



Ahsay Online Backup Manager v8

Cloud File Backup & Restore Guide for Windows

Ahsay Systems Corporation Limited

11 October 2021

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Revision History

Date	Descriptions	Type of modification
23 September 2020	Updated Periodic Data Integrity Check (PDIC) diagram in Ch. 5	Modifications
25 January 2021	Updated screenshot in Ch. 2.8; Updated login steps in Ch. 3; Updated Periodic Data Integrity Check (PDIC) diagram in Ch. 5	Modifications
7 April 2021	Updated Ch. 5; Added sub-chapters for the detailed process diagrams in Ch. 5.1, 5.2, 5.2.1, 5.2.2 and 5.3	New / Modifications
25 May 2021	Added requirement in Ch. 2.12; Added Limitations in Ch. 2.14 and added notes for Periodic Data Integrity Check (PDIC) Process in Ch. 5.1	New
11 October 2021	Updated login instructions in Ch. 3	Modifications

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1 Overview

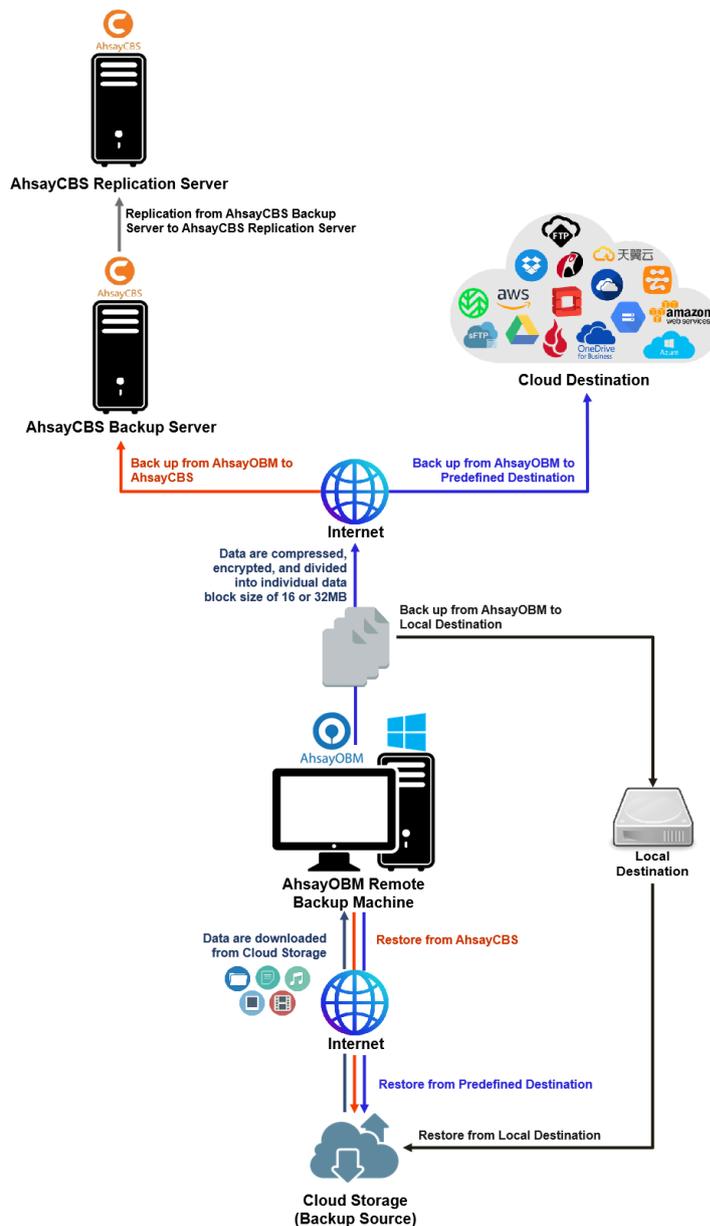
1.1 What is this software?

Ahsay brings you specialized client backup software, namely AhsayOBM, that allows you to back up your data stored on the cloud storage to either the AhsayCBS backup server, another cloud or predefined storage, and local destination. This provides set of tools that include backup and recovery of individual files with versioning and retention policy to protect your data on cloud storages.

1.2 System Architecture

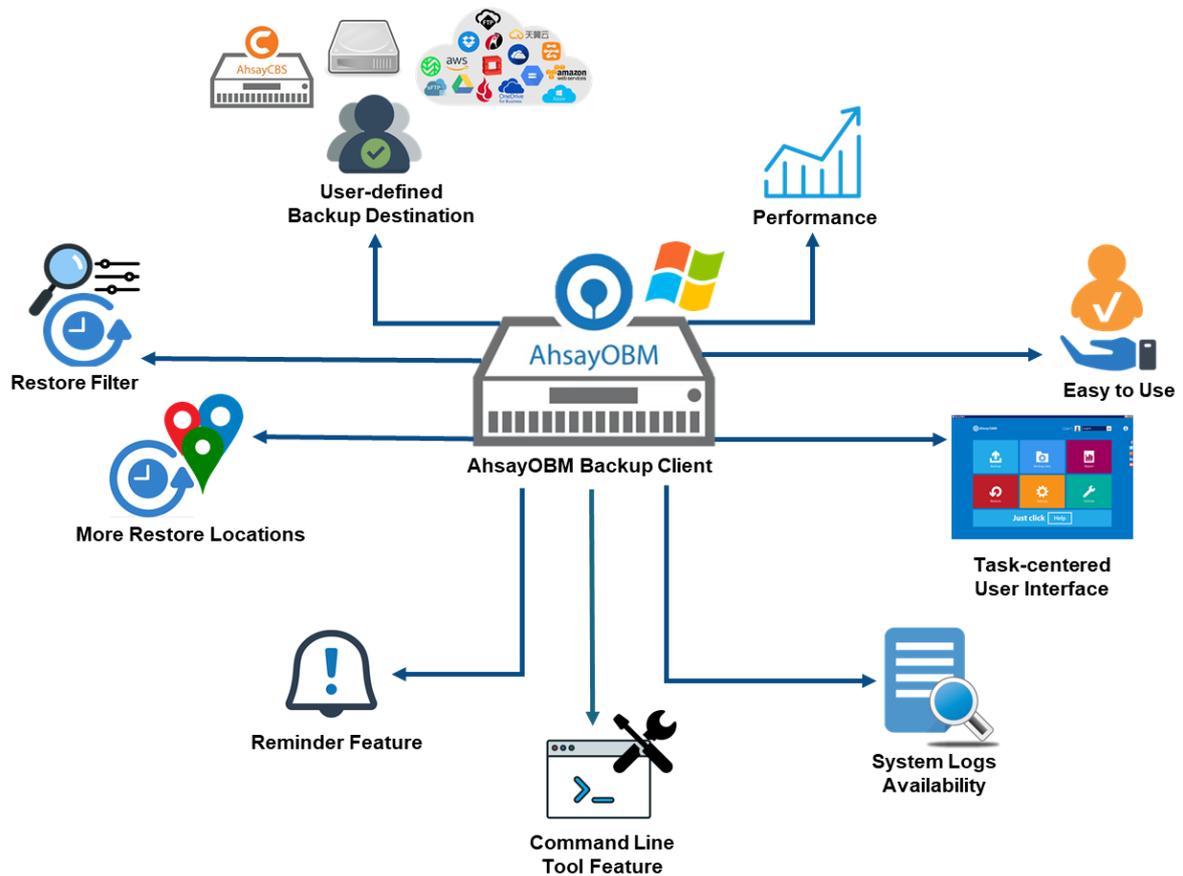
For agent-based backup and restore, the AhsayOBM initiates connection to the cloud storage (backup source) through the internet via the deployed backup agent on the customer's site.

Below is the system architecture diagram illustrating the major elements involved in the backup and restore process using the AhsayOBM Run on Client (Agent-based) backup configuration.



1.3 Why should I use AhsayOBM (Agent-based) Solution to back up my cloud data?

We are committed to bringing you a comprehensive Run on Client (Agent-based) cloud backup and recovery 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 have more control on the hardware which affects the overall backup and restore performance.

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 you backed up them), 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.

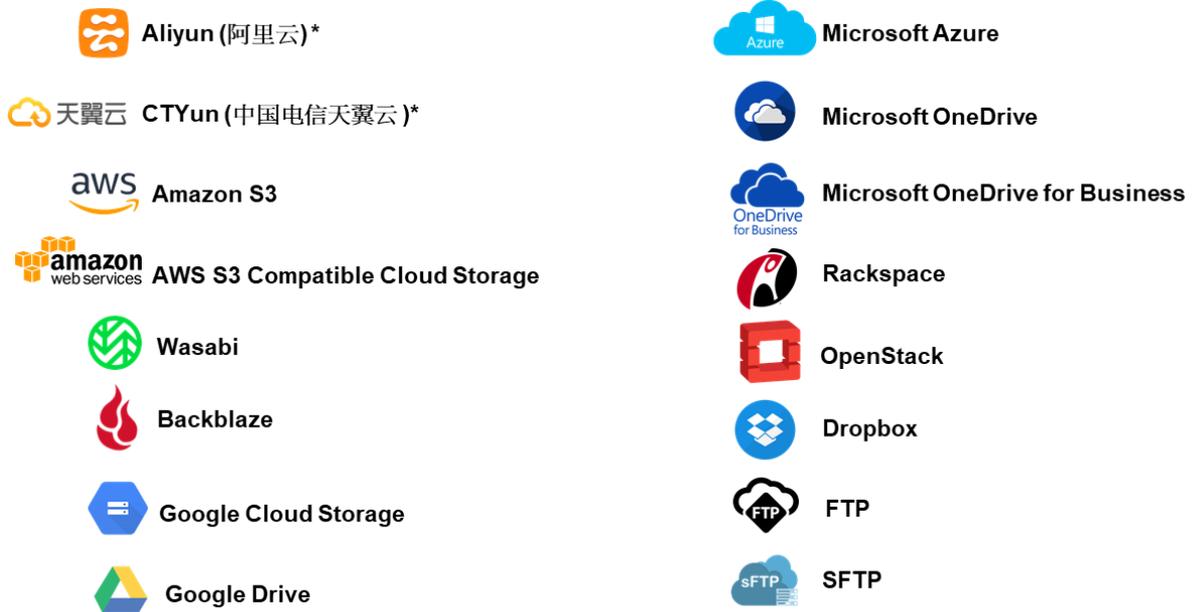
High Level of Security

We understand that the data on your cloud storage may contain sensitive information that requires to be protected, that is why we ensure that 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, the encryption feature which will default encrypt the backup data locally with an AES 256-bit randomized encryption key.
- **Encryption Key Recovery** – Furthermore, we have a backup plan 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.

Cloud Destinations Backup

By default, the AhsayCBS is set as the storage destination in creating a cloud file backup set. However, you may add another storage destination(s) as provided by your backup service provider. Below is a list of supported cloud destinations:



NOTE

For more details, please contact your backup service provider.

Run on Client

A Run on Client Cloud File Backup Set provides you with an agent-based backup solution. Manual, scheduled, or continuous backup job is performed on the client computer. A backup agent needs to be installed on the client machine in order to back up your data on cloud storage(s).

Differences between a Run on Client and Run on Server Backup Set

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

Features/Functions	Run on Client Cloud File Backup Set	Run on Server Cloud File Backup Set
General Settings	✓	✓
Backup Source	✓	✓
Backup Schedule	✓	✓
Continuous Backup	AhsayOBM / AhsayACB for Windows only	✓
Destination	AhsayCBS, Predefined Destinations, Standard and Local	AhsayCBS or Predefined Destinations only
Multiple Destinations	✓	✗
In-File Delta	✓	✓
Retention Policy	✓	✓
Command Line Tool	AhsayOBM for Windows only	✗
Reminder	AhsayOBM / AhsayACB for Windows only	✗
Restore Filter	✓	✗
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 the backup options, the table below shows other operations that can be performed using client agent and web console:

Features/Functions	Run on Client Cloud File Backup Set	Run on Server Cloud File 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 guide:

[AhsayCBS v8 User Guide – Cloud File Run on Server \(Agentless\) Backup and Restore Guide](#)

1.4 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 Run on Client Cloud File backup and restore, followed by step-by-step instructions on a creating a backup set, running a backup and restoring backup data using the AhsayOBM client.

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

Part 1: Preparing for Cloud File Backup & Restore

Requirements

Requirements on hardware & software installation

Best Practices and Recommendations

Items recommended to pay attention to before performing backup and restore

Part 2: Performing a Cloud File Backup

Logging in to AhsayOBM client

Log in to AhsayOBM

Creating a Backup Set

Create a backup set using AhsayOBM

Running a Backup Set

Run a backup set using AhsayOBM

Part 3: Restoring a Cloud File Backup

Restoring a Backup Set using AhsayOBM client

Restore a backup set using 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 data on Cloud storage using the client agent, 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 Cloud File backup and restore.

2 Preparing for Backup and Restore

2.1 Hardware Requirement

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

[FAQ: Ahsay Hardware Requirement List \(HRL\) for version 8.1 or above](#)

2.2 Software Requirement

Refer to the following article for the list of compatible operating systems and application version.

[FAQ: Ahsay Software Compatibility List \(SCL\) for version 8.1 or above](#)

2.3 Antivirus Exclusion Requirement

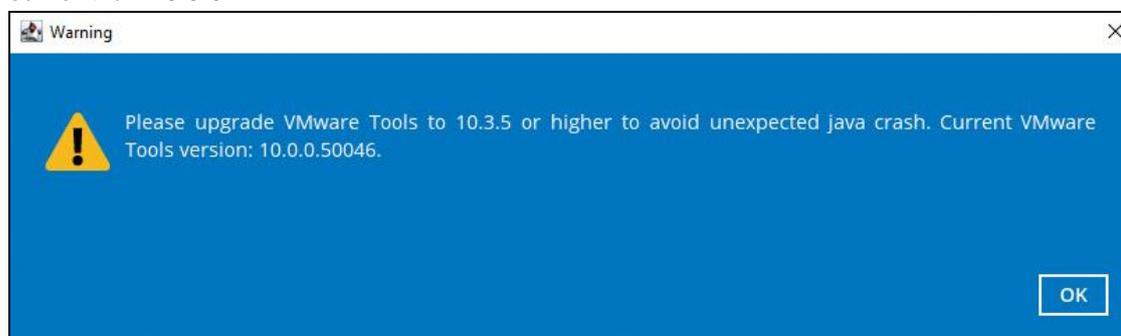
To optimize performance of AhsayOBM on Windows, and to avoid conflict with your antivirus software, refer to the following KB article for the list of processes and directory paths that should be added to all antivirus software white-list / exclusion list.

[FAQ: Suggestion on antivirus exclusions to improve performance of Ahsay software on Windows](#)

2.4 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 is 10.3.5 or higher.

Below is the warning message that will be displayed if the version of the VMware Tools is earlier than 10.3.5.



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

[ISSUE: AhsayOBM / ACB crash when performing backup or restore on a VMware virtual machine with VMware Tools pre-10.0.5 installed](#)

2.5 Internet / Network Connection

In order to allow access to the cloud storage, an internet connection must be available on the computer where the AhsayOBM is installed.

2.6 Valid AhsayOBM User Account

A valid AhsayOBM user account is required before you can log in to the AhsayOBM client.

2.7 Ahsay License Requirements

⦿ Licenses

The Cloud File Backup module is included in the basic AhsayOBM license. There is no limit on the number of Cloud File backup sets in an AhsayOBM user account.

For more details, please contact your backup service provider.

2.8 Add-on Module Requirements

⦿ In-File Delta

The In-File Delta add-on module must be added on the AhsayOBM user account if you would like to use this feature.

NOTE

This add-on module must be enabled on the AhsayOBM user account. Please contact your backup service provider for details.

For AhsayOBM user account

The screenshot shows the 'Backup Client Settings' tab for a user profile. The 'Backup Client' is set to 'AhsayOBM User'. Under 'Add-on Modules', the following modules are listed with checkboxes:

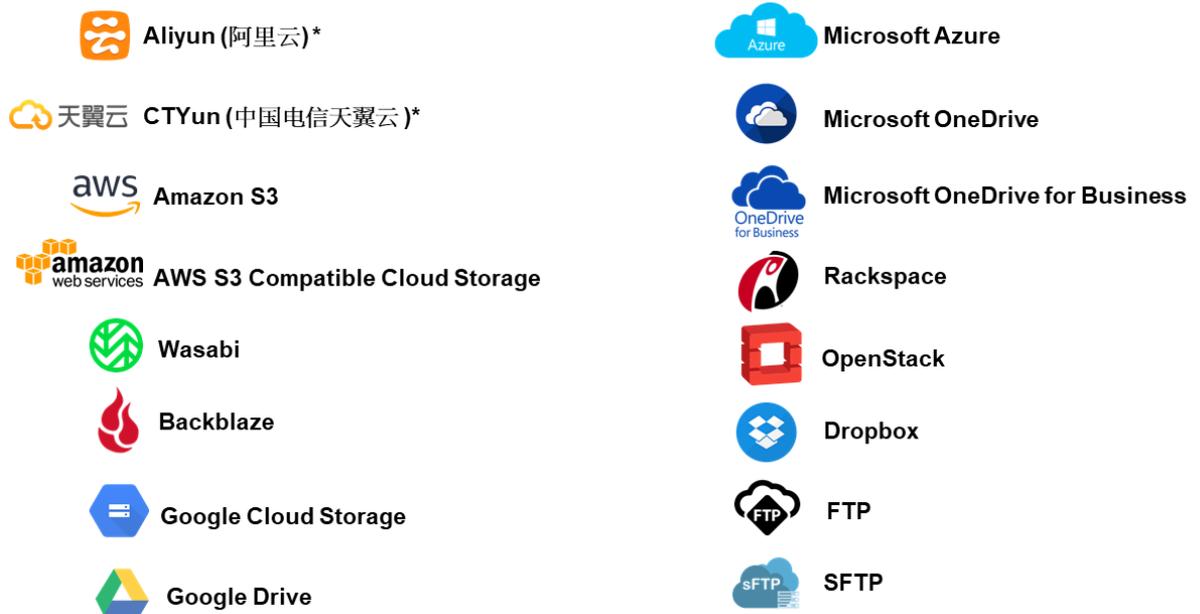
Module Name	Enabled
Microsoft Exchange Server	<input type="checkbox"/>
MySQL Database Server	<input type="checkbox"/>
Lotus Domino	<input type="checkbox"/>
Windows System Backup	<input type="checkbox"/>
VMware (Guest VM) 0	<input type="checkbox"/>
Microsoft Exchange Mailbox 0	<input type="checkbox"/>
NAS - QNAP	<input type="checkbox"/>
Mobile (max. 10)	<input type="checkbox"/>
Volume Shadow Copy	<input type="checkbox"/>
OpenDirect / Granular Restore 0	<input type="checkbox"/>
MariaDB Database Server	<input type="checkbox"/>
Microsoft SQL Server	<input type="checkbox"/>
Oracle Database Server	<input type="checkbox"/>
Lotus Notes	<input type="checkbox"/>
Windows System State Backup	<input type="checkbox"/>
Hyper-V (Guest VM) 0	<input type="checkbox"/>
ShadowProtect System Backup	<input type="checkbox"/>
NAS - Synology	<input type="checkbox"/>
Continuous Data Protection	<input type="checkbox"/>
In-File Delta	<input checked="" type="checkbox"/>
Office 365 Backup 0	<input type="checkbox"/>

2.9 Backup Quota Requirement

Make sure that your AhsayOBM user account has sufficient quota assigned to accommodate the storage for the cloud file backup set(s) and retention policy.

2.10 Cloud Sources

The AhsayOBM Run on Client (Agent-based) Backup Solution supports the following cloud sources to back up as provided by your backup service provider:



2.11 Login Credentials to Cloud Storage

To allow access to the cloud storage (backup source) in performing a backup, make sure to have the correct login credentials to the cloud storage service.

2.12 Network Bandwidth

10 Mbps or above connection speed.

2.13 Best Practices and Recommendations

The following are some best practices and recommendations we strongly recommend you follow for optimized backup and restore performance:

⦿ 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

⦿ Temporary Directory Folder Location

Temporary directory folder is used by the 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.

⦿ Performance Recommendations

- 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 backed up 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, but to discover faults in your recovery plan. There might be flaws identified in the plan throughout the test and it is important to identify those flaws.

🕒 Bucket Management for Enterprise Cloud Storage Providers

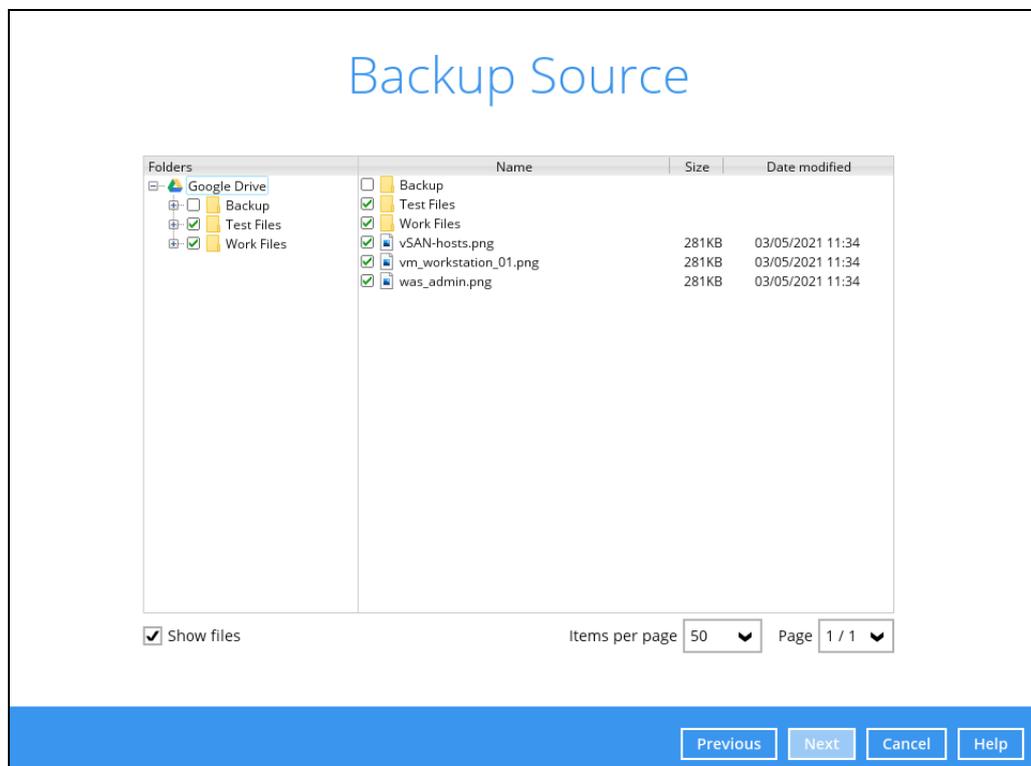
If you have chosen to back up files from an enterprise cloud storage (e.g., Amazon S3, Wasabi, Microsoft Azure, Google Cloud Storage, etc.), you will have to select a bucket name during the creation of cloud file backup set. Each bucket has a single compartment, and an access key is associated with a single bucket. Therefore, each backup set can back up one bucket.

For account with multiple buckets, the backup should be organized into one bucket per backup set. For best practice, make sure to assign one bucket name per backup set so you can ensure that you are selecting the correct file(s) to back up.

2.14 Limitations

For backup source selection:

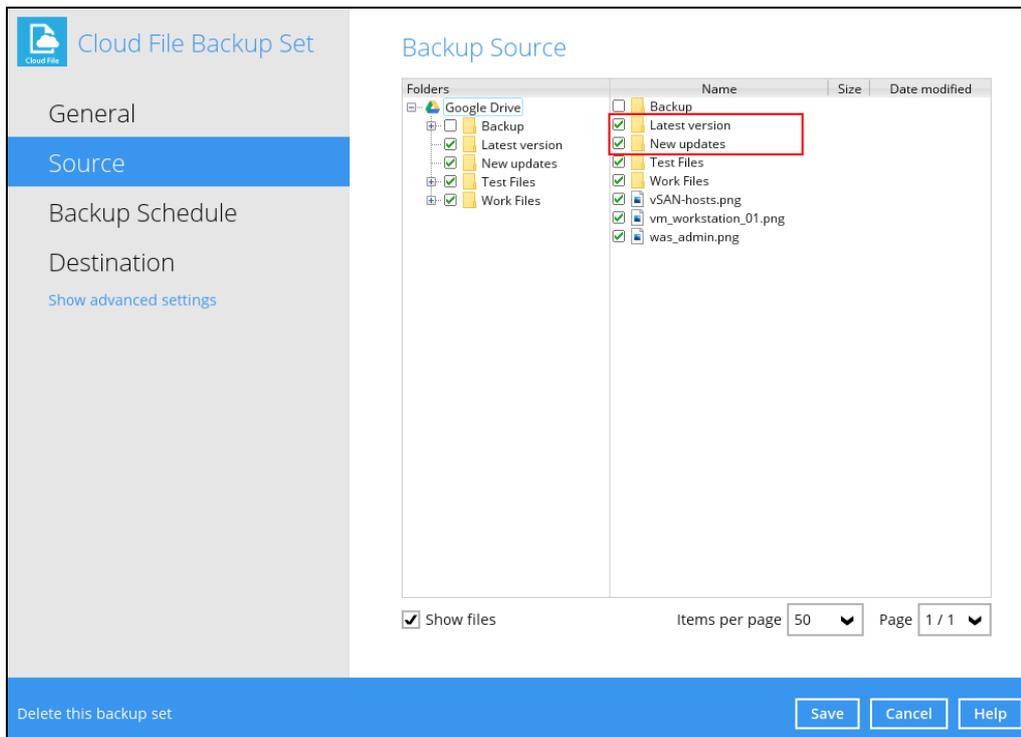
1. It is currently not possible to select the entire contents of the Cloud drive. Existing top level folders and/or files must be selected individually. If you need to back up the contents of the entire Cloud drive, then all top level folders and/or files must be selected.



2. If there are any top level folders and/or files added to the Cloud drive after the backup set is created, they will not be added in the backup source automatically. The backup set will have to be manually updated to include the new top level folders and/or files before they can be backed up.

Example:

If the “Latest version” and “New updates” folders were created after the creation of the backup set, and the contents of these folders must be backed up, then you must manually select these folders to be included in the backup.



3. If there are any top level folders and/or files which have been deleted from the Cloud drive since the last backup job, they will not be removed from the backup source automatically. The backup set will have to be manually updated to unselect the deleted top level folders and/or files. Otherwise, the backup job will be completed with warnings.

Example:

The following files were backed up but subsequently deleted from the top level backup source of the Cloud drive: **was_admin.png**, **vm_workstation_01.png**, **vSAN-hosts.png**. The next backup job will encounter the following warnings until these deleted files are unselected from the backup source.

The deleted files are highlighted in red on the backup source to indicate that they no longer exist on the Cloud storage account.

Cloud File Backup Set

Backup Source

General

Source

Backup Schedule

Destination

[Show advanced settings](#)

Folders	Name	Size	Date modified
Google Drive	<input type="checkbox"/> Backup		
Backup	<input checked="" type="checkbox"/> Test Files		
Test Files	<input checked="" type="checkbox"/> Work Files		
Work Files	<input checked="" type="checkbox"/> vm_workstation_01.png		
	<input checked="" type="checkbox"/> vSAN-hosts.png		
	<input checked="" type="checkbox"/> was_admin.png		

Show files
 Items per page 50
Page 1 / 1

Delete this backup set

Backup log

```

[2021/05/07 17:38:00] [warn] [1619158570719] Backup source
"was_admin.png" does not exist !

[2021/05/07 17:38:00] [cbs] [1619158570719] warn,"Backup
source \"was_admin.png\" does not exist !",0,0,0,,,

[2021/05/07 17:38:00] [warn] [1619158570719] Backup source
"vm_workstation_01.png" does not exist !

[2021/05/07 17:38:00] [cbs] [1619158570719] warn,"Backup
source \"vm_workstation_01.png\" does not exist !",0,0,0,,,

[2021/05/07 17:38:00] [warn] [1619158570719] Backup source
"vSAN-hosts.png" does not exist !

[2021/05/07 17:38:00] [cbs] [1619158570719] warn,"Backup
source \"vSAN-hosts.png\" does not exist !",0,0,0,,,

```

3 Logging in to AhsayOBM

Starting with AhsayOBM v8.5.0.0 there are several login scenarios depending on the setting of the account you are using. The different scenarios will be discussed below:

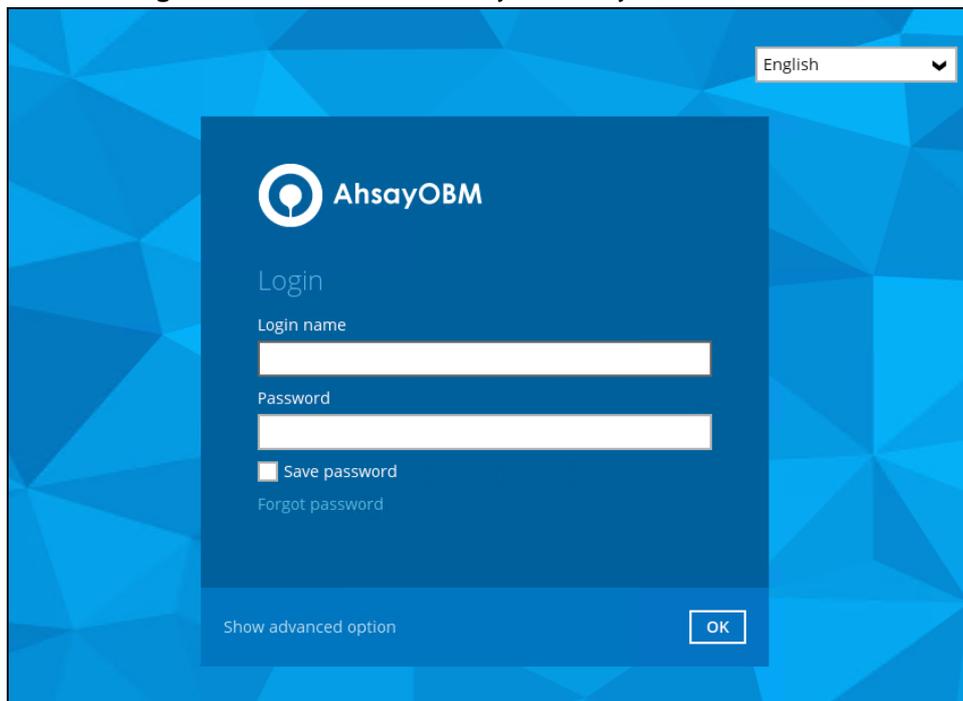
- [Login without 2FA](#)
- [Login with 2FA using authenticator app](#)
- [Login with 2FA using Twilio](#)

3.1 Login to AhsayOBM without 2FA

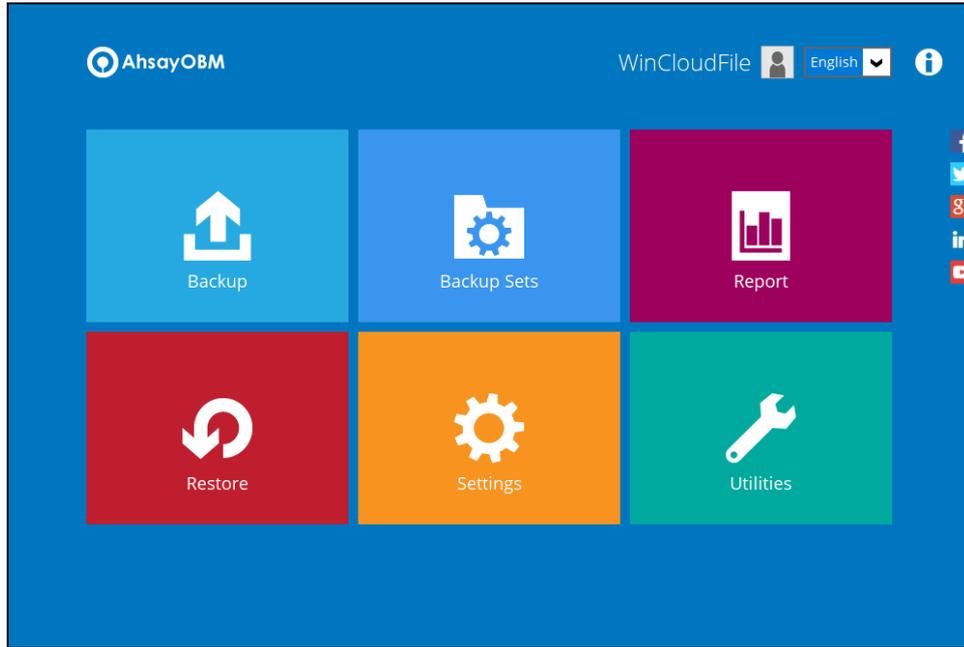
1. Log in to the AhsayOBM application user interface. Double click the AhsayOBM desktop icon to launch the application.



2. Enter the **Login name** and **Password** of your AhsayOBM account then click **OK** to login.

The image shows the AhsayOBM login interface. It has a blue background with a geometric pattern. In the top right corner, there is a language dropdown menu set to 'English'. The main content is a dark blue login form with the AhsayOBM logo and name at the top. Below the logo, the word 'Login' is displayed. There are two input fields: 'Login name' and 'Password'. Below the password field, there is a checkbox for 'Save password' and a link for 'Forgot password'. At the bottom of the form, there is a 'Show advanced option' link and an 'OK' button.

3. After successful login, the following screen will appear.

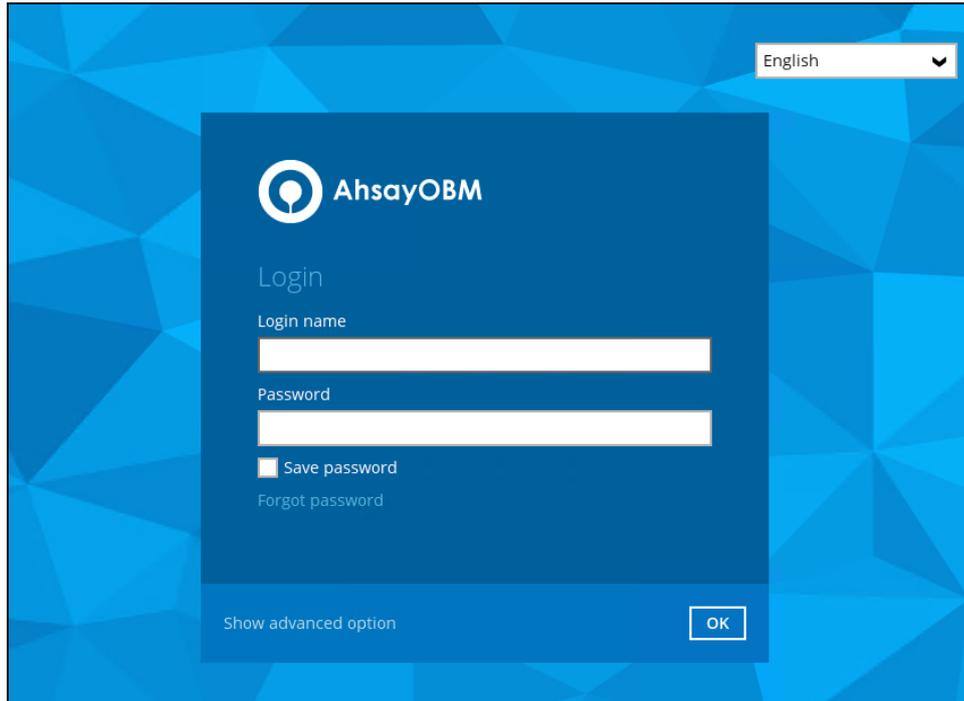


3.2 Login to AhsayOBM with 2FA using authenticator app

1. Log in to the AhsayOBM application user interface. Double click the AhsayOBM desktop icon to launch the application.



2. Enter the **Login name** and **Password** of your AhsayOBM account then click **OK** to login.

The image shows the AhsayOBM login screen. It features a blue background with a geometric pattern. In the center, there is a dark blue login form with the AhsayOBM logo and the text 'Login'. The form includes fields for 'Login name' and 'Password', a 'Save password' checkbox, and a 'Forgot password' link. At the bottom of the form, there is a 'Show advanced option' link and an 'OK' button. In the top right corner of the screen, there is a language dropdown menu set to 'English'.

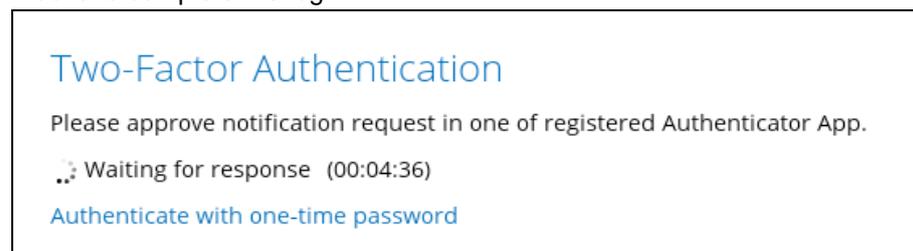
3. One of the two authentication methods will be displayed to continue with the login:

- [Push Notification and TOTP when using Ahsay Mobile app](#)
- [TOTP only](#)

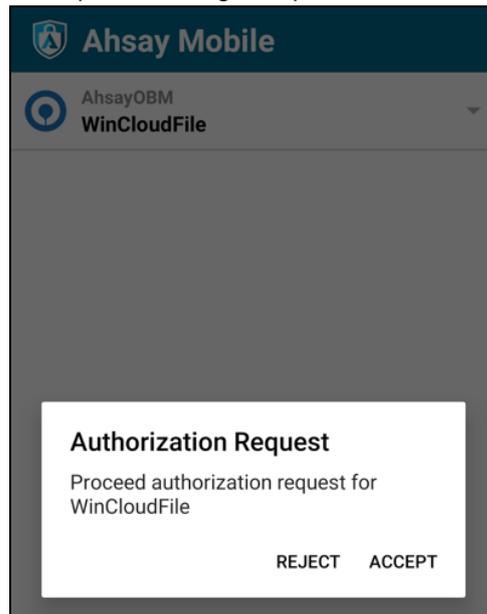
- If **Ahsay Mobile app** was configured to use Push Notification and TOTP then there are two 2FA modes that can be used:

- Push Notification (default)

Push notification is the default 2FA mode. Accept the login request on Ahsay Mobile to complete the login.

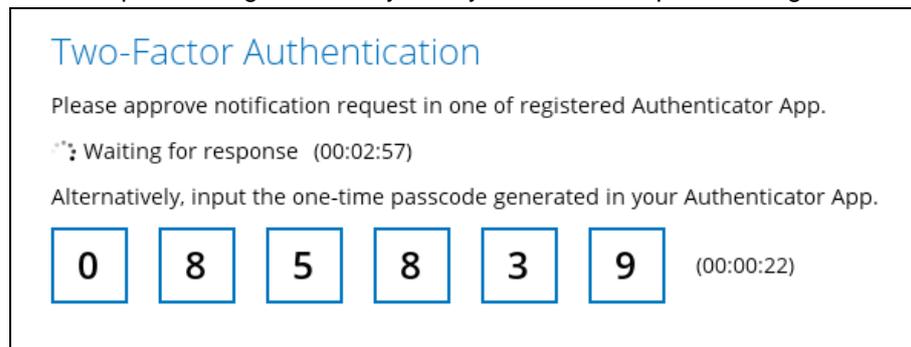


Example of the login request sent to the Ahsay Mobile app.

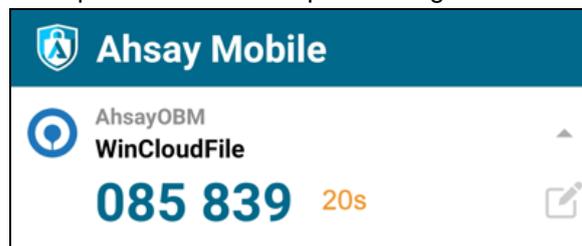


- TOTP

However, if push notification is not working or you prefer to use one-time passcode, click the [Authenticate with one-time password](#) link, then input the one-time passcode generated by Ahsay Mobile to complete the login.

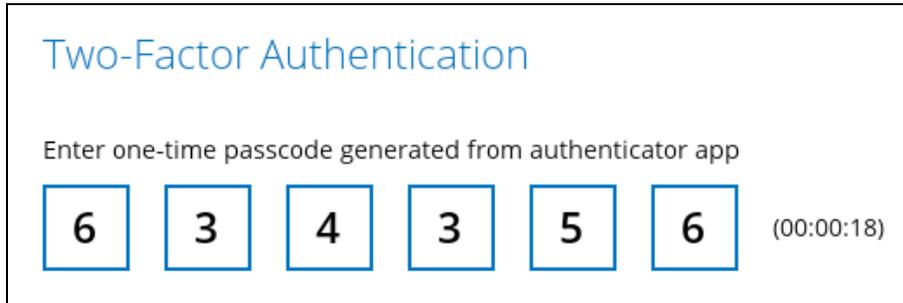


Example of the one-time passcode generated in Ahsay Mobile.

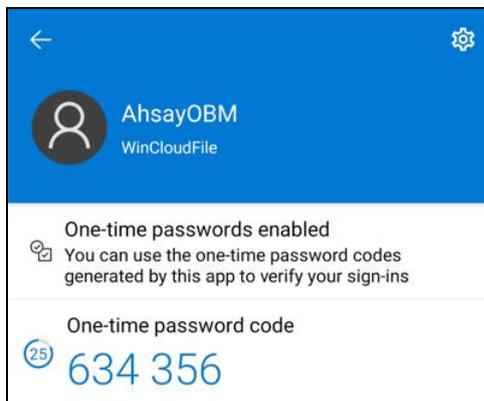


- TOTP only

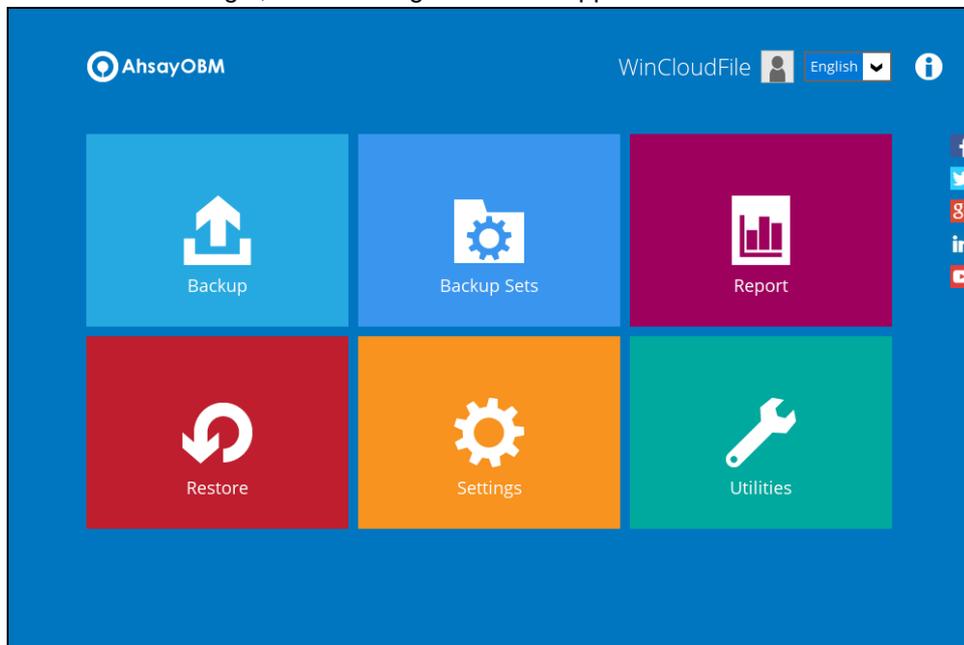
Enter the one-time passcode generated by the authenticator app to complete the login.



Example of the one-time passcode generated in the third party authenticator app Microsoft Authenticator.



4. After successful login, the following screen will appear.



NOTE

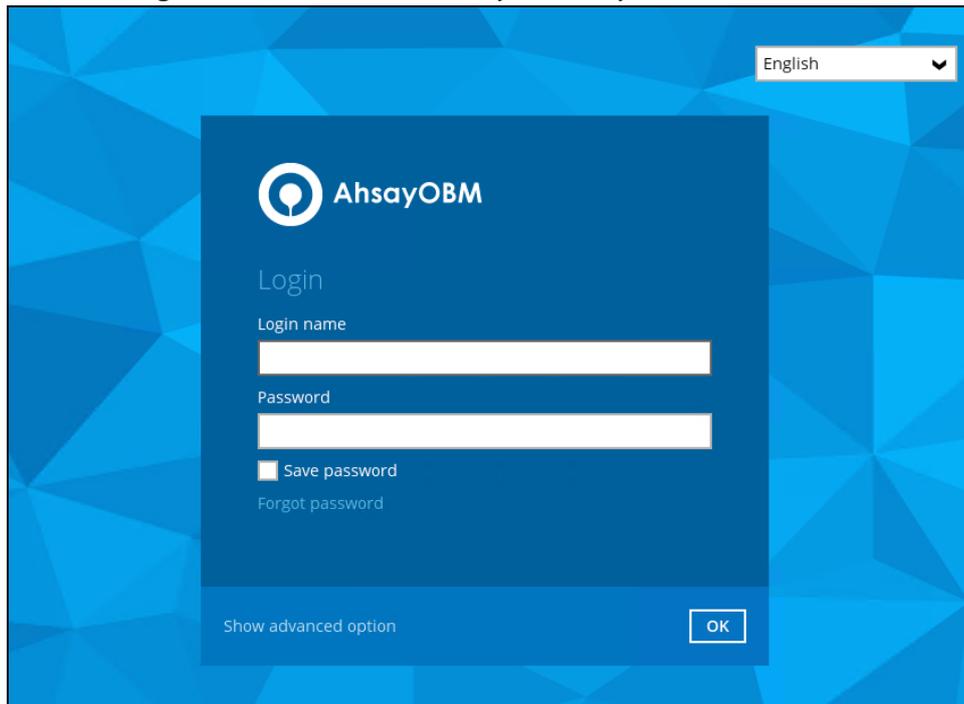
If you have trouble logging in using the authenticator app please refer to Chapter 9 of the [AhsayOBM Quick Start Guide for Windows](#) for more information.

3.3 Login to AhsayOBM with 2FA using Twilio

1. Log in to the AhsayOBM application user interface. Double click the AhsayOBM desktop icon to launch the application.



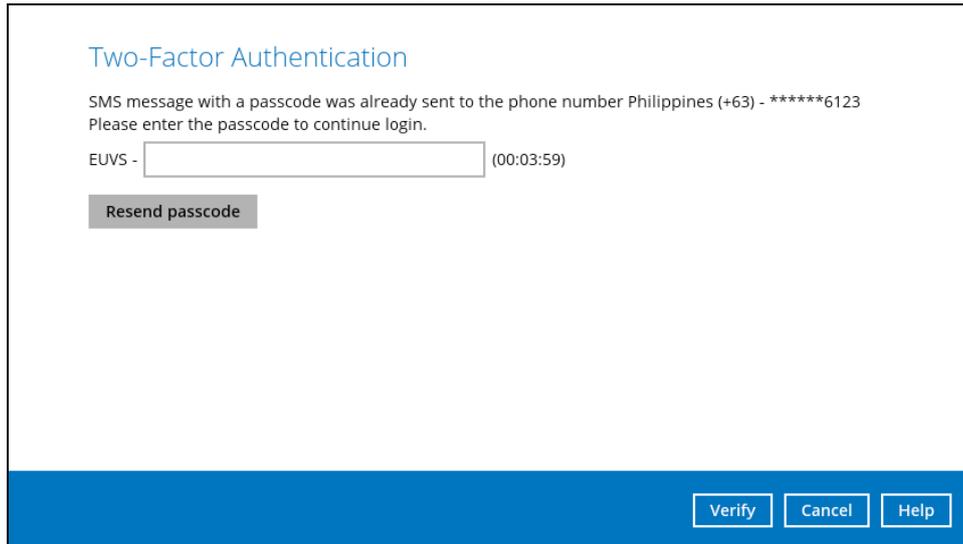
2. Enter the **Login name** and **Password** of your AhsayOBM account then click **OK** to login.

The image shows the AhsayOBM login screen. It has a blue background with a geometric pattern. In the top right corner, there is a language dropdown menu set to 'English'. The main content area is a dark blue box with the AhsayOBM logo and the text 'Login'. Below this, there are two input fields for 'Login name' and 'Password'. There is a checkbox for 'Save password' and a link for 'Forgot password'. At the bottom of the box, there is a 'Show advanced option' link and an 'OK' button.

3. Select your phone number.

The image shows the Two-Factor Authentication screen. It has a white background with a blue header 'Two-Factor Authentication'. Below the header, there is a text prompt: 'Please select phone number to receive passcode via SMS message to continue login.' There are three radio button options: 'Austria (+43) - *****6588', 'Philippines (+63) - *****6123', and 'Switzerland (+41) - *****4731'. At the bottom right, there are 'Cancel' and 'Help' buttons.

4. Enter the passcode and click **Verify** to login.



Two-Factor Authentication

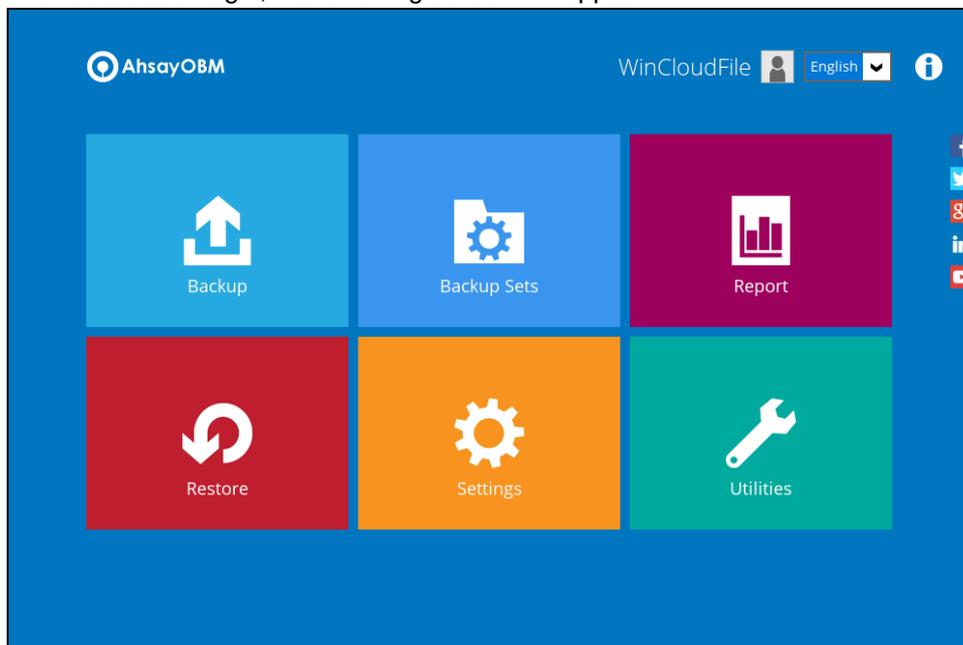
SMS message with a passcode was already sent to the phone number Philippines (+63) - *****6123
Please enter the passcode to continue login.

EUVS - (00:03:59)

[Resend passcode](#)

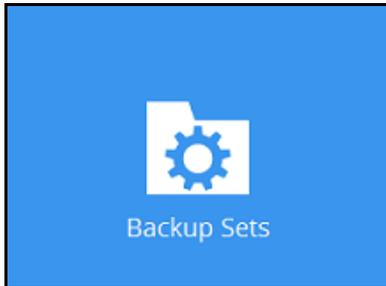
[Verify](#) [Cancel](#) [Help](#)

5. After successful login, the following screen will appear.

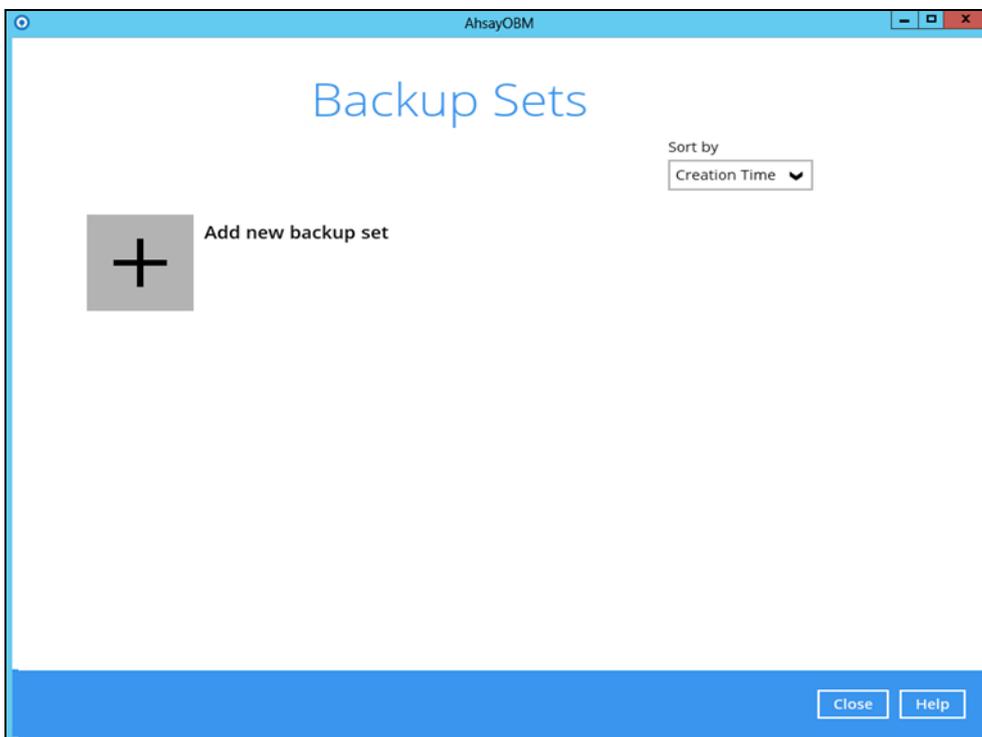


4 Creating a Cloud File Backup Set

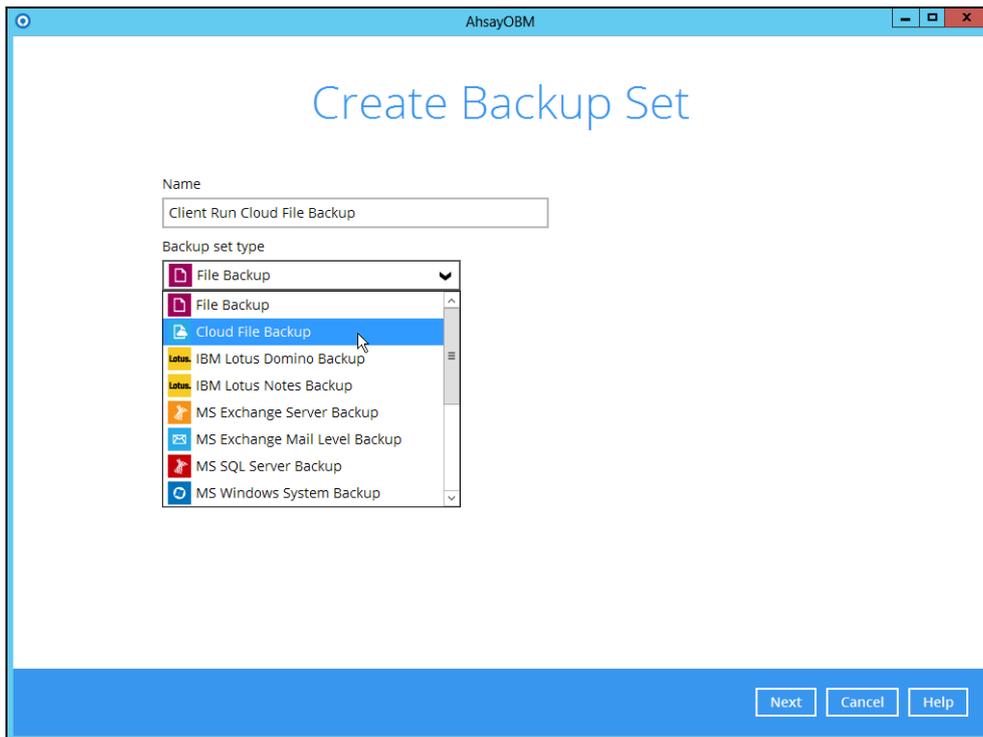
1. In the AhsayOBM main interface, click the following icon.



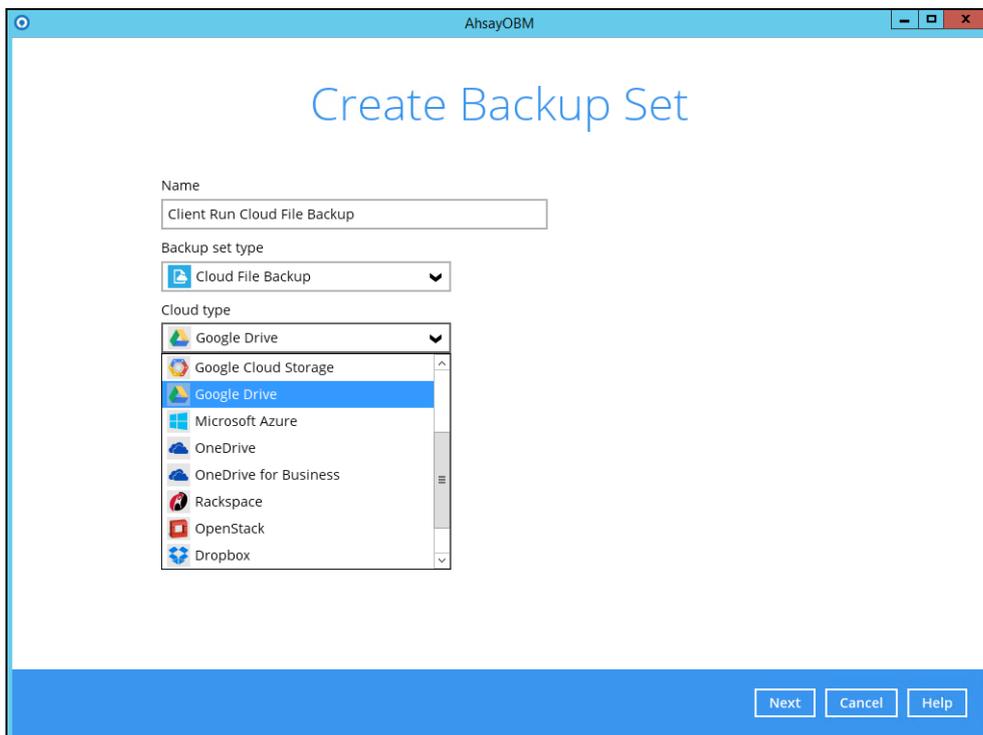
2. Create a Cloud File backup set by clicking the "+" icon next to **Add new backup set**.



3. Enter a **Name** for your backup set and select **Cloud File Backup** as the **Backup set type**.



4. Select the **Cloud type** of the cloud storage that contains the data that you want to back up. For example, Google Drive.



5. Depending on the cloud type you have selected, you will be prompted to enter the cloud service login details.
6. Click **Test** to get redirected to the login page of the cloud service provider on your default browser, then enter the login details there.

AhsayOBM

Create Backup Set

Name
Client Run Cloud File Backup

Backup set type
Cloud File Backup

Cloud type
Google Drive

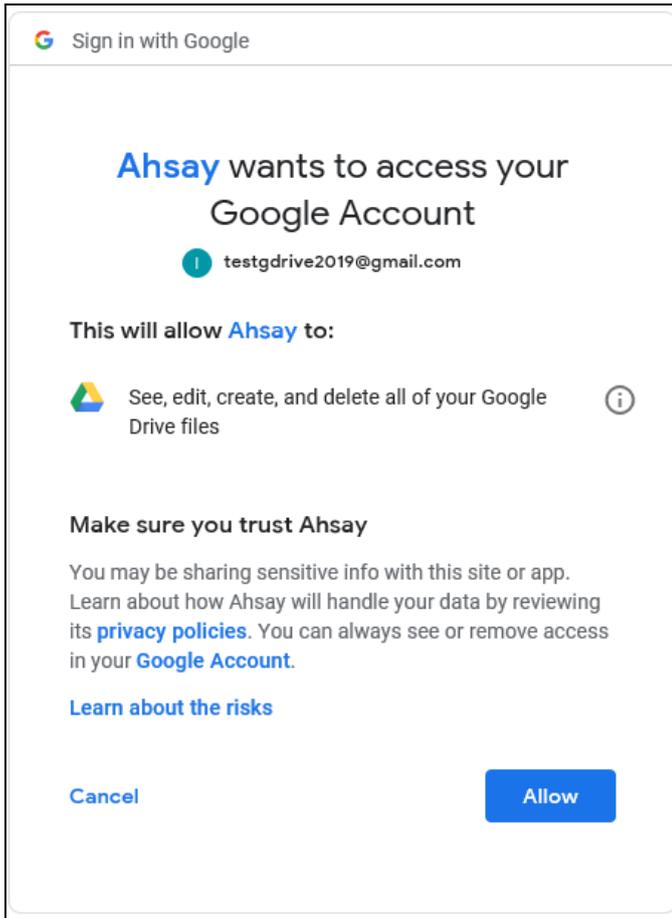
Test

Next Cancel Help

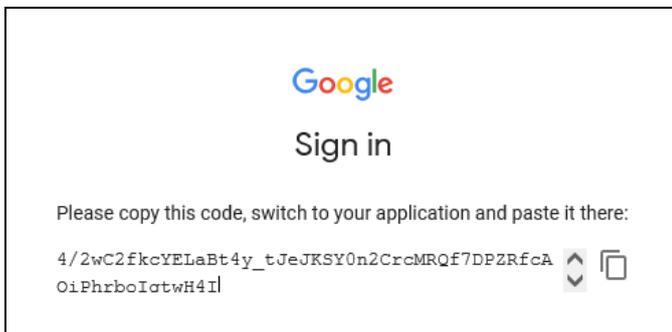
NOTE

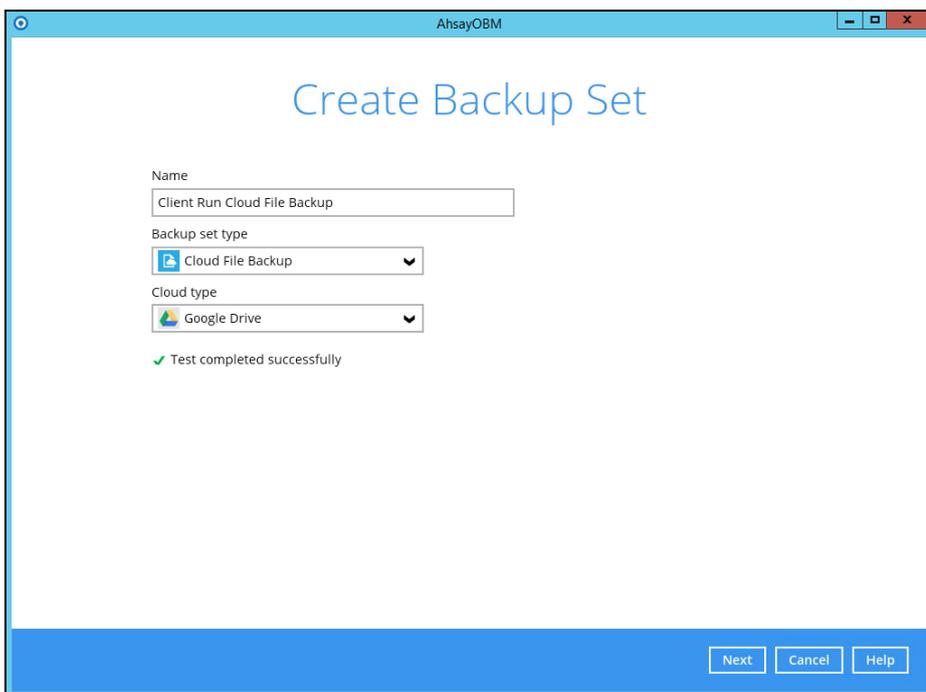
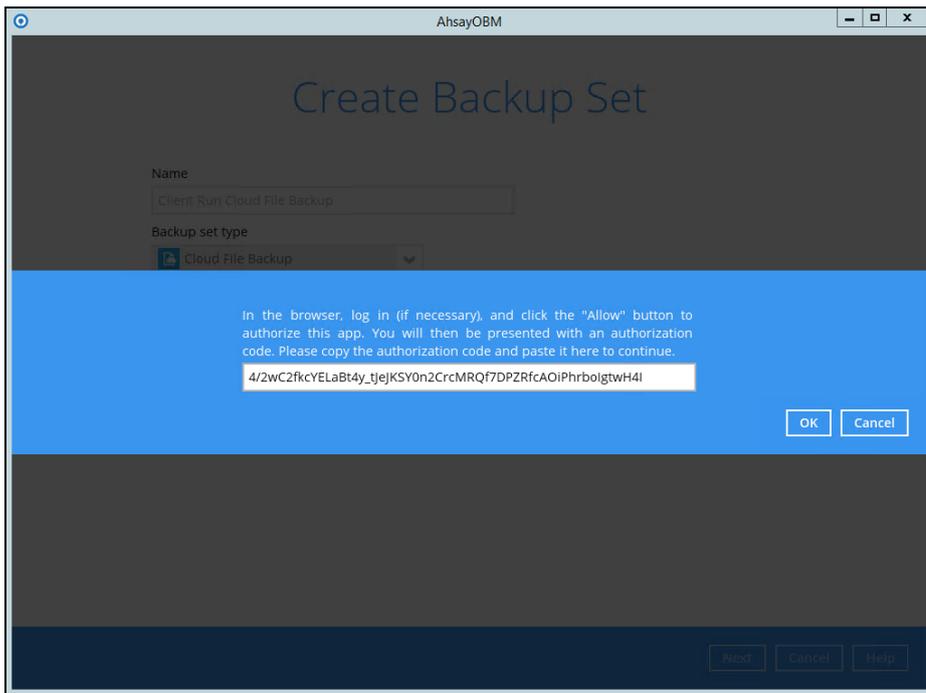
The authentication request will be opened in a new tab or window. Ensure that the pop-up window is not blocked, and pop-up blocker is disabled in your browser.

7. Click **Allow** to permit AhsayOBM to access the cloud storage.



8. Copy and paste the code generated by the cloud service provider to AhsayOBM where you will be prompted to enter, then click **OK** to confirm.

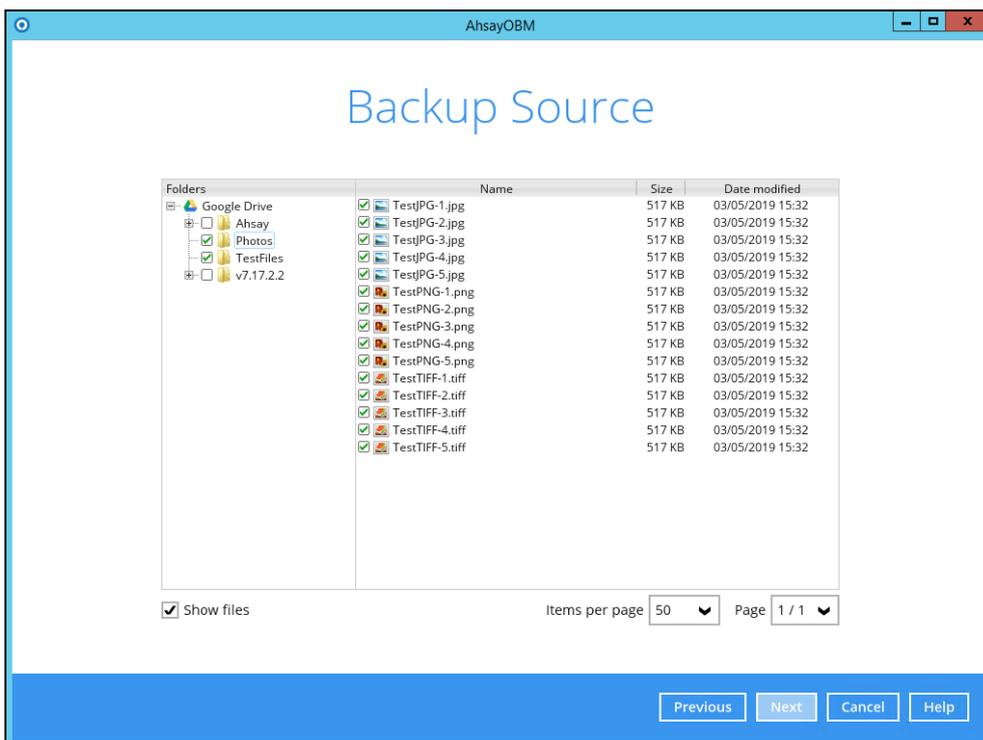
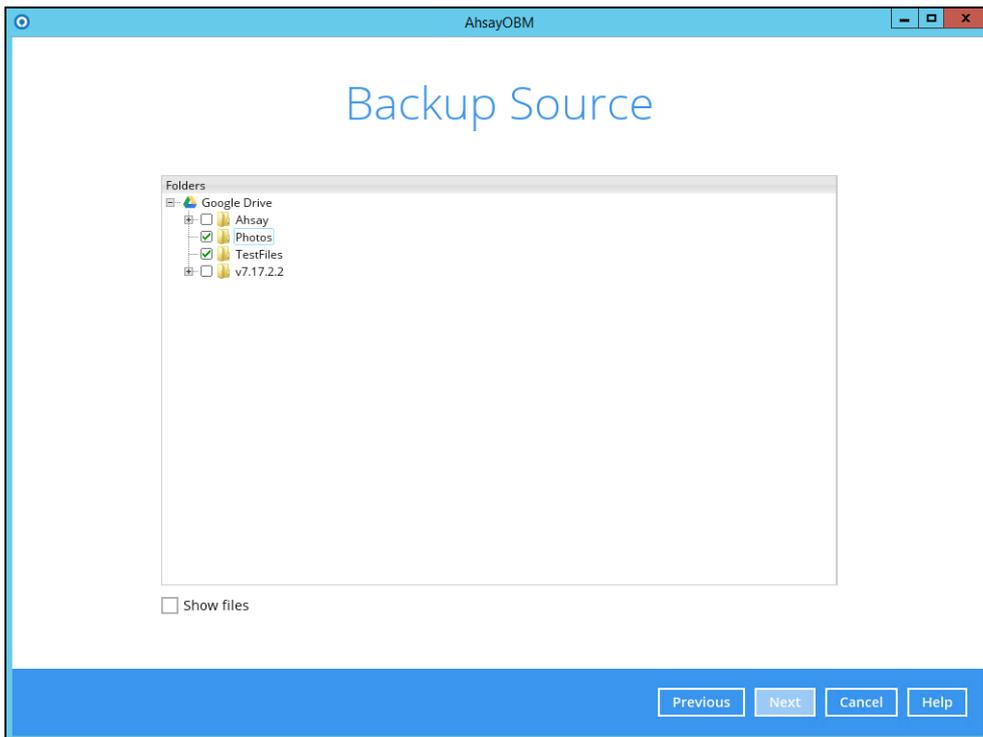




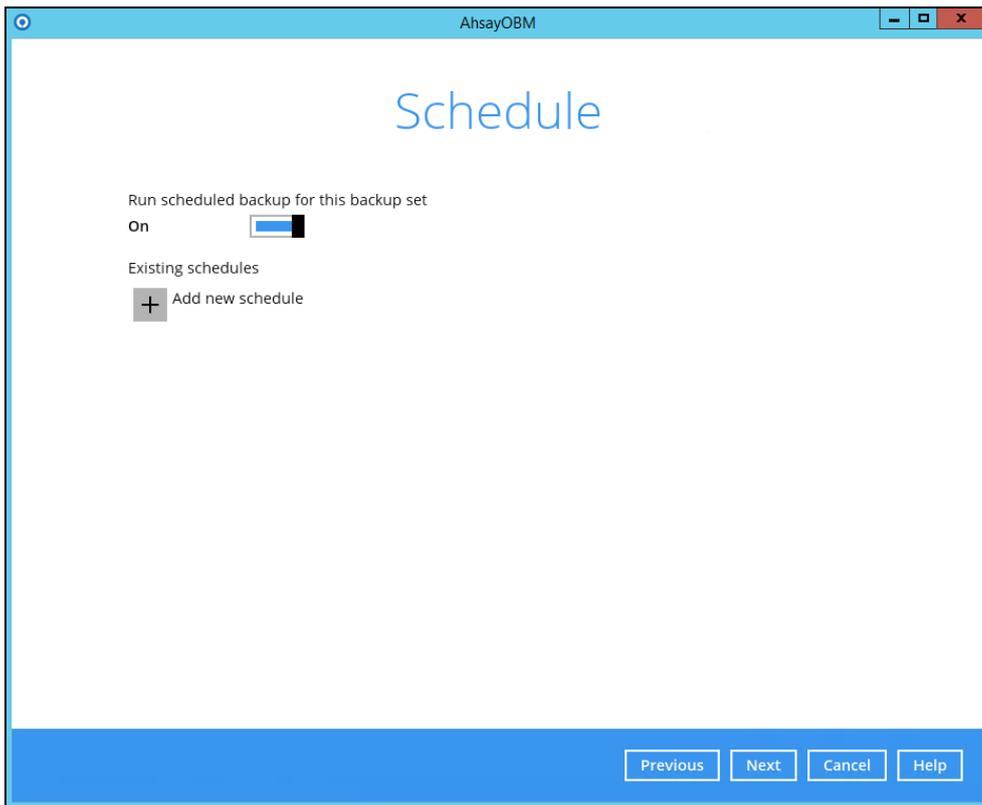
9. In the **Backup Source** menu, select the files and/or folders that you would like to back up.

Enable the **Show files** checkbox at the bottom left corner if you would like to choose individual file(s) for backup. Click **Next** to proceed when you are done with the selection.

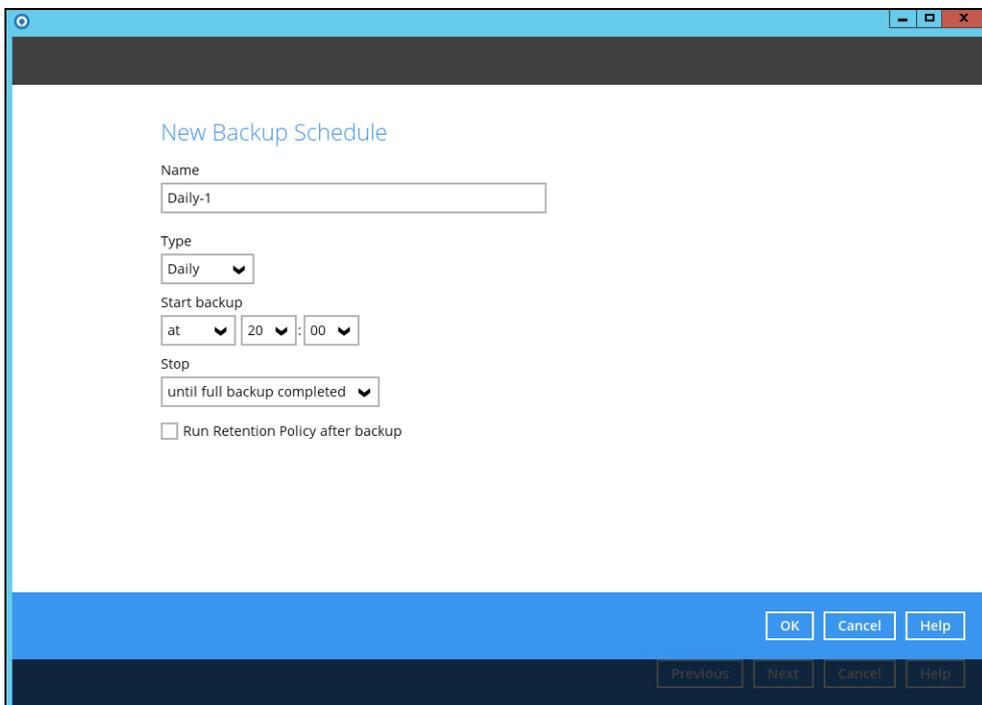
NOTE: There are limitations in selecting files and/or folders in the backup source menu. For further details, please refer to [Ch. 2.13 Limitations](#).



- In the **Schedule** menu, configure a backup schedule for backup job to run automatically at your specified time interval. If enabled, click **Add new schedule** to add a new schedule, then click **Next** to proceed.



11. Configure the backup schedule settings on this page, then click **OK** when you are done with the settings. Click **Next** to proceed.



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 or interval in minutes/hours when the backup job will run.

New Backup Schedule

Name

Type

Start backup
 at :

Stop

Run Retention Policy after backup

- ⦿ **Weekly** – the day of the week and the time of the day or interval in minutes/hours when the backup job will run.

New Backup Schedule

Name

Type

Backup on these days of the week
 Sun Mon Tue Wed Thu Fri Sat

Start backup
 at :

Stop

Run Retention Policy after backup

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

New Backup Schedule

Name

Type

Backup on the following day every month
 Day
 First

Start backup at
 : on the selected days

Stop

Run Retention Policy after backup

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

New Backup Schedule

Name: Custom-1

Type: Custom

Backup on the following day once: 2020 July 30

Start backup at: 23:59

Stop: until full backup completed

Run Retention Policy after backup

- **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.

Start backup

every | 1 minute

Stop: until full backup completed

Run Retention Policy after backup

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

New Backup Schedule

Name: Weekly-1

Type: Weekly

Backup on these days of the week: Sun Mon Tue Wed Thu Fri Sat

Start backup: every 4 hours

Stop: until full backup completed

Run Retention Policy after backup

Figure 1.1

New Backup Schedule

Name: Weekly-2

Type: Weekly

Backup on these days of the week: Sun Mon Tue Wed Thu Fri Sat

Start backup: at 21:00

Stop: until full backup completed

Run Retention Policy after backup

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 during weekend 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 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 AhsayACB 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.

Multiple backup schedules can be created, as an example; the four types of backup schedules may look like the following.

Schedule

Run scheduled backup for this backup set

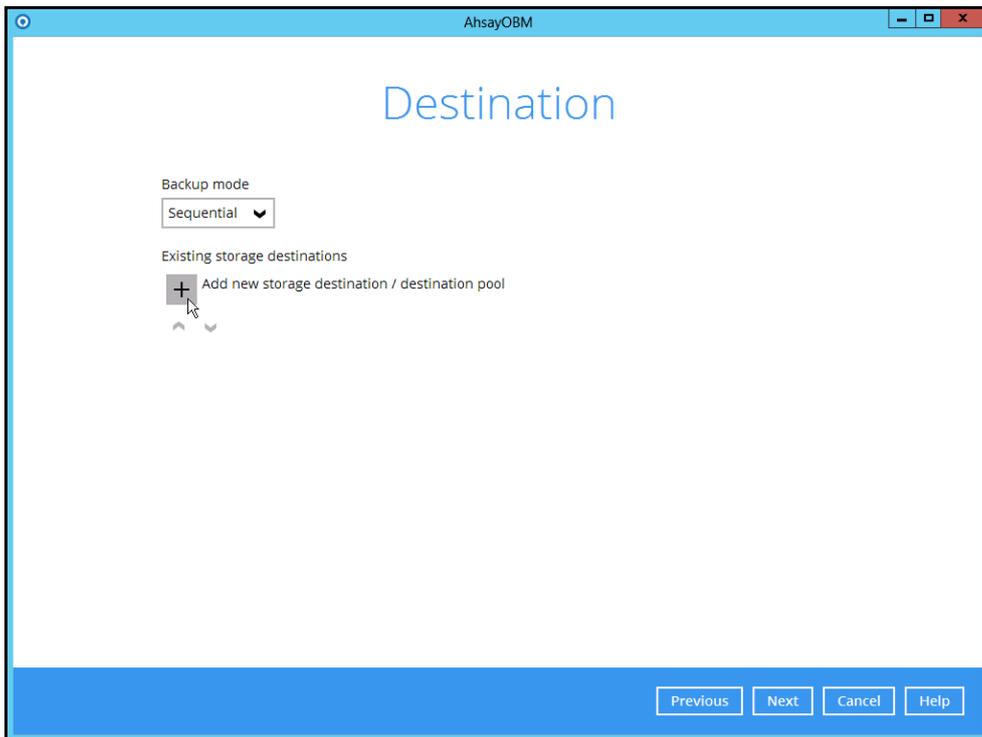
On

Existing schedules

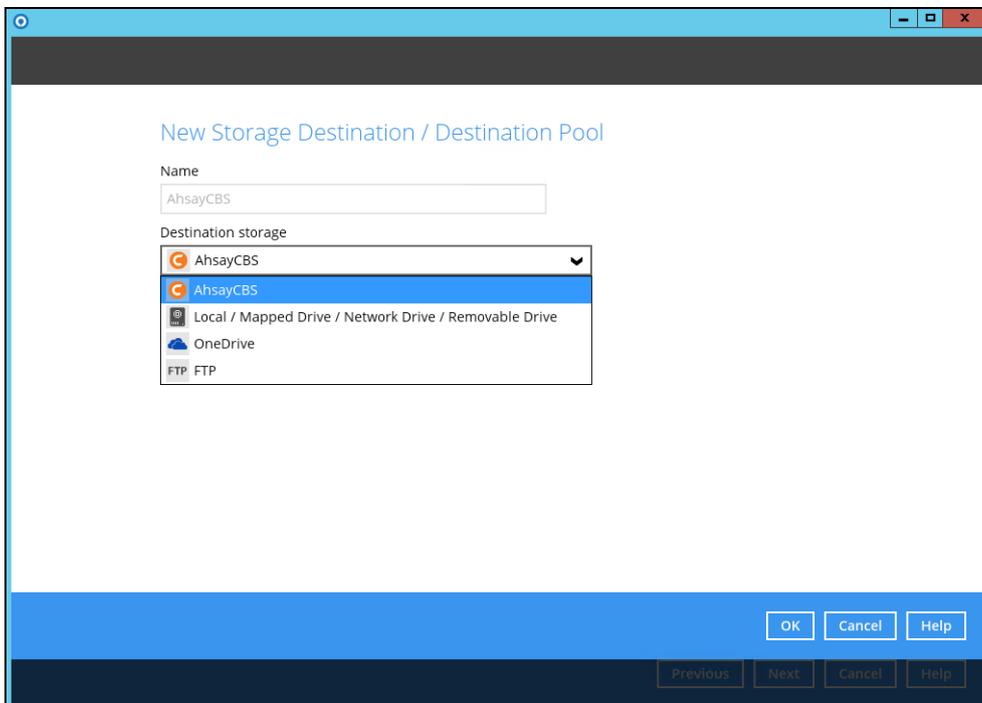
- **Daily-1**
 Daily (Everyday at 15:00)
- **Weekly-1**
 Weekly - Saturday (Every week at 23:00)
- **Monthly-1**
 Monthly - The Last Day (Every month at 23:00)
- **Custom-1**
 Custom (07/30/2020 at 23:59)

Click the **Next** to proceed

- In the **Destination** menu, select a backup destination where the backup data will be stored. Click the “+” icon next to **Add new storage destination / destination pool**.



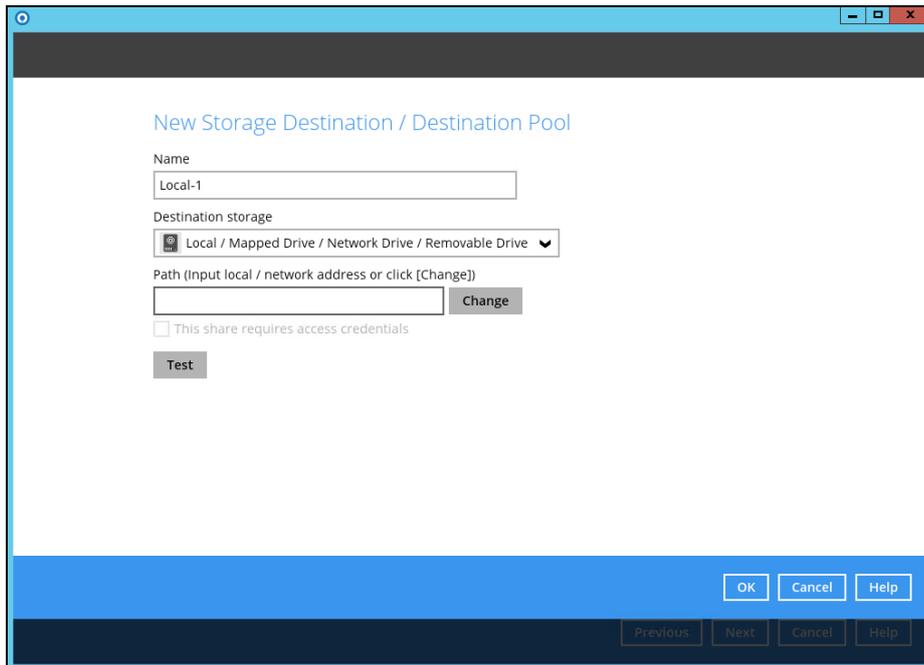
- Select the Destination storage.



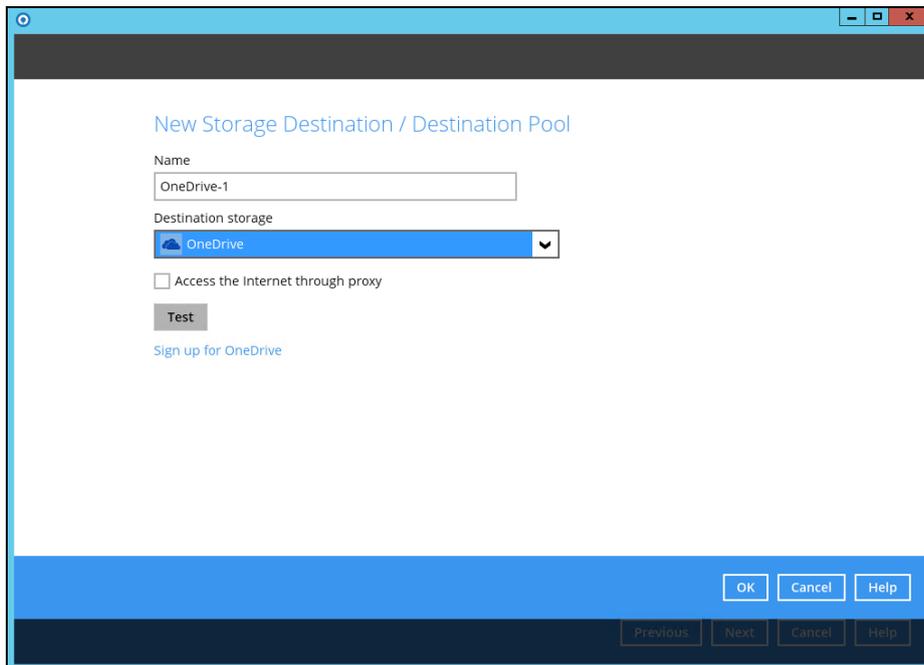
You can choose a storage combination of the Local/Mapped drive/Removable Drive, Cloud storage or FTP. Click **OK** to proceed when you are done with the settings.

- 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. Check “This share requires access credentials” if credentials are needed to access the directory

path. Click **Test** to validate the path, **Test completed successfully** shows when the validation is done.



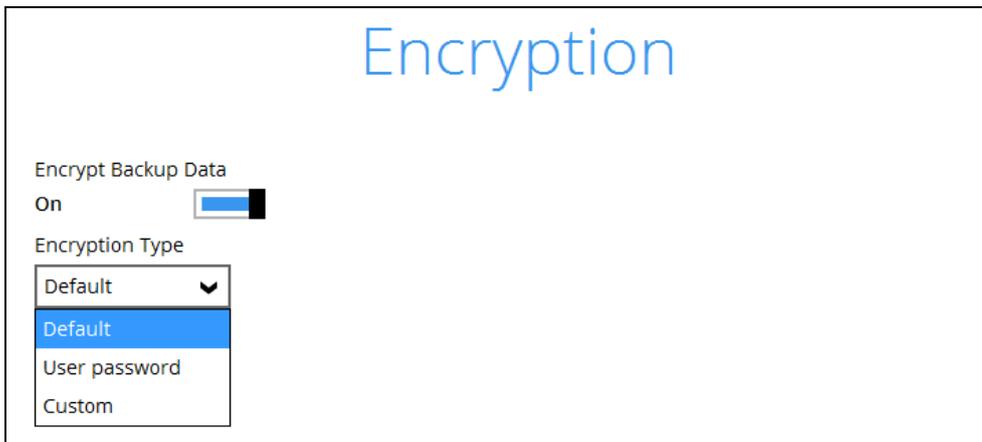
- If you have chosen to store the backup files in another Cloud Storage, click **Test** to log in to the corresponding cloud storage service.



- If you have chosen the FTP as the destination, enter the the Host, Username and Password details.

14. You can add multiple storage destinations here. 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 when you are done with the selection.

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

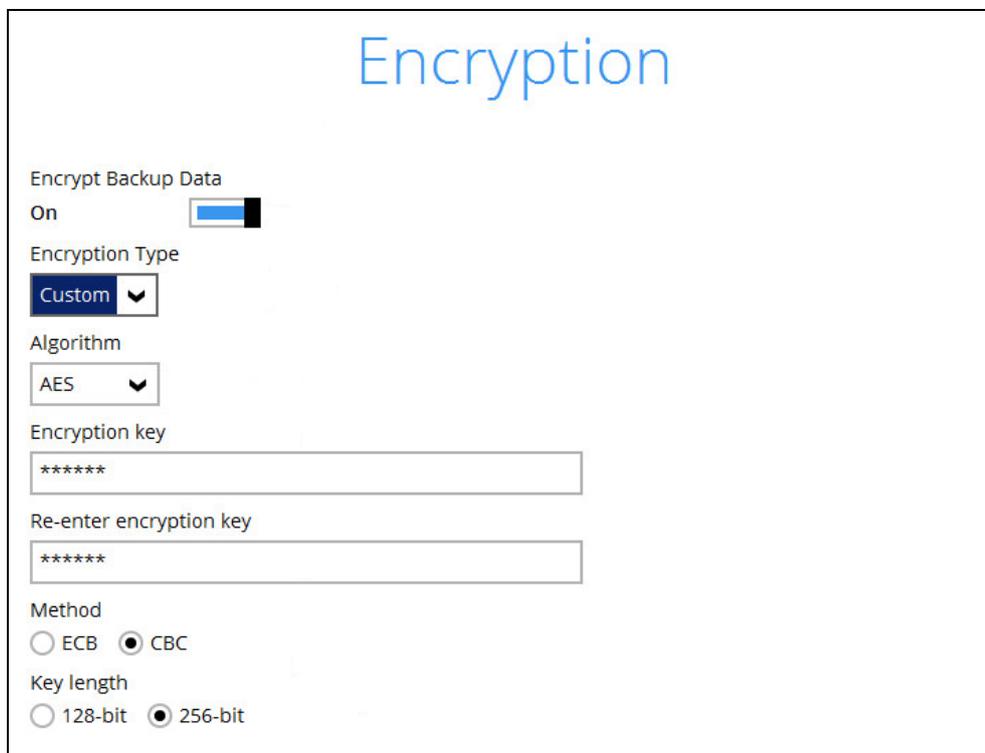


The screenshot shows the 'Encryption' window with the following settings:

- Encrypt Backup Data:** On (checkbox checked)
- Encryption Type:** Default (dropdown menu open, showing options: Default, User password, Custom)

You can choose from one of the following three (3) Encryption Type options:

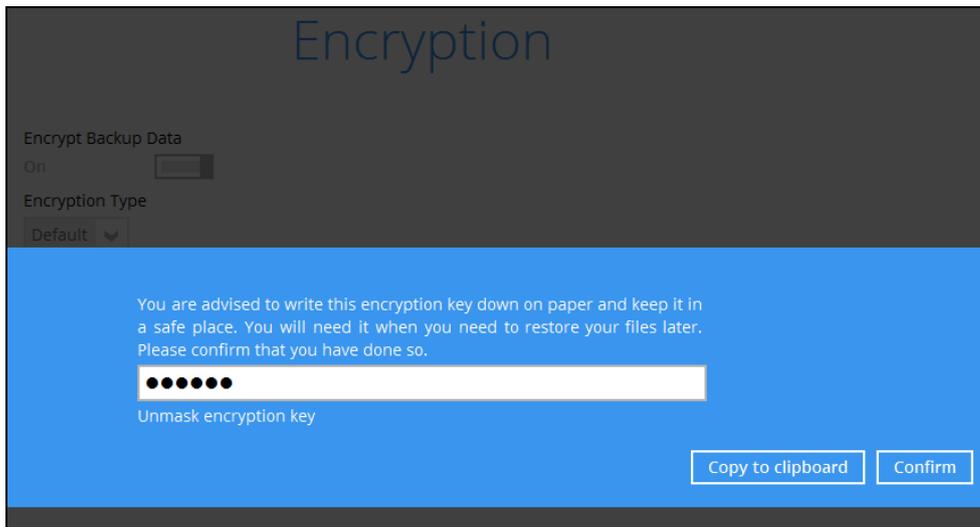
- **Default (Machine Generated Random)** – an encryption key with 44 alpha numeric characters will be randomly generated by the system.
- **User password** – the encryption key will be the same as the login password of your AhsayOBM at the time when this backup set is created. Please be reminded that 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.



The screenshot shows the 'Encryption' window with the following settings:

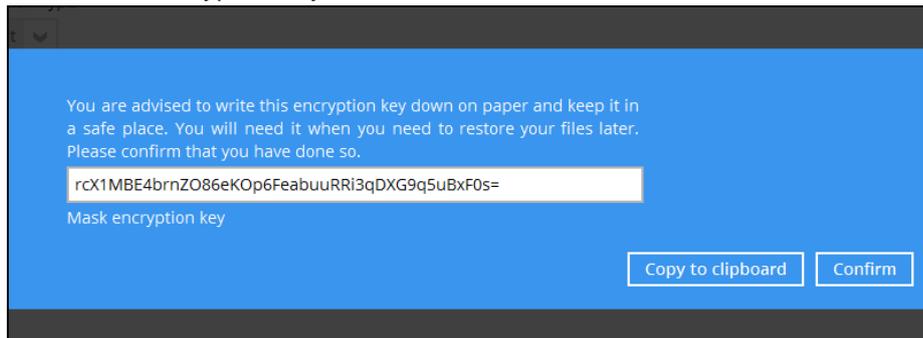
- Encrypt Backup Data:** On (checkbox checked)
- Encryption Type:** Custom (dropdown menu)
- Algorithm:** AES (dropdown menu)
- Encryption key:** [*****] (text input field)
- Re-enter encryption key:** [*****] (text input field)
- Method:** ECB CBC
- Key length:** 128-bit 256-bit

16. 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.

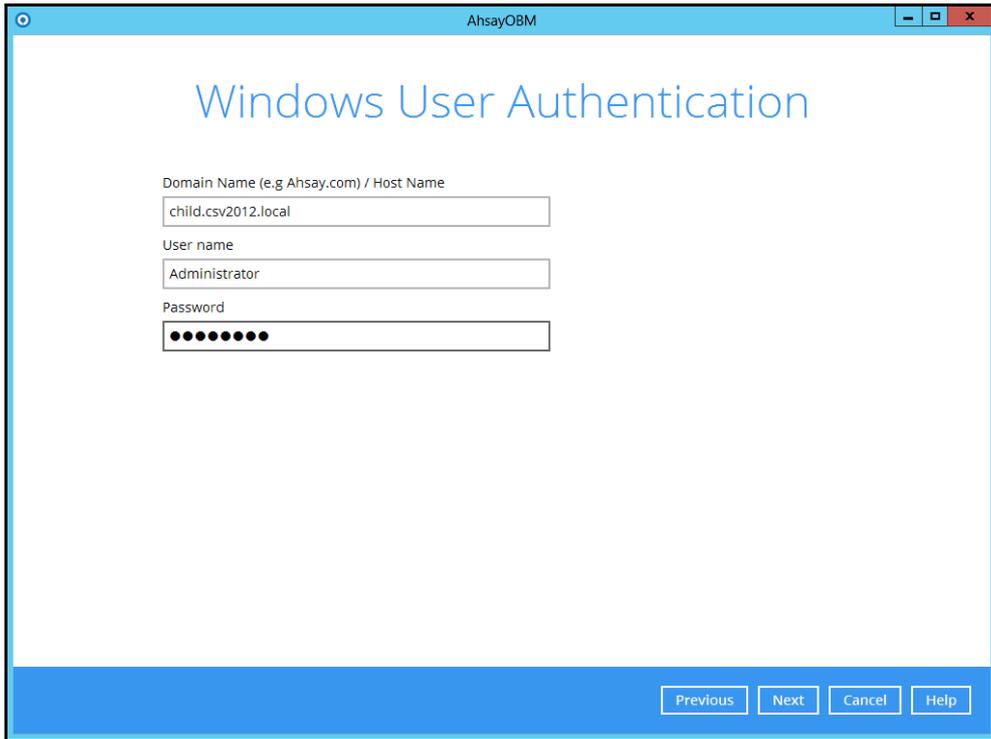


The pop-up window has the following three options to choose from:

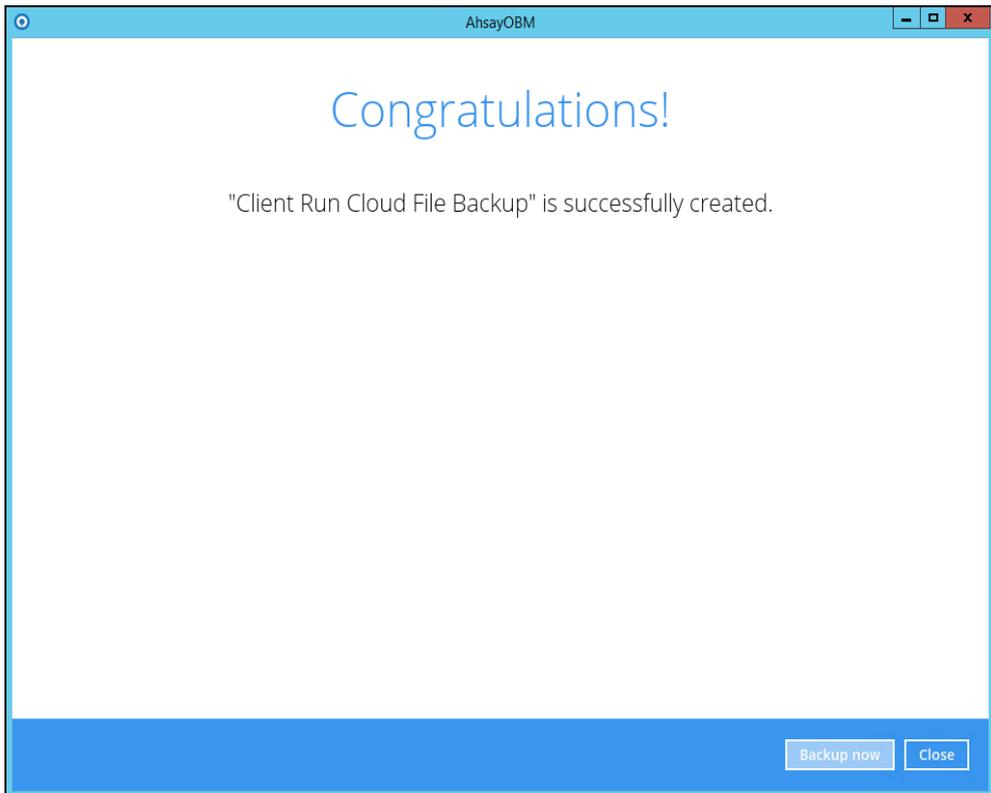
- **Unmask encryption key** – The encryption key is masked by default. Click this option to show the encryption key.



- **Copy to clipboard** – Click this to copy the encryption key, then you can paste it on another location of your choice for your reference (e.g. notepad).
 - **Confirm** – Click this to exit this pop-up window and proceed to the next step.
17. Enter the **Domain Name / Host Name**, **User name** and **Password** of the Windows account that will be running the backup.

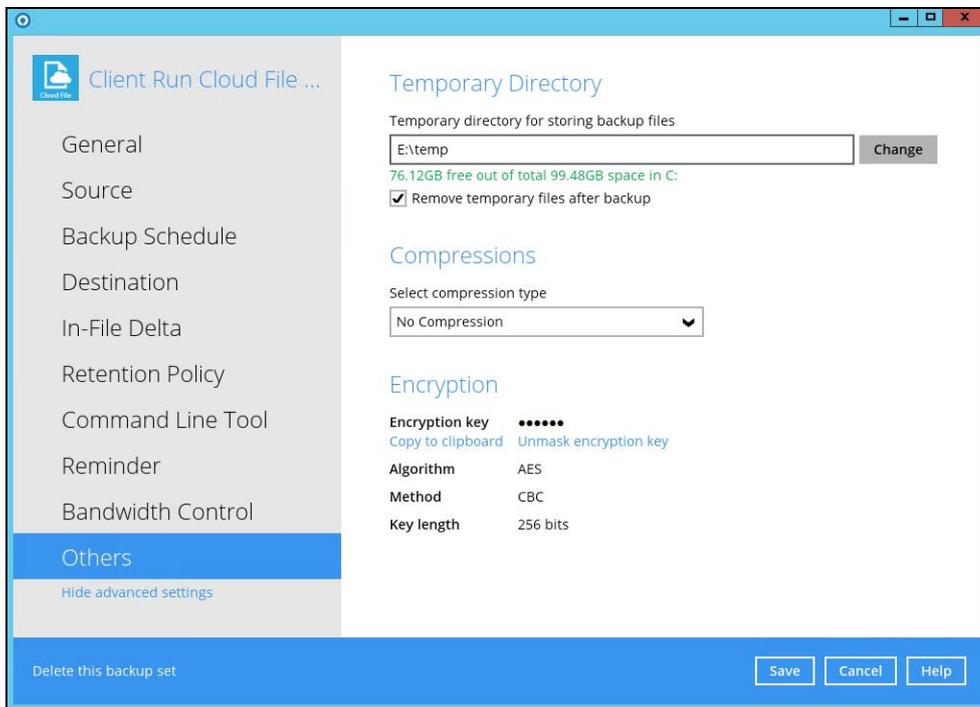


18. The cloud file backup set is created successfully.



19. Based on [Best Practices and Recommendations](#), it is highly recommended to change the **Temporary Directory**. Select another location with sufficient free disk space other than Drive C.

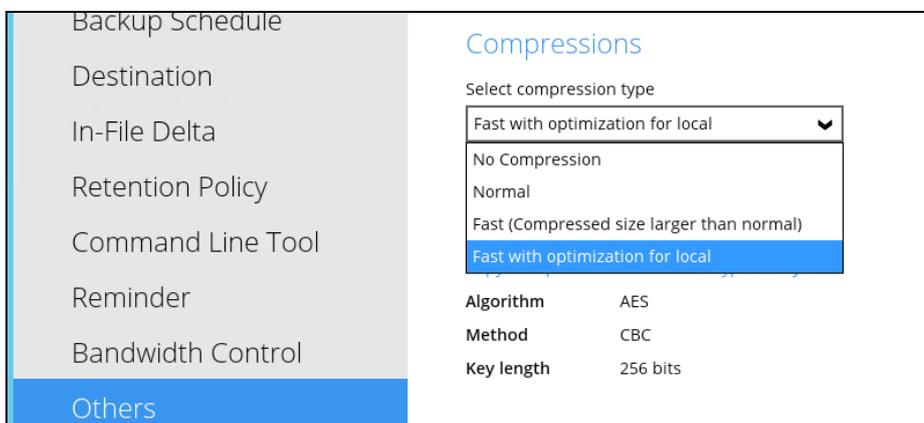
Go to **Others > Temporary Directory**. Click **Change** to browse for another location.



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

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

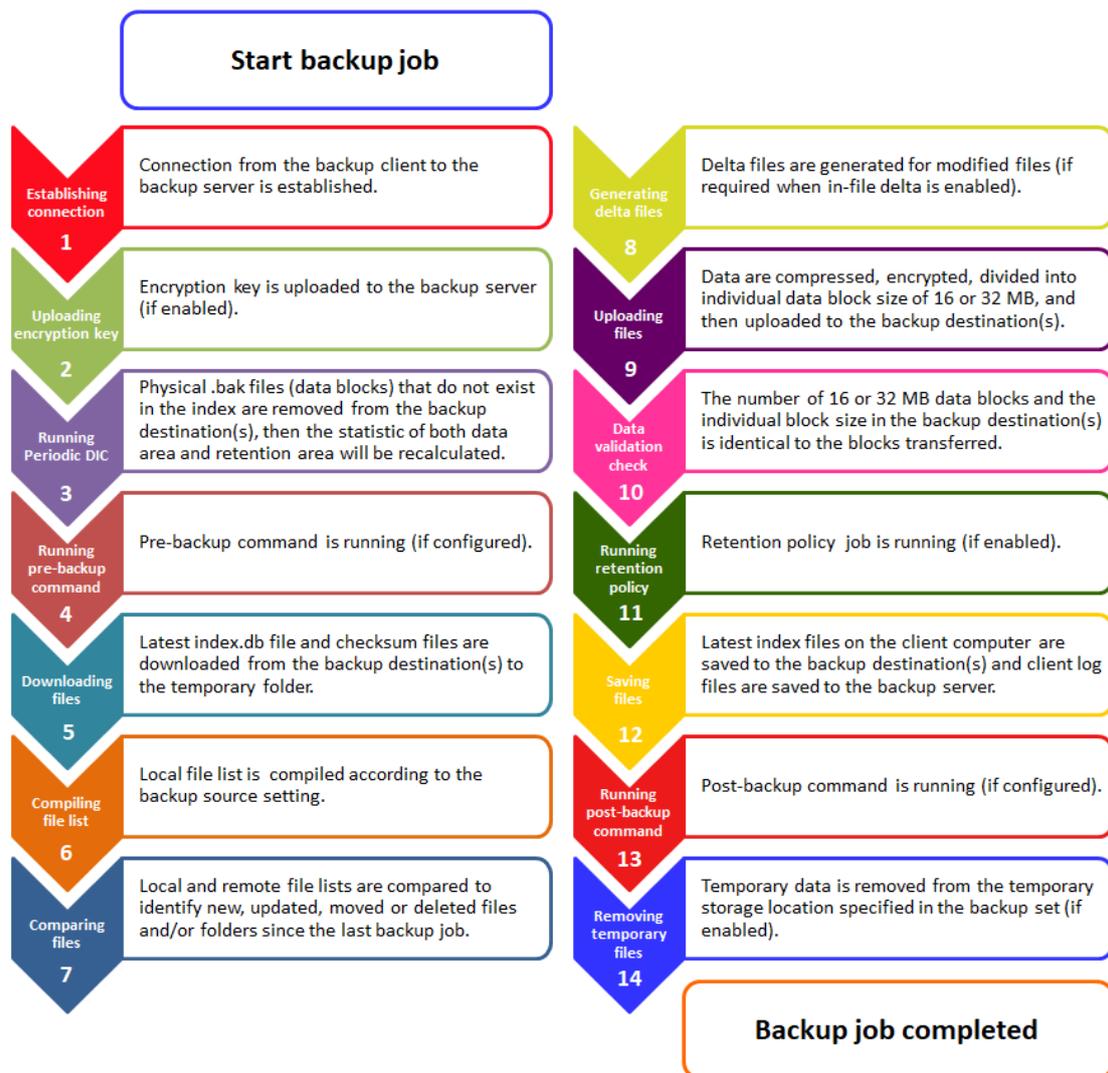
- No Compression
- Normal
- Fast (Compressed size larger than normal)
- Fast with optimization for local



5 Overview of Run on Client Cloud File Backup Process

The following steps are performed during a backup job. For an overview of the detailed process for Steps 3, 5, 10, and 12, refer to the following chapters:

- [Periodic Data Integrity Check \(PDIC\) Process \(Step 3\)](#)
- [Backup Set Index Handling Process](#)
 - [Start Backup Job \(Step 5\)](#)
 - [Completed Backup Job \(Step 12\)](#)
- [Data Validation Check \(Step 10\)](#)



5.1 Periodic Data Integrity Check (PDIC) Process

For AhsayOBM v8.3.6.0 (or above), the PDIC will run on the first backup job that falls on the corresponding day of the week from **Monday to Friday**.

To minimize the impact of the potential load of large number of PDIC jobs running at the same time on the AhsayCBS server, the schedule of a PDIC job for each backup set is automatically determined by the result of the following formula:

PDIC schedule = %BackupSetID% modulo 5

or

%BackupSetID% mod 5

The calculated **result** will map to the corresponding day of the week (i.e., from Monday to Friday).

0	Monday
1	Tuesday
2	Wednesday
3	Thursday
4	Friday

NOTE: The PDIC schedule cannot be changed.

Example:

Backup set ID: 1594627447932

Calculation: $1594627447932 \text{ mod } 5 = 2$

2	Wednesday
----------	------------------

In this example:

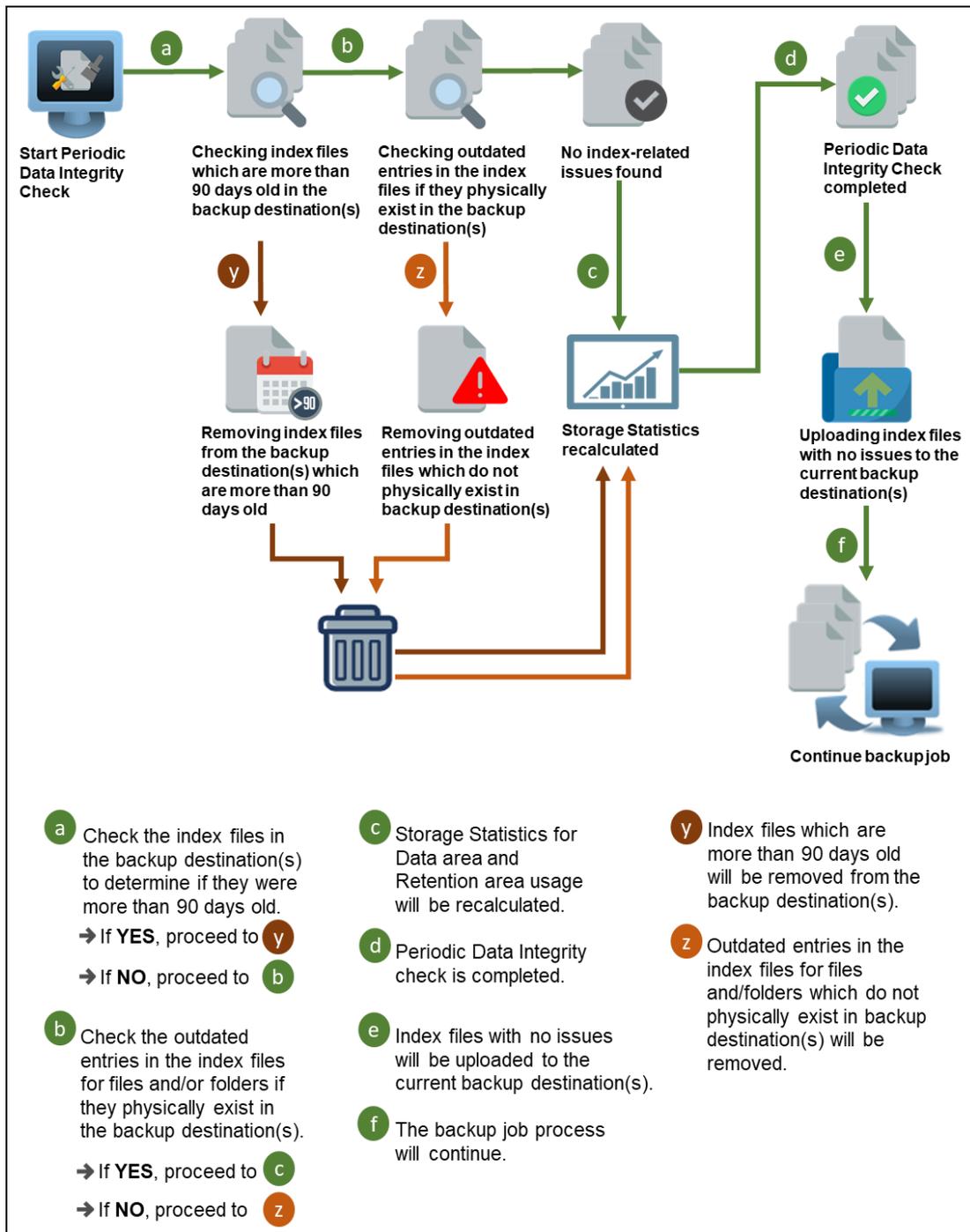
- the PDIC will run on the first backup job that falls on Wednesday; or
- if there is no active backup job(s) running from Monday to Friday, then the PDIC will run on the next available backup job.

NOTE

Although according to the PDIC formula for determining the schedule is ***%BackupSetID% mod 5***, this schedule only applies if the previous PDIC job was actually run more than 7 days prior.

Under certain conditions, the PDIC may not run strictly according to this formula. For example:

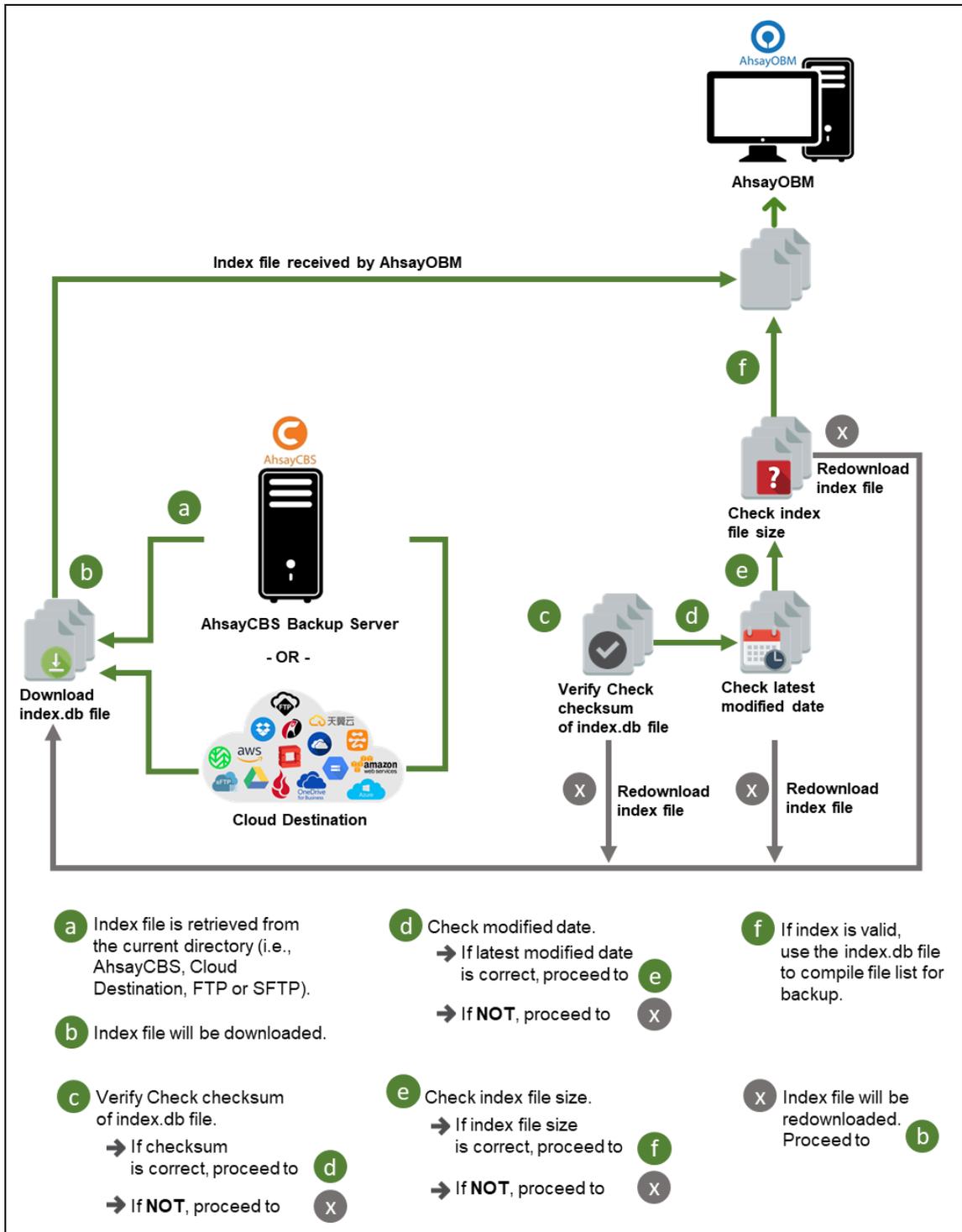
1. If AhsayOBM was upgraded to v8.5 (or above) from an older version v6, v7, or pre-8.3.6.0 version. In this case, the PDIC job will run on the first backup job after upgrade.
2. If backup jobs for a backup set are not run on a regular daily backup schedule (for example: on a weekly or monthly schedule), then the PDIC job will run if it detects that the previous PDIC job was run more than 7 days ago.
3. Every time a data integrity check (DIC) is run, the latest PDIC run date is reset, the next PDIC job will run after 7 days.
4. The PDIC job will not run if there are no files in both the data and retention areas. For example: a newly created backup set with no backup job history or a backup set where all the data has been deleted using the Delete Backup Data feature.
5. The PDIC job will not run on a backup set that contains any data which still in v6 format. It will only run if all v6 data format on a backup set has undergone data migration to v8 block format.



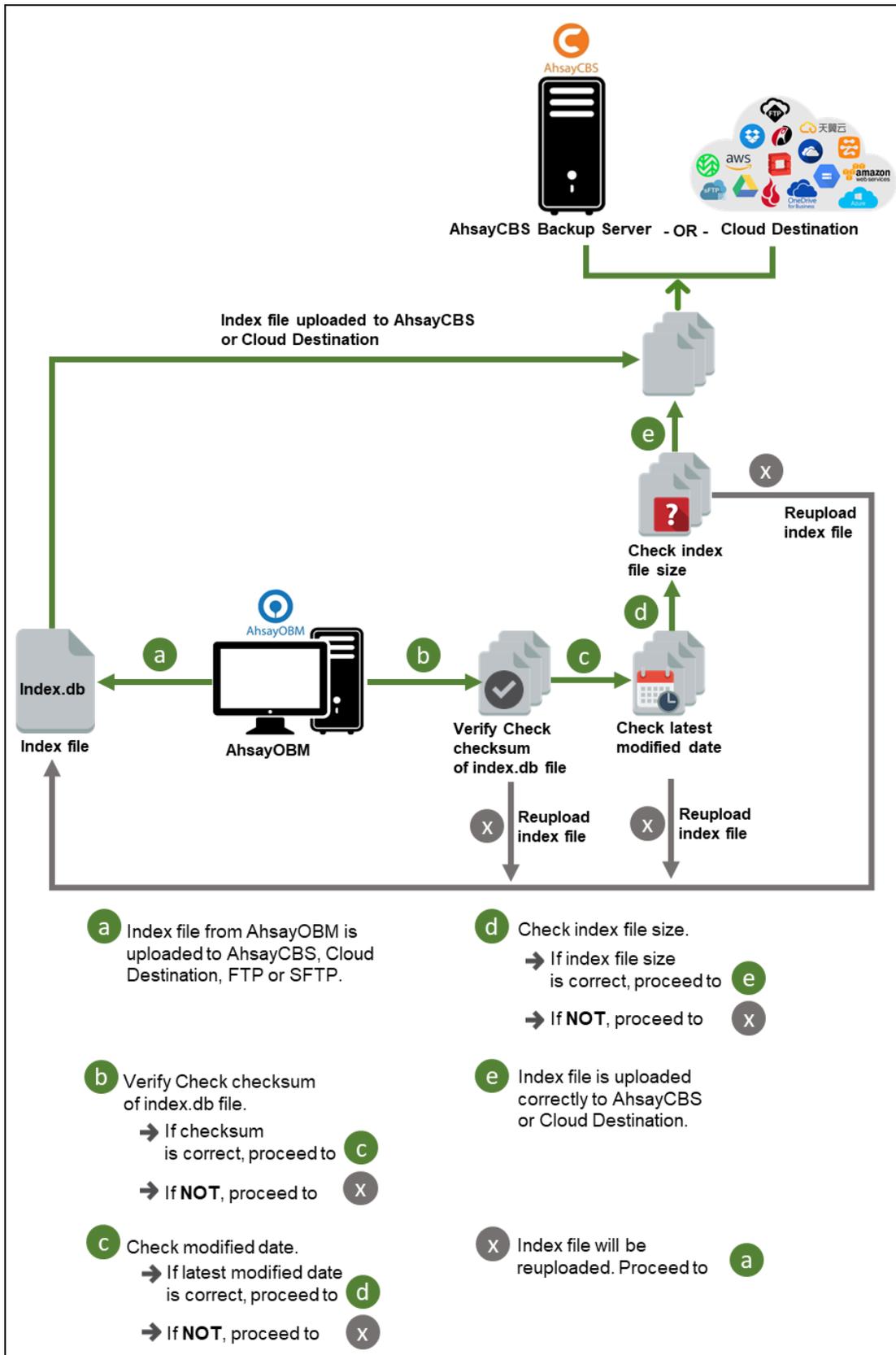
5.2 Backup Set Index Handling Process

To minimize the possibility of index related issues affecting backups, each time index files are downloaded from and uploaded to backup destination(s); the file size, last modified date, and checksum is verified to ensure index file integrity.

5.2.1 Start Backup Job

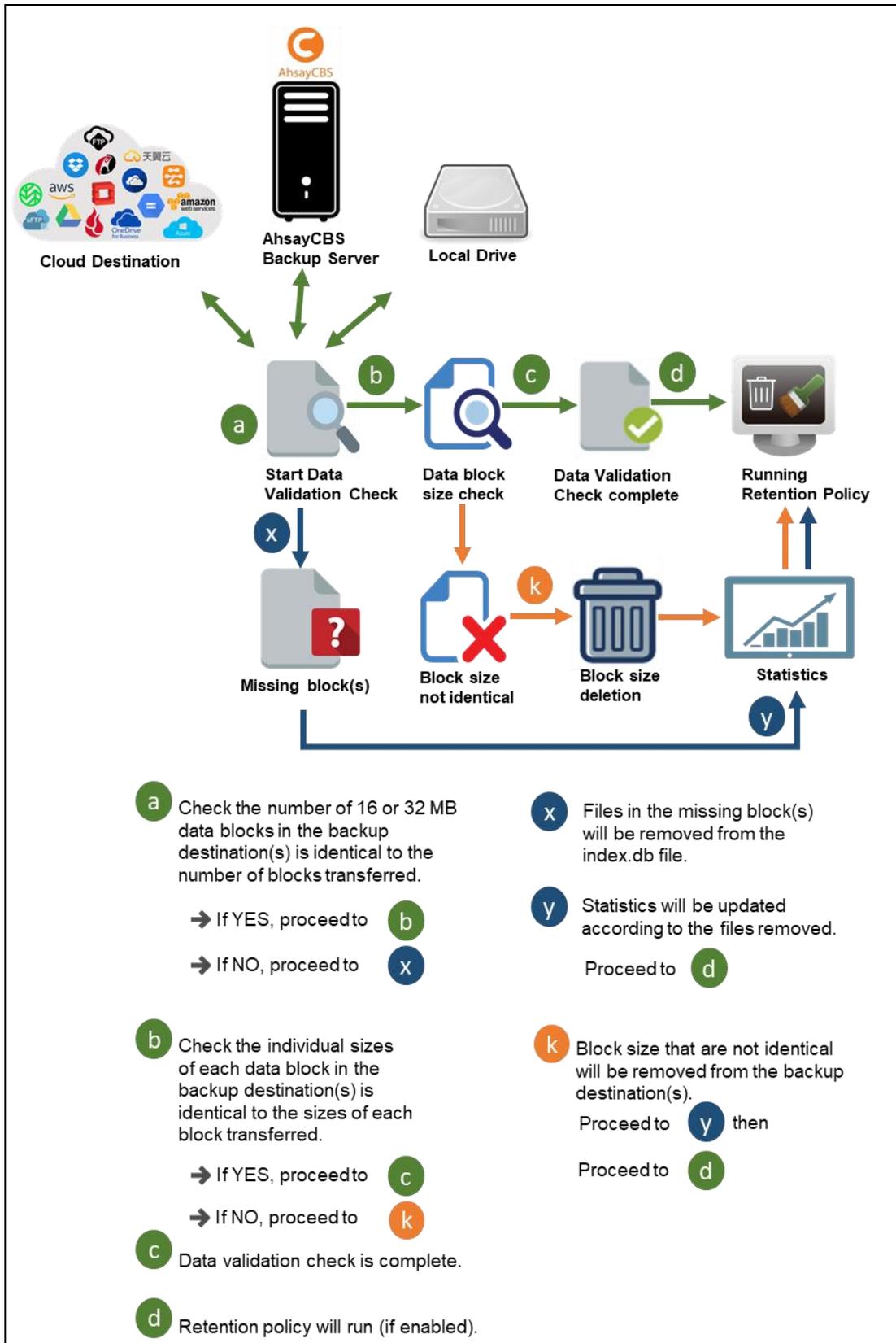


5.2.2 Completed Backup Job



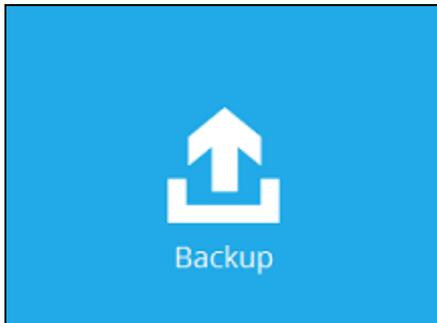
5.3 Data Validation Check Process

As an additional measure to ensure that all files transferred to the backup destination(s) are received and saved correctly, both the number of 16 or 32 MB data block files and the size of each block file are checked again after the files are transferred.

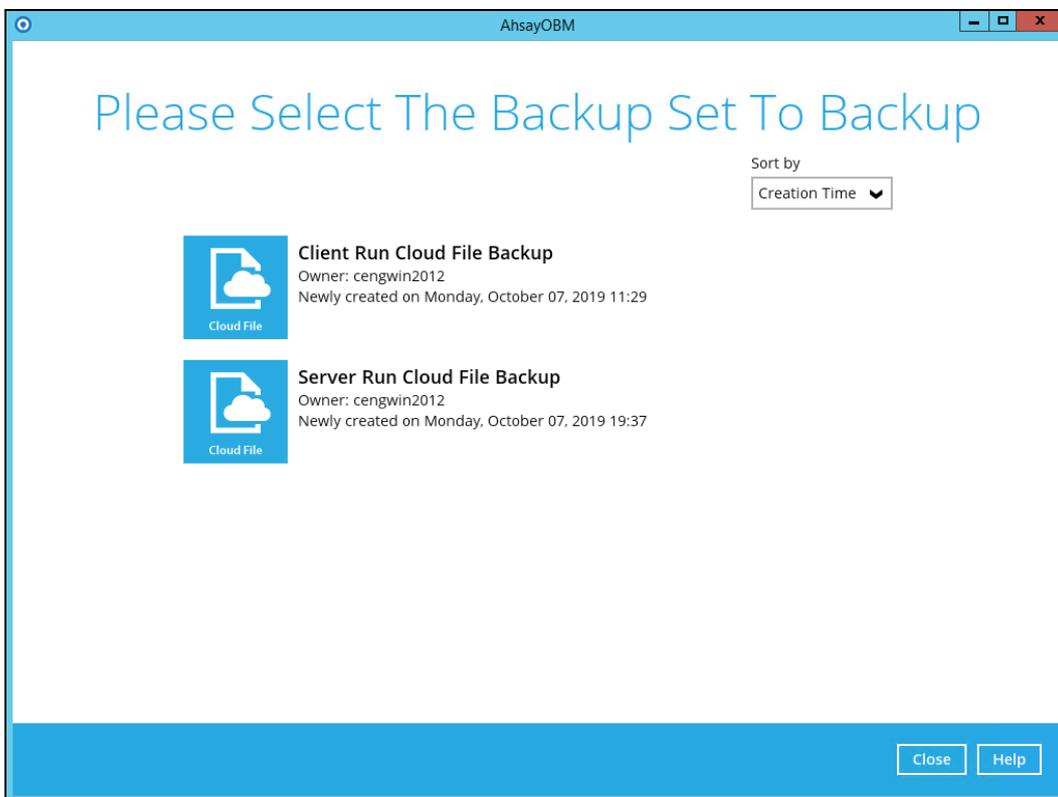


6 Running a Backup Job

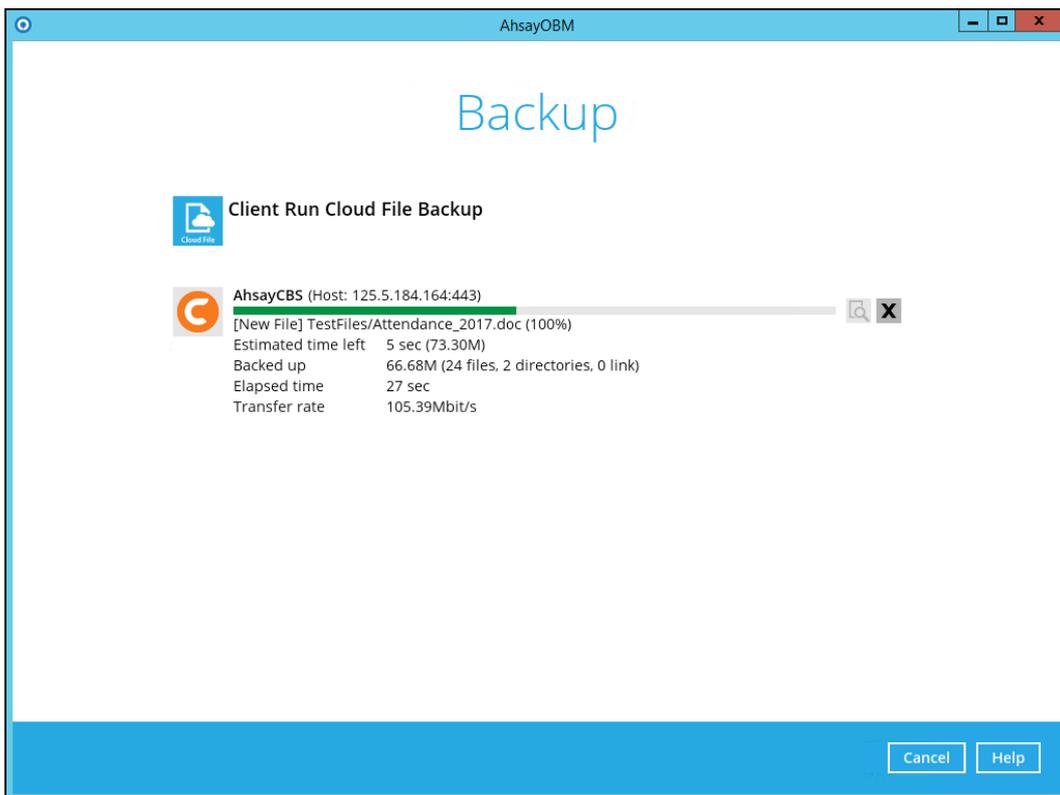
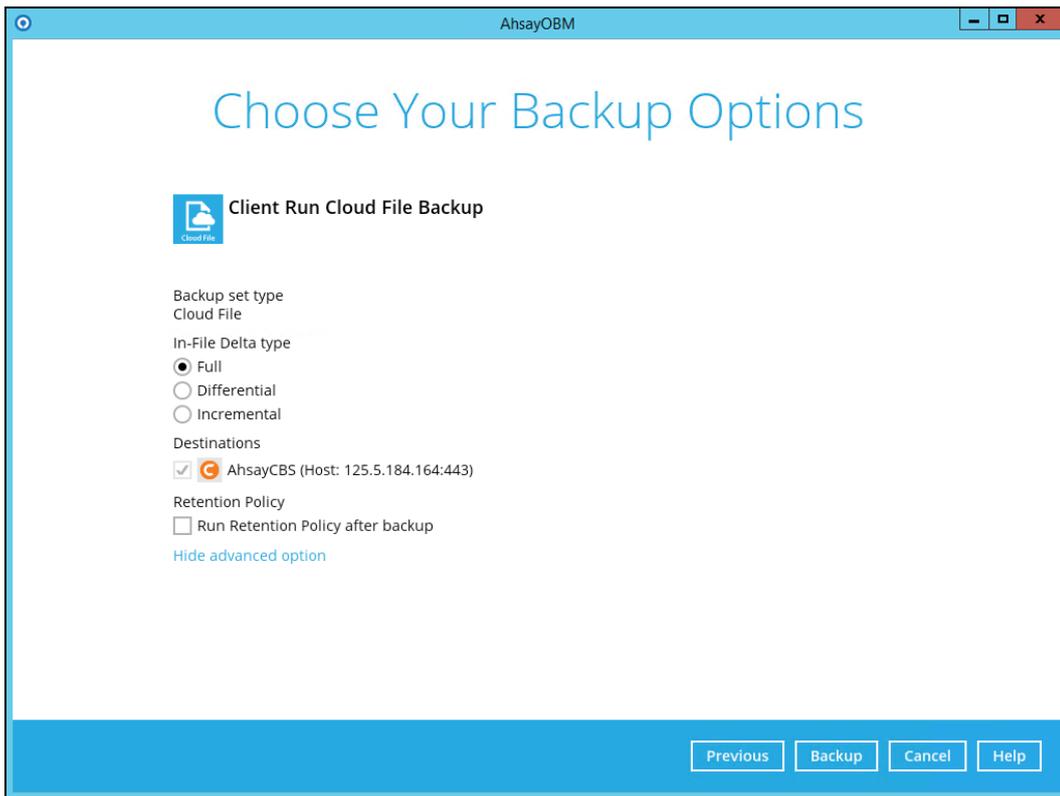
1. Click the **Backup** icon on the main interface of AhsayOBM.



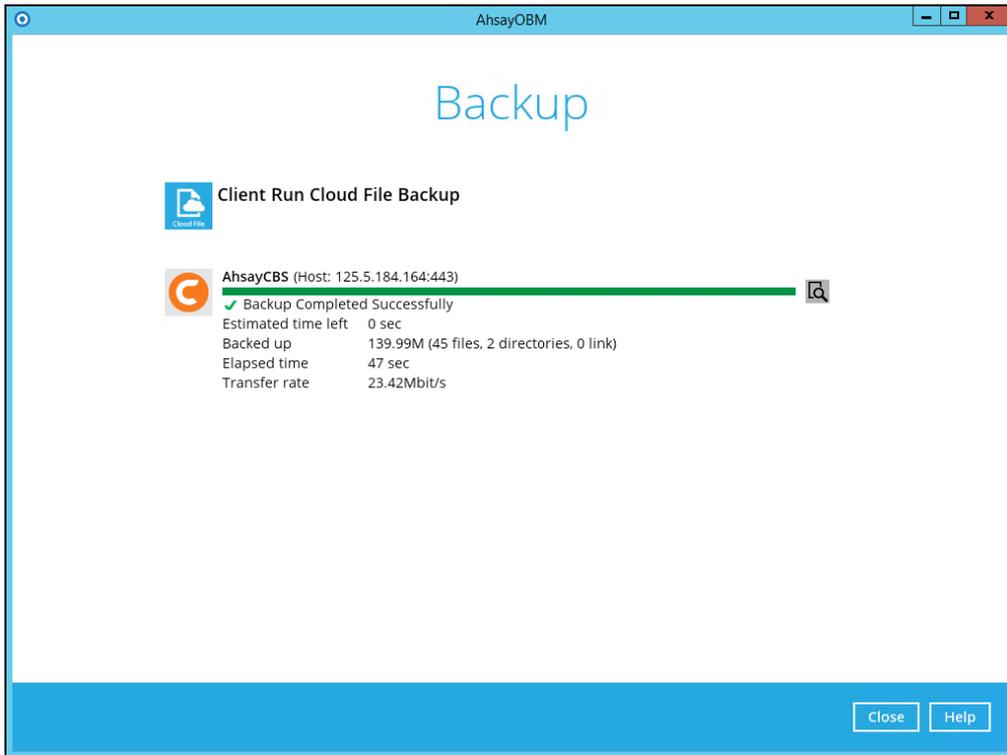
2. Select the backup set which you would like to start a backup on.



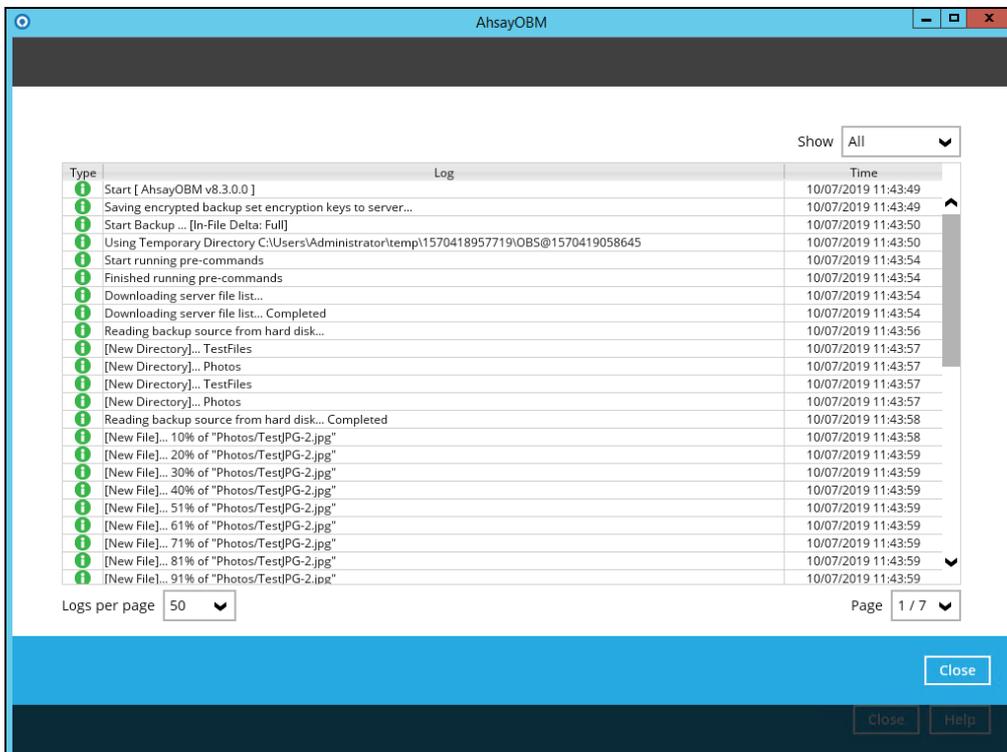
3. If you would like to modify the In-File Delta type, Destinations and Retention Policy Settings, click **Show advanced option**. After configuring other settings, click **Backup** to start the backup job and wait until it is finished.



- The backup job through AhsayOBM completed successfully.



- To view the backup logs, click icon the  button. This will display the backup job process with corresponding date and time.



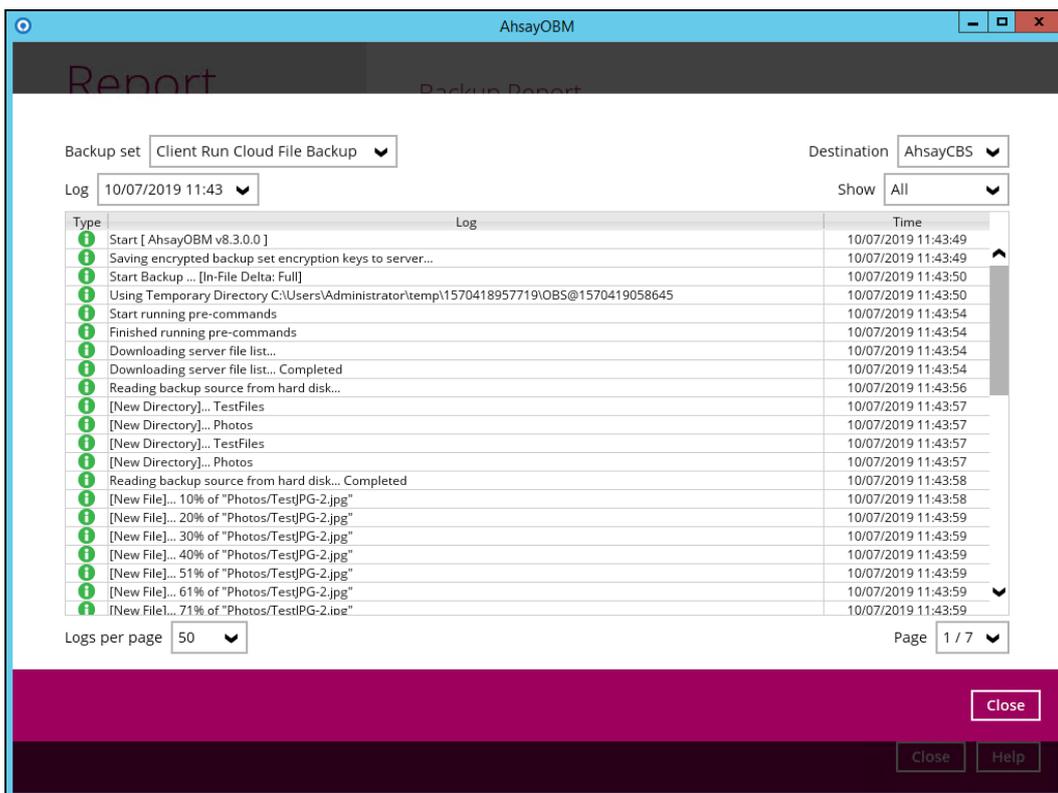
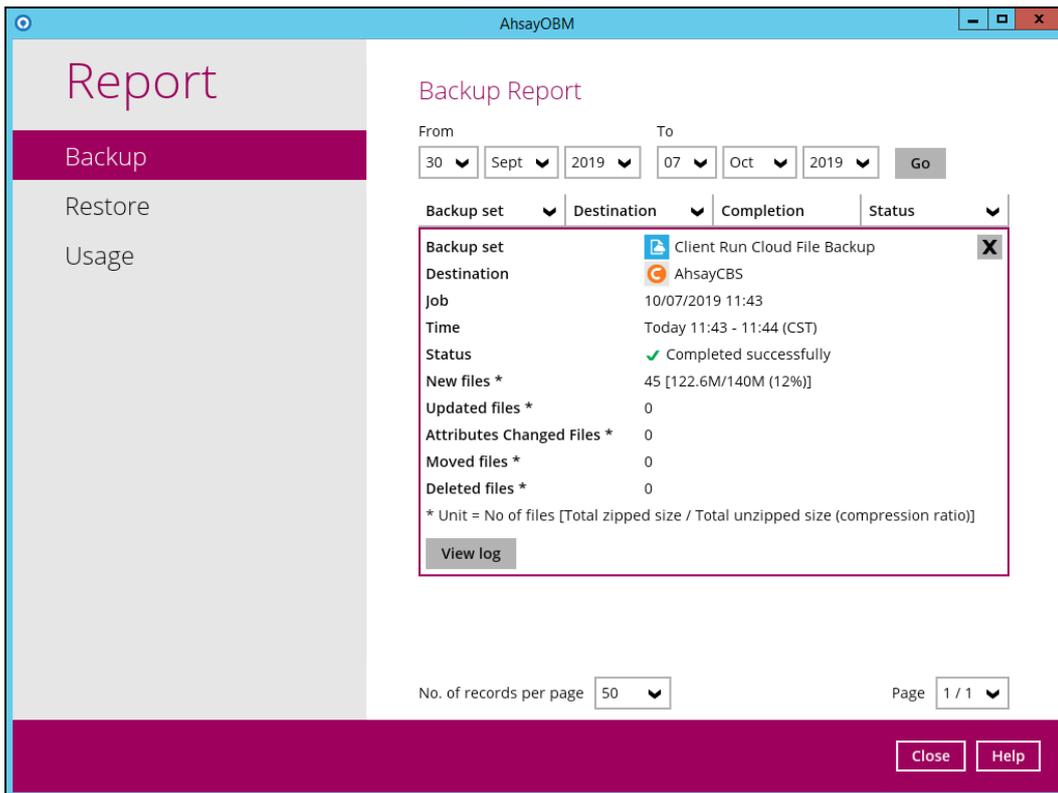
In order to view the backup report, go back to the main interface and click the following icon.



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

Backup set	Destination	Completion	Status
Client Run Clo...	AhsayCBS	Today 11:44	Completed

Click the backup report to display the summary of the backup job. You can also click the **View Log** button that will redirect you to the log summary of your backup.



You can also search for backup reports from a specific period of date using the **From** and **To** date filter. Set this and available backup report will be displayed.



7 Restoring a Cloud File Backup Set

AhsayOBM provided three (3) options in restoring a backup such as through the **Local machine**, **Original location**, and **Alternate location**. 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.

- **Local machine**

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

- **Original location**

Aside from the location machine, you can also restore your data to your original location, on the cloud storage, where you backed up them.

- **Alternate location**

Besides the two (2) options above, you can also restore your data to an alternate location which is through the same cloud storage but on a different folder.

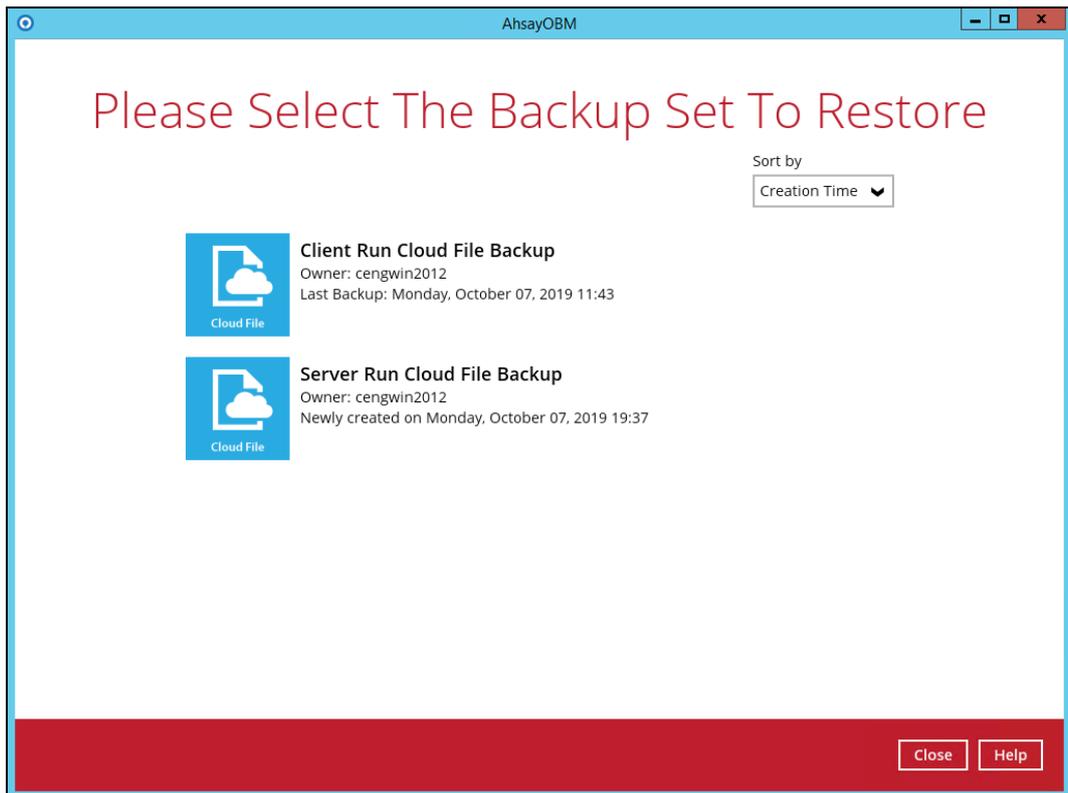
NOTE

Log in to the AhsayOBM application according to the instruction provided in the chapter on [Log in to AhsayOBM](#).

1. On the main interface, click the following icon.



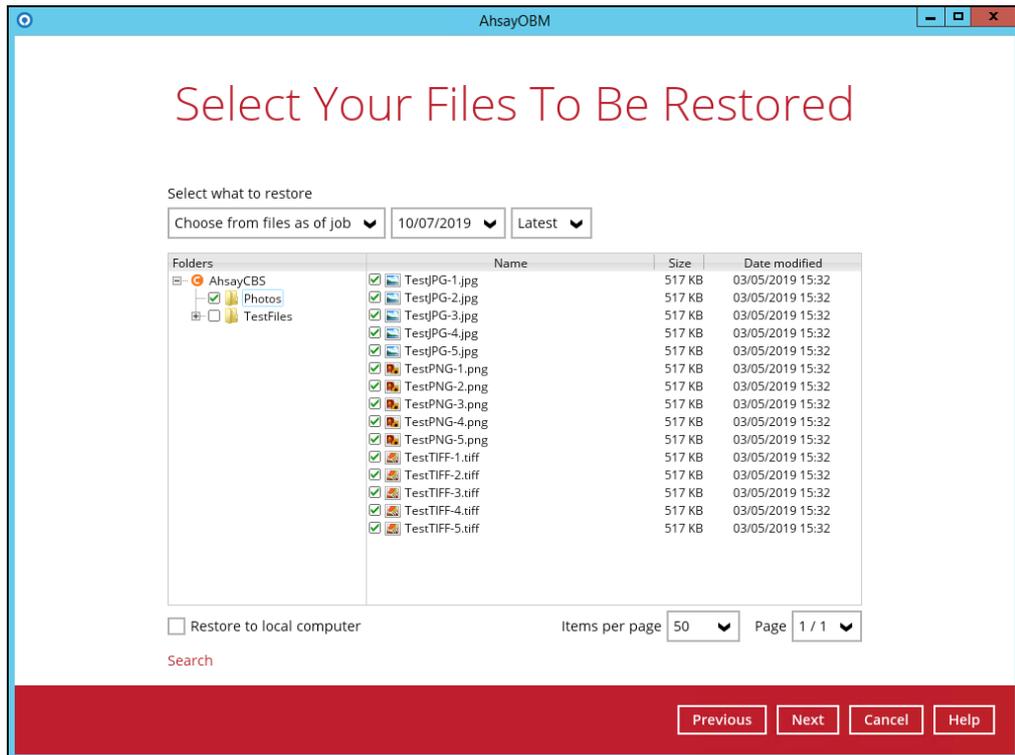
2. Select the backup set that you would like to restore.



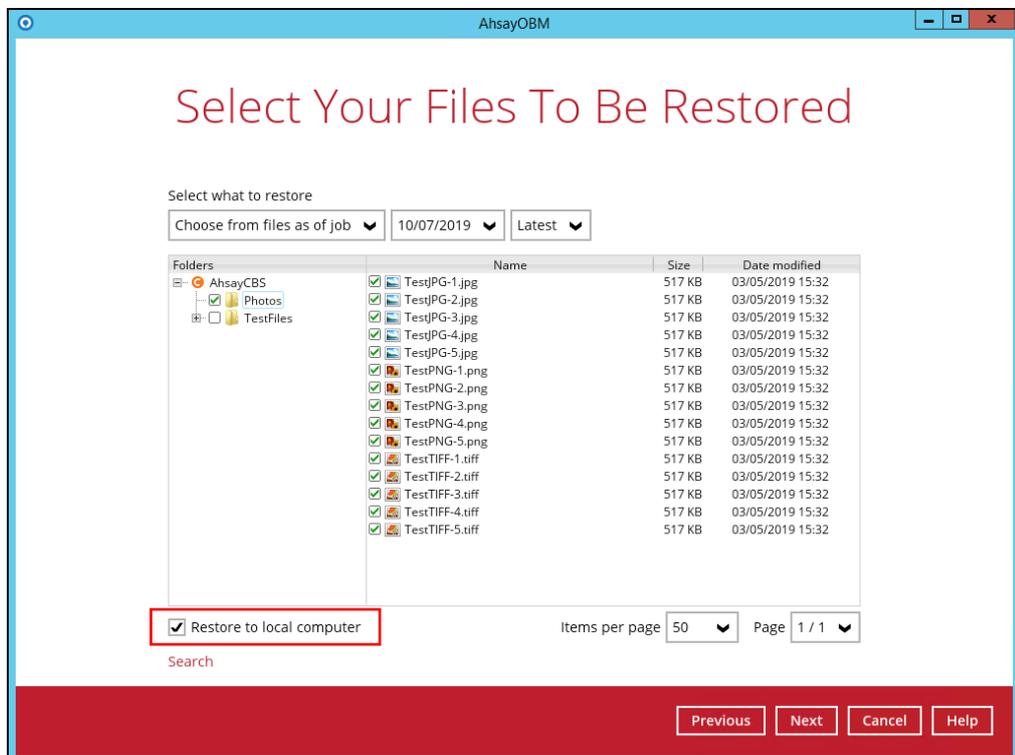
3. Select the backup destination that contains the data that you would like to restore.



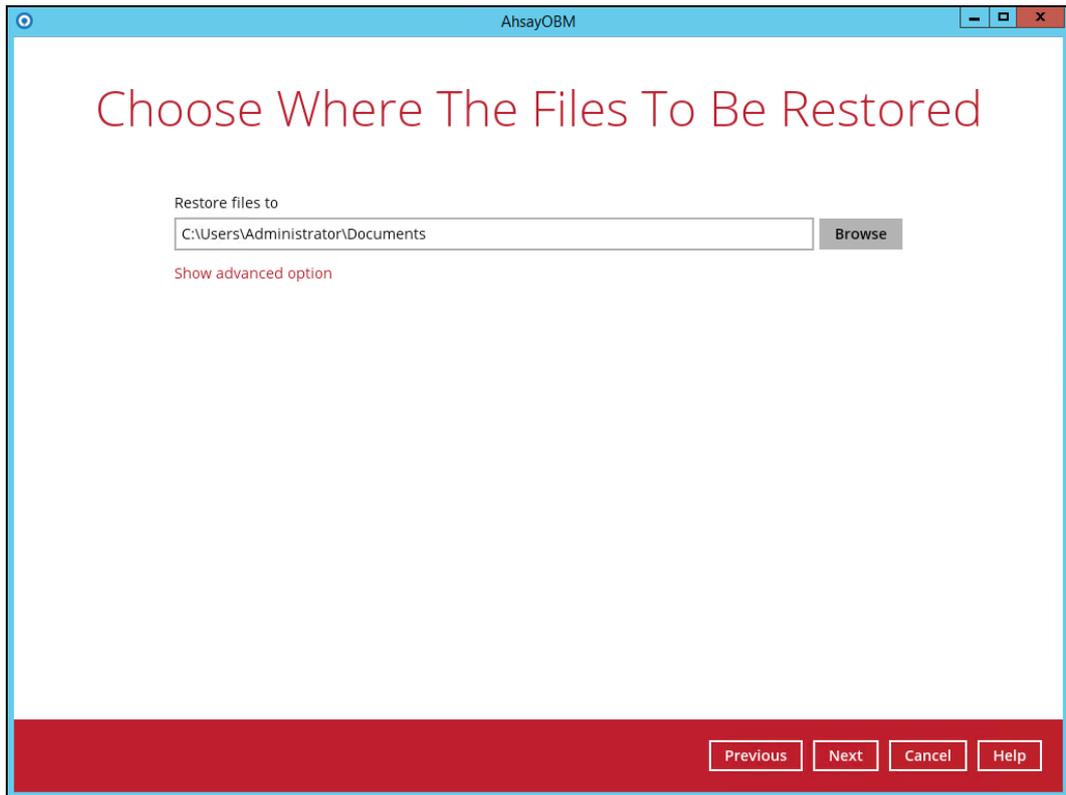
4. Select to restore from a specific backup job, or the latest job available from the **Select what to restore** drop-down menu.



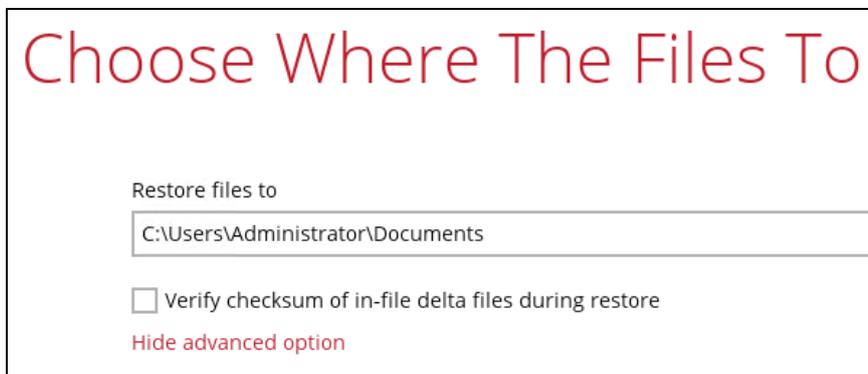
5. Select **Restore to local computer** if you want to restore the backup data to the local drive. Once done selecting the files and/or folders to restore, click **Next** to proceed.



6. If you want to restore on your local computer, browse the corresponding directory path on the local drive where you want the backup data to be restored.



7. Click **Show advanced option** to configure other restore settings.

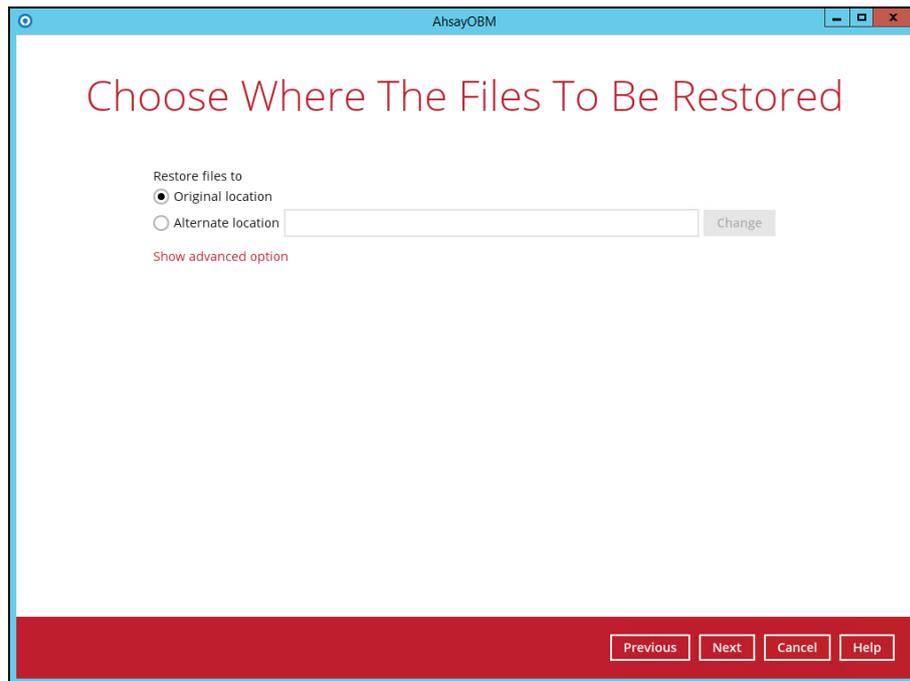


- **Verify checksum of in-file delta files during restore**

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 will create a data summary of the in-file delta files which will be included in the report.

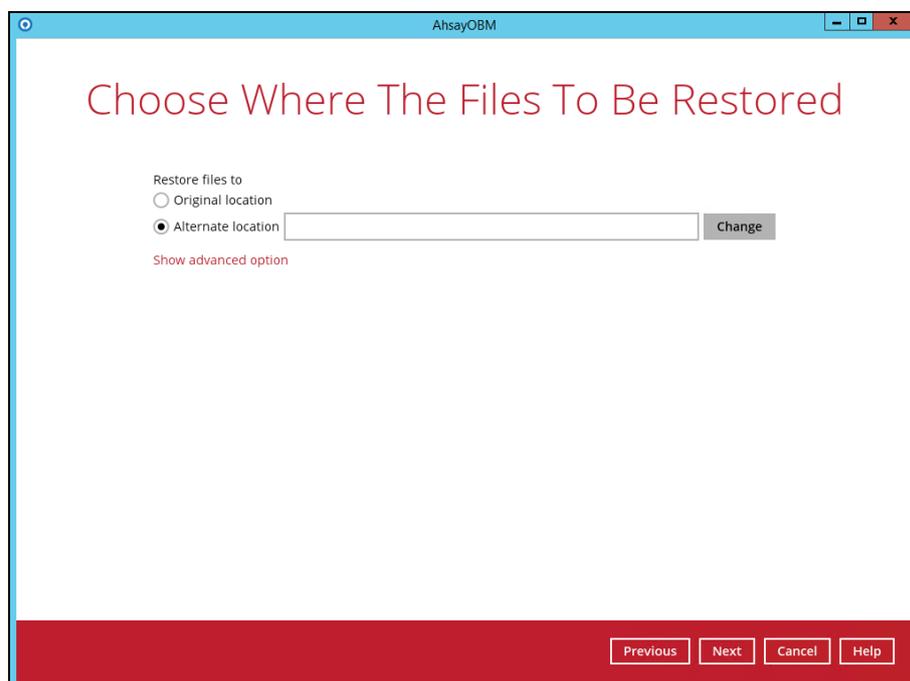
- **Original location**

If you have chosen this option, the backup data will be restored to the computer running the AhsayOBM under the same directory path.



- **Alternate location**

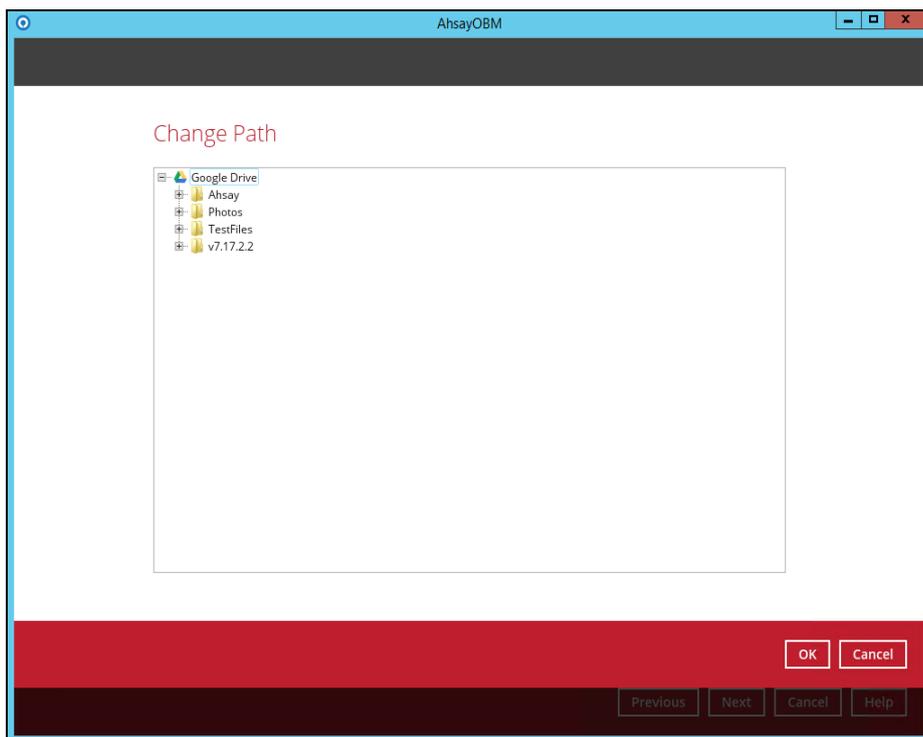
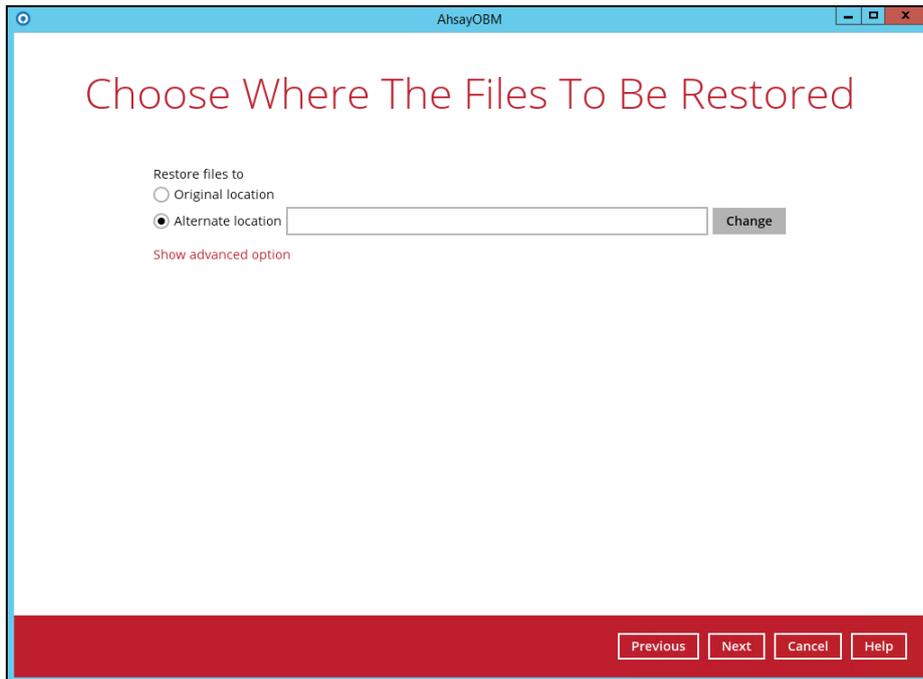
If you have chosen this option, backup data will be restored to another location of your choice. Click **Change** to browse the alternate path on the cloud storage.

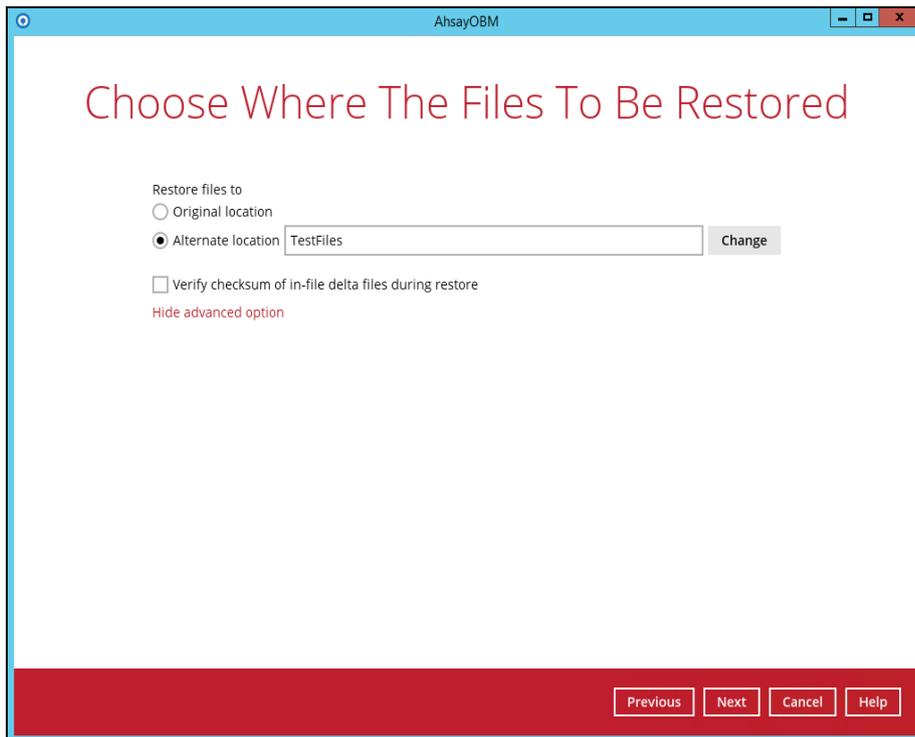


NOTE

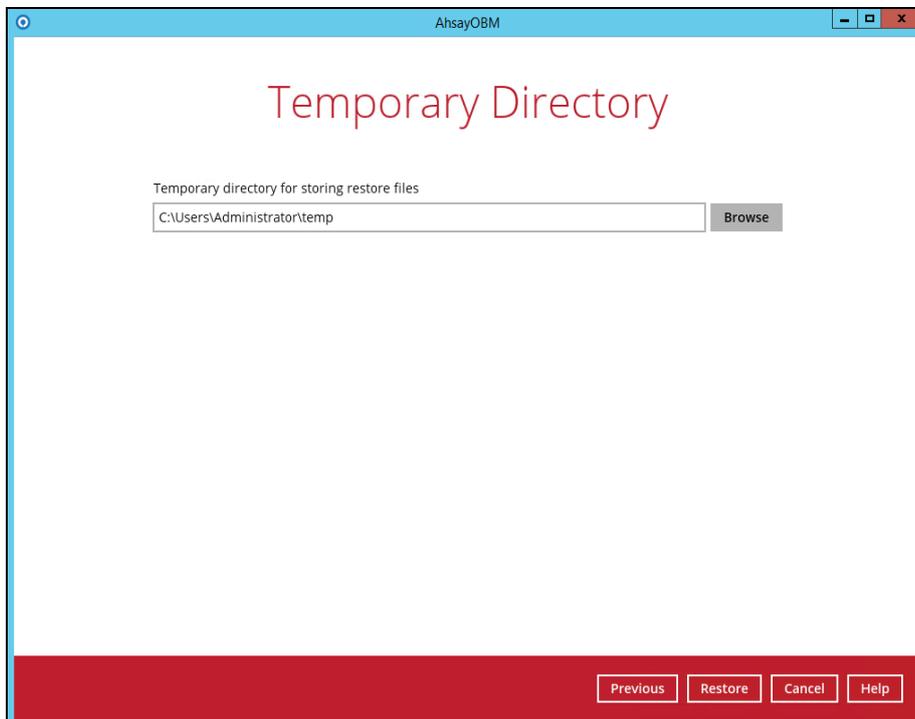
Data can only be restored to the local computer, or to the original cloud storage where the data was backed up from (i.e. same cloud storage provider and same account). Restoring backup data to a different cloud storage provider or different account is **NOT** possible.

8. In this example, we have chosen an alternate location on the cloud storage. Click **Next** to proceed.

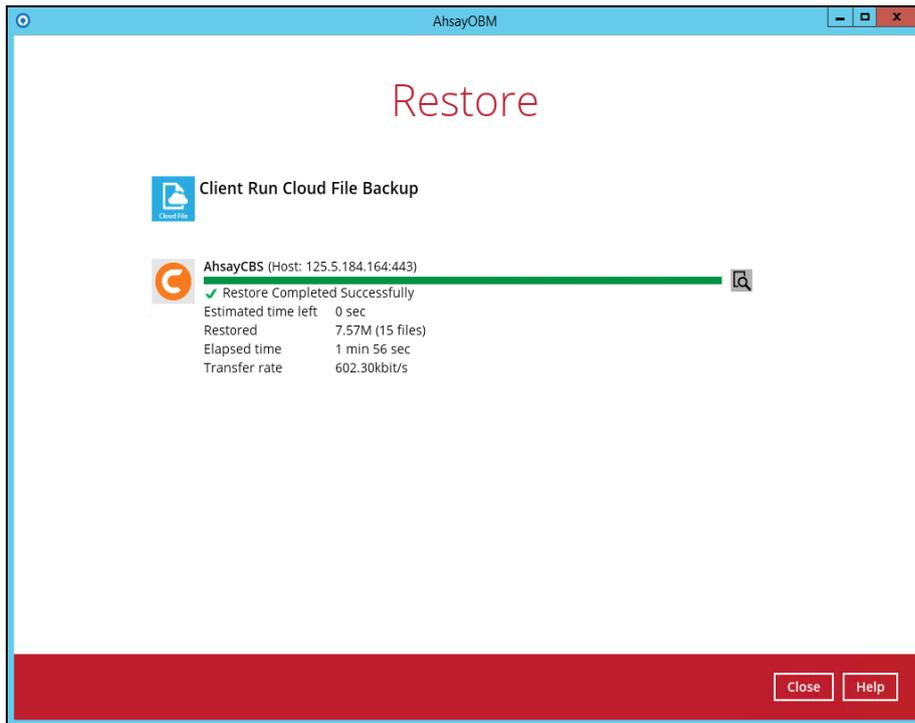




9. Select the temporary directory for storing temporary files. Then click the **Restore** button to start the restoration process.



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



Restore Filter with AhsayOBM

This search feature allows you to search directories, files, and folders. To make it more flexible, the search feature offers filtering. You can add additional pattern upon searching. Pattern includes the following criteria:

- **Contains**

These are Directories, Files, and Folders with the name **containing** the specific letter or word.

- **Exact**

These are Directories, Files, and Folders with the **exact** or **accurate** name.

- **Start With**

These are Directories, Files, and Folders with the name **starting** with a specific letter or word.

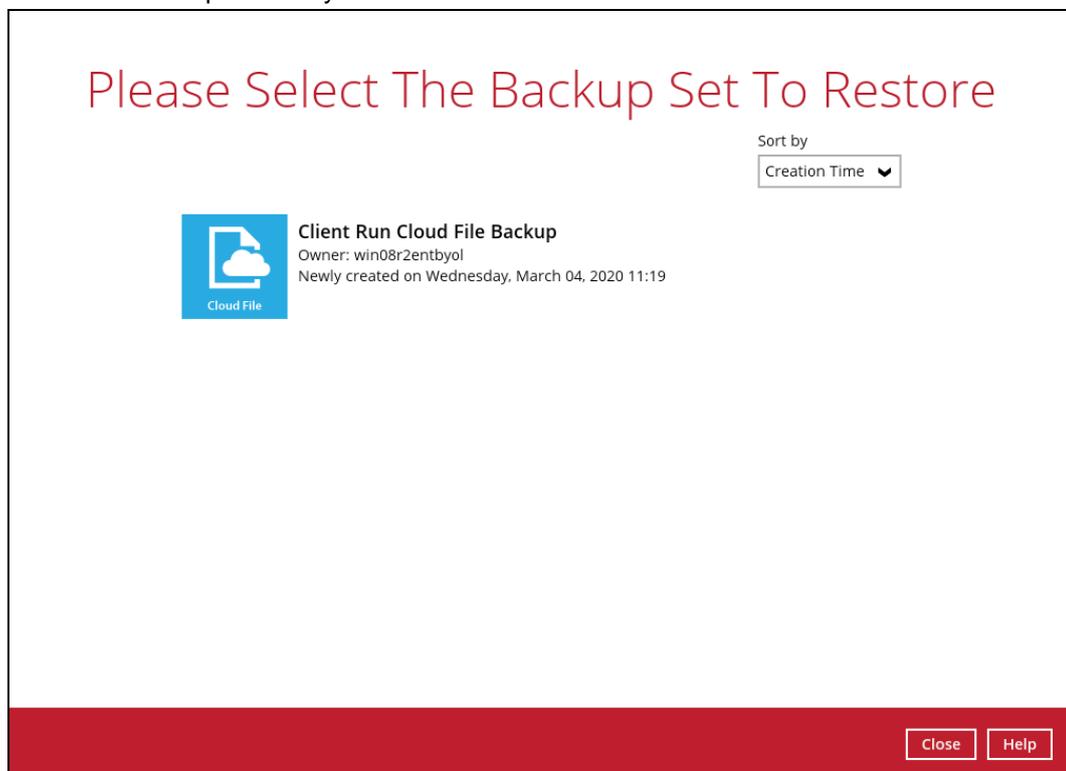
- **Ends With**

These are Directories, Files, and Folders with the name **ending** with a specific letter or word.

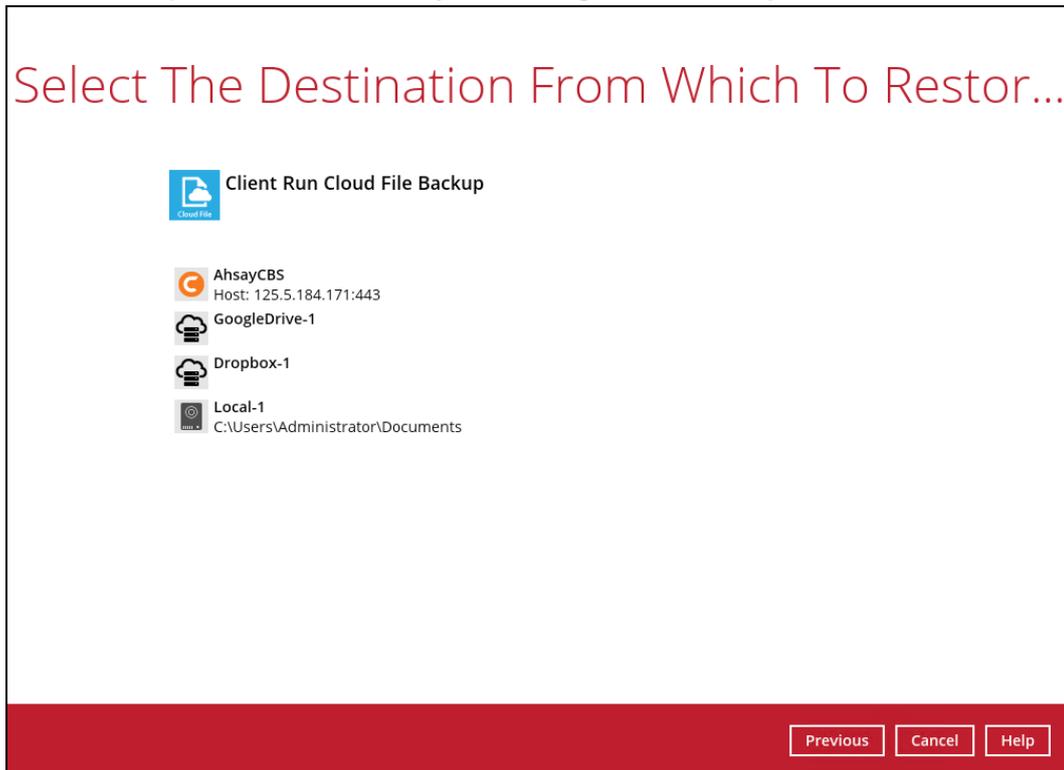
It also has the **Match Case** function, which serves as an additional accuracy when searching for any specific directories, files, folders, and mails.

For more detailed examples using the restore filter on AhsayOBM, refer to [Appendix A: Example Scenarios for Restore Filter using AhsayOBM](#).

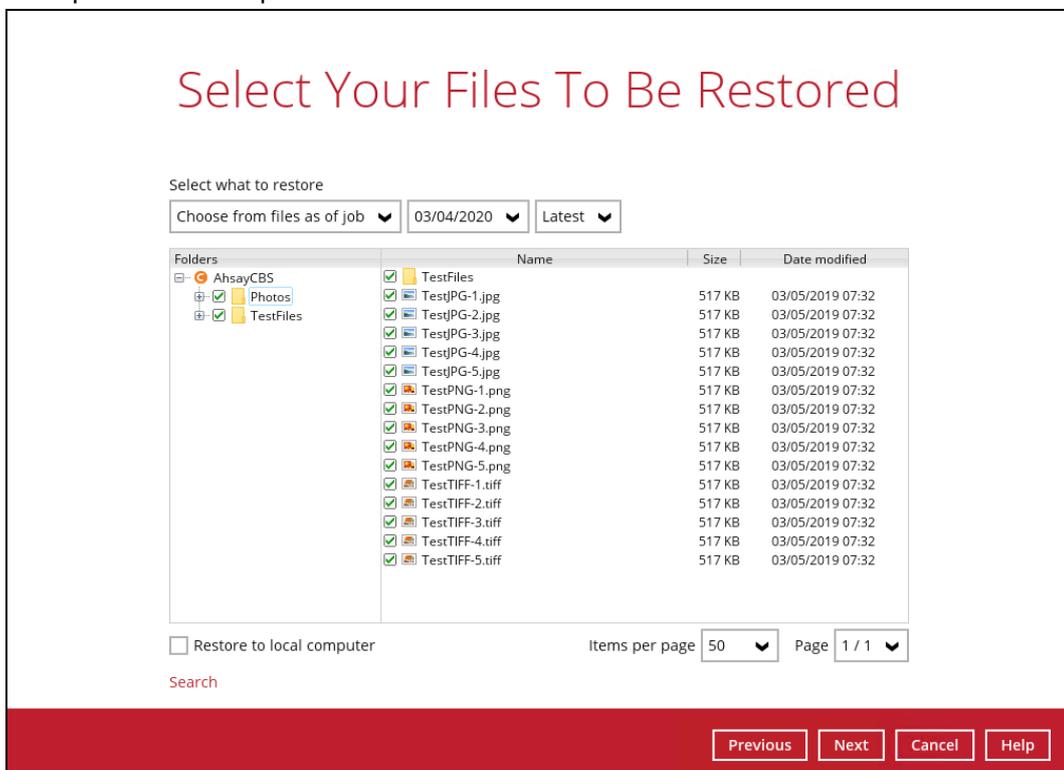
1. Login to AhsayOBM according to the instructions in [Login to AhsayOBM](#).
2. Click the Restore icon on the main interface of AhsayOBM.
3. Select the backup set that you would like to restore.



- Select the backup destination that you would like to restore backed-up items to. For example, we have multiple destinations, **AhsayCBS**, **GoogleDrive-1**, **DropBox-1**, and **Local-1**.



- Select the item(s) you would like to restore. You can also choose to restore backed-up file from a specific backup job of your choice using the Select what to restore drop-down menu at the top. Click Next to proceed.



- Click the Search located below the Restore to local computer checkbox.

Restore to local computer

Search

- Change the path if you want to restore items from other location. Click the Change button then click OK to proceed.

Search

Look in

Change

Search subfolders

Kind Type Pattern

Files and Directories contains Match case

Search

Name	In Folder	Size	Date modified
------	-----------	------	---------------

Items per page 50 Page -

OK Cancel Help

Previous Next Cancel Help

Change Path

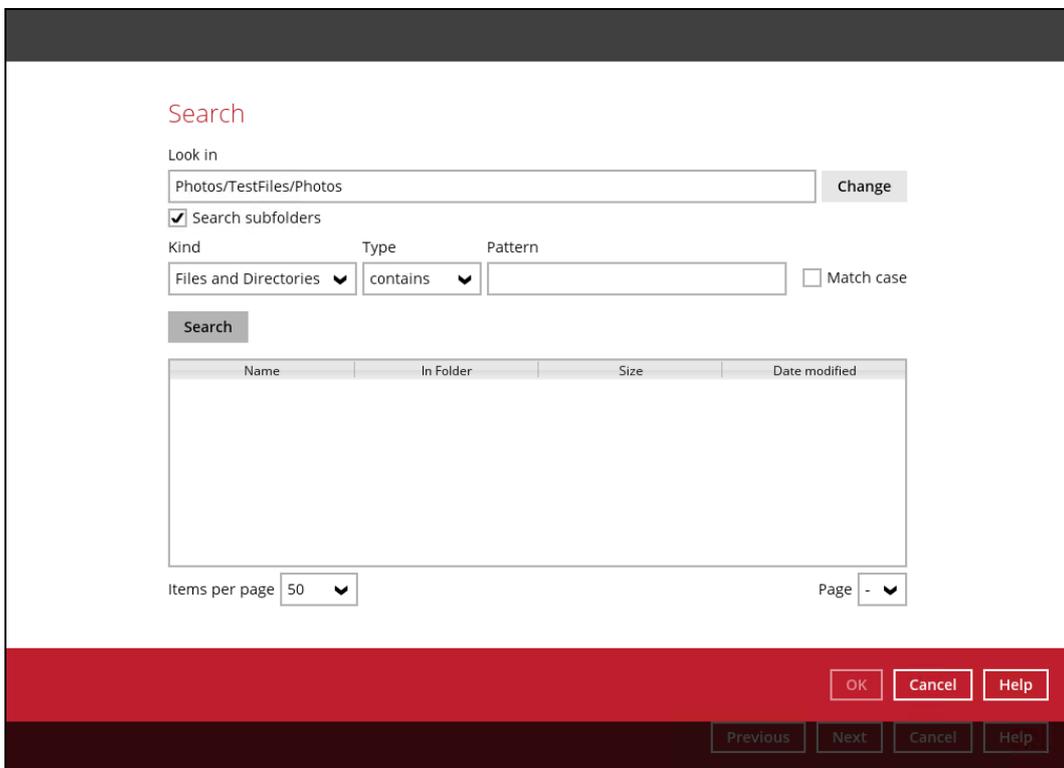
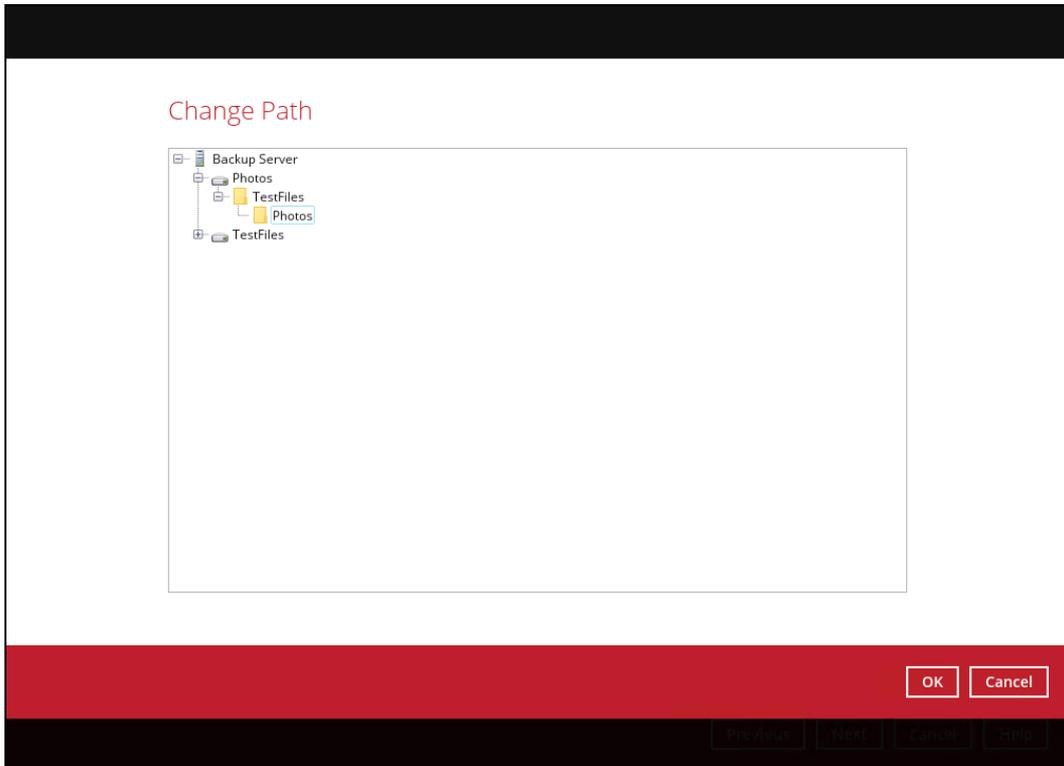
Backup Server

- Photos
- TestFiles
- TestFiles

OK Cancel

Previous Next Cancel Help

If you are going to search for specific files and/or folders, then click the TestFiles folder to expand for more selection. In our example below, **Photos** subfolder is selected under TestFiles folder.



Tick the Search subfolders checkbox if you want to include available subfolders upon searching.

Look in
Photos/TestFiles/Photos Change
 Search subfolders

Look in
Photos/TestFiles/Photos Change
 Search subfolders

Select from the following kind of files you want to search.

- Files and Directories
- Files only
- Directories only

Search

Look in
Photos/TestFiles/Photos Change
 Search subfolders

Kind Type Pattern

Files and Directories ▼ contains ▼ Match case

Files and Directories
Files only
Directories only

In Folder	Size	Date modified
-----------	------	---------------

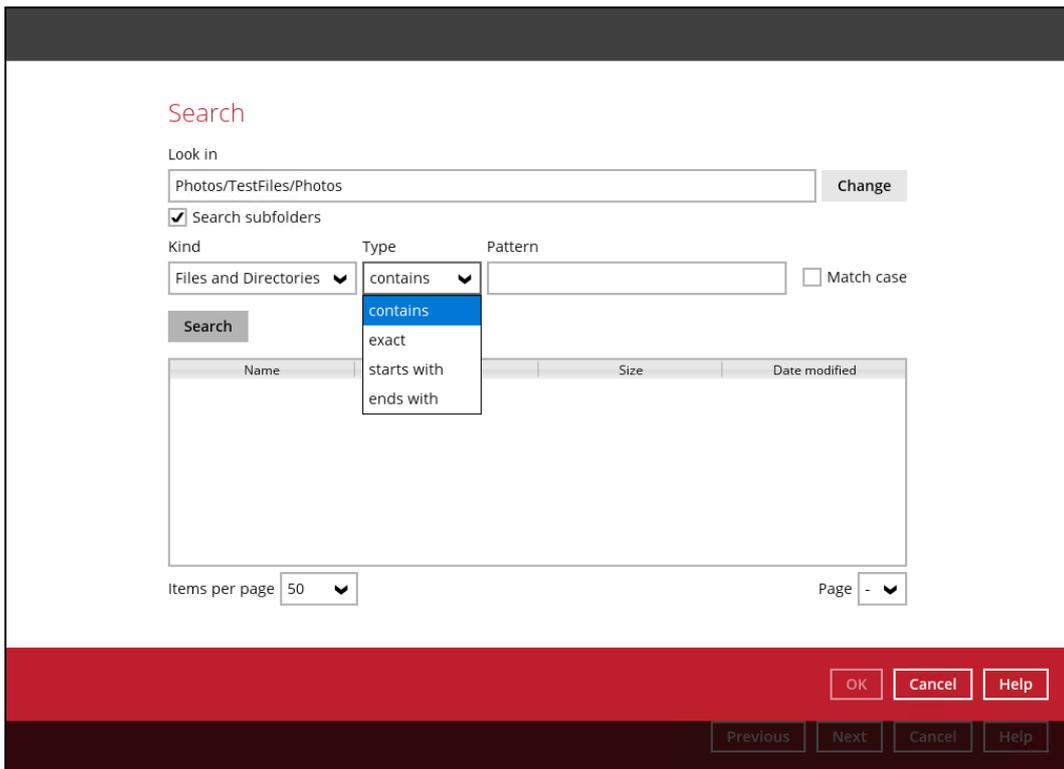
Items per page 50 ▼ Page - ▼

OK Cancel Help

Previous Next Cancel Help

Select from the following type of filtering you want to search.

- Contains
- Exact
- Starts With
- Ends With



Enter a pattern you want and Tick the Match Case checkbox if you want to accurately search for a specific file.

Kind	Type	Pattern	
Files and Directories ▼	contains ▼	Test	<input type="checkbox"/> Match case
Search			

Kind	Type	Pattern	
Files and Directories ▼	contains ▼	Test	<input checked="" type="checkbox"/> Match case
Search			

Click the Search button and the result will be displayed.

Search

Look in
Photos/TestFiles/Photos Change

Search subfolders

Kind: Files and Directories | Type: contains | Pattern: Test Match case

Search

Name	In Folder	Size	Date modified
------	-----------	------	---------------

Items per page: 50 | Page: -

OK Cancel Help

Previous Next Cancel Help

Search

Look in
Photos/TestFiles/Photos Change

Search subfolders

Kind: Files and Directories | Type: contains | Pattern: Test Match case

Searching ... Stop

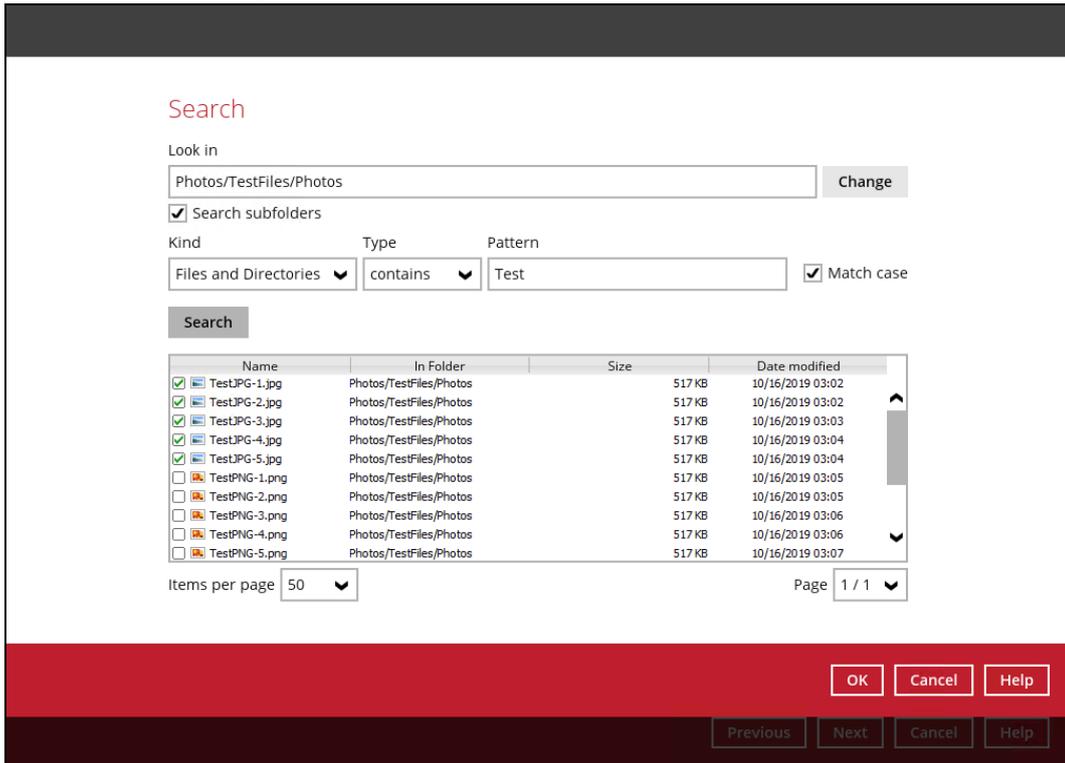
Name	In Folder	Size	Date modified
<input checked="" type="checkbox"/> TestJPG-1.jpg	Photos/TestFiles/Photos	517 KB	10/16/2019 03:02
<input checked="" type="checkbox"/> TestJPG-2.jpg	Photos/TestFiles/Photos	517 KB	10/16/2019 03:02
<input checked="" type="checkbox"/> TestJPG-3.jpg	Photos/TestFiles/Photos	517 KB	10/16/2019 03:03
<input checked="" type="checkbox"/> TestJPG-4.jpg	Photos/TestFiles/Photos	517 KB	10/16/2019 03:04
<input checked="" type="checkbox"/> TestJPG-5.jpg	Photos/TestFiles/Photos	517 KB	10/16/2019 03:04
<input checked="" type="checkbox"/> TestPNG-1.png	Photos/TestFiles/Photos	517 KB	10/16/2019 03:05
<input checked="" type="checkbox"/> TestPNG-2.png	Photos/TestFiles/Photos	517 KB	10/16/2019 03:05
<input checked="" type="checkbox"/> TestPNG-3.png	Photos/TestFiles/Photos	517 KB	10/16/2019 03:06
<input checked="" type="checkbox"/> TestPNG-4.png	Photos/TestFiles/Photos	517 KB	10/16/2019 03:06
<input checked="" type="checkbox"/> TestPNG-5.png	Photos/TestFiles/Photos	517 KB	10/16/2019 03:07

Items per page: 50 | Page: 1 / 1

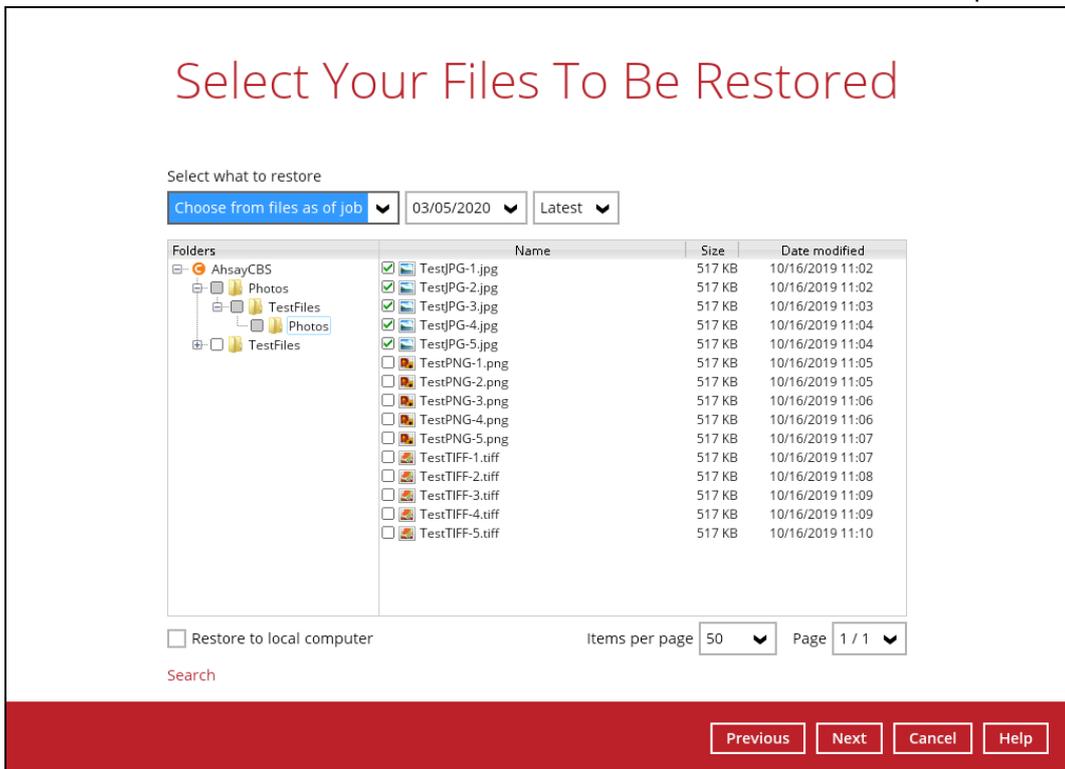
OK Cancel Help

Previous Next Cancel Help

Choose files by ticking each checkbox that you wanted to restore and click the OK button.



8. The selected files will reflect on the Restore main screen. Click the Next button to proceed.



9. Select which location the items will be restored. Choose from the following options:
- Local machine – this option is located on the Restore main screen, lower left part.
 - Original location
 - Alternate location

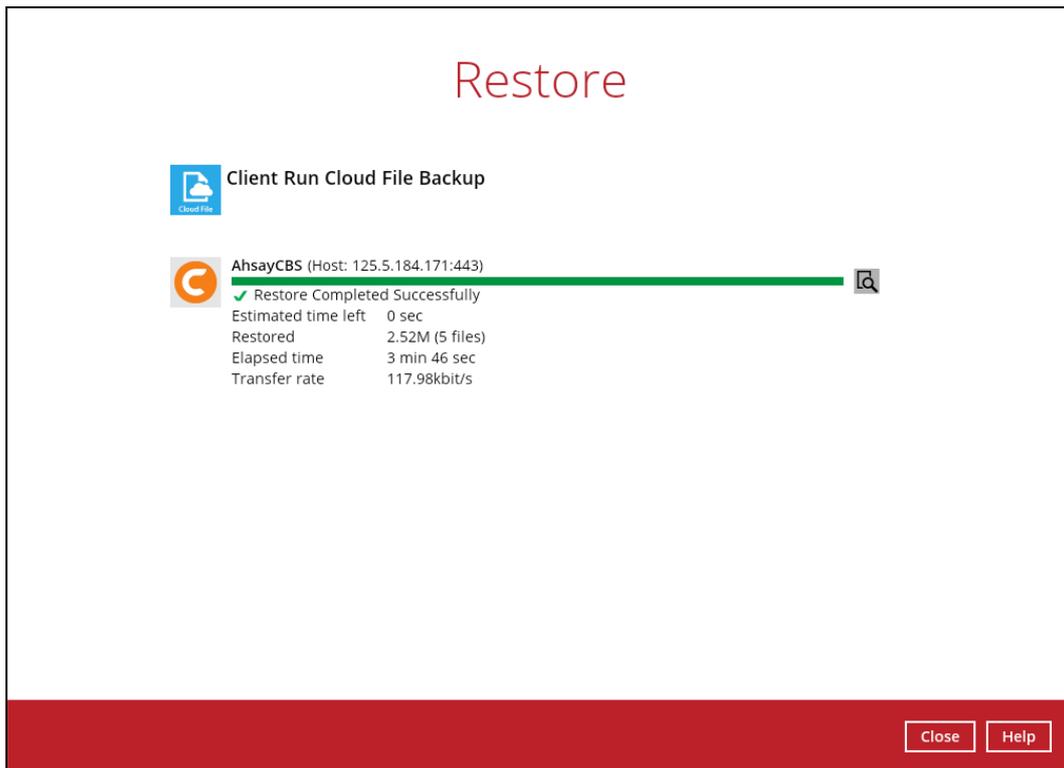
Click the Next button to proceed.

The screenshot shows a dialog box titled "Choose Where The Files To Be Restored". It contains two radio button options: "Original location" (unselected) and "Alternate location" (selected). The "Alternate location" option is followed by a text input field containing "TestFiles" and a "Change" button. Below the input field is a link that says "Show advanced option". At the bottom right of the dialog, there is a red bar containing four buttons: "Previous", "Next", "Cancel", and "Help".

10. Input the temporary directory or click the Browse button to browse for the path. Click the Restore button to start.

The screenshot shows a dialog box titled "Temporary Directory". It contains a text input field with the label "Temporary directory for storing restore files" above it. The input field contains the path "C:\Users\Administrator\temp" and is followed by a "Browse" button. At the bottom right of the dialog, there is a red bar containing four buttons: "Previous", "Restore", "Cancel", and "Help".

11. If restore is completed, the status of the activity should be, Restore Completed Successfully.



8 Contacting Ahsay

8.1 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/>

8.2 Documentation

Documentations for all Ahsay products are available at:
https://www.ahsay.com/jsp/en/downloads/ahsay-downloads_documentation_guides.jsp

You can send us suggestions for improvements or report on issues in the documentation by contacting us at:
<https://www.ahsay.com/partners/>

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

Appendix

Appendix A Example Scenarios for Restore Filter using AhsayOBM

Example No. 1: Restore filter setting - Files and Directories

Location:	Photos/TestFiles/Photos
Search subfolders:	True
Kind:	Files and Directories
Type:	Contains
Pattern:	Test
Match Case:	True

Follow the step-by-step procedure indicated on [Restore Filter with AhsayOBM](#).

The screenshot shows the 'Search' dialog box in AhsayOBM. The 'Look in' field is set to 'Photos/TestFiles/Photos'. The 'Search subfolders' checkbox is checked. The 'Kind' is set to 'Files and Directories', the 'Type' is 'contains', and the 'Pattern' is 'Test'. The 'Match case' checkbox is also checked. Below the settings is a 'Search' button and a table with columns for Name, In Folder, Size, and Date modified. At the bottom, there are 'Items per page' (set to 50) and 'Page' (set to -) dropdowns. A red bar at the bottom contains 'OK', 'Cancel', and 'Help' buttons. Below the red bar, there are 'Previous', 'Next', 'Cancel', and 'Help' buttons.

Search

Look in

Photos/TestFiles/Photos

Change

Search subfolders

Kind

Files and Directories

Type

contains

Pattern

Test

Match case

Searching ...

Stop

	Name	In Folder	Size	Date modified
<input checked="" type="checkbox"/>	TestJPG-1.jpg	Photos/TestFiles/Photos	517 KB	10/16/2019 03:02
<input checked="" type="checkbox"/>	TestJPG-2.jpg	Photos/TestFiles/Photos	517 KB	10/16/2019 03:02
<input checked="" type="checkbox"/>	TestJPG-3.jpg	Photos/TestFiles/Photos	517 KB	10/16/2019 03:03
<input checked="" type="checkbox"/>	TestJPG-4.jpg	Photos/TestFiles/Photos	517 KB	10/16/2019 03:04
<input checked="" type="checkbox"/>	TestJPG-5.jpg	Photos/TestFiles/Photos	517 KB	10/16/2019 03:04
<input checked="" type="checkbox"/>	TestPNG-1.png	Photos/TestFiles/Photos	517 KB	10/16/2019 03:05
<input checked="" type="checkbox"/>	TestPNG-2.png	Photos/TestFiles/Photos	517 KB	10/16/2019 03:05
<input checked="" type="checkbox"/>	TestPNG-3.png	Photos/TestFiles/Photos	517 KB	10/16/2019 03:06
<input checked="" type="checkbox"/>	TestPNG-4.png	Photos/TestFiles/Photos	517 KB	10/16/2019 03:06
<input checked="" type="checkbox"/>	TestPNG-5.png	Photos/TestFiles/Photos	517 KB	10/16/2019 03:07

Items per page 50

Page 1 / 1

OK

Cancel

Help

Previous

Next

Cancel

Help

Search

Look in

Photos/TestFiles/Photos

Change

Search subfolders

Kind

Files and Directories

Type

contains

Pattern

Test

Match case

Search

	Name	In Folder	Size	Date modified
<input checked="" type="checkbox"/>	TestJPG-1.jpg	Photos/TestFiles/Photos	517 KB	10/16/2019 03:02
<input checked="" type="checkbox"/>	TestJPG-2.jpg	Photos/TestFiles/Photos	517 KB	10/16/2019 03:02
<input checked="" type="checkbox"/>	TestJPG-3.jpg	Photos/TestFiles/Photos	517 KB	10/16/2019 03:03
<input checked="" type="checkbox"/>	TestJPG-4.jpg	Photos/TestFiles/Photos	517 KB	10/16/2019 03:04
<input checked="" type="checkbox"/>	TestJPG-5.jpg	Photos/TestFiles/Photos	517 KB	10/16/2019 03:04
<input checked="" type="checkbox"/>	TestPNG-1.png	Photos/TestFiles/Photos	517 KB	10/16/2019 03:05
<input checked="" type="checkbox"/>	TestPNG-2.png	Photos/TestFiles/Photos	517 KB	10/16/2019 03:05
<input checked="" type="checkbox"/>	TestPNG-3.png	Photos/TestFiles/Photos	517 KB	10/16/2019 03:06
<input checked="" type="checkbox"/>	TestPNG-4.png	Photos/TestFiles/Photos	517 KB	10/16/2019 03:06
<input checked="" type="checkbox"/>	TestPNG-5.png	Photos/TestFiles/Photos	517 KB	10/16/2019 03:07

Items per page 50

Page 1 / 1

OK

Cancel

Help

Previous

Next

Cancel

Help

Explanation:

All files and directories under /Photos/TestFiles/Photos that has the exact pattern of 'Test' with match-case set to true will be included upon performing search.

As you can see on the screenshot above, the result panel contains the Name of the Files and/or Directories, Directory of the files and/or directories which are indicated in Folder column, Size of each files and/or directories, and Date Modified.

The restore filter setting includes the Search subfolder and Match case set to true. Meaning the filter will include all available subfolders in /Photos folder upon searching. And it will strictly search only the specified pattern and case which contains with 'Test'.

Example No. 2: Restore filter setting - Files only

Location:	Photos/TestFiles/Photos
Search subfolders:	True
Kind:	Files only
Type:	Starts with
Pattern:	T
Match Case:	True

Follow the step-by-step procedure indicated on [Restore Filter with AhsayOBM](#).

Search

Look in
Photos/TestFiles/Photos Change

Search subfolders

Kind: Files only ▼ Type: starts with ▼ Pattern: T Match case

Search

Name	In Folder	Size	Date modified
------	-----------	------	---------------

Items per page: 50 ▼ Page: - ▼

OK Cancel Help

Previous Next Cancel Help

Search

Look in

Photos/TestFiles/Photos

Change

Search subfolders

Kind

Files only

Type

starts with

Pattern

T

Match case

Searching ...

Stop

	Name	In Folder	Size	Date modified
<input checked="" type="checkbox"/>	TestJPG-1.jpg	Photos/TestFiles/Photos	517 KB	10/16/2019 03:02
<input checked="" type="checkbox"/>	TestJPG-2.jpg	Photos/TestFiles/Photos	517 KB	10/16/2019 03:02
<input checked="" type="checkbox"/>	TestJPG-3.jpg	Photos/TestFiles/Photos	517 KB	10/16/2019 03:03
<input checked="" type="checkbox"/>	TestJPG-4.jpg	Photos/TestFiles/Photos	517 KB	10/16/2019 03:04
<input checked="" type="checkbox"/>	TestJPG-5.jpg	Photos/TestFiles/Photos	517 KB	10/16/2019 03:04
<input checked="" type="checkbox"/>	TestPNG-1.png	Photos/TestFiles/Photos	517 KB	10/16/2019 03:05
<input checked="" type="checkbox"/>	TestPNG-2.png	Photos/TestFiles/Photos	517 KB	10/16/2019 03:05
<input checked="" type="checkbox"/>	TestPNG-3.png	Photos/TestFiles/Photos	517 KB	10/16/2019 03:06
<input checked="" type="checkbox"/>	TestPNG-4.png	Photos/TestFiles/Photos	517 KB	10/16/2019 03:06
<input checked="" type="checkbox"/>	TestPNG-5.png	Photos/TestFiles/Photos	517 KB	10/16/2019 03:07

Items per page 50

Page 1 / 1

OK

Cancel

Help

Previous

Next

Cancel

Help

Search

Look in

Photos/TestFiles/Photos

Change

Search subfolders

Kind

Files only

Type

starts with

Pattern

T

Match case

Search

	Name	In Folder	Size	Date modified
<input checked="" type="checkbox"/>	TestJPG-1.jpg	Photos/TestFiles/Photos	517 KB	10/16/2019 03:02
<input checked="" type="checkbox"/>	TestJPG-2.jpg	Photos/TestFiles/Photos	517 KB	10/16/2019 03:02
<input checked="" type="checkbox"/>	TestJPG-3.jpg	Photos/TestFiles/Photos	517 KB	10/16/2019 03:03
<input checked="" type="checkbox"/>	TestJPG-4.jpg	Photos/TestFiles/Photos	517 KB	10/16/2019 03:04
<input checked="" type="checkbox"/>	TestJPG-5.jpg	Photos/TestFiles/Photos	517 KB	10/16/2019 03:04
<input checked="" type="checkbox"/>	TestPNG-1.png	Photos/TestFiles/Photos	517 KB	10/16/2019 03:05
<input checked="" type="checkbox"/>	TestPNG-2.png	Photos/TestFiles/Photos	517 KB	10/16/2019 03:05
<input checked="" type="checkbox"/>	TestPNG-3.png	Photos/TestFiles/Photos	517 KB	10/16/2019 03:06
<input checked="" type="checkbox"/>	TestPNG-4.png	Photos/TestFiles/Photos	517 KB	10/16/2019 03:06
<input checked="" type="checkbox"/>	TestPNG-5.png	Photos/TestFiles/Photos	517 KB	10/16/2019 03:07

Items per page 50

Page 1 / 1

OK

Cancel

Help

Previous

Next

Cancel

Help

Explanation:

All files only under /Photos/TestFiles/Photos that has the exact pattern of 'T' with match-case set to true will be included upon performing search.

As you can see on the screenshot above, the result panel contains the Name of the files, Directory of the files which are indicated in Folder column, Size of each files, and Date Modified.

The restore filter setting includes the Search subfolder and Match case set to true. Meaning the filter will include all available subfolders in /Photos folder upon searching. And it will strictly search only the specified pattern and case which starts with 'T'.

Example No. 3: Restore filter setting - Directories only

Location:	Photos/TestFiles
Search subfolders:	True
Kind:	Directories only
Type:	Ends with
Pattern:	s
Match Case:	True

Follow the step-by-step procedure indicated on [Restore Filter with AhsayOBM](#).

The screenshot shows the 'Search' dialog box in AhsayOBM. The 'Look in' field is set to 'Photos/TestFiles'. The 'Search subfolders' checkbox is checked. The 'Kind' dropdown is set to 'Directories only', the 'Type' dropdown is set to 'ends with', and the 'Pattern' field contains 's'. The 'Match case' checkbox is also checked. Below the search criteria is a 'Search' button and a table with columns for 'Name', 'In Folder', 'Size', and 'Date modified'. At the bottom of the dialog, there are 'Items per page' (set to 50) and 'Page' (set to 1) dropdowns. The bottom of the dialog features a red bar with 'OK', 'Cancel', and 'Help' buttons, and a dark bar with 'Previous', 'Next', 'Cancel', and 'Help' buttons.

Search

Look in

Photos/TestFiles

Change

Search subfolders

Kind

Directories only

Type

ends with

Pattern

s

Match case

Searching ...

Stop

Name	In Folder	Size	Date modified
<input checked="" type="checkbox"/> Photos	Photos/TestFiles		

Items per page 50

Page 1 / 1

OK

Cancel

Help

Previous

Next

Cancel

Help

Search

Look in

Photos/TestFiles

Change

Search subfolders

Kind

Directories only

Type

ends with

Pattern

s

Match case

Search

Name	In Folder	Size	Date modified
<input checked="" type="checkbox"/> Photos	Photos/TestFiles		

Items per page 50

Page 1 / 1

OK

Cancel

Help

Previous

Next

Cancel

Help

Explanation:

All directories only under /Photos/TestFiles that has the exact pattern of 's' with match-case set to true will be included upon performing search.

As you can see on the screenshot above, the result panel contains the Name of the directories, Directory which are indicated in Folder column, Size of each directories, and Date Modified.

The restore filter setting includes the Search subfolder and Match case set to true. Meaning the filter will include all available subfolders in /TestFiles folder upon searching. And it will strictly search only the specified pattern and case which ends with 's'.