity check.

As a general rule, it is recommended to review this setting regularly as the data size on the backup machine may grow over time.

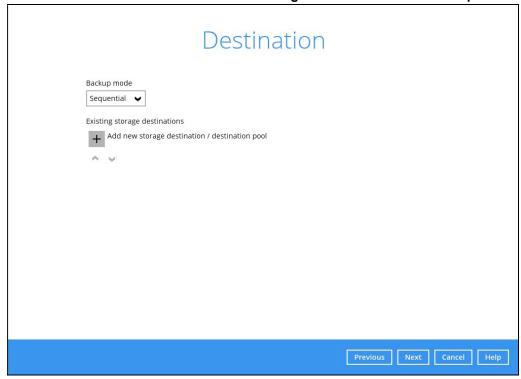
Run Retention Policy after backup – if enabled, the AhsayOBM will run a retention policy job to remove files from the backup destination(s) which have exceeded the retention policy after performing a backup job.

Click the **OK** button to save the configured backup schedule settings.

Click the Next button to proceed. Multiple backup schedules can be created.



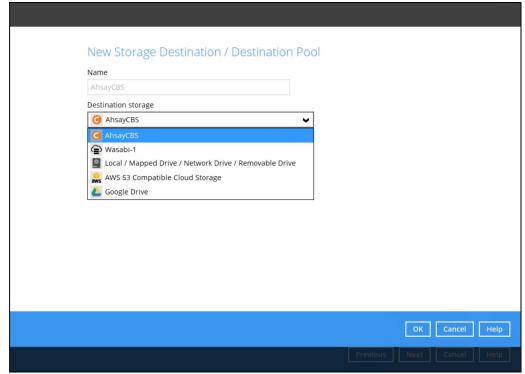
8. In the Destination window, select a backup destination where the backup data will be stored. Click the "+" icon next to **Add new storage destination / destination pool**.



NOTE

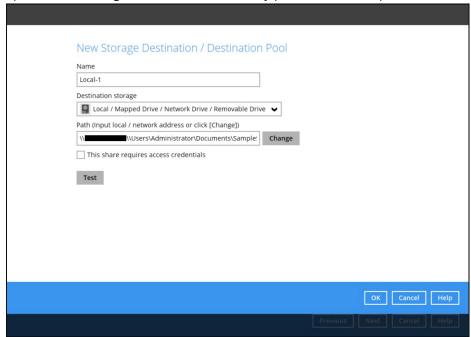
For more details on Backup Destination, refer to the following Wiki article for details: FAQ: Frequently Asked Questions on Backup Destination

Select storage destination.

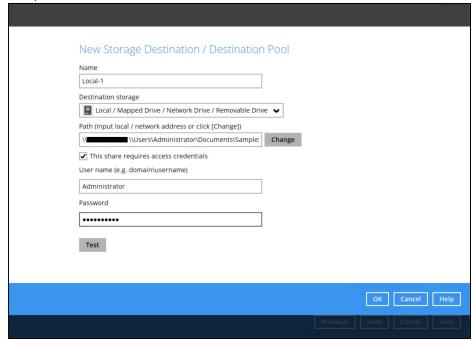


You can choose a storage combination of the Local/Mapped Drive/Network Drive/Removable Drive or Cloud storage. Click **OK** to proceed when you are done with the settings.

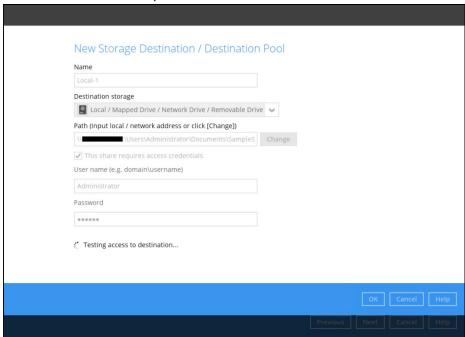
If you have chosen the **Local / Mapped Drive / Network Drive / Removable Drive** option, click **Change** to browse to a directory path where backup data will be stored.



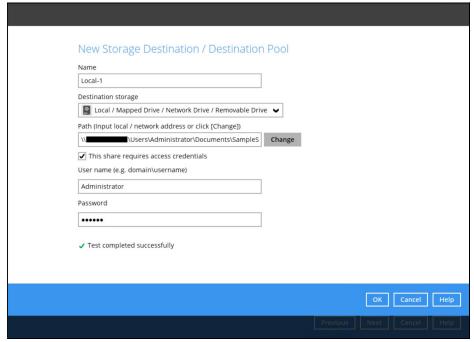
If **This share required access credentials** checkbox is ticked, enter the username and password.



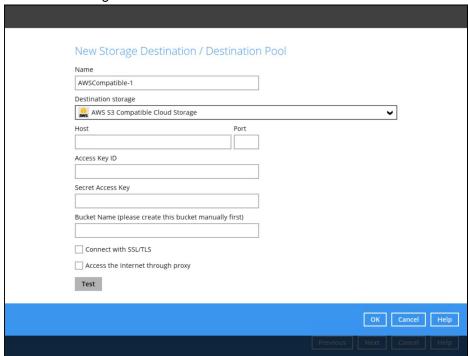
Click Test to validate the path.



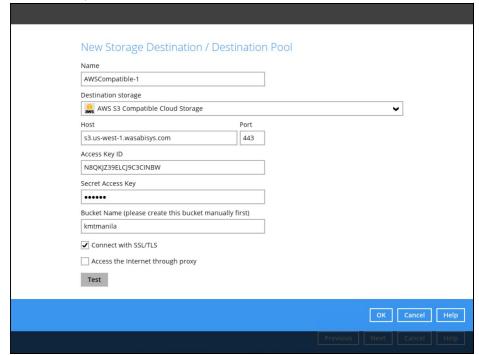
Test completed successfully shows when the validation is done.



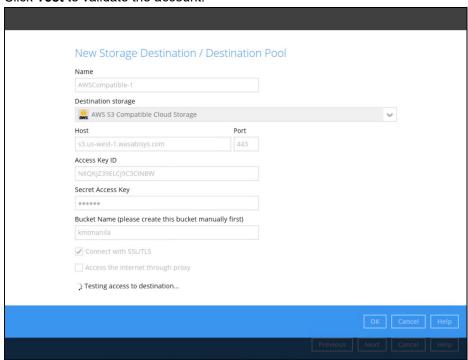
➤ If you have chosen **AWS S3 Compatible Cloud Storage**, select it from the destination storage.



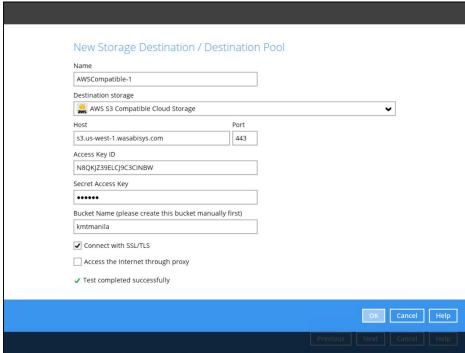
Enter the required details.



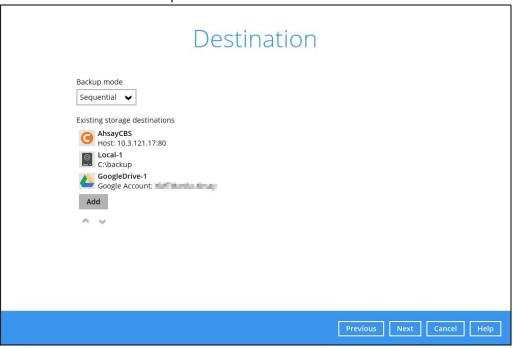
Click Test to validate the account.



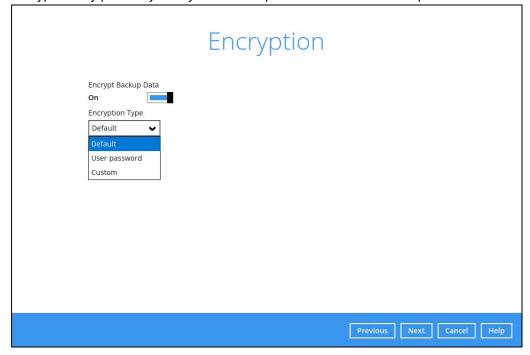
Test completed successfully shows when the validation is done. Click \mathbf{OK} to proceed.



You can add multiple storage destinations. The backup data will be uploaded to all the destinations you have selected in the order you added them. Press the icon to alter the order. Click **Next** to proceed.



9. In the Encryption window, by default the **Encrypt Backup Data** option is enabled with an encryption key preset by the system which provides the most secure protection.



You can choose from one of the following three Encryption Type options:

- ➤ **Default** an encryption key with 44 alpha numeric characters will be randomly generated by the system
- User password the encryption key will be the same as the login password of your AhsayOBM at the time when this backup set is created. Please be reminded that if you change the AhsayOBM login password later, the encryption keys of the backup sets previously created with this encryption type will remain unchanged.
- ➤ **Custom** you can customize your encryption key, where you can set your own algorithm, encryption key, method and key length.



NOTE

For best practice on managing your encryption key, refer to the following Wiki article. FAQ: Best practices for managing encryption key on AhsayOBM or AhsayACB?

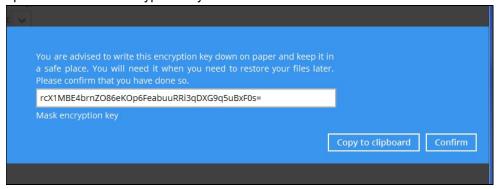
Click Next when you are done setting.

10. If you have enabled the Encryption Key feature in the previous step, the following pop-up window shows, no matter which encryption type you have selected.



The pop-up window has the following three options to choose from:

➤ **Unmask encryption key** – The encryption key is masked by default. Click this option to show the encryption key.

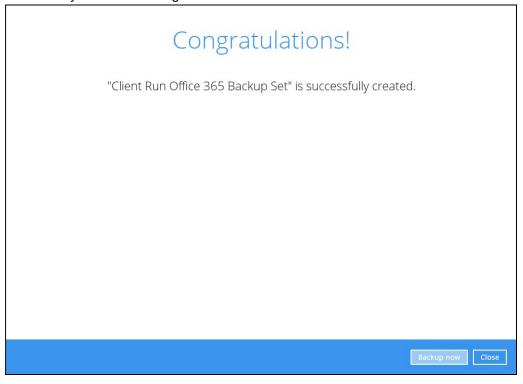


- Copy to clipboard Click to copy the encryption key, then you can paste it in another location of your choice.
- Confirm Click to exit this pop-up window and proceed to the next step.
- 11. If you have enabled the scheduled backup option, you will be prompted to enter the **User Name** and **Password** of the Windows account that will be running the backup.



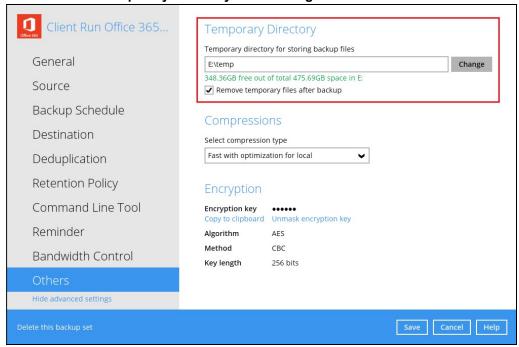
Click Next to create the backup set.

12. The following screen is displayed when the new Office 365 backup set is created successfully. Click **Close** to go back to main screen.



 Based on <u>Best Practices and Recommendations</u>, it is highly recommended to change the <u>Temporary Directory</u>. Select another location with sufficient free disk space other than Drive C.

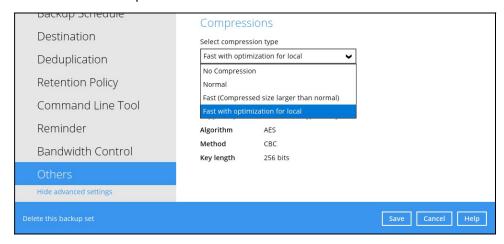
Go to Others > Temporary Directory. Click Change to browse for another location.



14. Optional: Select your preferred **Compression** type. By default, the compression is Fast with optimization for local.

Go to **Others > Compressions**. Select from the following list:

- No Compression
- Normal
- Fast (Compressed size larger than normal)
- Fast with optimization for local



4 Running Backup Job

For an overview of the backup process, please refer to <u>Chapter 12</u> of the AhsayOBM v9 Quick Start Guide for Windows.

To start a backup, follow the steps below:

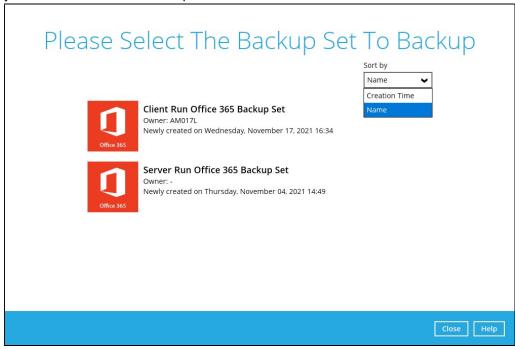
1. Log in to AhsayOBM.

For instructions on how to do this please refer to <u>Chapter 8</u> of the AhsayOBM v9 Quick Start Guide for Windows.

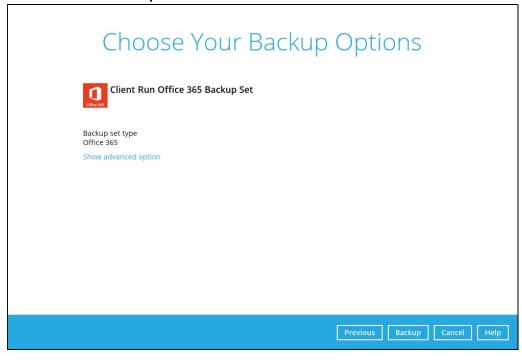
2. Click the **Backup** icon on the main interface of AhsayOBM.

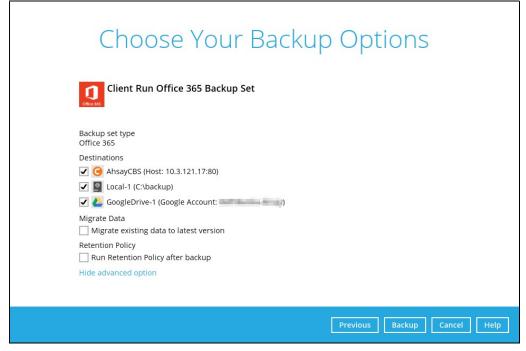


3. Backup sets can be sorted by Name or by Creation Time. Select the backup set which you would like to start a backup for.



4. If you would like to modify the Destinations, Migrate Data and Retention Policy Settings, click **Show advanced option**.

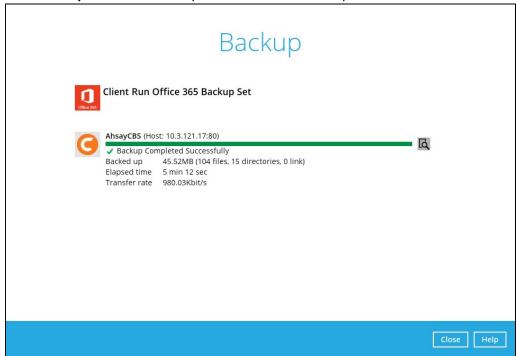




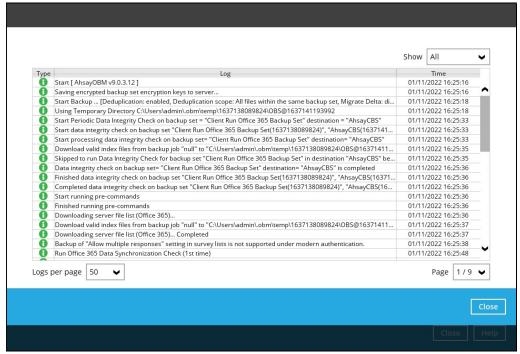
NOTE

The Migrate Data option will only be available if Deduplication is enabled for the backup set. When the Migrate Data option is enabled, the existing data will be migrated to the latest version during a backup job. This option is disabled by default. Backup job(s) for backup sets with Migrate Data enabled may take longer to finish. For more information regarding this feature please refer to Chapter 10.5 of the AhsayOBM v9 Quick Start Guide for Windows.

5. Click **Backup** to start the backup and wait until the backup is finished.



6. Check the log of your back up by clicking this icon backup with corresponding date and time.

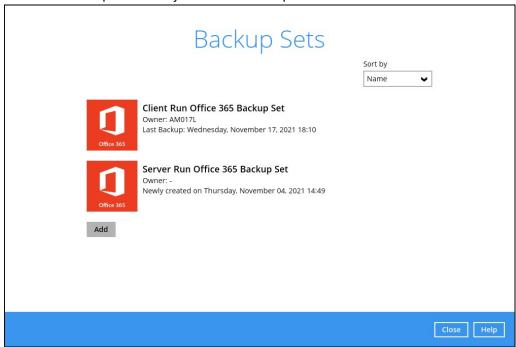


AhsayOBM supports Office 365 backup of individual account(s) which is not authenticated with Office 365 Admin account or without Admin permissions. To change the settings, follow the instructions below:

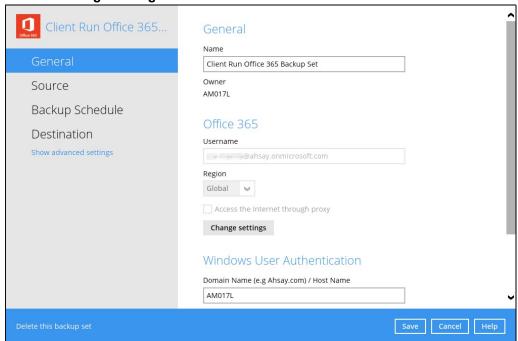
1. Click the **Backup Sets** icon on the AhsayOBM main interface.



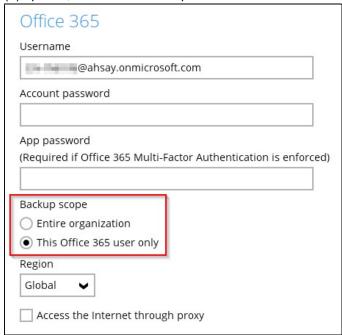
2. Select the backup set which you would like to update.



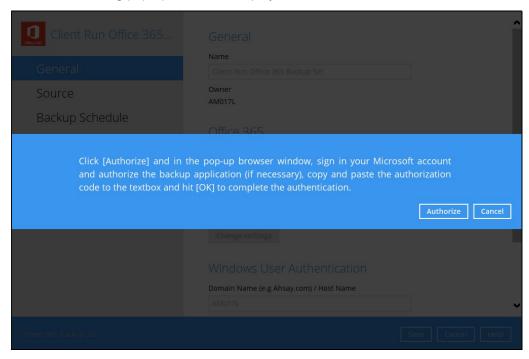
3. Click the Change settings button.



4. "This Office 365 user only" is the configured backup scope by default. Select from the two (2) options, then click **Next** to proceed.

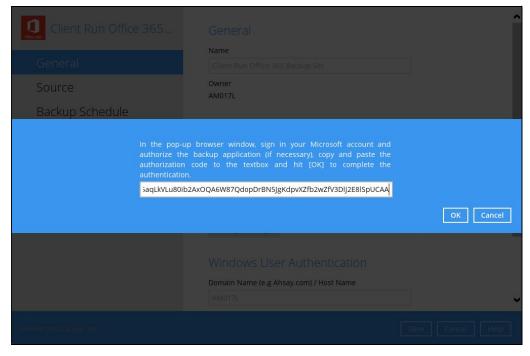


5. When the following pop-up window is displayed, click **Authorize**.

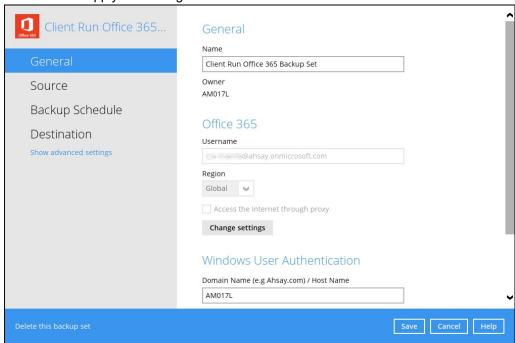


6. Copy and paste the following authorization code to AhsayOBM, then click **OK** to continue.





7. Click **Save** to apply the settings.

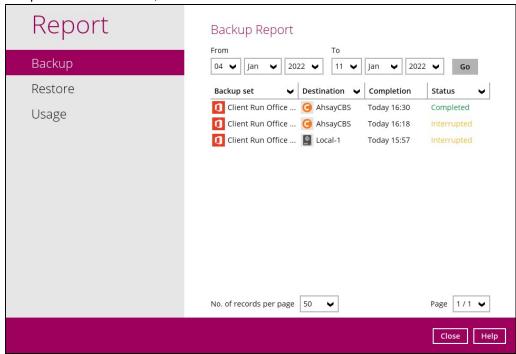


View Report

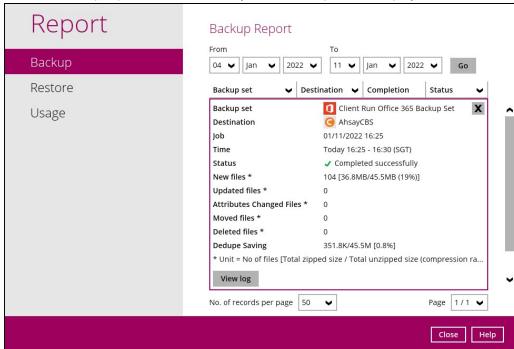
To view the backup report(s), go back to the AhsayOBM main interface, then click **Report** > **Backup**.



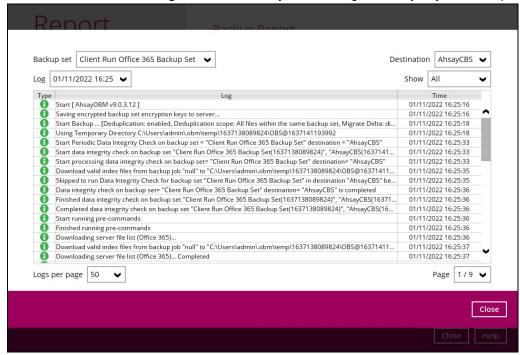
In the Backup Report screen, you can see the backup set with corresponding destination, completion date and time, and status.



Click the backup report and the summary of the backup will be displayed.



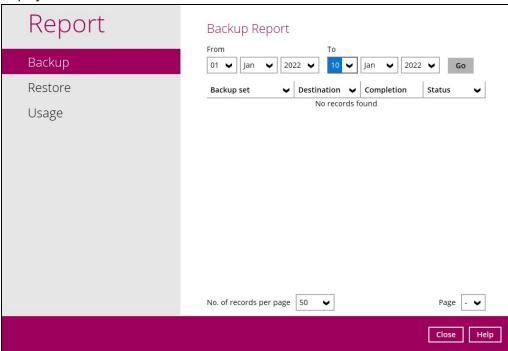
You can also click View Log; this will redirect you to the log summary of your backup.



You can also search for backup reports from a specific period of date. For example, we have the **From** date which is, **1 Jan 2022** and the To date which is, **10 Jan 2022**. Click the **Go** button to generate the available reports.



If this is a valid range of dates, then backup report(s) will be displayed unless there were no backup running on the specified dates. A message of **No records found** will also be displayed.



5 Restoring Office 365 Backup Set

Prior to performing the restoration, it is best to be knowledgeable on the options that AhsayOBM can offer. Below are brief descriptions of the said features for you to be familiar with and utilize each function. After this quick walkthrough you will see the step-by-step instructions with corresponding screen shots on how to restore your data using the following options below.

For Office 365, you can restore items from,

Users

This is composed of data from Outlook, OneDrive, and Personal Site.

Site Collections

This is composed of one Top-level site, Subsites, and Public Folders.

Those items can be restored to,

Local Computer

Restore your data to your local computer where AhsayOBM is running.

NOTE

This option only applies to restore of items such as files, images, videos, music and more from OneDrive and not items from Outlook mailbox.

Original Location

Restore your data to the original Office 365 account.

Alternate Location

Restore your data to an alternate location, another O365 user account on the same 365 domain. Alternate location depends on source of the items. It can be from Users or Site Collections.

Example #1:

Restore Items from Users

Office 365 Account: TestAccountABC@onecompany
Users: TestUserAccount01@onecompany

TestUserAccount02@onecompany TestUserAccount03@onecompany TestUserAccount04@onecompany TestUserAccount05@onecompany

Explanation:

For the example above, we have the **TestAccountABC@onecompany** as our Office 365 account. For the alternate location, a dropdown list will be available and from there you can choose from the following Office 365 accounts:

- TestUserAccount01@onecompany
- o TestUserAccount02@onecompany
- TestUserAccount03@onecompany
- TestUserAccount04@onecompany
- TestUserAccount05@onecompany

Example #2:

Restore Items from Site Collections

Office 365 Account: SampleAccountXYZ@twosquaretower
Site Collection / Site: blackbox.sharepoint.com/sites/EmptySite1

blackbox.sharepoint.com/sites/EmptySite2 blackbox.sharepoint.com/sites/EmptySite3 blackbox.sharepoint.com/sites/EmptySite4 blackbox.sharepoint.com/sites/EmptySite5

Explanation:

For the example above, we have the **SampleAccountXYZ@twosquaretower** as our Office 365 account. For the alternate location, a dropdown list will be available and from there you can choose from the following Site Collections / Sites:

- blackbox.sharepoint.com/sites/EmptySite1
- blackbox.sharepoint.com/sites/EmptySite2
- blackbox.sharepoint.com/sites/EmptySite3
- o blackbox.sharepoint.com/sites/EmptySite4
- blackbox.sharepoint.com/sites/EmptySite5

Alternate Office 365 Account

You can restore your data to an alternate Office 365 account that has a different domain.

Example:

Original Office 365 Account: TestAccountABC@onecompany
Alternate Office 365 Account: SampleAccountXYZ@twosquaretower

Explanation:

As you can see on the above example, we have two (2) Office 365 accounts with different domain. The Original Office 365 account is what we used as the source of our backup and can also use as the original location for restoration. For the alternate Office 365 account, we need to use another Office 365 account that has a different domain.

In case you also want to know how to restore an Office 365 backup using the AhsayCBS Web Console, please refer to this guide: AhsayCBS v9 Run on Server Office 365 Backup & Restore Guide.

To restore items, follow the steps below:

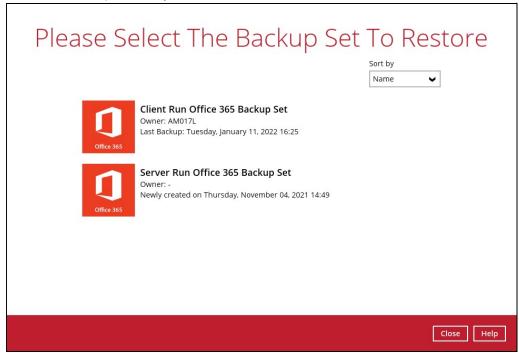
1. Log in to AhsayOBM.

For instructions on how to do this please refer to <u>Chapter 8</u> of the AhsayOBM v9 Quick Start Guide for Windows.

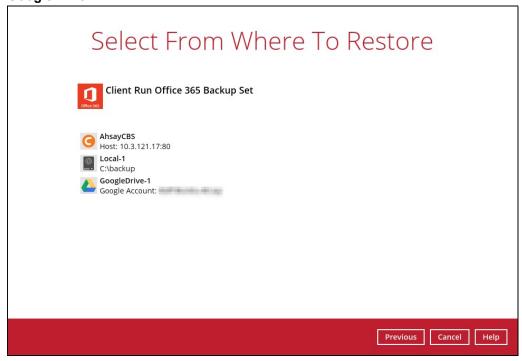
2. Click the **Restore** icon on the main interface of AhsayOBM.



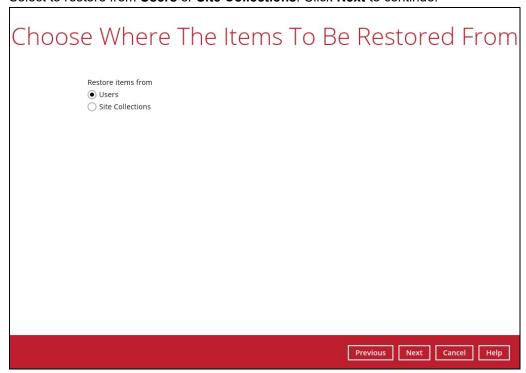
3. Select the backup set that you would like to restore.



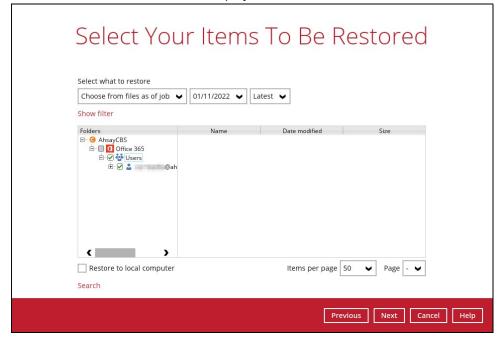
 Select the backup destination that you would like to restore backed up items to. In our screenshot below, we have three (3) options namely, AhsayCBS, Local-1 and GoogleDrive-1.



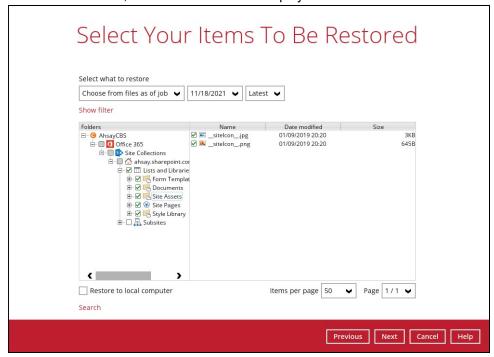
5. Select to restore from Users or Site Collections. Click Next to continue.



- 6. Select the item(s) you would like to restore. You can also choose to restore backed up items from a specific backup job of your choice using the **Select what to restore** dropdown menu at the top.
 - For Users, this will be the screen displayed.



• For Site Collections, this will be the screen displayed.



Tick Restore to local computer if you want to restore the backup data to the local drive.



If you want to search for directories, files, folders and mails to be restored, click **Search** to use the restore filter.

For Office 365, these items can be searched from Users and Site Collections.

- For Users, you can search for Files, Folders, and Mails.
- For Site Collections, you can search for Directories and Files.

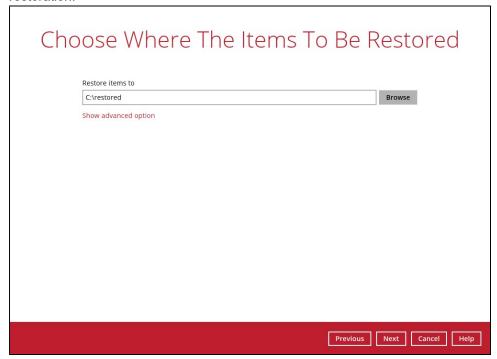
For more information on how to use the restore filter please refer to Chapter 14.2 of the AhsayOBM v9 Quick Start Guide for Windows.

For more detailed examples using the restore filter, refer to <u>Appendix C: Example Scenarios for Restore Filter using AhsayOBM</u>.

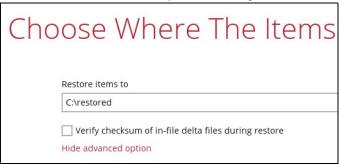
Click **Next** to proceed when you are done with the selection.

- 7. The window that will be displayed will depend where the items will be restored from and on the restore destination selected. Here are the four options:
 - Local computer

Click the **Browse** button to select a path where you want the items to be restored on your local computer. Make sure it has enough space to accommodate your restoration.



Click the Show advanced option to configure other restore settings.

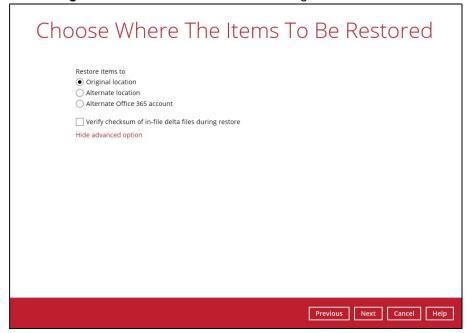


Verify checksum of in-file delta files during restore

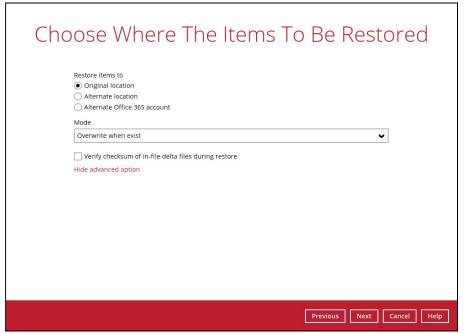
By enabling this option, the checksum of in-file delta files will be verified during the restore process. This will check the data for errors during the restore process and create a data summary of the in-file delta files which will be included in the report

Original location

If you chose to restore items from Users, this will be the screen displayed. Select **Original location** to restore data to the original Office 365 account.



If you chose to restore items from Site Collections, this will be the screen displayed. Select **Original location** and **Mode**.



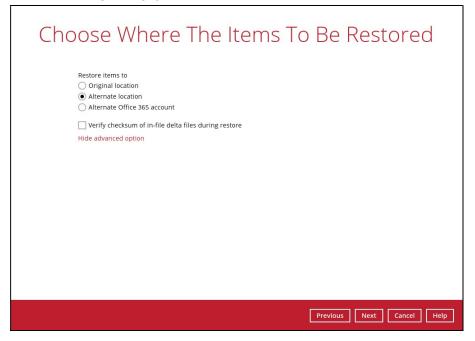
- Overwrite when exist if the item that you want to restore is already in the location, choosing this option will overwrite the existing item.
- Skip when exist if the item that you want to restore is already in the location, choosing this option will skip the restoration of the existing item.

NOTE

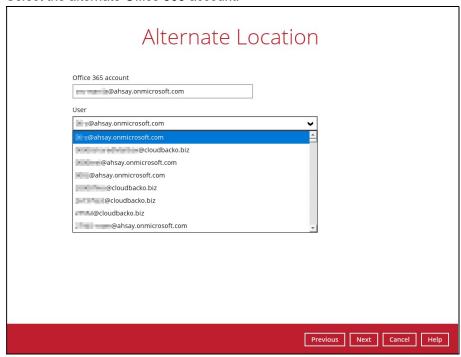
Mode will only be displayed if Site Collections is selected to restore items from.

Alternate location

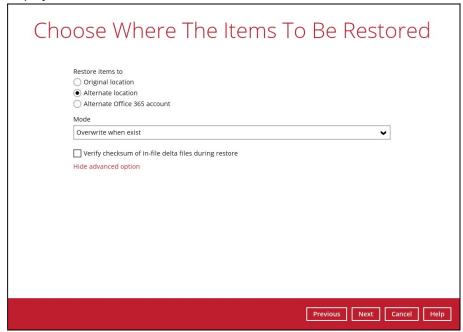
If you chose to restore items from Users, this will be the screen displayed. Select Alternate location to restore to another Office 365 account on the same domain. Click Next.



Select the alternate Office 365 account.



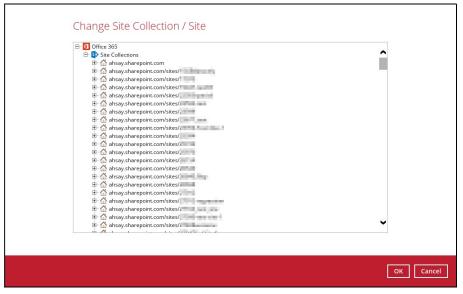
If you chose to restore items from Site Collections, this will be the screen displayed. Select Alternate location and Mode then click Next.



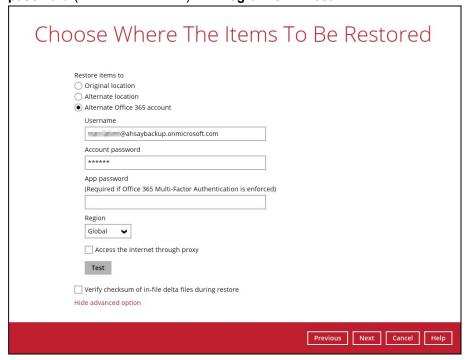
Click Change to select the alternate site.



Click **OK** once done with the selection.



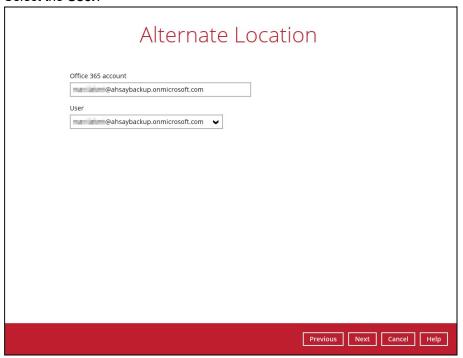
- Alternate Office 365 Account
 - If you chose to restore items from Users, this will be the screen displayed. Select Alternate Office 365 Account to restore to another Office 365 account on a different domain. Enter the Username, Account password, App password (if MFA is enforced) and Region. Click Test to validate account.



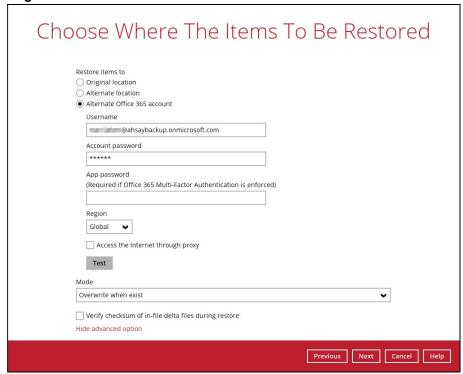
Once account is validated, click Next.



Select the User.



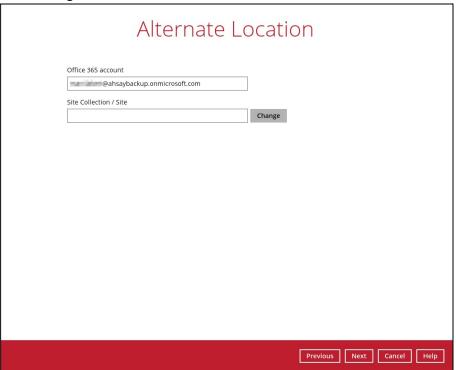
If you chose to restore items from Site Collections, this will be the screen displayed. Select Alternate Office 365 Account then enter the Username, Account password and App password (if MFA is enforced). Select the Region and Mode. Click Test to validate account.



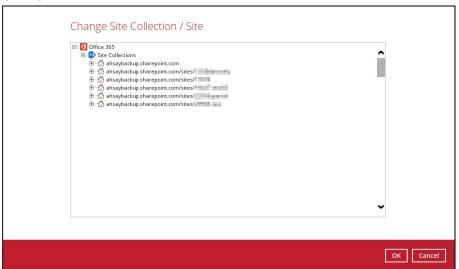
Once account is validated, click Next.



Click Change to select the site.

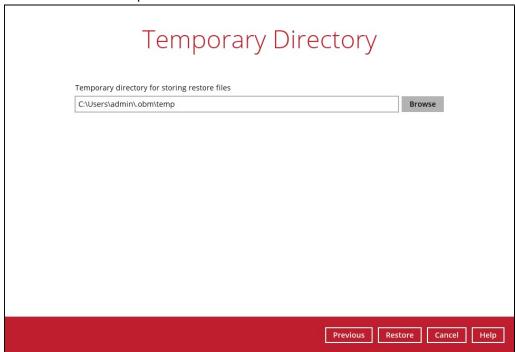


Click **OK** once done with the selection.

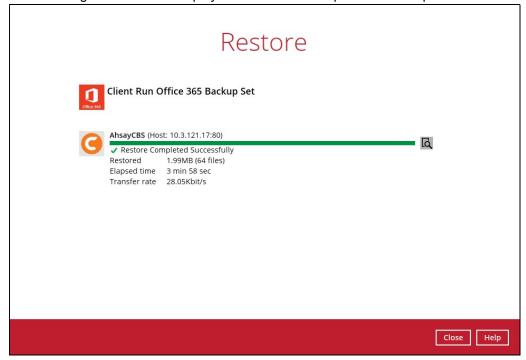


Click Next to proceed.

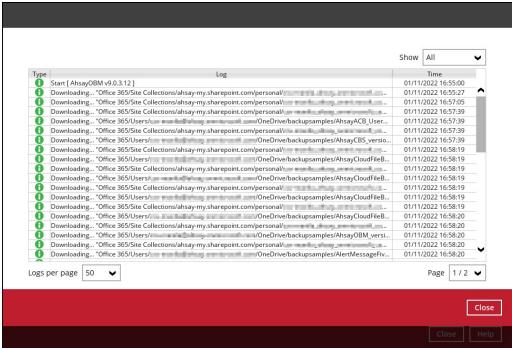
8. Select the temporary directory for storing temporary files. Then click the **Restore** button to start the restoration process.



9. The following screen will be displayed after the restore process is complete.



Click the to show the restoration log.



6 Contacting Ahsay

6.1 Technical Assistance

To contact Ahsay support representatives for technical assistance, visit the Partner Portal: https://www.ahsay.com/partners/

Also use the Ahsay Wikipedia for resource such as Hardware Compatibility List, Software Compatibility List, and other product information: https://wiki.ahsay.com/

6.2 Documentation

Documentations for all Ahsay products are available at: https://www.ahsay.com/jsp/en/home/index.jsp?pageContentKey=ahsay_downloads_documentation_guides

You can send us suggestions for improvements or report on issues in the documentation, by contacting us at:

https://www.ahsay.com/jsp/en/contact/kbQuestion.jsp

Please specify the specific document title as well as the change required/suggestion when contacting us.

Appendix

Appendix A: Example Scenarios for Office 365 License Requirement and Usage

Scenario No. 1: Backing up Office 365 user accounts in multiple backup sets

The required Office 365 licenses are calculated by the number of Office 365 user accounts that you want to backup.

Example No. 1: To back up one (1) Office 365 user account on multiple backup sets, only one Office 365 license is needed.

Backup Set Name	Office 365 User Account
Backup Set A	user01@company-office365.com
Backup Set B	user01@company-office365.com
Backup Set C	user01@company-office365.com

Example No. 2: To back up two (2) Office 365 user accounts on multiple backup sets, two Office 365 licenses are needed.

Backup Set Name	Office 365 User Account
Backup Set A	user01@company-office365.com
	user02@company-office365.com
Backup Set B	user01@company-office365.com
Backup Set C	user02@company-office365.com

Example No. 3: To back up three (3) Office 365 user accounts on multiple backup sets, two Office 365 licenses are needed.

Backup Set Name	Office 365 User Account
Backup Set A	user01@company-office365.com
	user02@company-office365.com
	user03@company-office365.com
Backup Set B	user01@company-office365.com
	user02@company-office365.com
Backup Set C	user03@company-office365.com

Scenario No. 2: Backing up SharePoint Sites (not Personal Sites) under Site collections in multiple backup sets.

The required Office 365 license is zero, but a minimum of one (1) Office 365 add-on module license is needed to start the backup.

Example No. 1: To back up one (1) SharePoint site under Site Collection, one (1) Ahsay Office 365 license is needed.

Backup Set Name	SharePoint Site
Backup Set A	companyoffice365.sharepoint.com/Finance
Backup Set B	companyoffice365.sharepoint.com/Finance
Backup Set C	companyoffice365.sharepoint.com/Finance

Example No. 2: To back up any number of SharePoint sites under Site Collection, only one (1) Ahsay Office 365 license is needed.

Backup Set Name	SharePoint Site
Backup Set A	companyoffice365.sharepoint.com/Finance
	companyoffice365.sharepoint.com/SupportTeam
	companyoffice365.sharepoint.com/Engineering
Backup Set B	companyoffice365.sharepoint.com/Finance
Backup Set C	companyoffice365.sharepoint.com/Finance
	companyoffice365.sharepoint.com/SupportTeam
	companyoffice365.sharepoint.com/Engineering

Scenario No. 3: Backing up files and/or folders under Public Folder in multiple backup sets.

The required Office 365 license is zero, but a minimum of one (1) Office 365 add-on module license is needed to start the backup.

Example No. 1: To back up files and/or folders under Public Folder, one (1) Ahsay Office 365 license is needed.

Files and/or Folders
Folder01 o microsoftword01.docx o powerpointpresentation01.pptx o spreadsheet01.xls o notepad01.txt o picture01.jpg o picture02.jpg
Folder01 o microsoftword01.docx o powerpointpresentation01.pptx o spreadsheet01.xls o notepad01.txt o picture01.jpg o picture02.jpg Folder02 Folder03
Folder01 o microsoftword01.docx o powerpointpresentation01.pptx o spreadsheet01.xls o notepad01.txt o picture01.jpg o picture02.jpg Folder02 Folder03 o microsoftword02.docx o powerpointpresentation02.pptx o spreadsheet02.xls o notepad02txt

Scenario No. 4: Backing up Office 365 User Accounts, files and/or folders under Public Folder, and SharePoint sites under Site Collections in multiple backup sets.

The required Office 365 license will depend on the number of unique Office 365 accounts.

Example No. 1: To back up three (3) Office 365 user account, files and/or folders under Public Folder, and SharePoint sites under Site Collections on multiple backup sets, three (3) Office 365 licenses are needed.

Backup Set Name	Office 365 User Account, SharePoint Site, and Files and/or Folders
Backup Set A	user01@company-office365.com
Backup Set B	user01@company-office365.com
	user02@company-office365.com
	companyoffice365.sharepoint.com/Finance
	companyoffice365.sharepoint.com/SupportTeam
Backup Set C	user01@company-office365.com
	user02@company-office365.com
	Folder01
	o microsoftword01.docx
	o powerpointpresentation01.pptx
	o spreadsheet01.xls
	o notepad01.txt
	o picture01.jpg
	o picture02.jpg
Backup Set D	user01@company-office365.com
	user02@company-office365.com
	user03@company-office365.com
	Folder01
	o microsoftword01.docx
	o powerpointpresentation01.pptx
	o spreadsheet01.xls
	o notepad01.txt
	o picture01.jpg
	o picture02.jpg
	companyoffice365.sharepoint.com/Finance
	companyoffice365.sharepoint.com/SupportTeam

Scenario No. 5: Backing up Office 365 User Accounts and Share Mailbox Accounts.

The required Office 365 license will depend on the number of unique Office 365 accounts.

Example No. 1: To back up three (3) Office 365 user account and three (3) Shared mailbox accounts, six (6) Office 365 licenses are needed.

Backup Set Name	Office 365 User Account and Shared Mailbox Accounts
Backup Set A	user01@company-office365.com
	user02@company-office365.com
	user03@company-office365.com
	sharedmailbox01@test-office365.com
	sharedmailbox02@test-office365.com
	sharedmailbox03@test-office365.com

Appendix B: Example for backup of large numbers of Office 365 users

Example: 10,000 Office 365 users needed to be backup. Since the maximum number of Office 365 users per backup set is 2,000, there are 2 options available. There are further options, but this will involve a large number of backup sets and maintenance of these backup sets will be practical.

- Option 1 5 Backup Sets, each has 2,000 Office 365 Users
- Option 2 10 Backup Sets, each has 1,000 Office 365 Users

Option 1 – 5 Backup Sets, each has 2,000 Office 365 Users

Backup Set Name	User Number
Backup -Set-1	No.1 – 2000
Backup -Set-2	No.2001 – 4000
Backup -Set-3	No. 4001 – 6000
Backup -Set-4	No. 6001 – 8000
Backup -Set-5	No. 8001 – 10000

Option 2 - 10 Backup Sets, each has 1,000 Office 365 Users

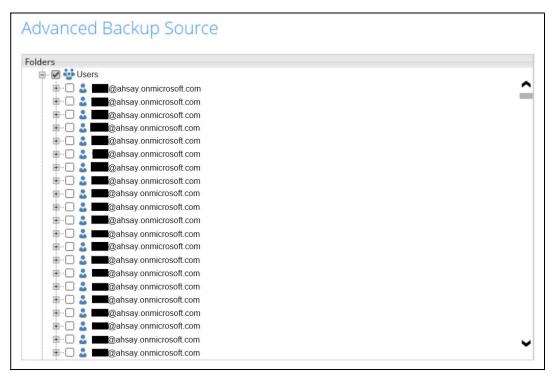
Backup Set Name	User Number
Backup -Set-1	No.1 – 1000
Backup -Set-2	No.1001 – 2000
Backup -Set-3	No. 2001 – 3000
Backup -Set-4	No. 3001 – 4000
Backup -Set-5	No. 4001 – 5000
Backup -Set-6	No. 5001 – 6000
Backup -Set-7	No. 6001 – 7000
Backup -Set-8	No. 7001 – 8000
Backup -Set-9	No. 8001 – 9000
Backup -Set-10	No. 9001 – 10000

If Option 2 was selected, for the last backup set, Backup -Set-10, follow the instructions on how to select the Office 365 users. Doing these steps will ensure that additional Office 365 users will be automatically included in the backup set.

1. On the backup source, tick the checkbox for the root selection. This will select all the Office 365 users.



2. Deselect the first 9000 Office 365 users.

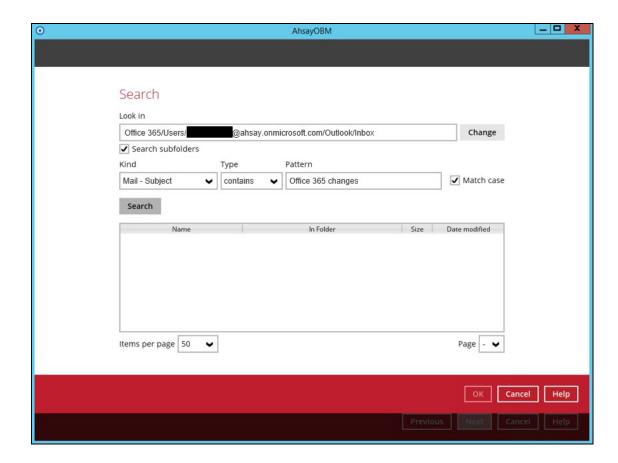


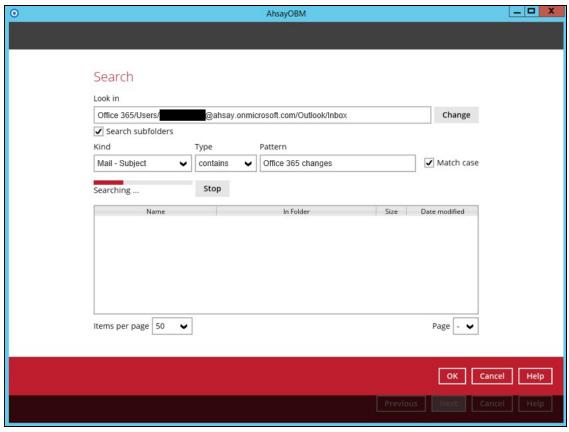
Appendix C: Example Scenarios for Restore Filter

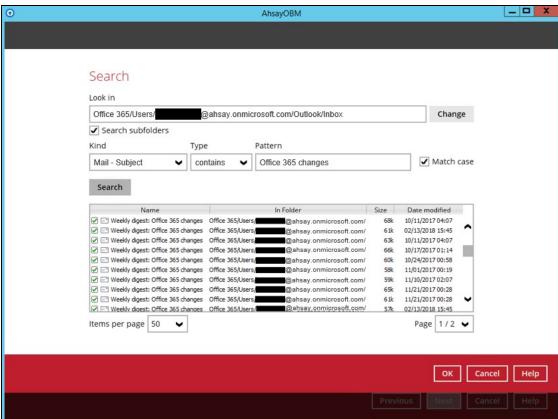
Scenarios No. 1: Items from Users

Example No. 1: Restore filter setting from an Office 365 user account's outlook inbox

Location:	Office 365/Users/abc@ahsay.onmicrosoft.com/Outlook/Inbox
Search subfolders:	True
Kind:	Mail – Subject
Type:	Contains
Pattern:	Office 365 changes
Match Case:	True







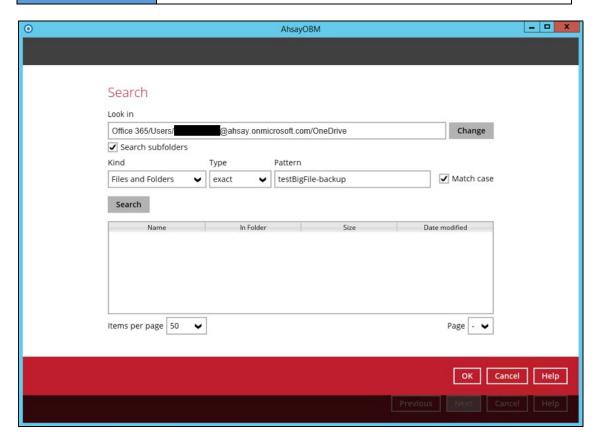
All mails under Office 365/Users/abc@ahsay.onmicrosoft.com/Outlook/Inbox that has a subject and contains 'Office 365 changes' with match case set to true will be included upon performing search.

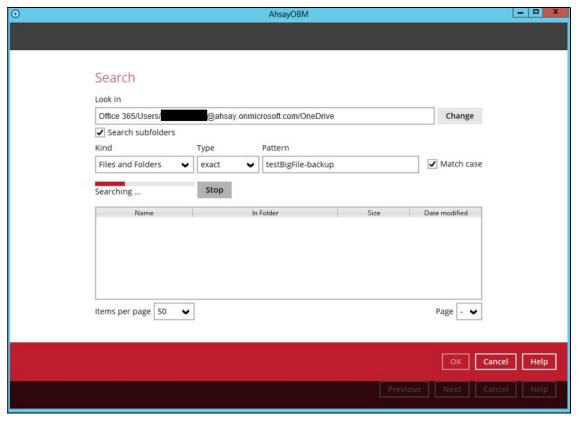
As you can see on the screen shot above, the result panel contains the Name of the mail, Directory of the mails which are indicated In-Folder column, Size of each mails, and Date Modified.

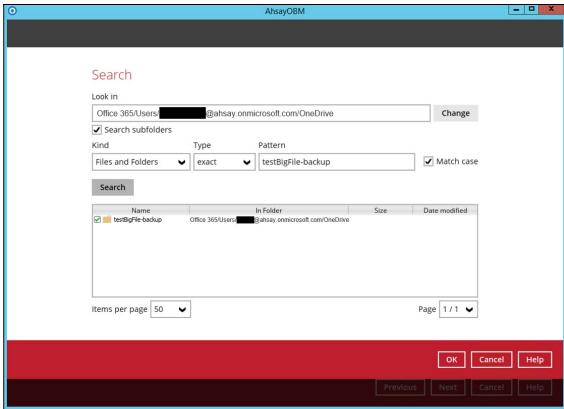
The restore filter setting includes the Search subfolder and Match case set to true. This means that the filter will include all available subfolders in the Outlook Inbox upon searching. And it will strictly search only the specified pattern and case which is the 'Office 365 changes'.

Example No. 2: Restore filter setting from an Office 365 user account's OneDrive

Location:	Office 365/Users/abc@ahsay.onmicrosoft.com/OneDrive
Search subfolders:	True
Kind:	Files and Folders
Type:	Exact
Pattern:	testBigFile-backup
Match Case:	True







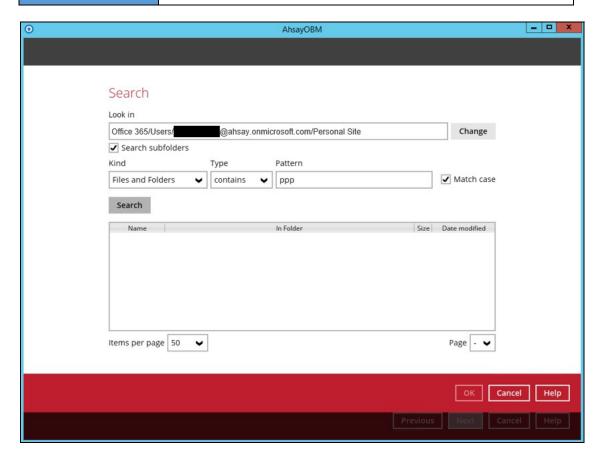
All files and folders under Office 365/Users/abc@ahsay.onmicrosoft.com/OneDrive that has the exact pattern of 'testBigFile-backup' with match case set to true will be included upon performing search.

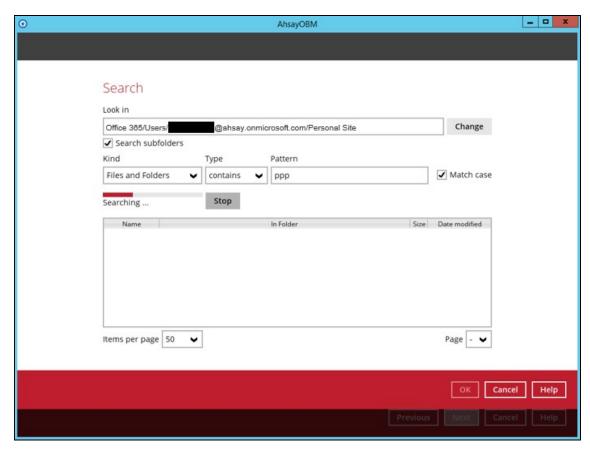
As you can see on the screen shot above, the result panel contains the Name of the mail, Directory of the mails which are indicated In-Folder column, Size of each mails, and Date Modified.

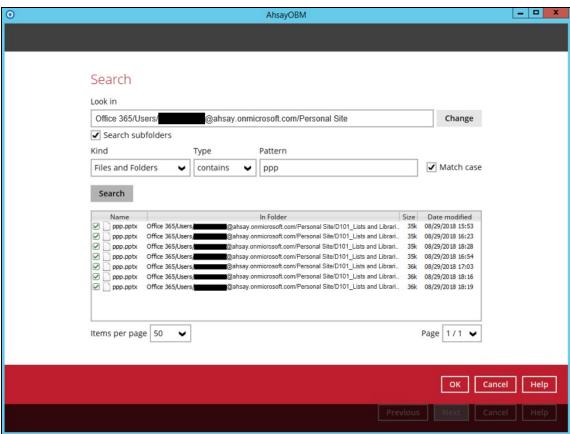
The restore filter setting includes the Search subfolder and Match case set to true. This means that the filter will include all available subfolders in OneDrive upon searching. And it will strictly search only the specified pattern and case which is the 'testBigFile-backup'.

Example No. 3: Restore filter setting from an Office 365 user account's personal site

Location:	Office 365/Users/abc@ahsay.onmicrosoft.com/Personal Site
Search subfolders:	True
Kind:	Files and Folders
Type:	contains
Pattern:	ррр
Match Case:	True







All personal site under Office 365/Users/abc@ahsay.onmicrosoft.com/Personal Site that has the pattern that contains with 'ppp' with match case set to true will be included upon performing search.

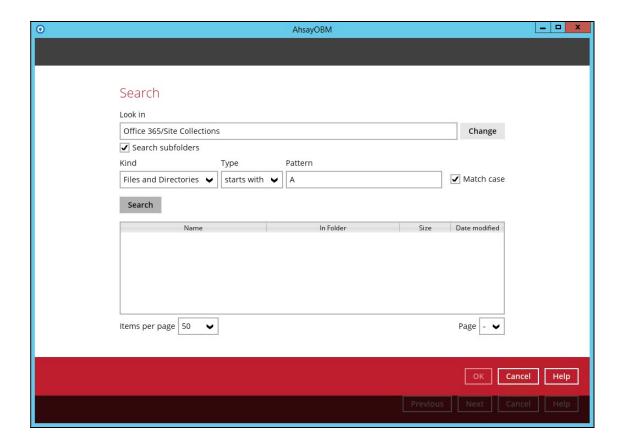
As you can see on the screen shot above, the result panel contains the Name of the mail, Directory of the mails which are indicated In-Folder column, Size of each mails, and Date Modified.

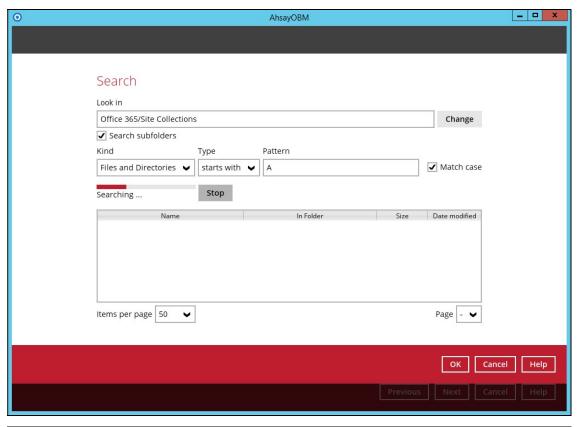
The restore filter setting includes the Search subfolder and Match case set to true. This means that the filter will include all available subfolders in Personal Site upon searching. And it will strictly search only the specified pattern and case which starts with 'ppp'.

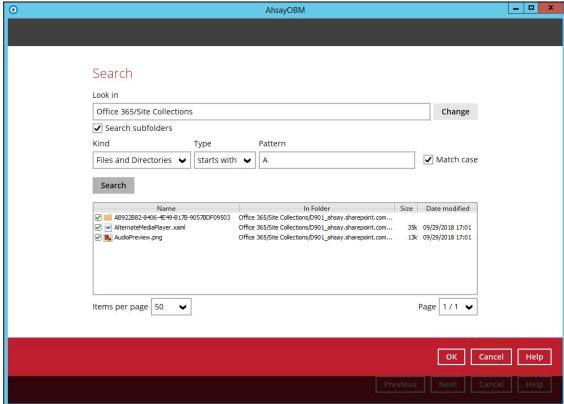
Scenarios No. 2: Items from Site Collections

Example No. 1: Restore filter setting from Site Collections

Location:	Office 365/Site Collections
Search subfolders:	True
Kind:	Files and Directories
Type:	Starts With
Pattern:	A
Match Case:	True







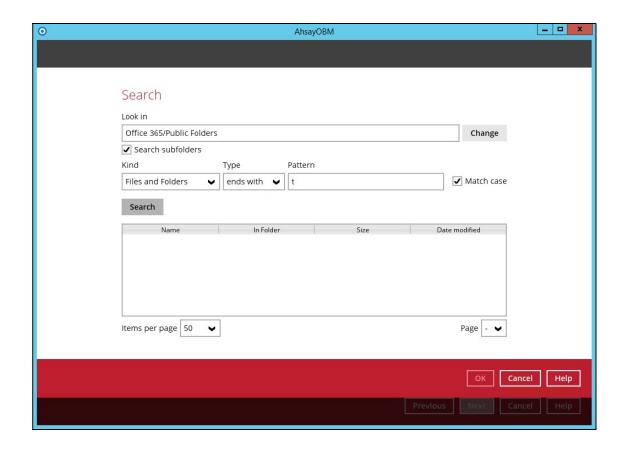
All SharePoint sites under Office 365/Site Collections that has the pattern that starts with 'A' with match case set to true will be included upon performing search.

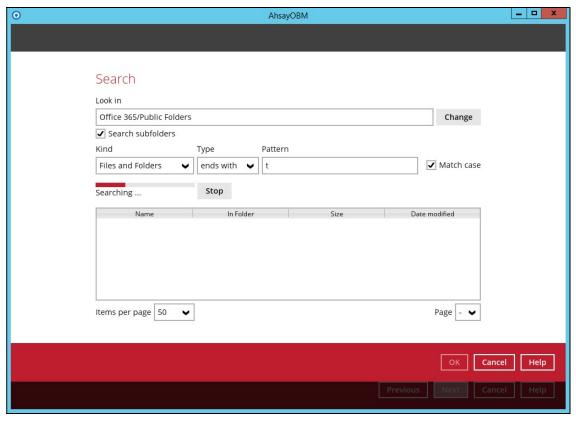
As you can see on the screen shot above, the result panel contains the Name of the mail, Directory of the mails which are indicated In-Folder column, Size of each mails, and Date Modified.

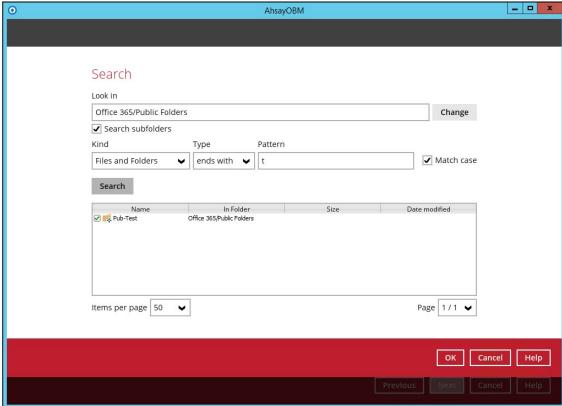
The restore filter setting includes the Search subfolder and Match case set to true. This means that the filter will include all available subfolders in Site Collections upon searching. And it will strictly search only the specified pattern and case which starts with 'A'.

Example No. 2: Restore filter setting from Public Folders

Location:	Office 365/Public Folders
Search subfolders:	True
Kind:	Files and Folders
Type:	Ends With
Pattern:	t
Match Case:	True







All files and folders under Office 365/Public Folders that has the pattern that ends with 't' with match case set to true will be included upon performing search.

As you can see on the screen shot above, the result panel contains the Name of the mail, Directory of the mails which are indicated In-Folder column, Size of each mails, and Date Modified.

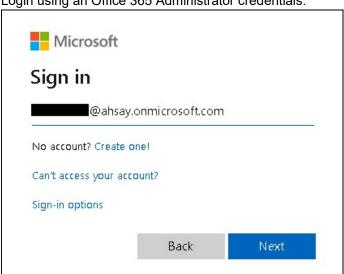
The restore filter setting includes the Search subfolder and Match case set to true. This means that the filter will include all available subfolders in Public Folder upon searching. And it will strictly search only the specified pattern and case which ends with 't'.

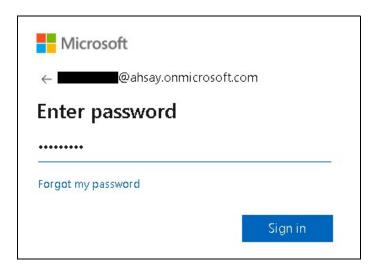
Appendix D: Setting Multi-Factor Authentication (MFA) in Microsoft 365 Admin Center

What is Multi-Factor Authentication (MFA)? It is an authentication method wherein a user will be granted an access only after successfully presenting two or more evidences or proof of personal information or identification. It also adds a second layer of security to users upon logging in.

To enable MFA of any Office 365 user accounts, follow the steps below:

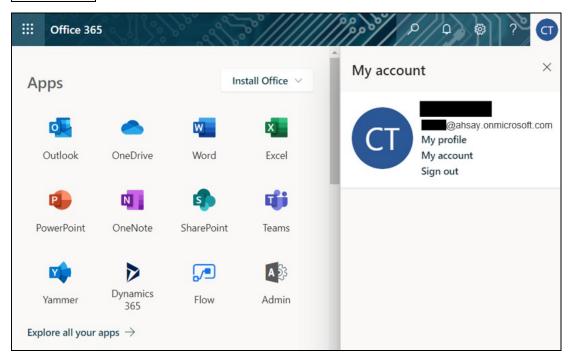
1. Login using an Office 365 Administrator credentials.



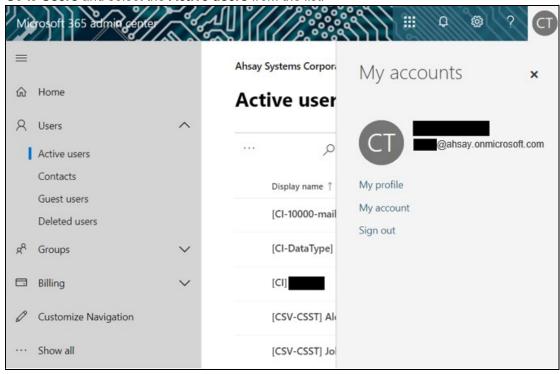


2. Click the Admin Center icon.

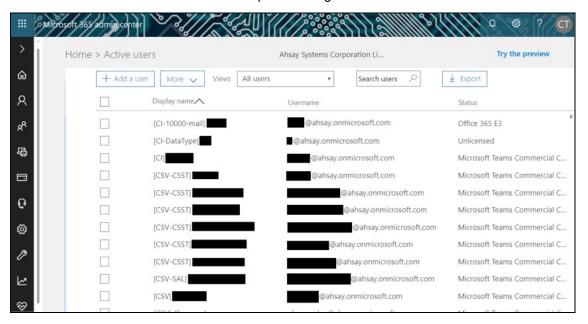




3. Go to Users and select the Active users from the list.



There are two (2) modes of viewing the Active users.
 Classic Mode – This is the default mode upon entering the Active users screen.



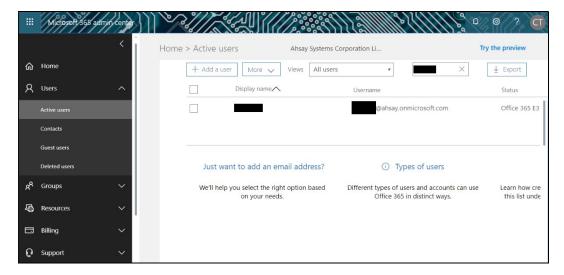
Preview Mode – This is a new feature in the Office 365 Admin Center that offers simplification to manage your Microsoft 365 and Office 365 services. It also has all the capabilities of the classic mode.



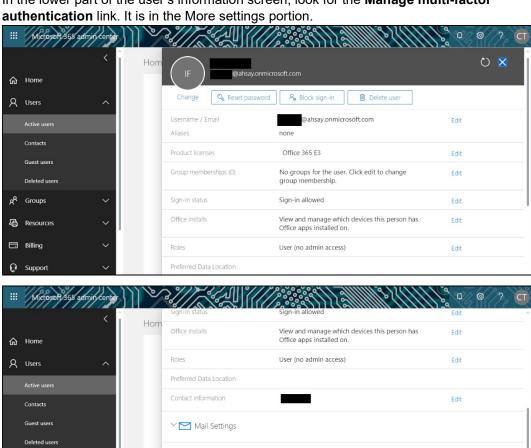
To go to the Multifactor Authentication screen, below are the steps for classic and preview mode.

For the Classic Mode:

 Search and select an Office 365 user account. The user's information will be displayed.



In the lower part of the user's information screen, look for the Manage multi-factor



Edit Skype for Business properties Manage multi-factor authentication ☐ ■ Billing Support More settings Edit Skype for Business properties

More settings

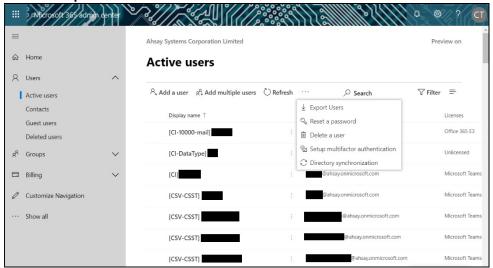
Groups

For the Preview Mode:

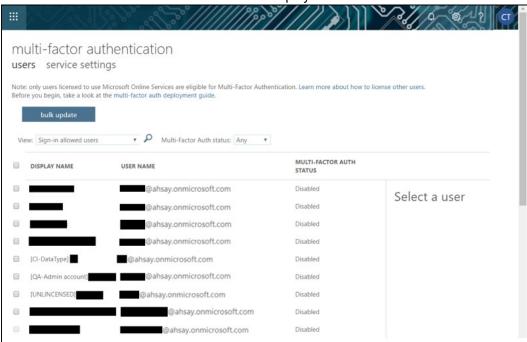
• In the Active users screen, click the [...] ellipses.



• Select Setup multifactor authentication from the list.

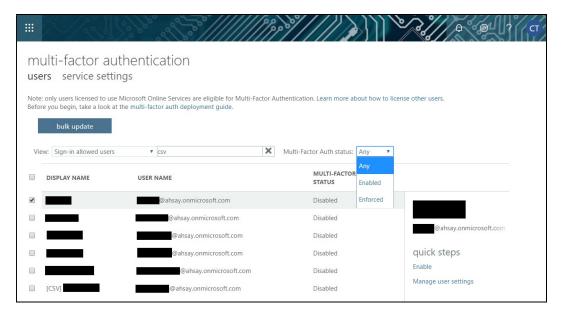


6. The multi-factor authentication screen will be displayed.

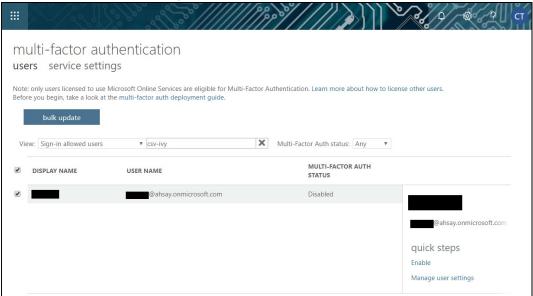


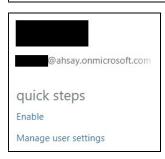
Note: The two (2) modes will go to the same screen.

 You can search and select one or more Office 365 user accounts. There is also a drop-down list available for multi-factor authentication status namely, **Disabled**, **Enabled**, and **Enforced**.

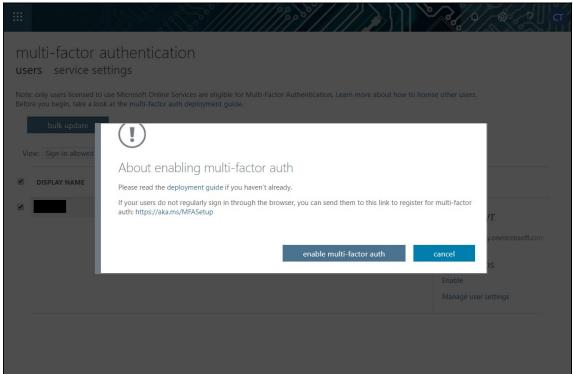


- Disabled This status refers to the users who are not yet enrolled in the MFA. This
 is the default status.
- Enabled This status refers to the users who are enrolled in the MFA, but changes have not yet taken effect.
- Enforced This status refers to the users who are enrolled in the MFA has completed the registration process.
- 8. Upon selecting a user, on the right side of the screen it will show you a link to enable the MFA. Click the **Enable** link to proceed.

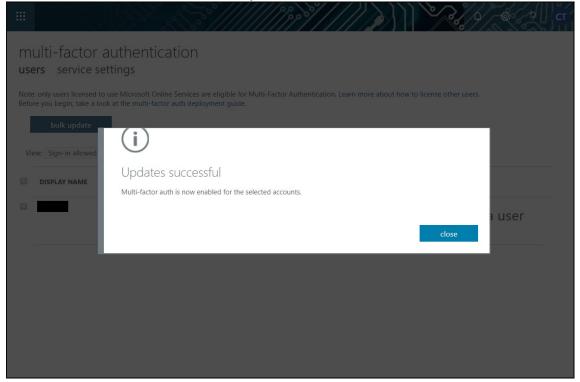




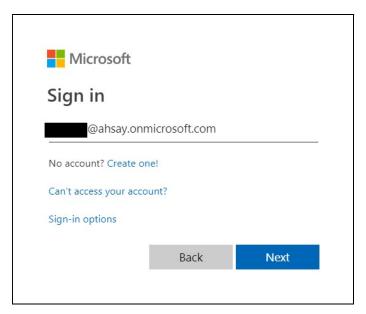
9. A warning message will be displayed. Click the **enable multi-factor auth** button to proceed. Otherwise, click the **cancel** button to abort.

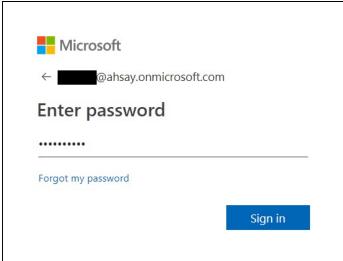


10. If you select enable multi-factor auth, the screen below shows the successful enabling of MFA for the Office 365 user account that you selected.

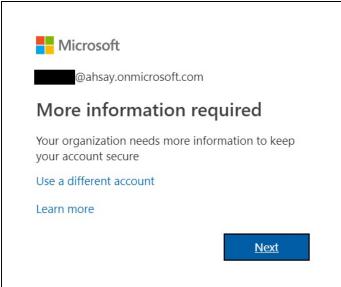


11. To finish the setup for the MFA, login using the MFA enabled Office 365 user account.

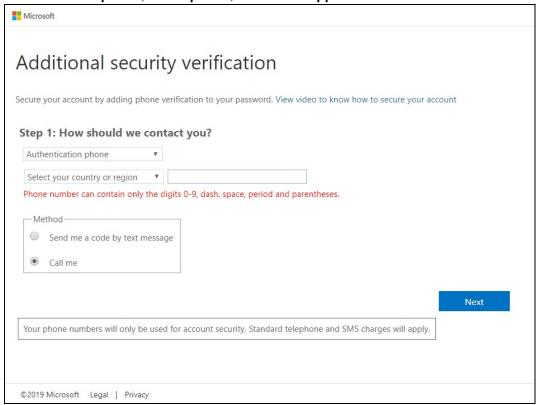




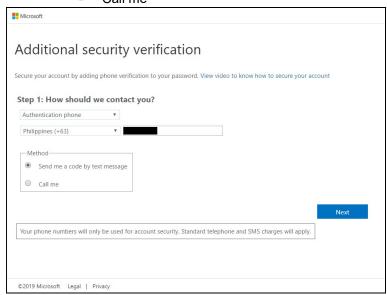
12. Upon logging in, there will be a message that will require you to provide more information to keep your account safe. Click **Next** to proceed.



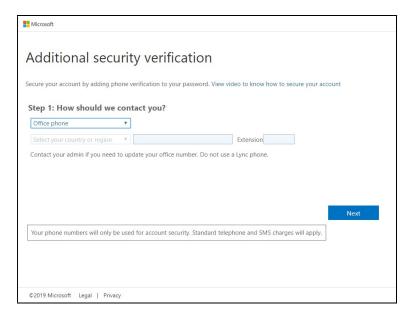
13. The **Additional security verification** screen will be displayed. Select one (1) option you want for the security of your account. You can choose from the three (3) options, **Authentication phone**, **Office phone**, and **Mobile app**.



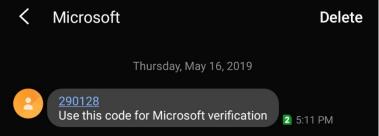
- Authentication phone
 - Enter valid mobile number.
 - Select a method
 - Send me a code by text message
 - Call me

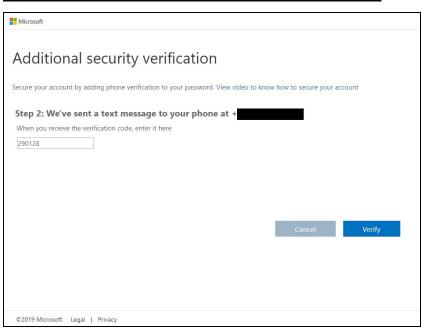


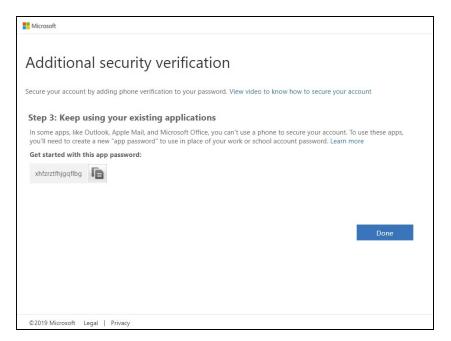
• Office phone – This option is disabled. Please ask your administrator if you need to update your office phone number.



- Mobile app
 - Select which option you like upon using the mobile app
 - Receive notifications for verification
 - Use verification code
- 14. If you have selected the first option which is the **Authentication phone** with a method of **Send me a code by text,** you will receive a text message containing the verification code. Ensure that you have indicated a valid mobile number.



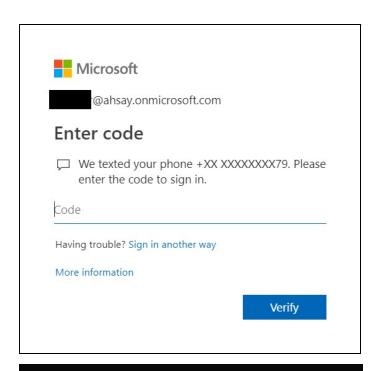


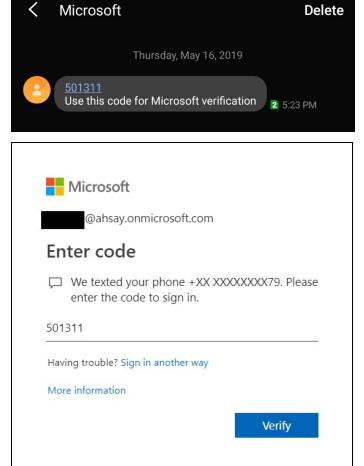


15. To verify if it's working, login using the MFA enabled Office 365 user account.

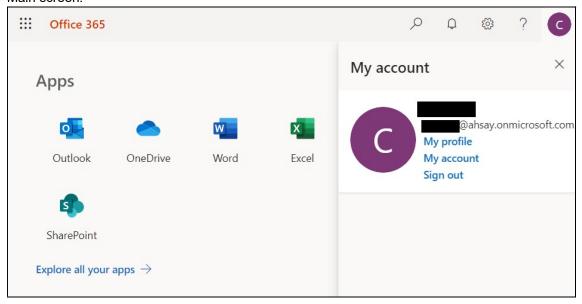


16. Upon logging in, there will be a message that will require you to provide the code that have been sent to your personal mobile number. Click **Verify** to proceed.





17. After the verification process, the screen will be automatically redirected to the Office 365 Main screen.

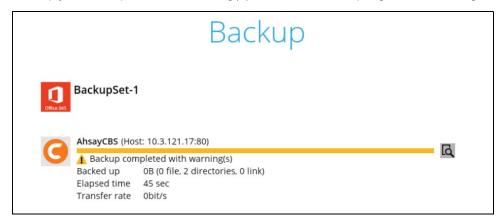


Appendix E: Example Scenario for Backup Set Maintenance

Scenario: Office 365 user account does not exist warning message

This is the sample warning message if the user does not exist. If a user is removed from the domain and the Admin did not manually unselect the user from the backup source, then during backup job there will be a warning that the user does not exist. The warning will appear on the backup log.

Backup job is completed with warning(s). Check the backup log for the warning message.



Backup log contains a warning message.

This backup job has no backup data in destination "AhsayCBS"

Finished validating the presence and size of backup data in destination "AhsayCBS"



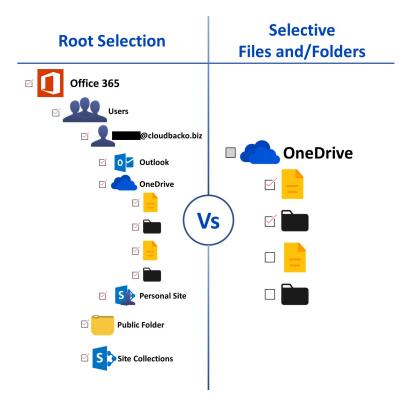
01/21/2022 12:13:41

01/21/2022 12:13:41

01/21/2022 12:13:41

Appendix F: Example Scenario for Data Synchronization Check (DSC) with sample backup logs

Selection of root folder vs Selective files and/folders



Root Selection

Selecting the root folder automatically selects all the files and/or folders under all Office 365 user accounts including the Public Folder and Site Collections. On the comparison image above, the checkbox for the root folder "Office 365" is ticked.

Data synchronization check is not required when using root selection backed up. As during a backup job any deleted files in the backup source will be automatically move to retention area.

Below is a sample screenshot of the backup source with root selection.





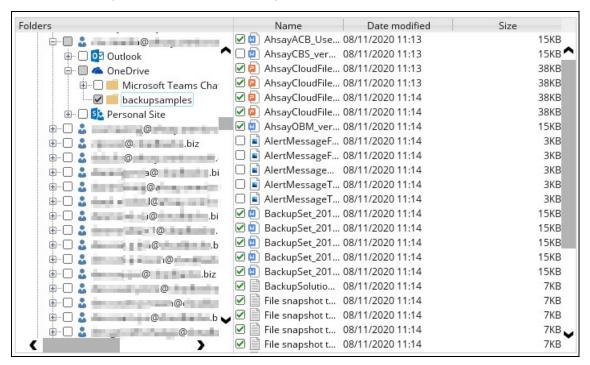
Selective Files and/or Folders

When the root folder is not selected, and the files and/or folders are selected individually. If the files and/or folders are subsequently un-selected from the backup source. The backup job will not pick up the changes of the de-selected files and/or folders, they will not be moved the retention area but remain in the data area. In the long run this could result in a build-up of data in the backup destinations(s).

On the comparison image above, the "OneDrive" checkbox is greyed out because there is only one file and one folder selected.

Data synchronization check is highly recommended to perform to synchronize de-selected files and/folders in the backup source with the backup destination(s). This will ensure that there will be no data build up on the backup destination(s).

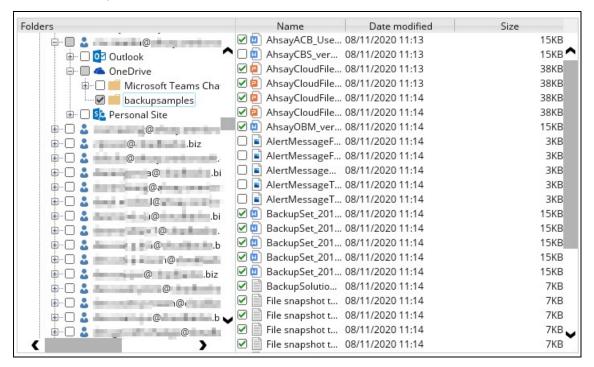
Below is the sample screenshot of the backup source with selective files and/or folders.



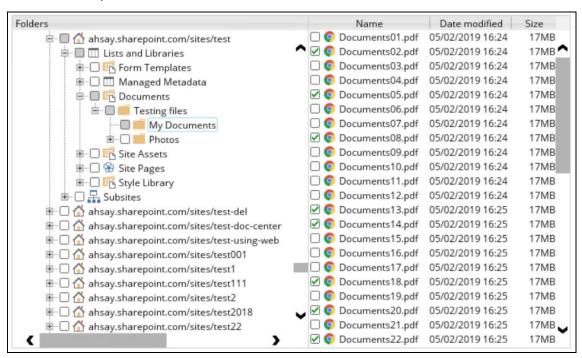
Only selected files and/or folders are selected in OneDrive. Also, the Office 365 user account is greyed out as this indicates that not all items are selected.

NOTE: Selective Files and/or Folders only applies to files and/or folders under Outlook, OneDrive, Personal Site, Public Folders, and Site Collections. This is **NOT** applicable for <u>User Level</u>.

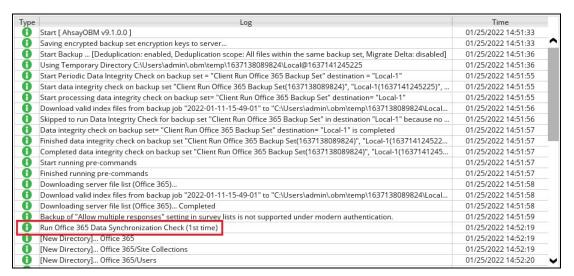
This is an example of selective files and/folders from OneDrive.



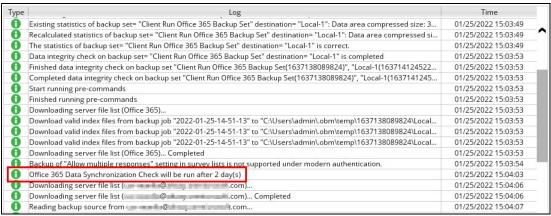
This is an example of selective files and/folders from Site Collections.



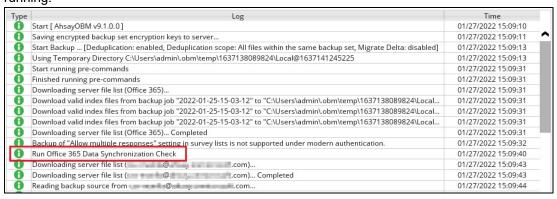
On the sample backup log, it shows that data synchronization check is enabled and runs for the first time.



On the sample backup log, it shows the countdown until the next data synchronization check which is in two (2) days.



On the sample backup log, it shows the countdown is done and data synchronization check is running.



On the sample backup log, it shows that data synchronization check is disabled.

Туре	Log	Time
0	Start [AhsayOBM v9.1.0.0]	01/25/2022 15:09:10
0	Saving encrypted backup set encryption keys to server	01/25/2022 15:09:11
0	Start Backup [Deduplication: enabled, Deduplication scope: All files within the same backup set, Migrate Delta: disabled]	01/25/2022 15:09:13
0	Using Temporary Directory C:\Users\admin\.obm\temp\1637138089824\Local@1637141245225	01/25/2022 15:09:13
0	Start running pre-commands	01/25/2022 15:09:31
0	Finished running pre-commands	01/25/2022 15:09:31
0	Downloading server file list (Office 365)	01/25/2022 15:09:31
0	Download valid index files from backup job "2022-01-25-15-03-12" to "C:\Users\admin\.obm\temp\1637138089824\Local	01/25/2022 15:09:31
0	Download valid index files from backup job "2022-01-25-15-03-12" to "C:\Users\admin\.obm\temp\1637138089824\Local	01/25/2022 15:09:31
0	Download valid index files from backup job "2022-01-25-15-03-12" to "C:\Users\admin\.obm\temp\1637138089824\Local	01/25/2022 15:09:31
0	Downloading server file list (Office 365) Completed	01/25/2022 15:09:31
A	Backup of "Allow multiple responses" setting in survey lists is not supported under modern authentication.	01/25/2022 15:09:32
0	Office 365 Data Synchronization Check is disabled (Debug option - Office365.DSCInterval = -1)	01/25/2022 15:09:40
U	Downloading server file list (@com)	01/25/2022 15:09:43
0	Downloading server file list (@	01/25/2022 15:09:43
0	Reading backup source from	01/25/2022 15:09:44

Appendix G: Setting the Data Synchronization Check (DSC)

Data Synchronization Check (DSC) is enabled by default and will run every 60 days.

Assumption: AhsayOBM Installation path is C:\Program Files\AhsayOBM

To disable the data synchronization check, follow the instructions below:

- 1. Make sure there are no active backup or restore job running.
- 2. Close AhsayOBM UI.
- 3. Stop the Ahsay Online Backup Manager services
- 4. Go to C:\Program Files\AhsayOBM\ folder.
- 5. Open **cb.opt** file using a text editor such as Notepad or Notepad++.
- 6. Add this line, Office365.DSCInterval=-1
 - A value of -1 indicates data synchronization check is disabled.
- 7. Start the Ahsay Online Backup Manager services

To check if the data synchronization check is enabled, follow the instructions below:

- Go to C:\Program Files\AhsayOBM\ folder.
- 2. Open cb.opt file using a text editor such as Notepad or Notepad++.
- 3. Look for this line, Office365.DSCInterval=xx.

Note:

If xx is a positive value this indicates the data synchronization check is enabled and represents the interval number of days until the next run of data synchronization check.

-OR-

If the interval value is not -1.

To adjust the interval number of days, follow the instructions below:

- 1. Make sure there are no active backup/restore job running.
- 2. Close AhsayOBM UI.
- 3. Stop the Ahsay Online Backup Manager services
- 4. Go to C:\Program Files\AhsayOBM\ folder.
- 5. Open **cb.opt** file using a text editor such as Notepad or Notepad++.
- 6. Change the interval number.

For example:

Current interval: Office365.DSCInterval=60
Updated interval: Office365.DSCInterval=10

Explanation:

On the current interval, the number of days is 60. While, the updated interval, the number of days is reduced to 10.

WARNING!

If the interval value is 0, Office365.DSCInterval=0, then the Data Synchronization Check (DSC) will run for every backup job.

7. Start the Ahsay Online Backup Manager services

Appendix H: How to Increase the Number of Concurrent Backup Threads

Assumption: AhsayOBM Installation path is C:\Program Files\AhsayOBM

To increase the number of concurrent backup threads, follow the instructions below:

- 1. Make sure there are no active backup or restore job running.
- 2. Close AhsayOBM UI.
- 3. Stop the Ahsay Online Backup Manager services
- 4. Go to C:\Program Files\AhsayOBM\ folder.
- 5. Open **afc.opt** file using a text editor such as Notepad or Notepad++.
- 6. Add this parameter,

obx.core.backup.file.BackupResourceManager.maxConcurrentSubCmd=xx

A xx value indicates the number of threads. Minimum thread is 1.

NOTE

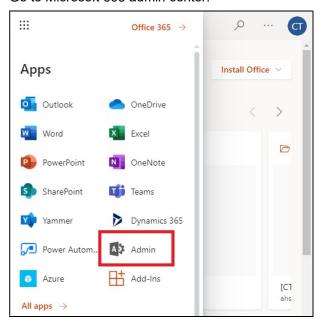
Increasing the number of concurrent backup threads does not guarantee that the overall backup speed will be faster since there will be an increased chance of throttling by Microsoft Office 365.

7. Start the Ahsay Online Backup Manager services.

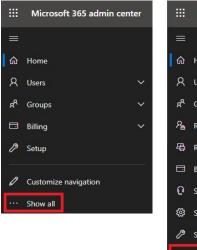
Appendix I: How to view Item count and Storage used in Microsoft 365 Admin Center

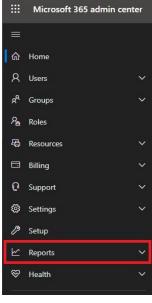
To view the item count and storage size of Office 365 user account based on the usage for Exchange (Outlook), OneDrive, and SharePoint, follow the instructions below:

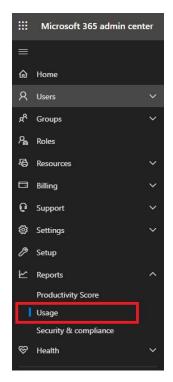
- 1. Login to the Office 365 (https://login.microsoft.com).
- 2. Go to Microsoft 365 admin center.



 On the Microsoft 365 admin center, click Show all then click the dropdown arrow for the Reports and select Usage.

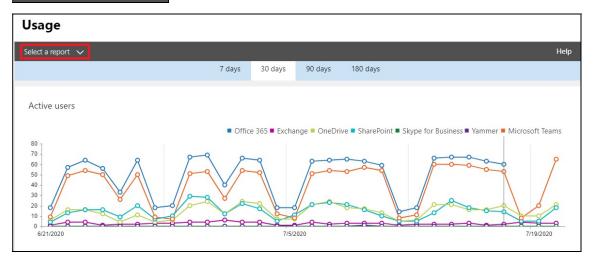


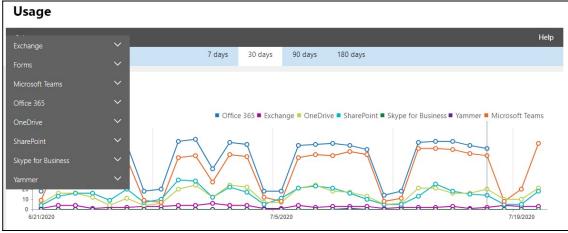




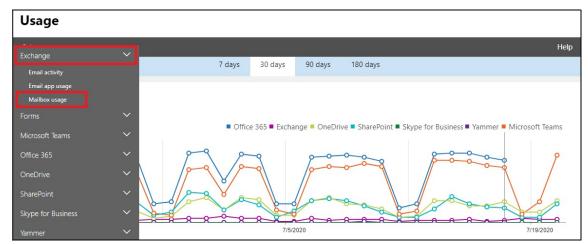
4. On the Usage screen, select a report you want to view.

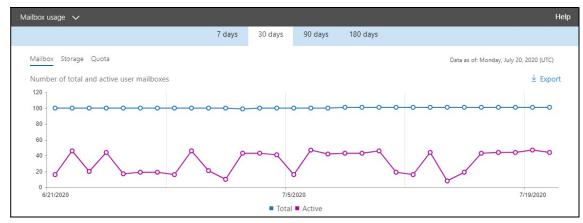
Select a report 🗸





5. For **Exchange**, go to **Mailbox usage**.



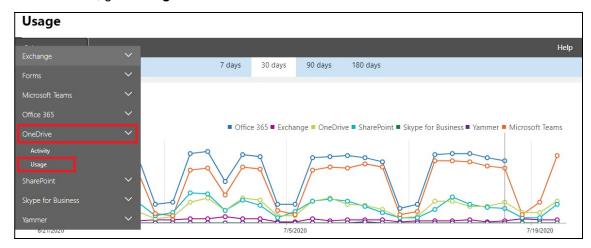


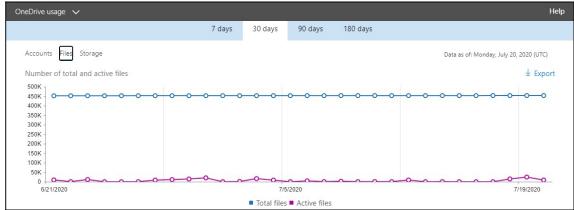
Highlighted columns are, Item count and Storage used (MB).

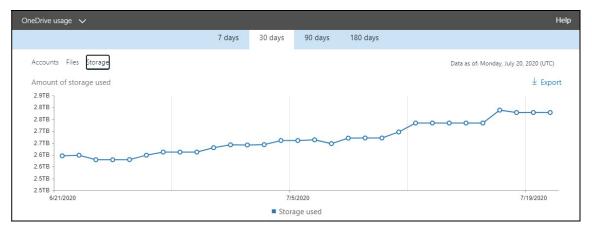
- Item count number of mailbox items in Outlook per Office 365 user account
- Storage used (MB) storage used in MB size per Office 365 user account



6. For OneDrive, go to Usage





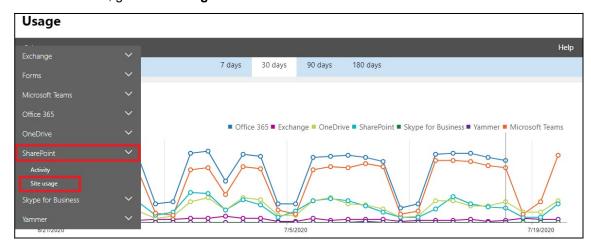


Highlighted columns are, Files and Storage used (MB).

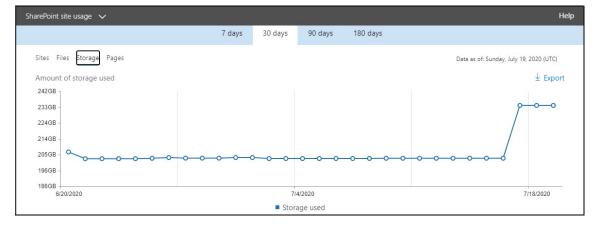
- Files number of files in OneDrive per Office 365 user account
- Storage used (MB) storage used in MB size per Office 365 user account



7. For SharePoint, go to Site usage.







Highlighted columns are, Files and Storage used (MB).

- Files number of files in SharePoint per Office 365 user account
- Storage used (MB) storage used in MB size per Office 365 user account



Appendix J: Migrating Authentication of Office 365 Backup Set

Existing backup sets are suggested to be migrated to use Modern Authentication. This will ensure that moving forward there will be no backup and restore issues to be encountered once Microsoft implements its product roadmap for Modern Authentication. This only needs to be done once per Office 365 user account.

Existing Office 365 backup sets may have been created using an ordinary Office 365 account or an Office 365 account with the Global Admin role. The following are the required Office 365 account that must be used to authorize the migration of authentication of the existing Office 365 backup set:

- When migrating to Hybrid Authentication, any type of Office 365 account may be used to authorize the migration of authentication.
- When migrating to Modern Authentication, if the existing Office 365 backup set was created using an ordinary Office 365 account, an Office 365 account with a Global Admin role is required to be used to login their credentials to authorize the migration of authentication.

The following are the two (2) migration scenarios:

- Basic Authentication to Hybrid Authentication
- Basic Authentication to Modern Authentication
 - using an ordinary Office 365 account
 - using an Office 365 account with Global Admin role

NOTE

Due to the current limitation with Microsoft API, Modern Authentication is currently not suitable for backup sets with Personal Sites and/or SharePoint Sites selected. As a temporary workaround for Office 365 backup sets which require backup of Personal Sites and/or SharePoint Sites selected should migrate to Hybrid Authentication until the issue has been resolved by Microsoft.

To migrate a backup set from **Basic Authentication to Hybrid Authentication**, follow the instructions below:

- 1. Log out all Office 365 account on the default browser before starting the migration of backup set.
- 2. In the AhsayOBM main interface, click Backup Sets.



3. Select the backup set that you want to migrate to Hybrid Authentication.



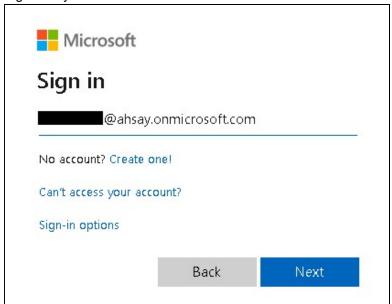
4. Click Continue.



5. Click Authorize.

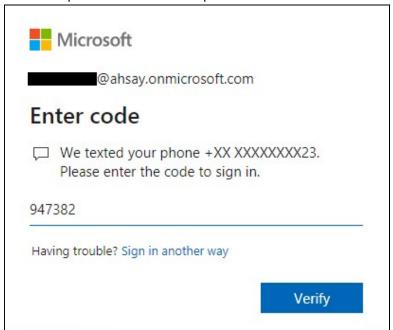
Click [Authorize] and in the pop-up browser window, sign in your Microsoft account and authorize the backup application (if necessary), copy and paste the authorization code to the textbox and hit [OK] to complete the authentication.

6. Sign in to your account.





7. If MFA is enforced, enter the verification code sent to your mobile device and click **Verify**. Otherwise proceed to the next step.



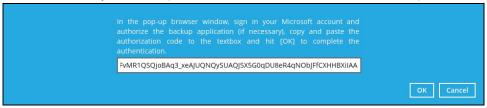
NOTE

The verification code will only be required if the MFA status of an Office 365 account is enforced.

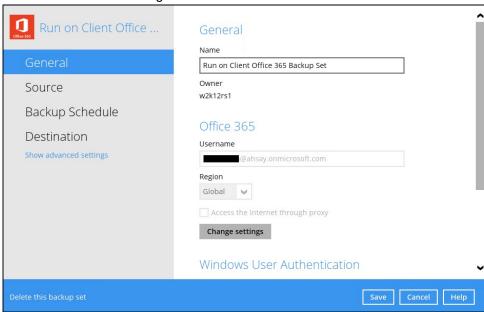
8. Copy the authorization code.



9. Go back to AhsayOBM and paste the authorization code. Click **OK** to proceed.



10. Click Save to finish the migration.



To migrate a backup set from **Basic Authentication to Modern Authentication using an ordinary Office 365 account**, follow the instructions below:

- 1. Logout all Office 365 account on the default browser before starting the migration of backup set.
- 2. In the AhsayOBM main interface, click **Backup Sets**.



3. Select the backup set that will be migrated.



4. Click Continue.

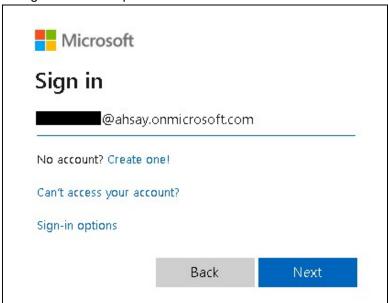


5. Click Authorize.

Click [Authorize] and in the pop-up browser window, sign in your Microsoft account and authorize the backup application (if necessary), copy and paste the authorization code to the textbox and hit [OK] to complete the authentication.

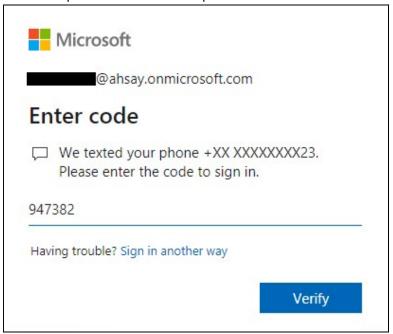
Authorize Cancel

6. Ask your administrator to sign in using an Office 365 account with Global Admin role in order to migrate the backup set.





7. If MFA is enforced, enter the verification code sent to your mobile device and click **Verify**. Otherwise proceed to the next step.



NOTE

The verification code will only be required if the MFA status of an Office 365 account is enforced.

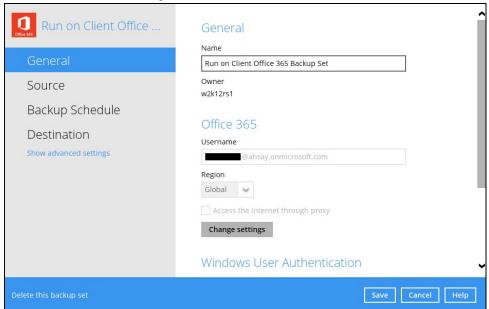
8. Copy the authorization code.



9. Go back to AhsayOBM and paste the authorization code. Click **OK** to proceed.



10. Click Save to finish the migration.



To migrate a backup set with **Basic Authentication to Modern Authentication using an Office 365 account with a Global Admin role**, follow the steps below:

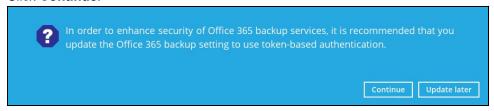
- Logout all Office 365 account on the default browser before starting the migration of backup set.
- 2. In the AhsayOBM main interface, click Backup Sets.



3. Select the backup set that will be migrated.



4. Click Continue.

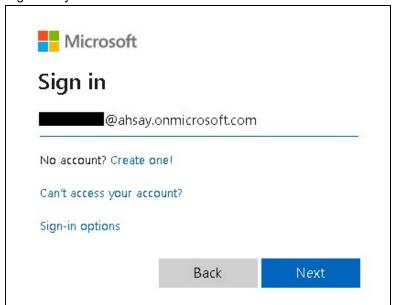


5. Click Authorize.

Click [Authorize] and in the pop-up browser window, sign in your Microsoft account and authorize the backup application (if necessary), copy and paste the authorization code to the textbox and hit [OK] to complete the authentication.

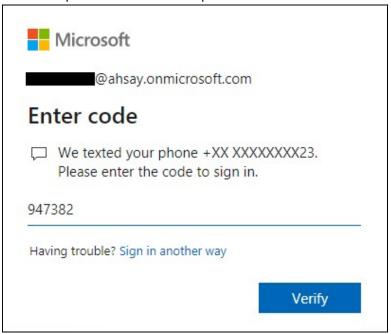
Authorize Cancel

6. Sign in to your account.





7. If MFA is enforced, enter the verification code sent to your mobile device and click **Verify**. Otherwise proceed to the next step.



NOTE

The verification code will only be required if the MFA status of an Office 365 account is enforced.

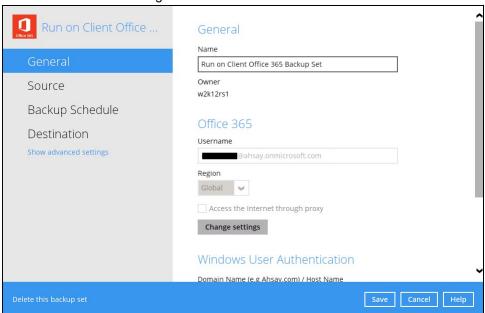
8. Copy the authorization code.



9. Go back to AhsayOBM and paste the authorization code. Click **OK** to proceed.



10. Click **Save** to finish the migration.



Appendix K: How to Change the Office 365 Authentication

After upgrading to AhsayOBM v9.0.0.0 or above, all newly created Office 365 backup sets will automatically start using Modern Authentication. However, if the user has selected Personal Sites and/or SharePoint Sites for Office 365 backup, this will not be possible on an Office 365 backup set using Modern Authentication due to limitations with Microsoft API. To resolve this issue, a change from Modern Authentication to Hybrid Authentication is needed. Please refer to Chapters 2.19.1 and 2.19.2 for the complete list of backup and restore limitations using Modern Authentication.

Once the backup and restore of SharePoint Web Parts and Metadata is fully supported using Modern Authentication, Office 365 backup sets using Hybrid Authentication can be changed back to Modern Authentication.

The following are the two (2) types of authentication change:

- Modern Authentication to Hybrid Authentication
- Hybrid Authentication to Modern Authentication

To change the authentication from **Modern Authentication to Hybrid Authentication**, follow the instructions below:

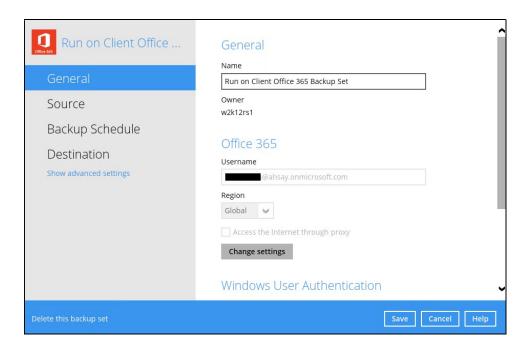
- 1. Logout all Office 365 account on the default browser before starting the authentication change of the backup set.
- 2. In the AhsayOBM main interface, click Backup Sets.



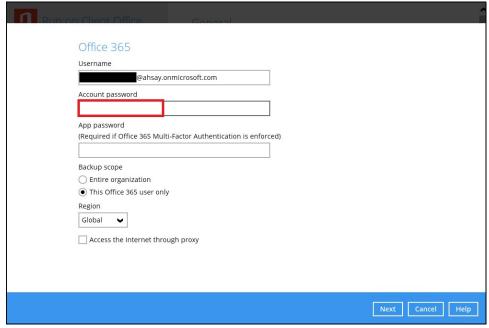
3. Select the backup set that you want to change to Hybrid Authentication.



4. In the Backup Set Settings, click **Change settings** under the Office 365 screen.



5. In the Office 365 credentials page, input the Office 365 Account password then click Next.

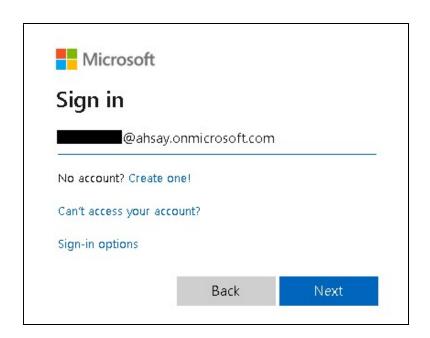


6. Click **Authorize** to start the authentication change process.

Click [Authorize] and in the pop-up browser window, sign in your Microsoft account and authorize the backup application (if necessary), copy and paste the authorization code to the textbox and hit [OK] to complete the authentication.

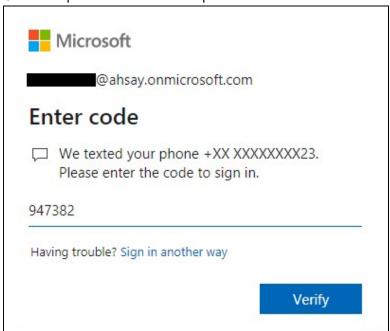
Authorize Cancel

7. Sign in to your account.





8. If MFA is enforced, enter the verification code sent to your mobile device and click **Verify**. Otherwise proceed to the next step.



NOTE

The verification code will only be required if the MFA status of an Office 365 account is enforced.

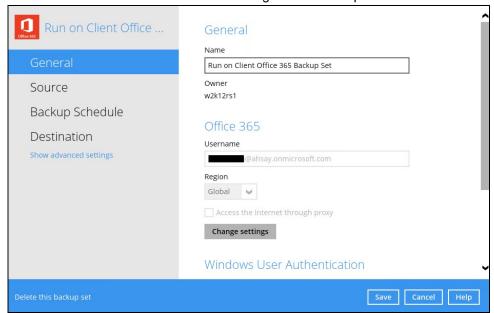
9. Copy the authorization code.



10. Go back to AhsayOBM and paste the authorization code. Click **OK** to proceed.



11. Click Save to finish the authentication change of the backup set.



To change the authentication from **Hybrid Authentication to Modern Authentication**, follow the instructions below:

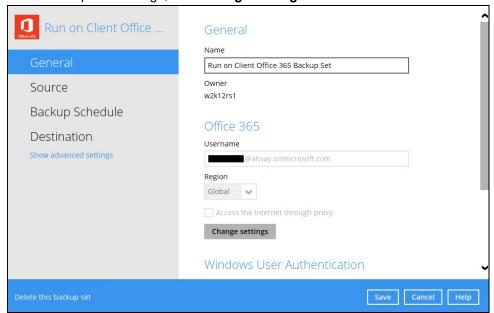
- 1. Logout all Office 365 account on the default browser before starting the authentication change of the backup set.
- 2. In the AhsayOBM main interface, click Backup Sets.



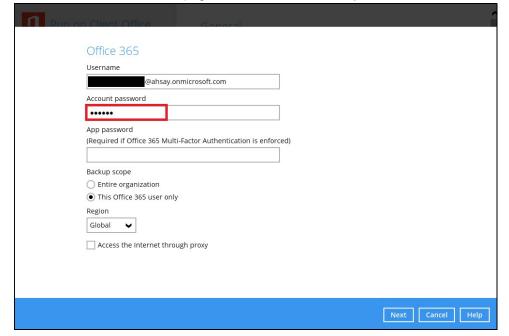
3. Select the backup set that you want to change to Modern Authentication.



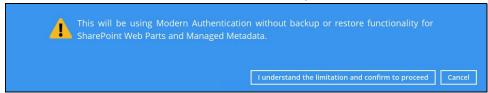
4. In the Backup Set Settings, click **Change settings** under the Office 365 screen.



5. In the Office 365 credentials page, remove the Account password then click Next.



6. Click I understand the limitation and confirm to proceed.

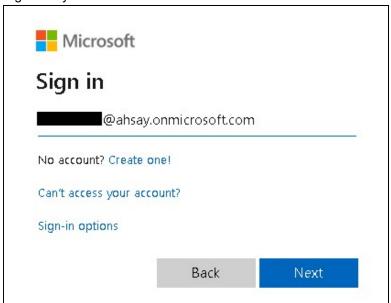


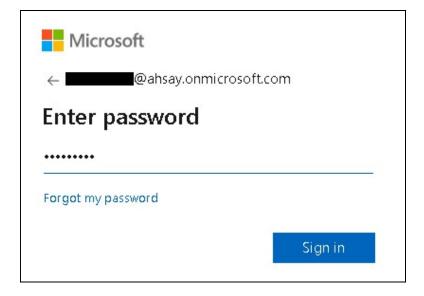
7. Click **Authorize** to start the authentication change process.

Click [Authorize] and in the pop-up browser window, sign in your Microsoft account and authorize the backup application (if necessary), copy and paste the authorization code to the textbox and hit [OK] to complete the authentication.

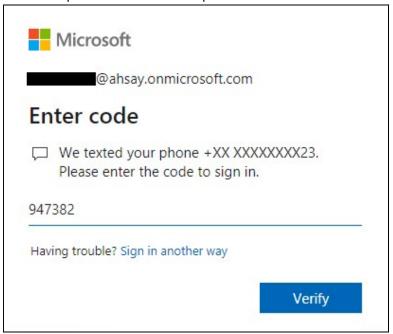
Authorize Cancel

8. Sign in to your account.





9. If MFA is enforced, enter the verification code sent to your mobile device and click **Verify**. Otherwise proceed to the next step.



NOTE

The verification code will only be required if the MFA status of an Office 365 account is enforced.

10. Copy the authorization code.



11. Go back to AhsayOBM and paste the authorization code. Click **OK** to proceed.



12. Click Save to finish the authentication change of the backup set.

