

**№** CloudBacko Home

# Quick Start Guide for Windows

CloudBacko Corporation 6 January 2025

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# **Revision History**

Date	Descriptions	Version
23 May 2024	<ul> <li>Ch. 3.5 – updated screenshot for twitter</li> <li>Ch. 6.2 – updated screenshots</li> <li>Ch. 7.8.1 – updated screenshots and options</li> </ul>	5.9.14.0
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6 January 2025	<ul> <li>Ch. 11 – Updated Restore instructions</li> <li>Ch. 11.2 – Updated Restore Filter</li> </ul>	5.13

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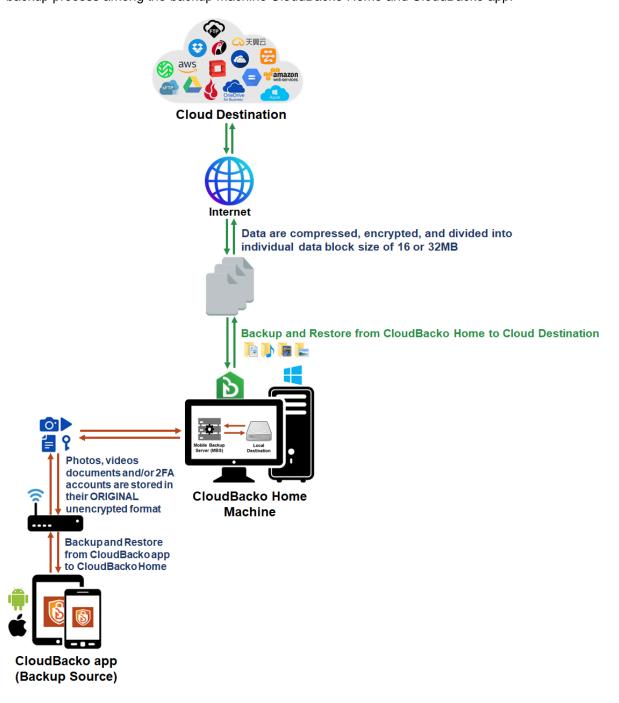
#### 1 Overview

#### 1.1 What is this software?

CloudBacko brings you specialized client backup software, namely CloudBacko Home, to provide a simple and free backup solution for protecting file(s) / folder(s) on your machine, with a wide variety of backup destinations (major cloud storage service providers, FTP/SFTP, local drive, etc.) of your choice.

#### 1.2 System Architecture

Below is the system architecture diagram illustrating the major elements involved in the backup process among the backup machine CloudBacko Home and CloudBacko app.



#### 1.3 Mobile Backup Server (MBS)

The Mobile Backup Server (MBS) will be utilized to handle mobile backup and restore of CloudBacko app. It is an integral part of CloudBacko Home, which is located in the "mbs" folder inside the CloudBacko Home folder.

#### **System Diagram**

The Mobile Backup Server (MBS) will be activated automatically when a mobile device installed with the CloudBacko app is successfully registered for mobile backup with CloudBacko Home. Afterwards, it will be automatically restarted whenever the CloudBacko Home services is restarted or when the CloudBacko Home machine is rebooted or powered on. The MBS will be deactivated when all mobile devices have deregistered from the mobile backup settings and the CloudBacko Home services is restarted.

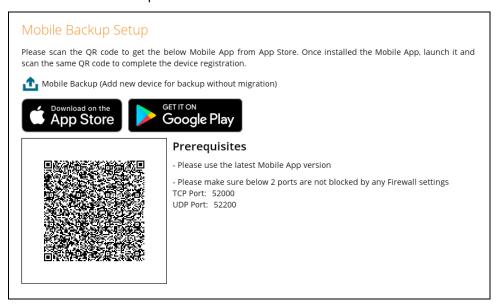
The MBS will use the following port ranges:

TCP Port: 52000 to 52099
 UDP Port: 52200 to 52299

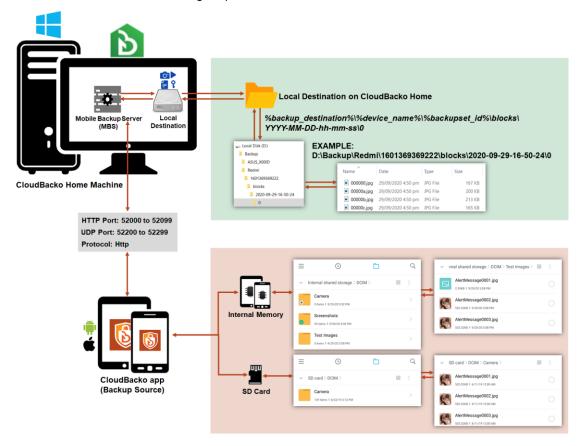
• Protocol: Http, for the request of CloudBacko app

The default TCP and UDP ports are **52000** and **52200**, if these ports are already in use by other applications or services, then the MBS will automatically acquire another port.

The actual TCP and UDP port can be seen on the CloudBacko Home when pairing a mobile device for mobile backup.



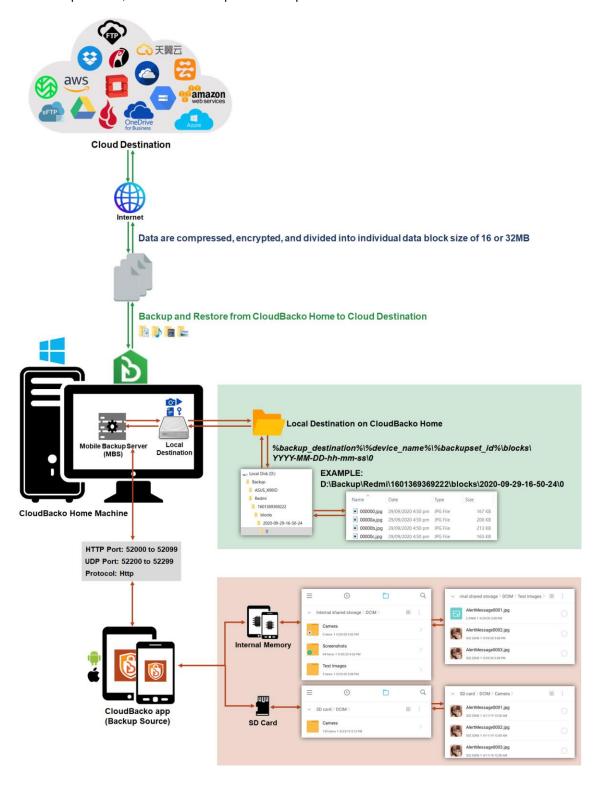
Photos, videos, documents and 2FA accounts are stored either in mobile device's internal memory or SD Card. These are selected as backup source using the CloudBacko app and will be backed up to the local destination of the CloudBacko machine, that can be a Hard Drive, Flash Drive, and/or Network Drive in their *original* unencrypted format. For Android devices, photos and videos will retain all EXIF. While for iOS devices, photos and videos will retain most of the EXIF including, capture date, location, and lens.



If storage of photos, videos, documents and 2FA accounts to a cloud destination is required, then this can be done using CloudBacko Home to perform a secondary backup and restore of the photos, videos, documents and 2FA accounts on the local drive to the cloud.

To back up and restore photos, videos, documents and 2FA accounts from CloudBacko app to CloudBacko Home and Cloud, is a two-step process.

- 1<sup>st</sup>: Back up photos, videos, documents and/or 2FA accounts from CloudBacko app to the CloudBacko Home local destination.
- **2**<sup>nd</sup>: Create a File backup set using CloudBacko Home, using the local backup destination as the backup source, and then back up this backup set to cloud destination.



### 2 Requirements for CloudBacko app

#### 2.1 Backup Software Version Requirement

- Download and install the latest version of CloudBacko Home.
- Download and install the latest version of CloudBacko app on the Play Store for Android mobile devices and on the App Store for iOS mobile devices.

#### 2.2 Network Connection

Ensure that CloudBacko app is connected to the same local WiFi network with CloudBacko Home. Failure to do so will prevent the CloudBacko app from performing backup/restore.

#### 2.3 Android and iOS Version Requirement

- For Android devices, Android version must be Android 8 or above.
- For Apple devices, iOS version must be 12.0 or above.

### 3 Requirements for CloudBacko Home on Windows

#### 3.1 Hardware Requirements

Refer to the link below for details of the minimum and recommended requirements for installing CloudBacko Home.

CloudBacko Home: Hardware Requirement

#### 3.2 Supported Platforms

Refer to the following link for details of the operating systems supported by CloudBacko Home.

CloudBacko Home: Supported Operating Systems

#### 3.3 Internet Connection

CloudBacko machine must have a fixed internet connection

#### 3.4 Firewall Settings

- For CloudBacko Home to function correctly must allow outbound connections to \*.cloudbacko.com via port 80 and 443.
- For mobile backup inbound / outbound network traffic must be allowed through the following default ports: HTTP port: 52000 and UDP port: 52200..

The actual ports used may be different, please refer to <u>Chapter 1.3: Mobile Backup Server (MBS)</u> for more details.

#### 3.5 Social Media Accounts

One of the following social media accounts is required. As part of the CloudBacko Home setup, you will have to log in using one of these accounts to activate CloudBacko Home.



Google



**Twitter** 



Facebook



Microsoft



Sina Weibo



Tencent Weibo

### 3.6 Supported Applications

CloudBacko Home supports File Backup Set only.

For backup of VMware, Hyper-V, Databases, and Microsoft 365, please consider upgrading to CloudBacko Pro or CloudBacko Lite.

#### 3.7 Supported Features

Refer to <u>CloudBacko Home</u>: <u>Supported Features</u> for the details of the supported features by CloudBacko Home.

#### 3.8 Mobile Device Requirements

Refer to the <u>CloudBacko App v1 User Guide for Android and iOS</u> for details of the minimum and recommended requirements for installing CloudBacko app.

#### 3.9 Limitations

If you require any of the following features, please consider upgrading to CloudBacko Pro or CloudBacko Lite.

#### Advanced In-File Delta Setting

Advanced In-File Delta Setting is not supported on CloudBacko Home.

#### Advanced Retention Policy

Advanced Retention Policy is not supported on CloudBacko Home.

#### Bandwidth Control

Bandwidth Control is not supported on CloudBacko Home.

#### Case-Insensitive File System

For volume with a case-insensitive file system, target file of a symbolic link will be backed up twice (in both upper case and in lower case), hence, doubling the backup quota storage requirement.

#### Command Line Tool

Pre-Backup / Post-Backup Commands are not supported on CloudBacko Home.

#### Email Report

Email Report is not supported on CloudBacko Home.

#### File Permissions

Backup of file permissions is enabled by default and the setting cannot be changed.

#### Follow Link

Follow Link is enabled by default and the setting cannot be changed.

#### Immutable Destination

Immutable Destination is not supported on CloudBacko Home.

#### Restore Drill

Restore Drill is not supported on CloudBacko Home.

#### Scheduled Backup

Scheduled backup is not supported on CloudBacko Home. It is recommended to use Continuous backup as alternative.

Please refer to this link Continuous Backup for more information.

#### Two-Factor Authentication (2FA)

To use Two-Factor Authentication (2FA), upgrade to CloudBacko Pro or Lite.

#### Windows System Tray

Windows System Tray is supported with limited features available:

- Stop backup job
- Open CloudBacko Home UI.

#### Windows Event Log

Windows Event Log is not supported on CloudBacko Home.



#### 4 Get Started with CloudBacko Home

This quick start guide will walk you through the following seven (7) major parts to get you started with using CloudBacko Home.

#### Download and Install

Download and Install CloudBacko Home on your Windows machine

### **Setup CloudBacko Home**

Sign in using your social media account to complete the setup. (This is a one-time setup)

### Launch the App

Launch CloudBacko Home on your Windows machine

### **Mobile Backup**

Register mobile device for mobile backup

### **Create Backup Set**

Create a backup set according to your preferences

### **Run Backup Jobs**

Run the backup jobs to backup data

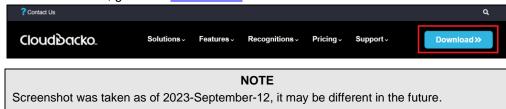
#### **Restore Data**

Restore backed up data to your system

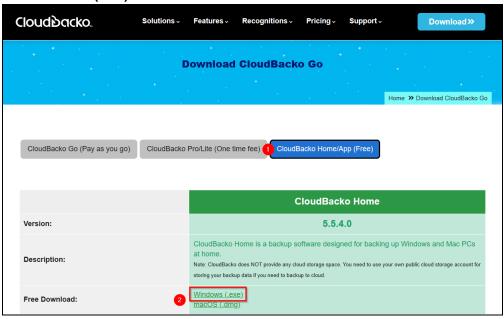
### 5 Download and Install CloudBacko Home

#### 5.1 Download CloudBacko Home

1. In a web browser, go to the CloudBacko website and click Download.



 Click CloudBacko Home/App. Under CloudBacko Home you can choose the installer by operating system and click the corresponding link to start downloading. In this case click Windows (.exe).



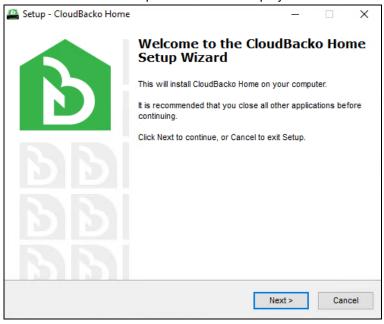


#### 5.2 Install CloudBacko Home

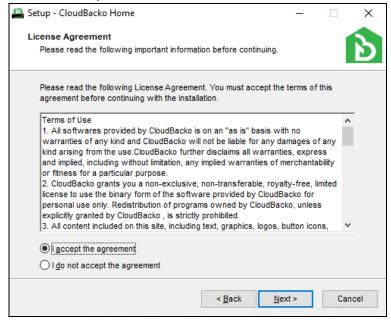
 Double-click the icon of the CloudBacko Home installation package cbh-win.exe file you have downloaded.



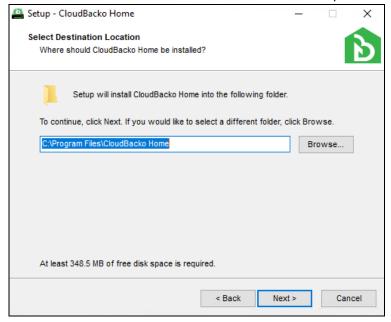
2. CloudBacko Home Setup Wizard will be displayed. Click the Next button to proceed.



3. Tick "I accept the agreement" to after reading the license agreement then click the **Next** button to proceed.



4. Click the **Browse** button to choose a path. The default path is *C:\Program Files\CloudBacko Home*. Then click the **Next** button to proceed.

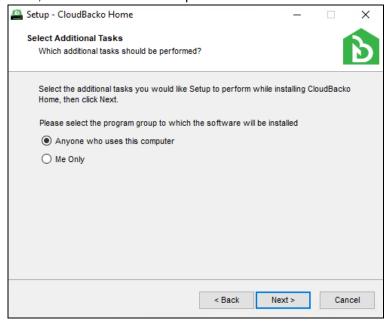


- 5. Select the program group to which the CloudBacko Home will be installed. The default setting is "Anyone who uses this computer". The following are the difference between the two settings:
  - Anyone who uses this computer the CloudBacko Home System Tray icon will be available to all Windows user and backup notifications will be displayed on the Windows System Tray. For more information please refer to <a href="Chapter 7.11">Chapter 7.11</a>: System Tray.
  - Me only the CloudBacko Home Tray icon will not be available and backup notifications will not be displayed on the Windows System Tray.

#### NOTE

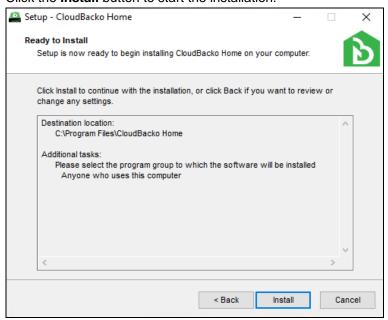
Once the program group setting has been chosen and the installation completed, if you need to change the setting, this will require an uninstallation and re-installation of the application.

Then, click the **Next** button to proceed.

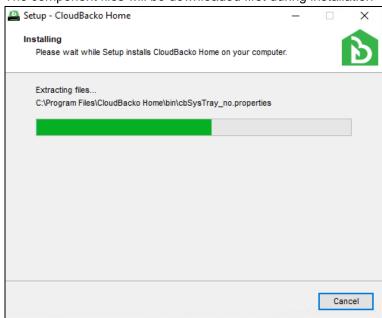




6. Click the **Install** button to start the installation.

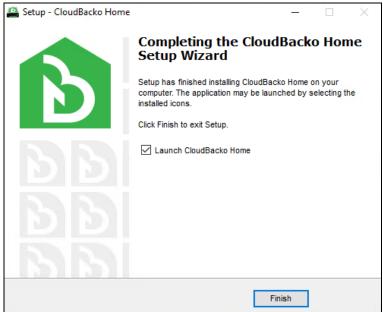


7. The component files will be downloaded first during installation





8. Click the **Finish** button to complete the installation.



#### 5.3 Upgrade CloudBacko Home

To upgrade CloudBacko Home to the latest version, follow the instructions below:

- Uninstall CloudBacko Home. For more details, please check <u>Appendix A: Uninstall</u> <u>CloudBacko Home</u>.
- 2. Download the latest version of CloudBacko Home from the CloudBacko website. For more details, please refer to <a href="Chapter 5.1 Download CloudBacko Home">Chapter 5.1 Download CloudBacko Home</a>.
- 3. Install CloudBacko Home. For more details, please check <u>Chapter 5.2: Install CloudBacko Home</u>.



#### 5.4 CloudBacko Home Services

The CloudBacko Home Services is a key component which regulates and controls several important functions on CloudBacko.

Function	Description
Continuous Backups (Windows platform only)	Ensures that Continuous backups are run according to the backup interval.
Reminder (Windows platform only)	Ensures that a reminder popup is displayed when the last time a backup was run exceeded the tolerance period.
Mobile Backup Server (MBS)	Ensure that registered mobile devices can perform backups to CloudBacko Home.
	The MBS will be activated when a mobile device is registered for mobile backup on CloudBacko Home.
	The MBS will be deactivated when all mobile devices have been deregistered from the mobile backup settings and the CloudBacko Home services is restarted.

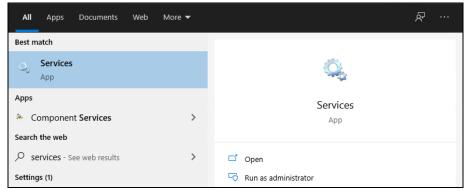
Therefore, it is very important to ensure the CloudBacko Home Services is running after,

- a new CloudBacko installation
- a CloudBacko software update
- when the machine rebooted
- the machine is powered on
- the machine wakes up from hibernation or standby mode

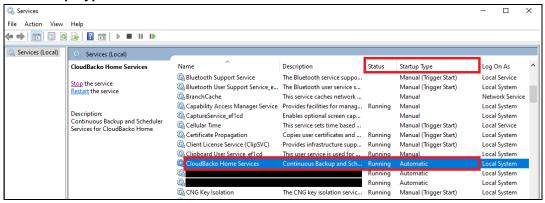
Otherwise, all of the functions above will stop working.

This option is used to kick automated or scheduled backup jobs.

1. To start, go to start menu and search for Services.



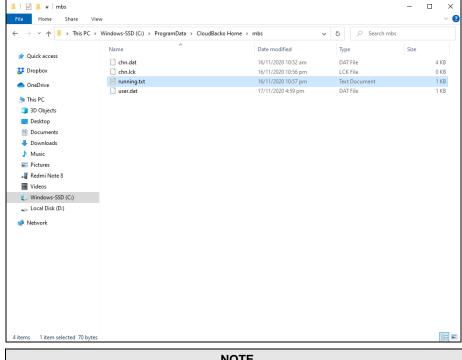
2. Look for **CloudBacko Home Services** on the list. The status should be "Running", and the **Startup Type** should "Automatic".



#### 5.5 Mobile Backup Server (MBS) Health Check and CloudBacko app connection Check

Before starting a backup on your mobile device, check the following first:

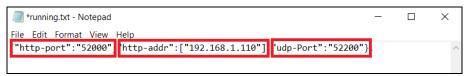
1. Check IP address, HTTP port, and UDP port in the "running.txt" file. Go to C:\ProgramData\CloudBacko Home\mbs.



#### **NOTE**

If the "running.txt" file does not exist then the MBS is not running, restart the CloudBacko Home services

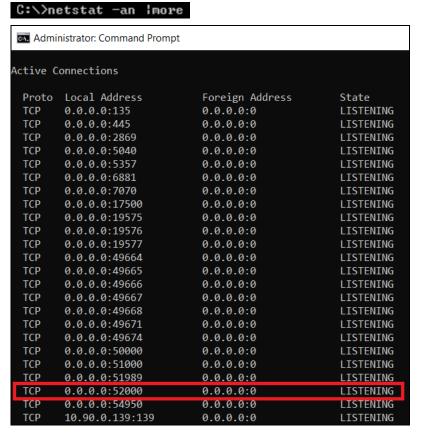
After opening the file it will show the HTTP port, IP address, and UDP port which are in actual use by the MBS.



2. Open a command prompt and check if the IP address captured in the running.txt is the correct IP address of the machine where CloudBacko Home is installed.

```
Command Prompt
Ethernet adapter Ethernet 4:
  Connection-specific DNS Suffix .:
  Link-local TPv6 Address
                           : fe80::e01a:d946:5bac:8f79%15
 IPv4 Address. . . . . . . . . : 192.168.1.110
  Default Gateway . . . . . . : 192.168.1.1
```

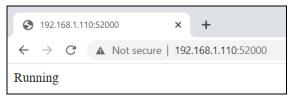
3. To verify the actual HTTP port used by MBS, type the following command:



- 4. Make sure that your firewall setting allows network traffic through the following HTTP and UDP ports to ensure that the communication between your machine and mobile device is successful, otherwise mobile backup and restore will not work.
- 5. To perform a health check on the MBS. Open a browser on the CloudBacko Home machine and type the IP address, followed by TCP port.

**For example**: If the HTTP port used is 52000, http://192.168.110:52000 you should get the following result, which shows "Running" status. Which mean the MBS is running?

In the CloudBacko Home machine



6. To run a connection test between the mobile device and machine open a browser in your mobile device and type the IP address, followed by TCP port.

**For example** If the HTTP port used is 52000, http://192.168.110:52000 you should get the following result, which shows "Running" status. Which means the CloudBacko app can successfully connect to the MBS and both backup and restore can proceed on the mobile device.

In the mobile device



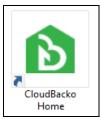
#### 6 Start CloudBacko Home

Login steps for the different scenarios will be discussed in this chapter.

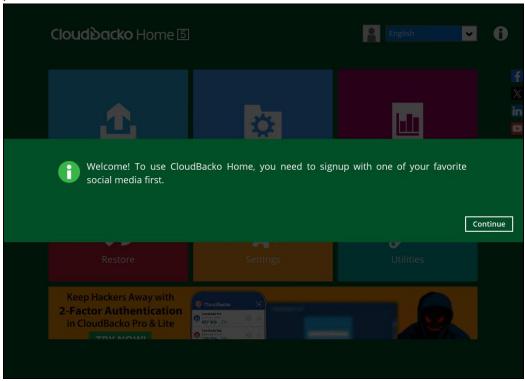
#### 6.1 Setup CloudBacko Home

Before using the CloudBacko Home it is required to setup it up by signing in to one of the available social media accounts. This is a one-time setup only upon initial launch of CloudBacko Home.

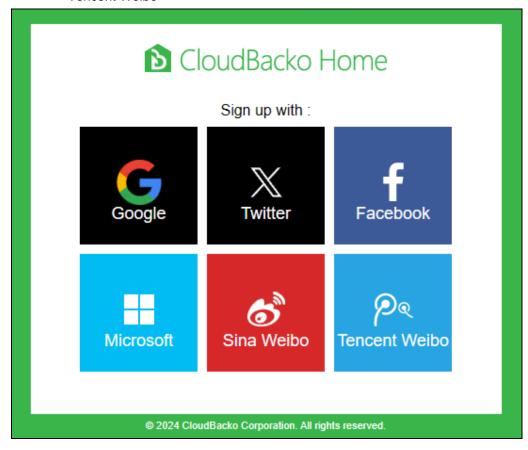
1. Double-click the **CloudBacko Home** icon to launch the application.



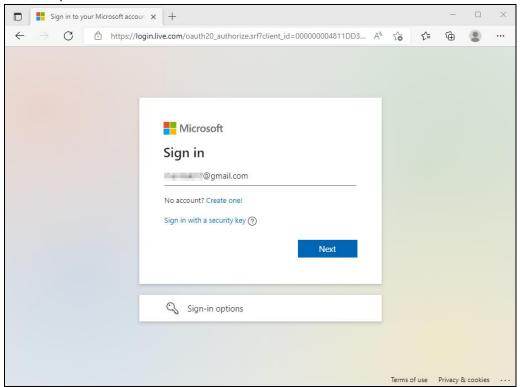
 The following screen will appear. First time launch of the CloudBacko Home, it is required to sign up to one of the social media accounts. Click the **Continue** button to proceed.



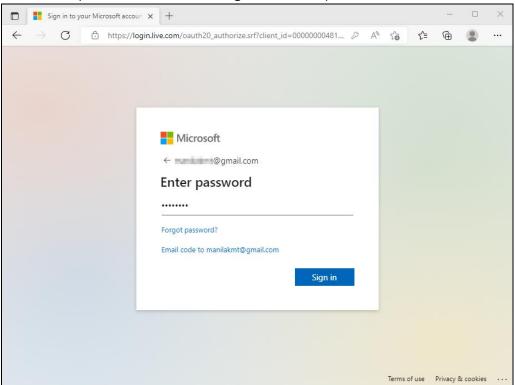
- 3. It redirects the user to a web browser. Choose from the following social media platforms:
  - Google
  - Twitter
  - Facebook
  - Microsoft
  - Sina Weibo
  - Tencent Weibo



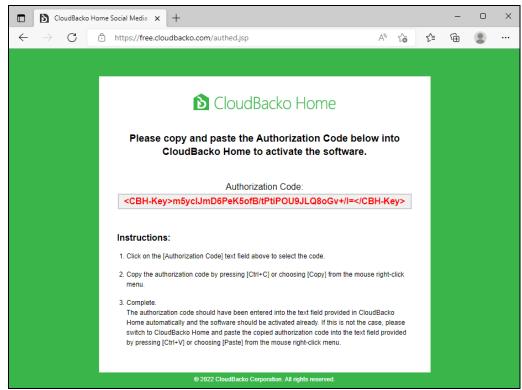
In this example, Microsoft is selected. Input a valid email address then click the **Next** button to proceed.



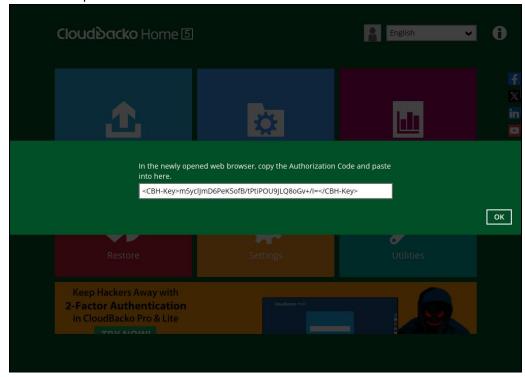
Enter a valid password then click the **Sign in** button to proceed.



4. The CloudBacko Home authorization code will be displayed. Copy the code then return to CloudBacko Home.



5. Paste the copied authorization code on the available field then click the **OK** button.



6. CloudBacko Home main screen will be displayed.



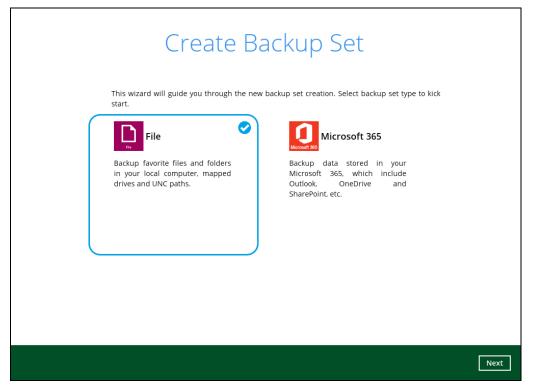


#### 6.2 Launch CloudBacko Home

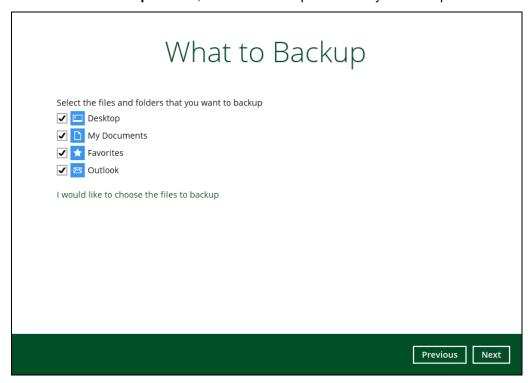
#### 6.2.1 Initial launch creating backup set and setting up mobile backup

When launching the CloudBacko Home for the first time and creating a backup set and setting up mobile backup feature, please follow the steps below:

1. Select the type of backup set to create, whether File or Microsoft 365.

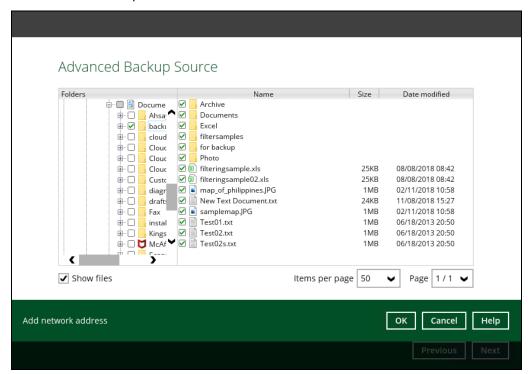


2. In the What to Backup window, select the backup source for your backup set.



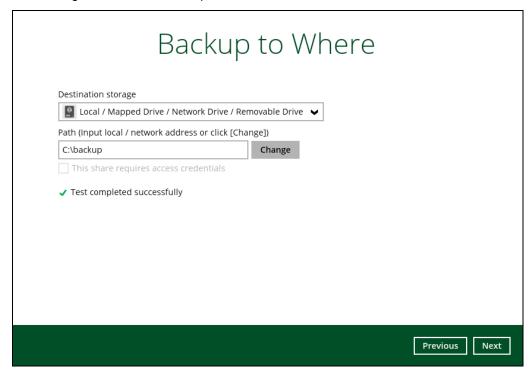


Click I would like to choose the files to backup if you would like to select specific files/folders to backup.



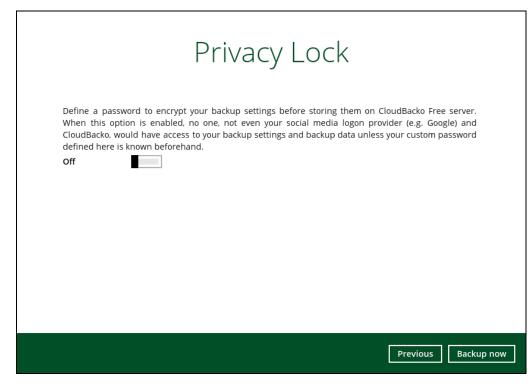
Once done selecting items to back up in the **What to Backup** window, click **Next** to proceed.

3. The **Backup to Where** window will appear. Select a backup destination for the backup data storage, then click **Next** to proceed.

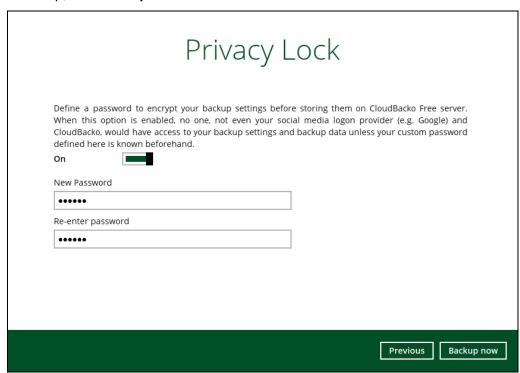




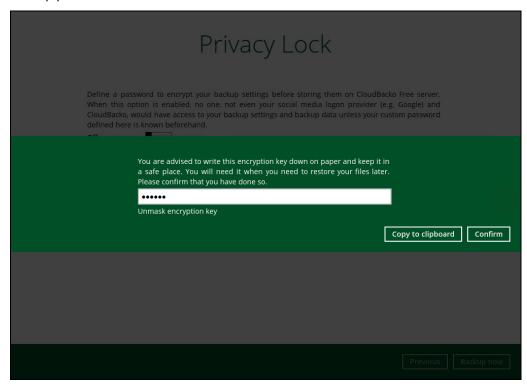
4. Slide the switch to the right hand to turn on the **Privacy Lock**.



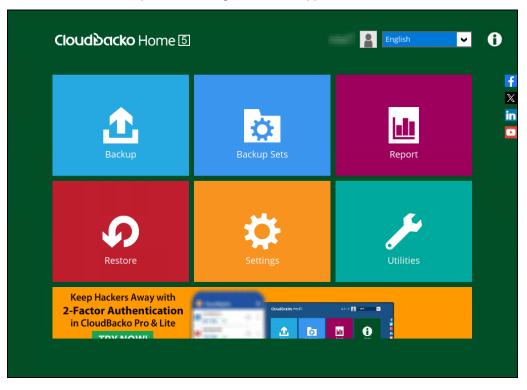
Enter the new password and re-enter password for confirmation. Once all the settings are setup, click **Backup now**.



5. Click **Copy to clipboard** to copy the encryption key or click **Confirm** to start the backup process.



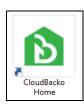
6. After successful backup, the following screen will appear.



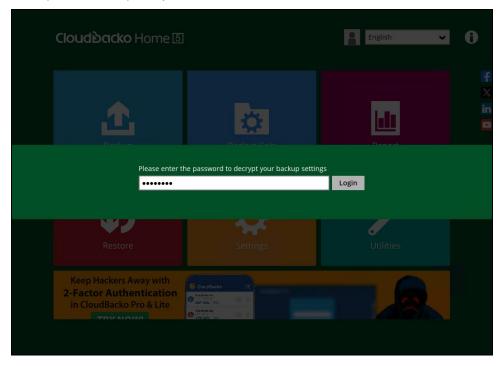
#### 6.2.2 Subsequent login with privacy lock

For succeeding logins to CloudBacko Home with privacy lock, please follow the steps below:

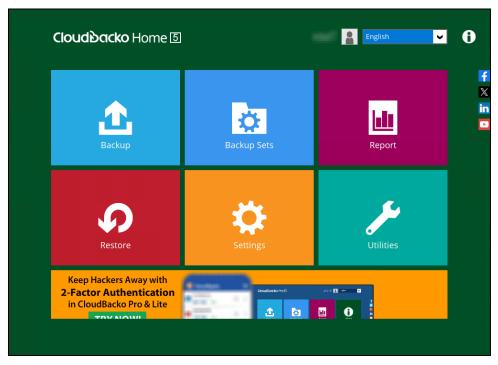
1. Double-click the **CloudBacko Home** icon to launch the application.



2. Enter password for privacy lock.



3. The following screen will appear.



### 6.2.3 Subsequent login with no privacy lock

For succeeding logins to CloudBacko Home with no privacy lock, please follow the steps below:

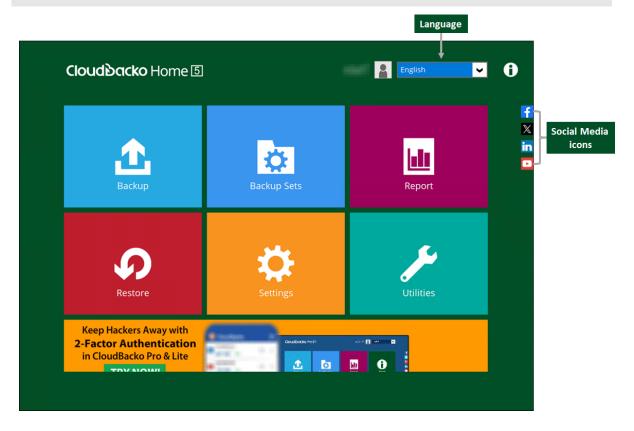
1. Double-click the CloudBacko Home icon to launch the application.



2. The following screen will appear.



### 7 CloudBacko Home Overview

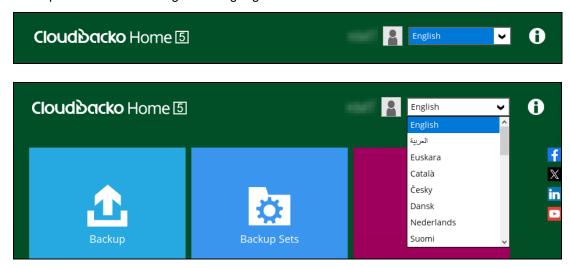


CloudBacko Home main interface has 10 icons that can be accessed by the user:

- Language
- About
- Backup
- Backup Sets
- Report
- Restore
- Settings
- <u>Utilities</u>
- Social Media Icons
- Online Help

### 7.1 Language

This option is used to change the language of the CloudBacko Home interface.

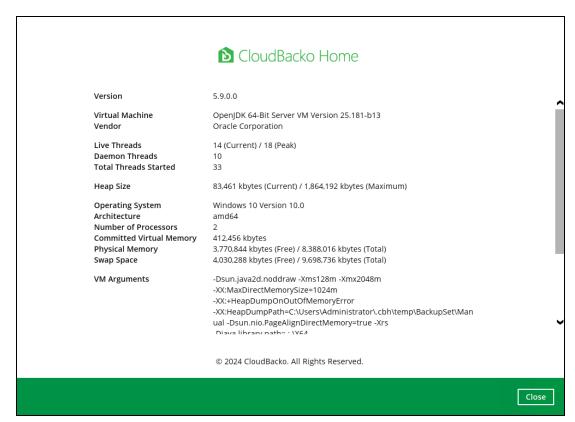


Once the language is set, it will reflect on the CloudBacko Home interface right away.

### 7.2 About

The **About** module displays the product version and system information of the machine where the CloudBacko Home is installed.





### 7.3 Backup

This feature is used to run your backup set(s).



For instructions on how to start a backup, refer to Chapter 10 Run Backup Jobs.

### 7.4 Backup Sets

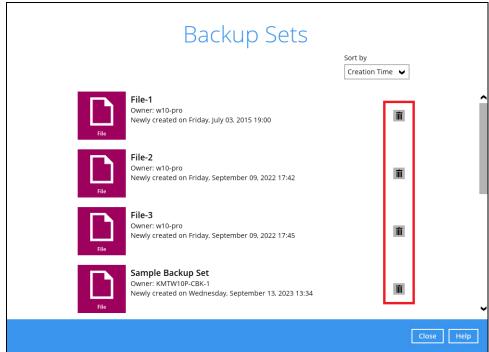
The backup set is where you will select files and/or folders to be backed up as well as configure other settings related to it. This feature allows the user to select files individually or an entire folder to backup. It is also used to delete backup set(s).



To create or modify a backup set, follow the instructions on Chapter 8 Create a Backup Set.

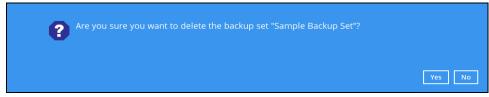
To delete a backup set, follow the instructions below:

1. Click on the delete icon on the right side of the backup set that you want to delete.

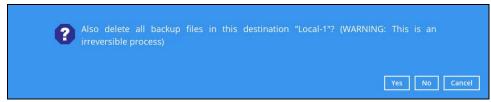




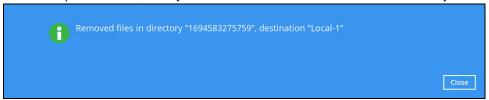
2. Click the Yes button to delete the backup set or click the No button to abort the deletion.



 If Yes is selected, it will also display another alert message confirming the deletion of all backup files in the destination. Click Yes to proceed. Otherwise, click No to abort the deletion.



4. The backup set is successfully deleted as well as the files from the directory.



### 7.4.1 Backup Set Settings

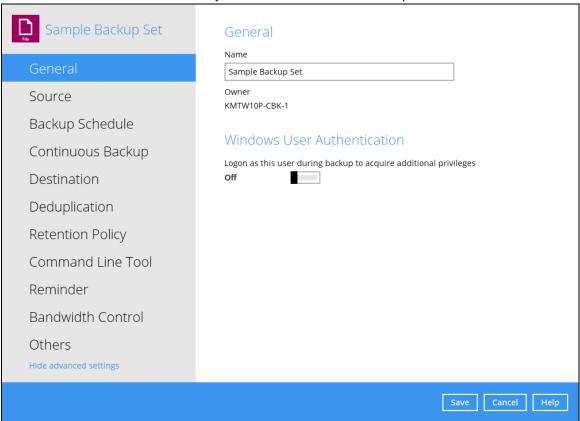
Below is the list of configurable settings under a Backup Set:

- General
- Source
- Backup Schedule
- Destination
- Reminder
- Others



#### 7.4.1.1 General

This feature allows the user to modify the current name of the backup set.



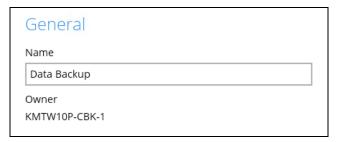
### **Backup Set Name**

To modify the name of a backup set, follow the steps below:

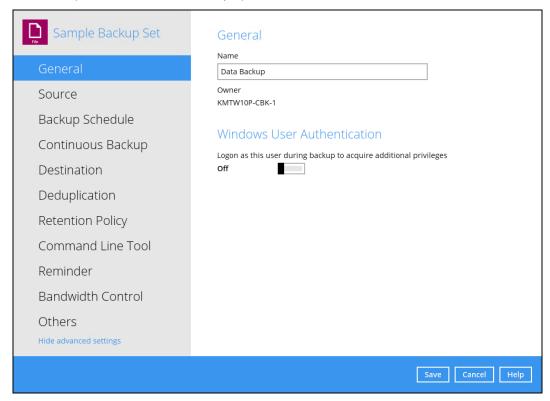
1. In the Name field, enter a new backup set name.



2. In this example, we are going to change Sample Backup Set to "Data Backup". Click the **Save** button to save the updated backup set name.



3. The backup set name is successfully updated.



### NOTE

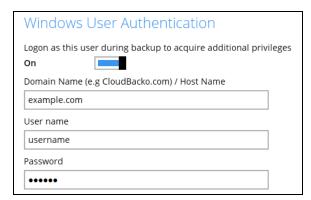
In assigning a backup set name, make sure that it does not have an identical name.

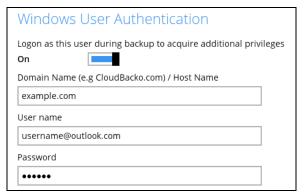


#### Windows User Authentication

To successfully perform backup and restore operations, CloudBacko Home requires both read and write permission to all the files/folders selected in the backup source.

The Windows User Authentication login credentials are used by the CloudBacko Home to ensure it has sufficient permission to access files and/or folders selected in the Backup Source, the temporary folder location, and the backup destination if it is a network drive accessible from backup machine via LAN, especially when running scheduled backup jobs, as the default Windows account used by the CloudBacko Home Services is a local system account which does not have access to network resources.





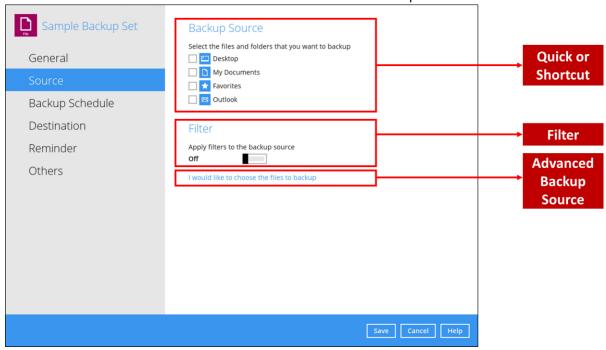
- If files and/or folders selected are located on network drive(s), the login credentials for the Windows User Authentication must have permission to access network resources, (e.g. an administrator account).
- If the machine is a file server shared by multiple users, then the CloudBacko Home will require login credentials with read/write permissions to access all the selected files and/or folders in the backup source (e.g. an administrator account).
- For CloudBacko Home installed on Microsoft Windows version 8, 8.1, 10 and 11 using the Microsoft account for Windows User Authentication is supported, e.g. username@outlook.com.

Some users prefer to use a pin to login to Windows, this cannot be used for the Windows User Authentication. The pin can only be used for logging in to Windows and is not applicable for the Windows User Authentication. The password of the account must be provided instead of the pin to access files and/or folders in the backup source.

Field	Description	
Domain Name	The domain or host name of the machine.	
Username	Login username used by the CloudBacko Home to access files and/or folders selected in the backup source.	
Password	Login password used by the CloudBacko Home to access files and/or folders selected in the backup source.	

#### 7.4.1.2 Source

This feature allows the user to select files and/or folders in the backup source.



There are three (3) ways to select files and/or folders to back up:

Option	Description
Quick or Shortcut	This allows the user to back up files and/or folders in the selected backup source entirely.
Filter	This allows the user to select or exclude files and/or folders from the backup job.
Advanced Backup Source	This allows the user to select files and/or folders individually to back up.

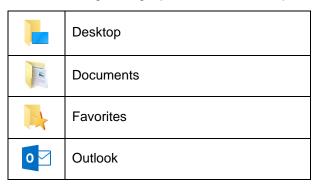


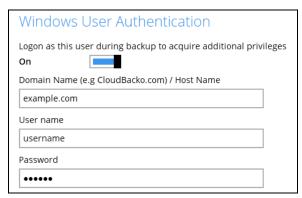
### **Option 1: Quick or Shortcut**

This option allows the user to quickly select a backup source to be backed up. For our example below, we assume the account name is administrator.

Backup Source				
Select the files and folders that you want to backup				
Desktop				
My Documents				
☐ ★ Favorites				
Outlook				

If any of the following backup source is selected and the <u>Backup Schedule</u> is enabled, the Windows User Authentication will prompt the user to enter the login password. To select a backup source without entering the login password, the backup schedule must be disabled.





#### **NOTE**

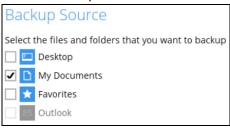
During the creation of backup set, if this type of backup source (Quick or Shortcut) is selected and the Schedule is set to "on", the Windows User Authentication screen will be displayed. You will need to enter the login password, otherwise, the creation of backup set will not continue.

To know the locations of the folder(s) that will be backed up for each selected backup source, refer to the following table:

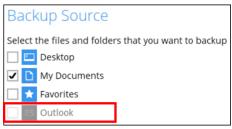
Backup Source		Description
Desktop	1	If Desktop is selected, all files and/or folders in the following location will be backed up:
		%UserProfile%\Desktop
		If Documents is selected, all files and/or folders located in the following location will be backed up:
Documents	Tax.	%UserProfile%\Documents
		If the Follow Link is enabled, all files and/or folders located in the following locations will also be backed up:
		%UserProfile%\Music
		%UserProfile%\Pictures
		%UserProfile%\Videos
		Note: The Follow link is enabled by default.
Favorites	B	If Favorites is selected, all files and/or folders located in the following location will be backed up:
	•	%UserProfile%\Favorites
Outlook	0	If Outlook is selected, all files and/or folders located in the following location will be backed up:
		%UserProfile%\AppData\Local\Microsoft\Outlook

To select files and/or folders to back up using the Quick or Shortcut option, follow the steps below:

1. Select a backup source.



2. The Outlook will be disabled if it is not installed on the machine.

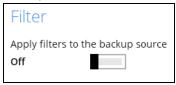


3. Click the **Save** button to store the selected backup source.



#### **Option 2: Filter**

The Filter Backup Source is an alternative way to select a backup source which does not require Windows User Authentication login password even if the backup schedule is enabled unless the filter backup source is located on a network drive.



The following options in the filter backup source does not require Windows User Authentication login password:

All hard disk drives



Specific folder



To select files and/or folders to back up using the Filter Backup Source, follow the steps below:

1. Swipe the lever to the right to turn on the filter setting.



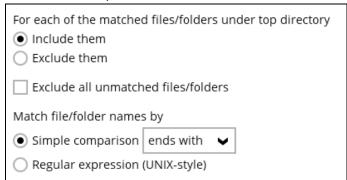
2. Click the **Add** button to create filter.



3. Assign a desired name to the backup filter.



4. Select from the options below.



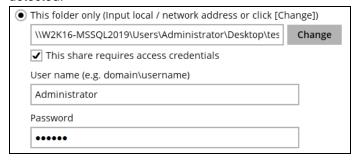
5. In this example, all files and/or folders that end with the letter 'X' will be included in the backup job. You can add multiple patterns here.



6. Select whether you would like to apply the filter to all files and/or folders in all hard disk drives or to a specific folder only. If 'This folder only' is selected, click the **Change** button to select the specific folder or input the local / network address that you would like to apply the filter to.



 If 'This share requires access credentials' is checked, enter the Username and Password of the local or network drive. This checkbox will only be enabled if a local or network address is detected.



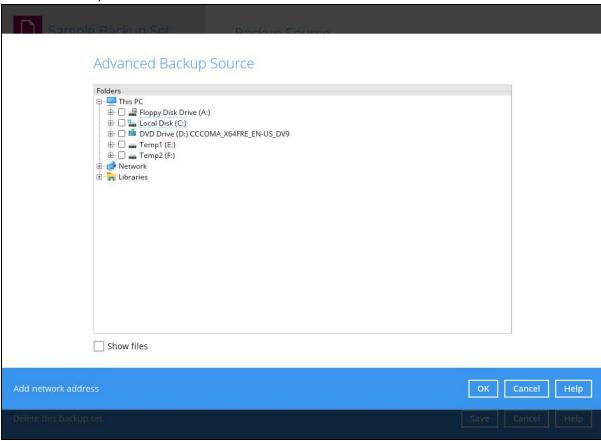
- 8. Click the **OK** button to save the created filter, then click the **Save** button to save the settings. Once you run a backup, all files and/or folders that match the applied filter will be backed up.
- 9. Multiple backup filters can be created by clicking the **Add** button





#### **Option 3: Advanced Backup Source**

The Advanced Backup Source is another way to select a backup source which does not require Windows User Authentication login password even if the backup schedule is enabled unless the advanced backup source is located on a network drive.



The following table shows the list of options in the Advanced Backup Source which require and does not require Windows User Authentication login password:

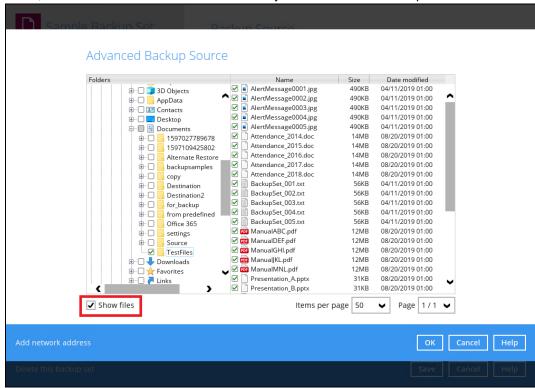
Advanced Backup Source		Description
Local Disk		Does not require Windows User Authentication login password.
Network drive		Requires Windows User Authentication login password. For network drive/s, you will need to enter the login credentials which has permission to access network resources in order to back up selected files and/or folders.
Libraries		Does not require Windows User Authentication login password.  Note: This type of backup source may not be supported on other versions of Windows.  This feature is not supported on:  Windows 11  Windows 10  Windows 8.1  Windows 8  Supported on:  Windows 7

To select files and/or folders using the Advanced Backup Source, follow the steps below:

1. In the Source window, select 'I would like to choose the files to backup'.

I would like to choose the files to backup

- 2. There are two (2) ways to select files and/or folders, one is when the files and/or folders are located in the local machine and another way is when the files and/or folders are located in the network.
  - i. In the Advanced Backup Source window, select 'Show files' to display the files inside each folder, then select the files and/or folders that you would like to back up

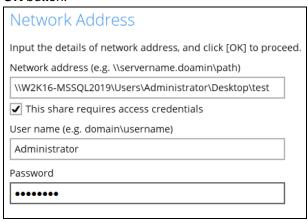


ii. If the files and/or folders are located in a network drive, click the 'Add network address' link. Enter the network address.

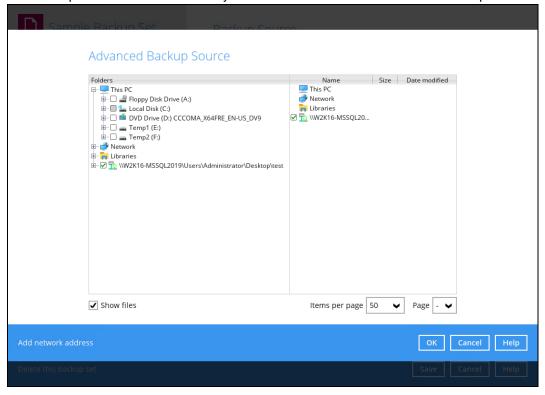




If access credentials are required to access the network, then check the "This share requires access credentials' checkbox. The checkbox will only be enabled once the network address is entered. Enter the Username and Password of the network drive and click the **OK** button.



By default all the files inside the folder in the network drive is selected for backup. But there is still an option to deselect files that you do not want to be included in the backup.



#### **NOTE**

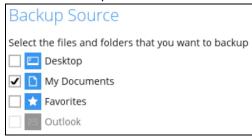
- There must be a specific folder that is shared in the network drive that will be entered in the network address e.g. \\W2K16-MSSQL2019\Users\Administrator\Desktop\test
- Temporary folders location are not supported for individual login credentials but can still be setup separately using existing Windows User Authentication login.
- 3. Click the **OK** button to save the selection, then click the **Save** button to store settings.

In selecting files and/or folders to back up, the three (3) options can be used simultaneously. For more details, please refer to the example scenarios below:

#### Scenario 1 (Quick or Shortcut + Filter)

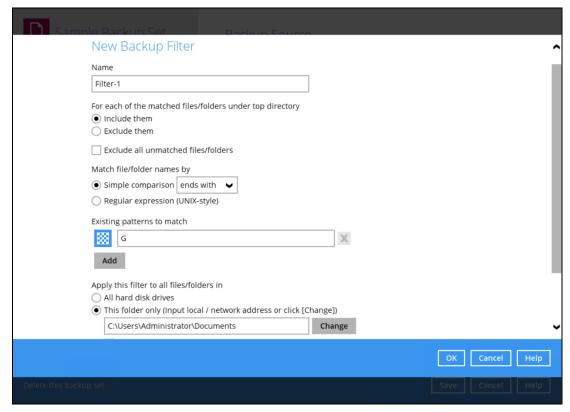
You can use the quick or shortcut option and apply filter to the selected backup source at the same time. To use this type of combination, follow the steps below:

1. Choose a backup source.



2. Create a filter which will be applied to the backup source.





3. Click the **OK** button to save the created filter, then click the **Save** button to store settings.



#### Scenario 2 (Quick or Shortcut + Advanced Backup Source)

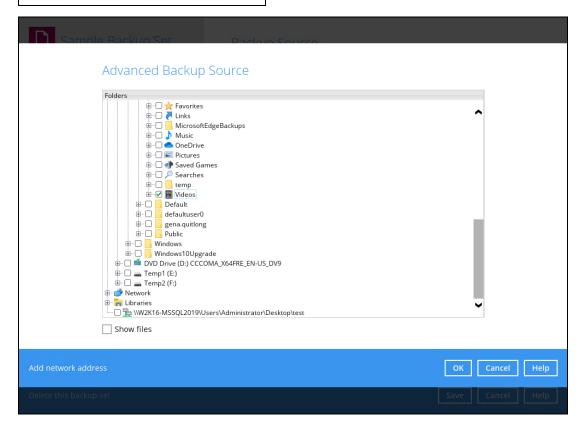
You can use the quick or shortcut option and select files and/or folders in the advanced backup source at the same time. To use this type of combination, follow the steps below:

1. Choose a backup source.



2. In the source window, click "I would like to choose the files to backup" and select the files and/or folders that you would like to back up.

I would like to choose the files to backup



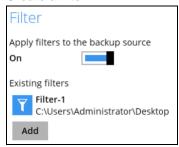
3. Click the **OK** button to save the selection, then click the **Save** button to save settings.



#### Scenario 3 (Filter + Advanced Backup Source)

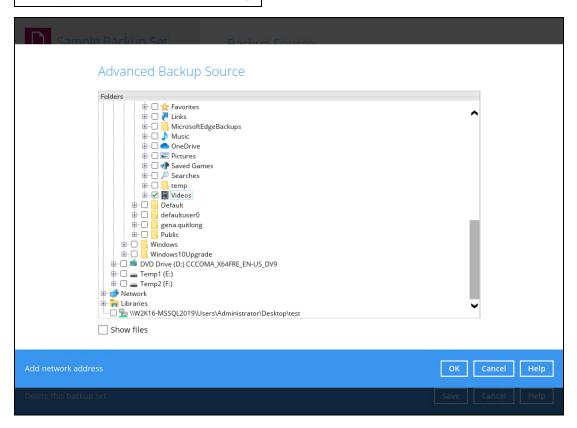
You can use the filter backup source and select files and/or folders in the advanced backup source at the same time. To use this type of combination, follow the steps below:

1. Create a filter.



2. In the source window, click "I would like to choose the files to backup" and select the files and/or folders that you would like to back up.

I would like to choose the files to backup



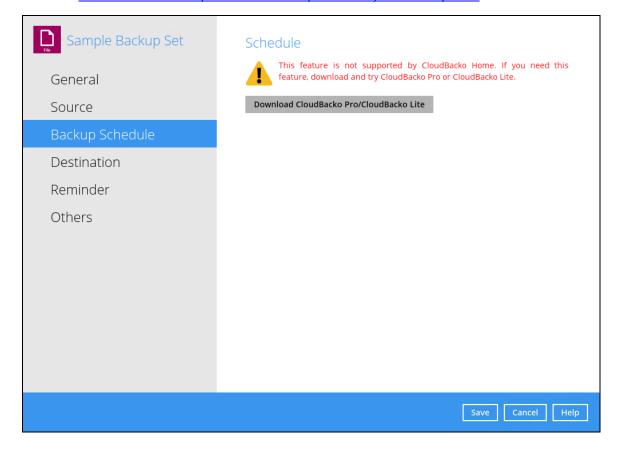
3. Click the **OK** button to save the selection, then click the **Save** button to store settings.

#### 7.4.1.3 Backup Schedule

Backup Schedule is not supported for CloudBacko Home. This feature is only available for CloudBacko Pro or CloudBacko Lite. Click the **Download CloudBacko Pro/CloudBacko Lite** for more details.

As an alternative to scheduled backup, it is recommended using either <u>Continuous Backup</u> feature or the following <u>Reminder</u> feature which will,

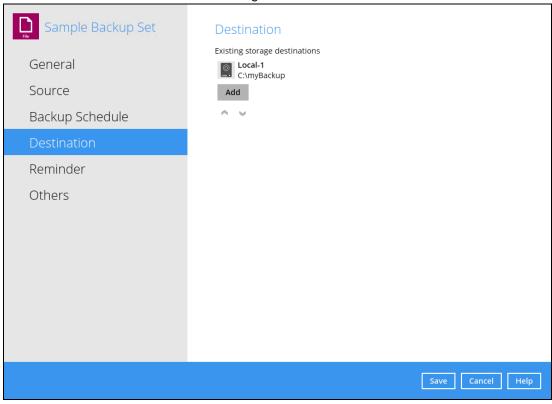
- Remind me to backup during Windows log off and shutdown
- Remind me to backup when last backup is over my tolerance period





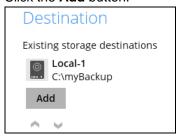
#### 7.4.1.4 Destination

This feature allows the user to add a storage destination.

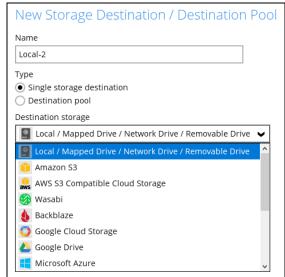


#### To add a new storage destination, follow the steps below:

1. Click the **Add** button.

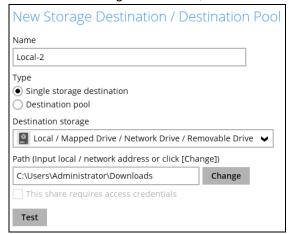


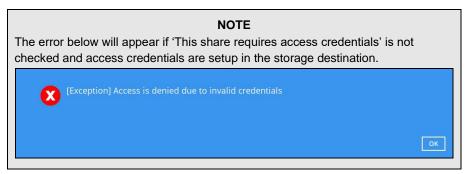
2. Click the drop-down button to select a backup destination.



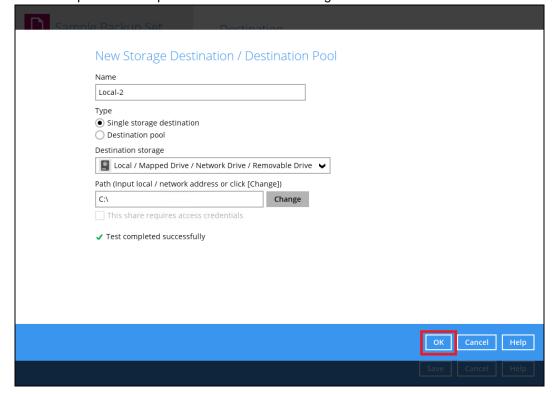


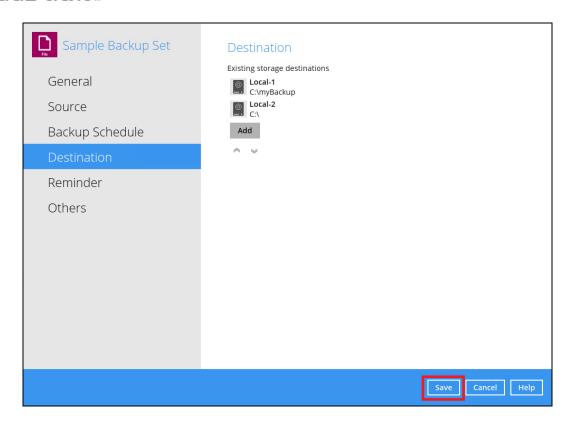
3. If the **Local / Mapped Drive / Removable Drive** is selected, click the **Change** button to select a new storage destination, then click the **Test** button to validate access to it.





4. Click the **OK** button to save the added storage destination, then click the **Save** button to store the updated backup mode and the added storage destination.







#### 7.4.1.5 Reminder

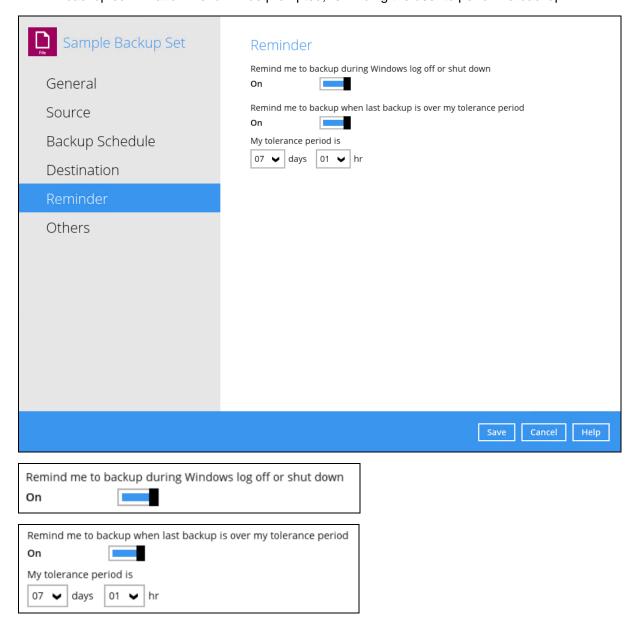
This reminder is designed for users who do not have a regular backup schedules setup. It allows CloudBacko Home users to setup two types of reminder. Both reminders are enabled by default.

#### Remind me to backup during Windows log off or shutdown

When this reminder setting is enabled, a backup confirmation menu will be prompted, requesting for backup before the user logs out the system or before shutting down Windows.

#### Remind me to backup when last backup is over my tolerance period

If the time between the last backup to the current time elapsed is over the tolerance period, a backup confirmation menu will be prompted, reminding the user to perform a backup.





#### Remind me to backup during Windows log off or shutdown

To enable the Reminder setting during Windows log off, or shutdown, follow the steps below:

- 1. Go to Backup Sets, then select a backup set.
- 2. Choose the **Reminder** tab in the backup set settings.
- 3. Swipe the lever to the right to turn on the reminder.



4. Click the **Save** button to save settings.

#### **NOTES**

- This feature is not supported on Windows 7 (and older), and Windows Server 2008 (and older). Due to limitation on Windows which the Shutdown screen overrides the backup prompt, feature is removed on Windows 8/Windows Server 2012 or above.
- The dialog box will only appear if there is a backup set with enabled Reminder setting.
- The dialog box will only be displayed for four (4) seconds.
- If there are multiple backup sets displayed, you cannot select one (1) backup set to back up. It is recommended to only enable the Reminder setting for the backup sets that you regularly back up.

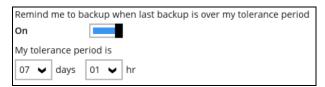
For more detailed examples of the reminder feature, please refer to <u>Appendix D: Example Scenarios for the Reminder for Windows Logoff, Restart, and Shutdown.</u>



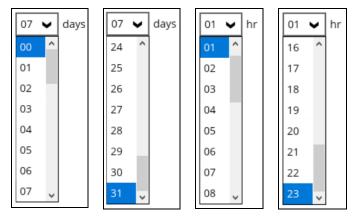
#### Remind me to backup when last backup is over my tolerance period

To enable the Reminder setting when the last backup is over the tolerance period, follow the steps below:

- 1. Go to Backup Sets, then select a backup set.
- 2. Choose the Reminder tab in the backup set settings.
- 3. Swipe the lever to the right to turn on the reminder.



4. Set the tolerance period. Default is 7 days and 1 hour. Range for the day is between 1 to 31 days, for the hour, it is 1 to 23 hours.



5. Click the **Save** button to save settings.

#### **NOTES**

- This reminder will appear upon login to Windows.
- For more detailed examples of the reminder feature, please refer to <u>Appendix E: Example Scenarios</u> for the Reminder for completed Tolerance Period.

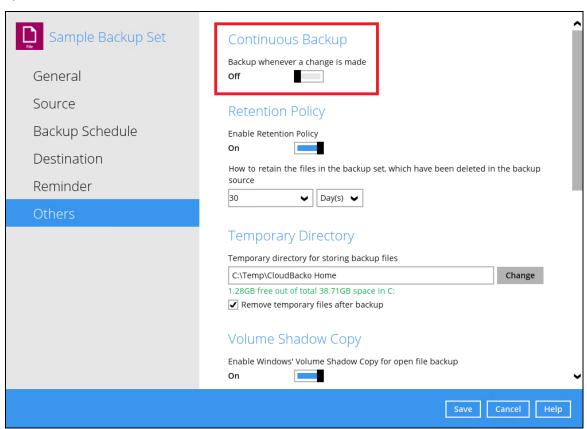
#### 7.4.1.6 Others

Below is the list of other configurable options under the backup set settings:

- Continuous Backup
- Retention Policy
- Temporary Directory
- Volume Shadow Copy
- Compressions
- Encryption
- Recycle Bin
- Restore Drill

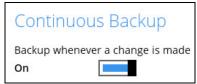
#### **Continuous Backup**

This feature provides backup for selective data whenever a change is made. This feature is disabled by default.

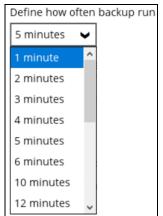


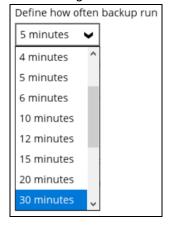
To enable the continuous backup, follow the steps below:

1. Swipe the lever to the right to turn on the continuous backup setting.



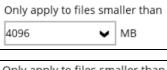
2. Define how often the continuous backup job will run. The backup time interval can be set from 1 minute to 12 hours. Default setting is 5 minutes.

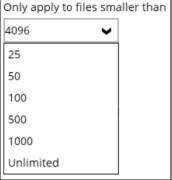






3. This applies the continuous backup on small regular update files. The file size can range from 25MB to unlimited MB.

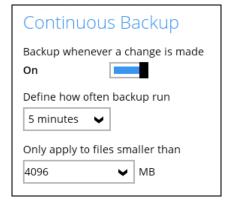




#### NOTE

For large file size, the continuous backup may not run with a short time interval. You may need to adjust the continuous backup time interval (in step 3).

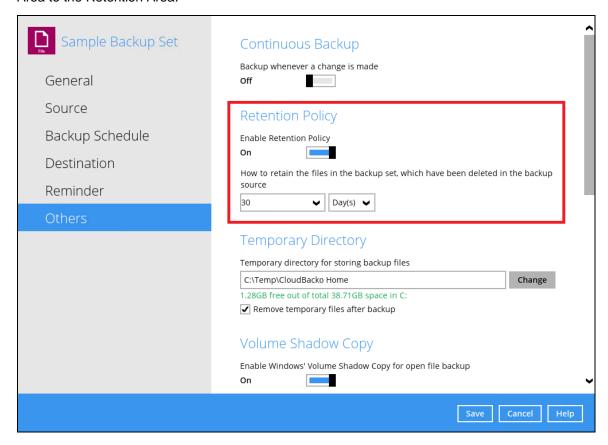
4. Click the **Save** button to save the settings.





#### **Retention Policy**

When the CloudBacko Home identifies files and/or folders that are deleted, updated, or with updated permission/attributes during a backup job, these files and/or folders will then be moved from the Data Area to the Retention Area.

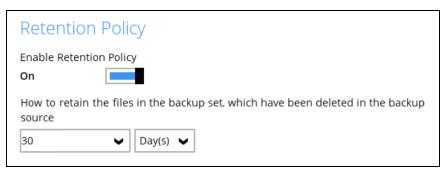


**Retention Area** is a place used as a temporary destination to store these files (deleted, updated, or with updated permission/attributes during a backup job). Files and/or folders in the Retention Area can still be restored.

The **Retention Policy** is used to control how long these files remain in the Retention Area when they are removed which can be specified in the number of days, weeks, months, or backup jobs. Retained data within all backup destinations (e.g. local drive, SFTP/FTP, and cloud storage) are cleared by the Retention Policy job.

The Retention Policy job will be run whenever a backup job is performed as long as this is enabled for the backup set. It will also be run when Space Freeing Up is performed. For further information on Space Freeing Up, refer to <u>Ch. 7.8.2 Space Freeing Up</u>.

The default Retention Policy setting for a File Backup Set is 30 days.



#### **NOTE**

There is a trade-off between the Retention Policy and backup destination storage usage. The higher the Retention Policy setting, the more storage is used, which translates into higher storage costs.

To configure the Retention Policy, follow the steps below:

- Select the Others tab in the Backup Set Settings.
- 2. Slide the switch to the right to turn on **Enable Retention Policy**.
- 3. Click the drop-down button to define the number of day(s) or job(s) that the deleted files will be retained. This is configured as 30 days by default.
- 4. Click the **Save** button to store the configured Retention Policy.

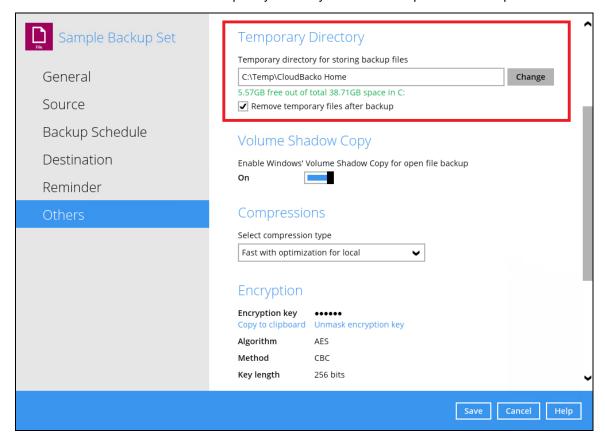
#### **WARNING**

When files and/or folders in the Retention Area exceed the Retention Policy setting, they will be permanently removed from the backup set and cannot be restored.



### **Temporary Directory**

The CloudBacko Home uses the temporary directory for both backup and restore operations.



For a **backup job**, it is used to temporarily store backup set index files. An updated set of index files is generated after each backup job. The index files are synchronized to each individual backup destination at the end of each backup job.

For a **restore job**, it is used to temporarily store temporary restore files.

#### **NOTES**

For best practice, the temporary directory should be located on:

• A local drive for optimal backup and restore performance.

And should not be located on:

- System drive, as the System drive is used by Windows and other applications. There will be frequent disk I/O activity which may affect both backup and restore performance.
- A network drive, as it could affect both backup and restore performance.

It is recommended to select the 'Remove temporary files after backup' option on the backup set to keep the temporary drive clear.

To change the temporary directory, follow the steps below:

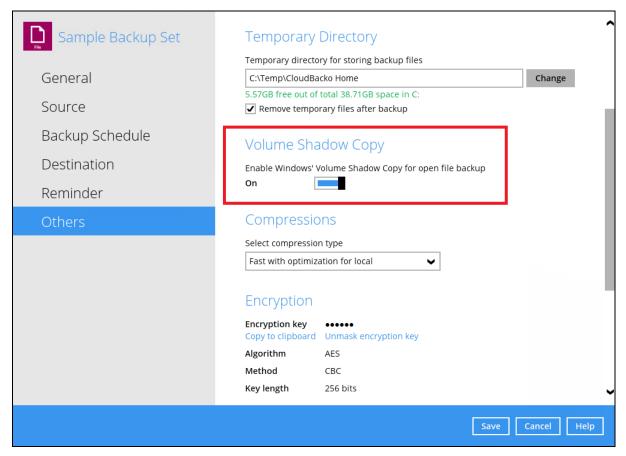
1. Click the **Change** button to select a directory path for storing temporary data.



2. Locate the directory that you would like to use, then click **OK** to select the folder. Click the **Save** button to apply the settings.

#### **Volume Shadow Copy**

This feature allows the CloudBacko Home to use the Windows Volume Shadow Copy service to create a snapshot of the selected files and/or folders on the local drive(s) of the machine, so that the CloudBacko Home can continue to back up files even if they are opened and/or have been updated by the user. This feature is **On (enabled)** by default.



#### **WARNING**

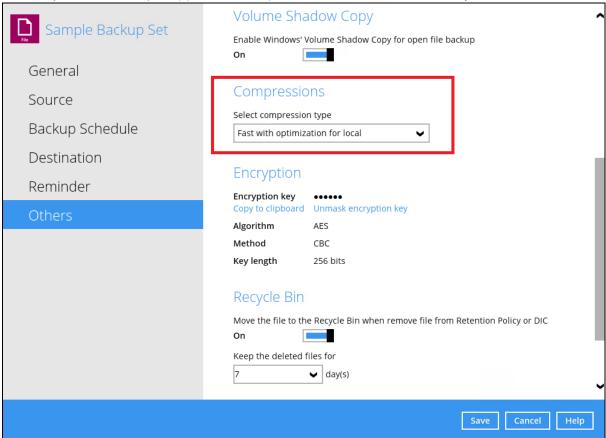
Volume Shadow Copy does not support open file backups on network drives.



#### Compressions

This feature is used to enable compression of data during a backup job. When this feature is enabled, the CloudBacko Home will compress all files before it is backed up to the backup destination(s).

For newly created backup set(s), "Fast with optimization for local" is selected by default.



These are the four (4) compression types:

- No Compression No compression of file will be made
- Normal Compressed file size is the smallest but with high CPU usage
- Fast Compressed file size is larger than Normal Compression but with lower CPU usage
- Fast with optimization for local Compressed file size is larger than Fast Compression but with the lowest CPU usage

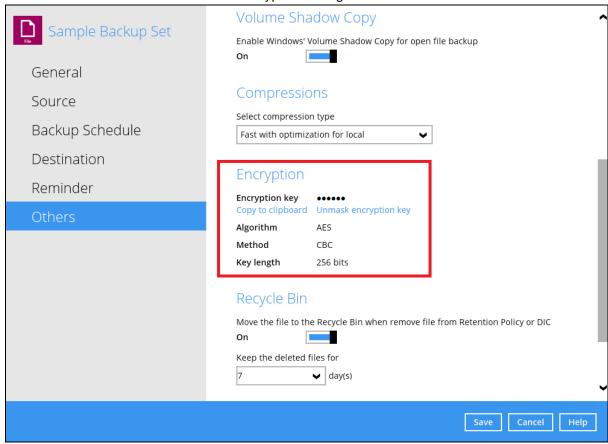
#### **NOTE**

The compression type can be changed anytime even after a backup job. The modified compression type will be applied on the next run of a backup.



### **Encryption**

This feature allows the user to view the encryption settings.



To view the encryption key of the backup set, follow the steps below:

- 1. In the backup set settings, select the **Others** tab. Scroll down to display the **Encryption**.
- 2. Click **Unmask encryption key** to display the encryption key of the backup set.



3. Click Copy to clipboard to copy the encryption key of the backup set.



#### Recycle Bin

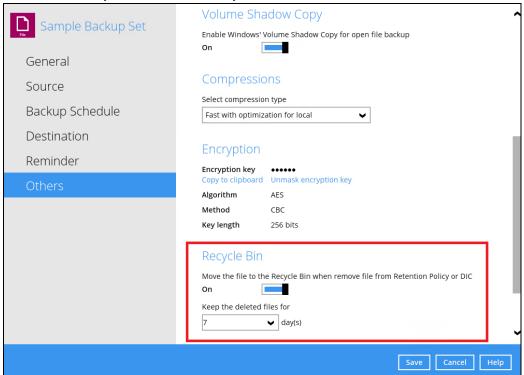
The Recycle Bin is for protection of the BAK (block) files stored in the Backup Set's destination. It allows the user to set the number of days BAK files that were deleted due to Retention Policy or Data Integrity Check will be kept in the Recycle Bin as added protection.

This is how the Recycle Bin will treat deleted data:

- Data in the Recycle Bin will consume Quota.
- It does not move the data in another location within the storage, instead it is tracked by index.
- If the index is reverted to a previous timestamp, the settings of the Recycle Bin in the reverted index will be followed.
- Recoverability of data is not affected when the Recycle Bin is alternately enabled or disabled.
  - When enabled, it will only check if the data inside the Recycle Bin is still within the set number of days. Once it is beyond the set number of days it will only be deleted when the following operations are run: Backup, Space Freeing Up, Data Integrity Check and Delete Backup Data.
  - When disabled, it will not automatically delete the data inside the Recycle Bin. It will remain in the Recycle Bin even if it is beyond the set number of days. It will only be deleted when the following operations are run: Backup, Space Freeing Up, Data Integrity Check and Delete Backup Data.
- Once the Recycle Bin is disabled, deleted files will be removed immediately and will not be moved in the Recycle Bin.
- The setting applies to all destinations for the backup set.



This is enabled by default set with 7 days.



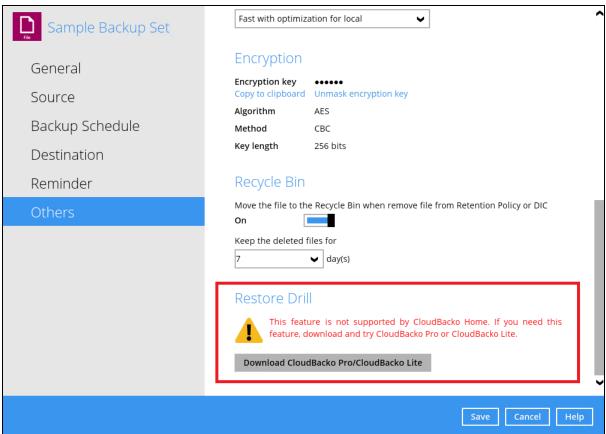
To set the number of days, follow the steps below:

- 1. Go to Backup Sets, then select a backup set.
- 2. Click the Others tab in the backup set settings.
- 3. Under Recycle Bin, select the number of days or you can enter it manually.



#### **Restore Drill**

Restore Drill is not supported for CloudBacko Home. This feature is only available for CloudBacko Pro or CloudBacko Lite. Click the **Download CloudBacko Pro/CloudBacko Lite** button for details.



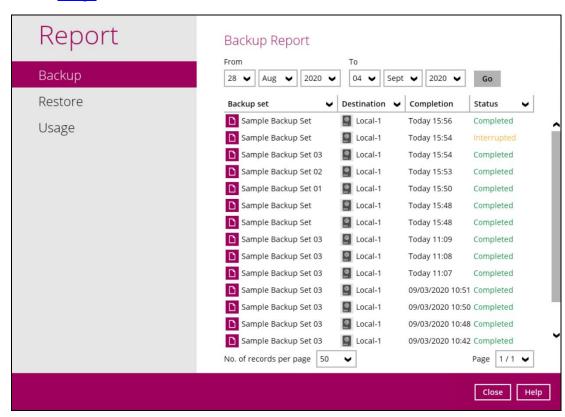
### 7.5 Report

This feature allows user to run and view backup / restore reports and usage.



There are three (3) options available for this feature, namely:

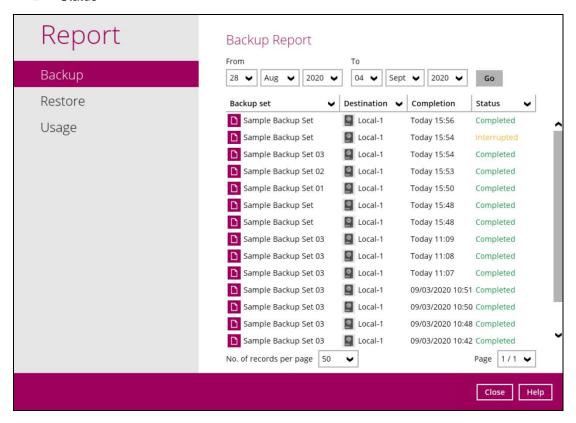
- Backup
- Restore
- Usage



#### 7.5.1 Backup

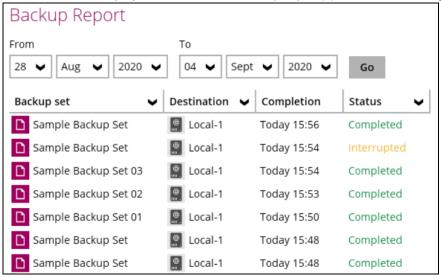
This option is used to run and view backup reports. There are four (4) filters that can be applied on this feature, namely:

- Date
- Backup set
- Destination
- Status



#### **Date**

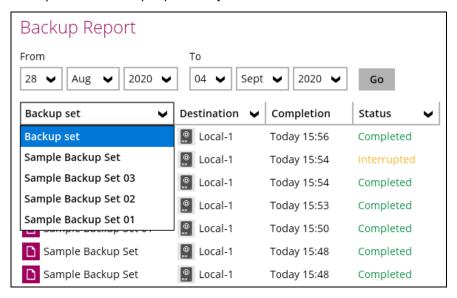
Use this filter to display all the available backup report(s) within a date range.





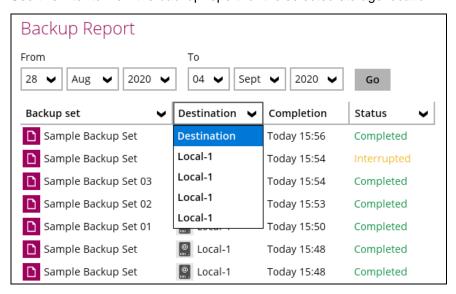
#### Backup set

Use this filter to display all the available backup set(s) with a backup report. Then select which backup set with backup report that you would like to view.



#### **Destination**

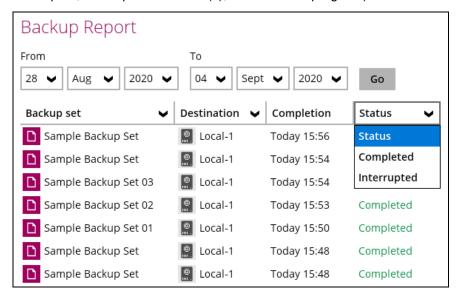
Use this filter to view the backup report for the selected storage location.





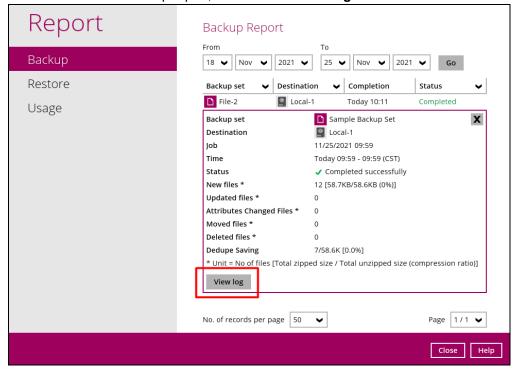
#### **Status**

Use this filter to view all the backup report(s) with the same status (i.e., Completed, Warning, Interrupted, Interrupted with error(s), Failed and In progress).



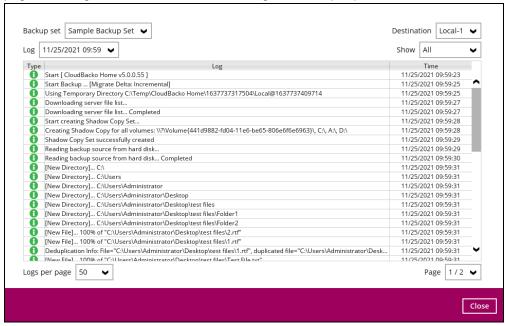
To view the backup log, follow the instructions below:

1. Select and click the backup report, then click the View log button.





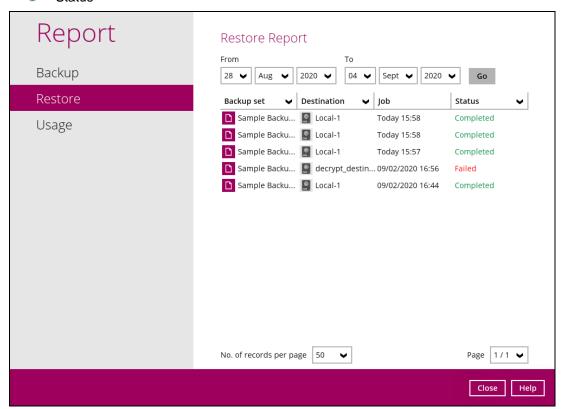
2. The Backup set, Destination, Log Date and Time, Status, the number of Logs per page, and Page can be filtered when viewing the backup report.



#### 7.5.2 Restore

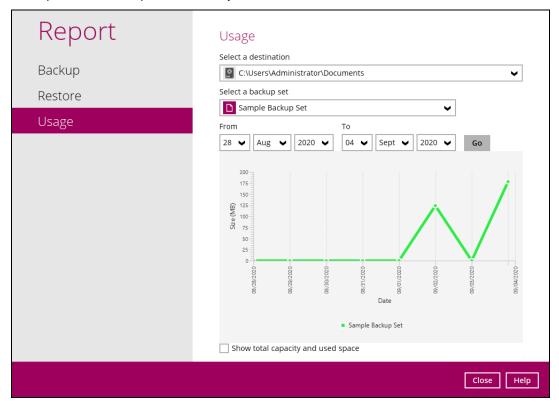
This feature displays the restore report logs for each backup set. Similar to the **Backup** tab, this feature also consists of the following filters:

- Date
- Backup set
- Destination
- Status



## 7.5.2 Usage

This allows the user to view the storage and usage information in a graphical view for each backup set and backup destination by date.



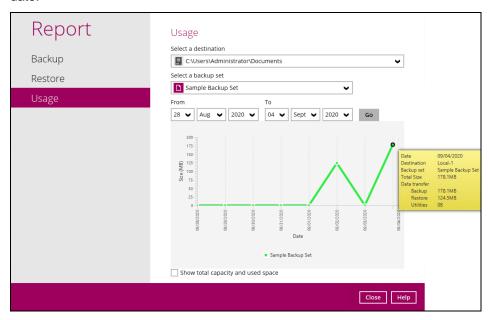
#### Storage Statistics

Total Size: Displays the total amount of backed up data on the backup destination.

The storage statistics of a backup set is updated every time the following functions are run:

- 1. Backup job
- 2. Periodic Data Integrity Check (PDIC)
- 3. Data Integrity Check (DIC)
- 4. Space Freeing Up
- 5. <u>Delete Backup Data</u>

**Example:** The data transfer statistics will pop up when mouse pointer moves over a specific date.



#### Data Transfer Statistics

- Backup: displays the amount of data transferred to the backup destination for backups.
- Restore: displays the amount of data transferred from the backup destination for restores.
- Utilities: displays the amount of data transferred from the backup destination, when a Data Integrity Check (DIC) is run with the "Run Cyclic Redundancy Check (CRC) during data integrity check" option selected.

To check the total capacity and used space, tick the checkbox.

Show total capacity and used space

Report Usage Select a destination Backup ~ C:\Users\Administrator\Documents Select a backup set Restore Sample Backup Set 28 🗸 Aug 🗸 2020 🗸 04 🗸 | Sept 🗸 | 2020 🗸 | Sample Backup Set Total Used Show total capacity and used space Close Help

## 7.6 Restore

This feature is used to copy the backed up file(s) from the backup set and restoring it to its original location or alternate location.



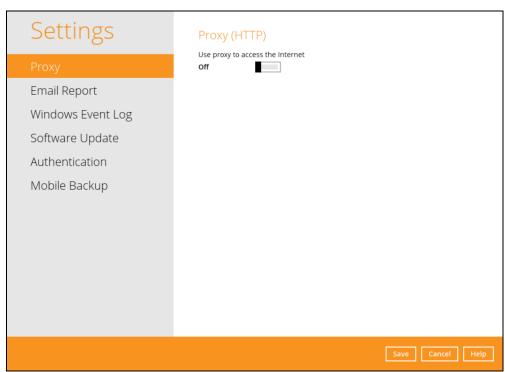
To restore backed up files, follow the instructions on <a href="Chapter 11.1 Restore Data">Chapter 11.1 Restore Data</a>.

## 7.7 Settings

Settings consist of six (6) sub modules:

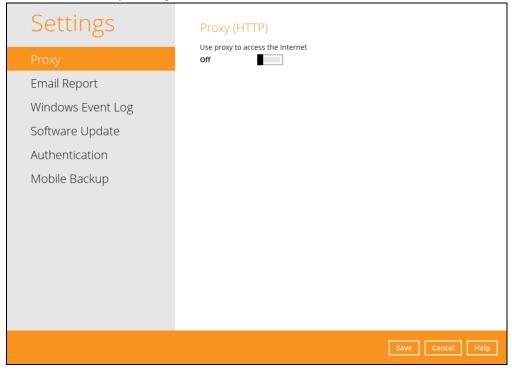
- Proxy
- Email Report
- Windows Event Log
- Software Update
- Authentication
- Mobile Backup

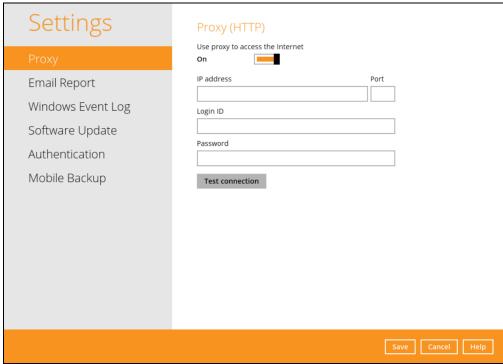




## 7.7.1 **Proxy**

To enable the Proxy Settings, follow the instructions below.



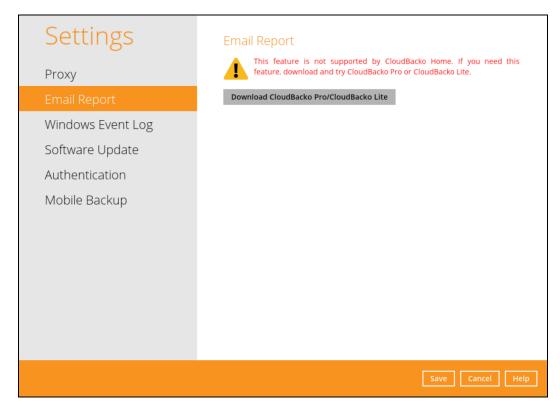


- 1. Complete the following fields:
  - IP address
  - Port
  - Login ID
  - Password
- 2. Click the **Test Connection** button to validate the connection.
- 3. Click the **Save** button to store the settings.



## 7.7.2 Email Report

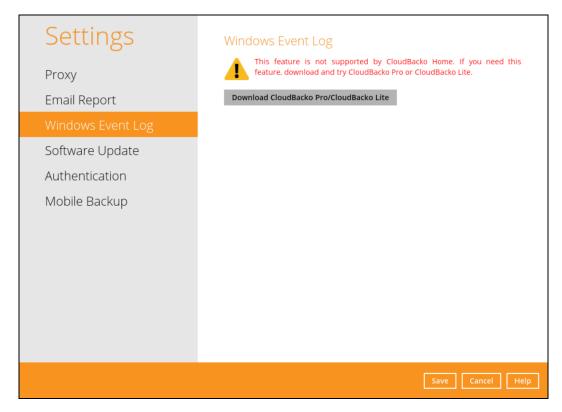
Email Report is not supported for CloudBacko Home. This feature is only available for CloudBacko Pro or CloudBacko Lite. Click the **Download CloudBacko Pro/CloudBacko Lite** for more details.





## 7.7.3 Windows Event Log

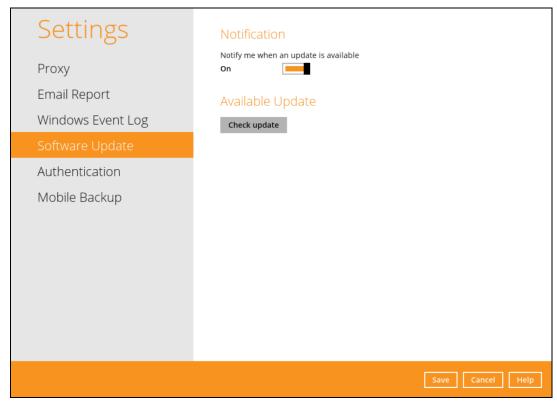
Windows Event Log is not supported for CloudBacko Home. This feature is only available for CloudBacko Pro or CloudBacko Lite. Click the **Download CloudBacko Pro/CloudBacko Lite** for more details.





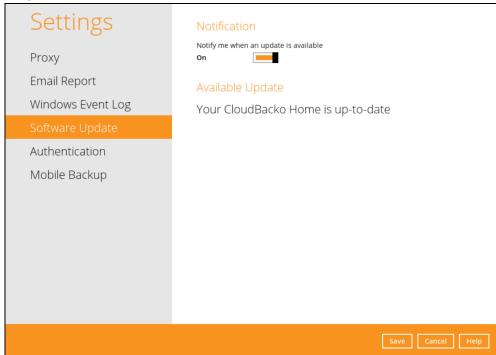
## 7.7.4 Software Update

The Software Update module allows the user to enable the notifications when an update is available and check if there is an available update. By default, the notification is enabled.

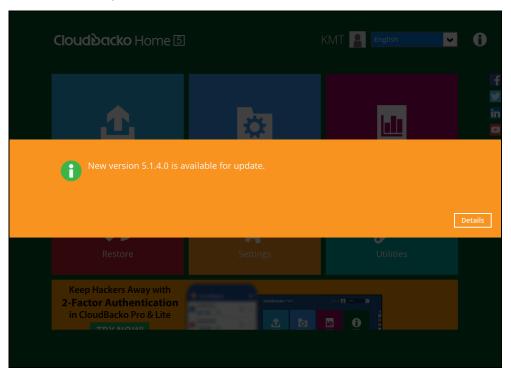


To check for the available update, follow the instructions below:

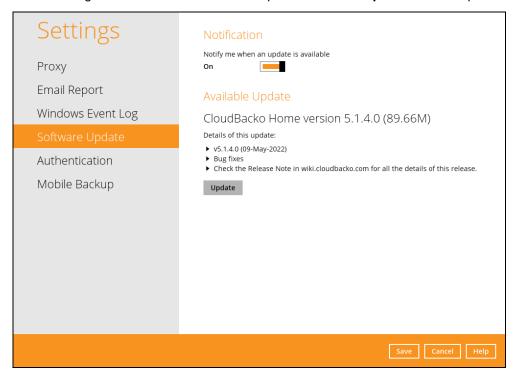
- 1. Click the **Check update** button.
- 2. If there is no available update, it will display this message, "Your CloudBacko Home is up-to-date".



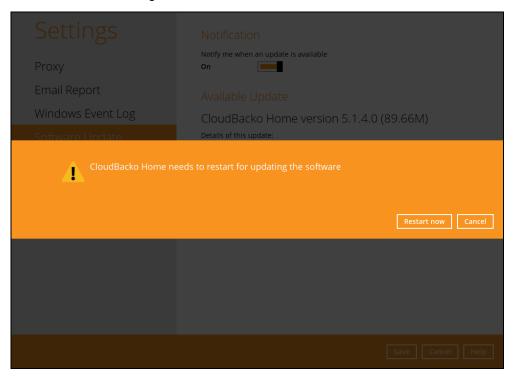
3. However, if there is an available update, upon launching the CloudBacko Home, an alert message will prompt that there is an available version for update. Click the **Details** button to proceed.



4. Upon clicking the Details button, it redirects the users to the Software Update module under Settings. It shows the details of the update. Click the **Update** button to proceed.

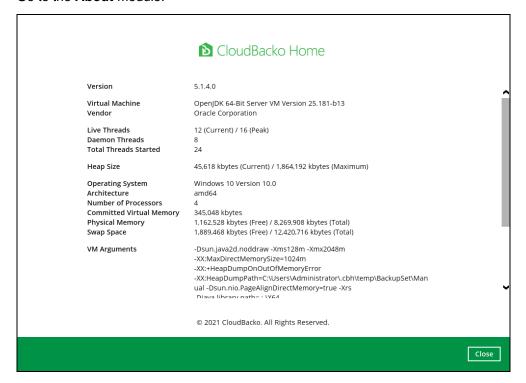


5. It will show the download progress of the latest patch. Once download is completed, it will prompt an alert message that the CloudBacko Home needs to restart for the updating the software. Click **Restart now** to proceed. Otherwise click the **Cancel** button to abort restarting.



The CloudBacko Home should launch automatically. To check if the update is successful,

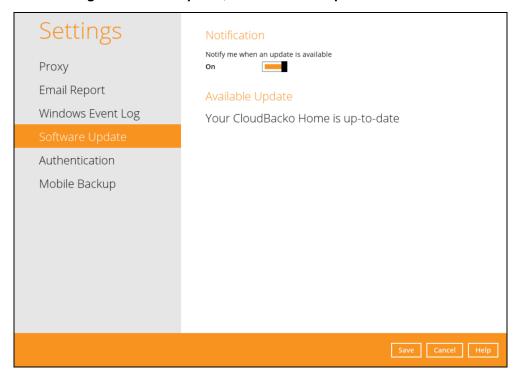
Go to the About module.





OR

## Go to Settings > Software Update, click the Check update button

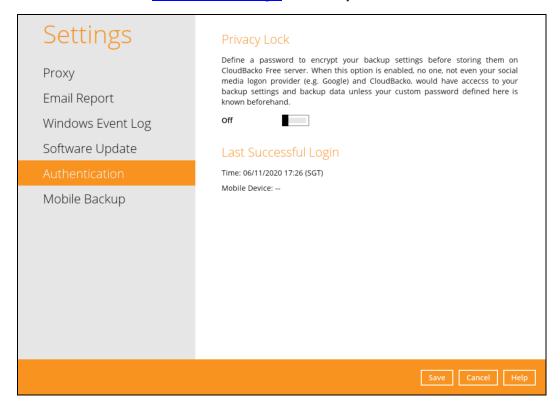




#### 7.7.5 Authentication

You can use the Authentication function to:

- Enable or disable the "Privacy Lock". Change the password of the "Privacy Lock".
- View details of the "<u>Last Successful Login</u>" for Privacy Lock.

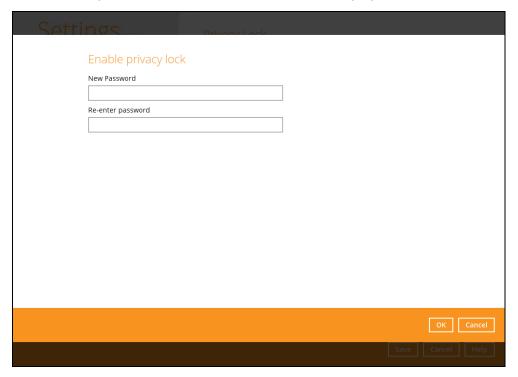




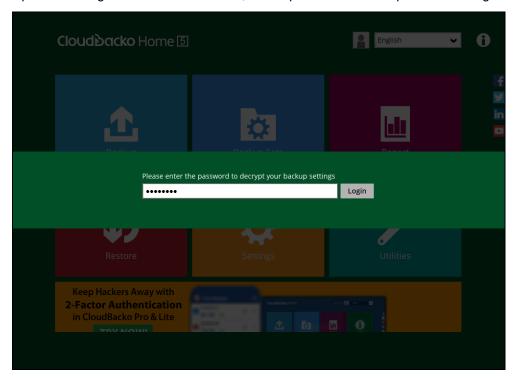
#### **Privacy Lock**

This feature allows the customer to define a password to encrypt the backup settings before storing the data to CloudBacko Free Server. To enable the Privacy Lock feature, follow the instructions below:

- 1. Swipe the lever to the right to turn it on.
- 2. Enter the new password and re-enter it for authentication purposes.



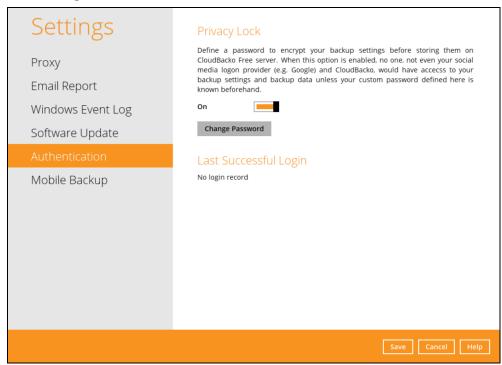
- 3. Click **OK** then click the **Save** button to store the settings.
- 4. Upon launching the CloudBacko Home, it is required to enter the password to login.



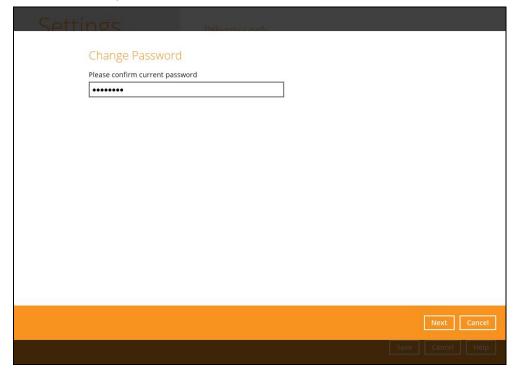


To change the password, follow the instructions below:

1. Click Change Password.

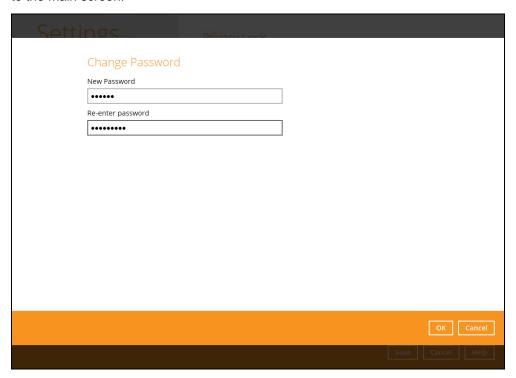


2. Enter the current password.

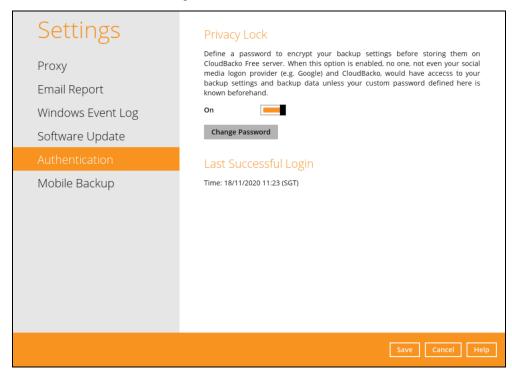




3. Enter the new password and re-enter it for authentication purposes. Click **OK** to return to the main screen.



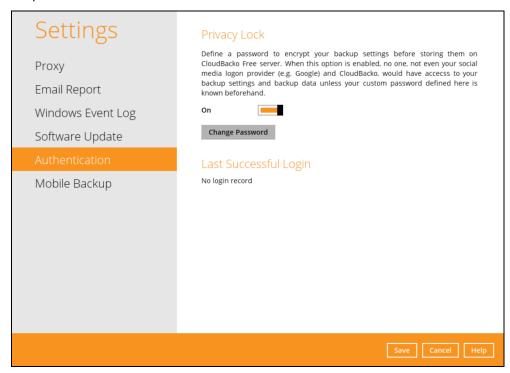
4. Click **Save** to store the settings.



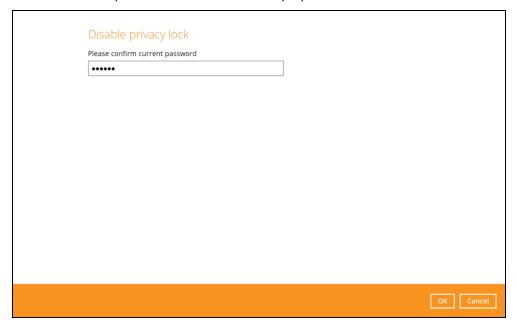


To disable the Privacy Lock feature, follow the instructions below:

1. Swipe the lever to the left to turn it off.



2. Enter the current password for authentication purposes.

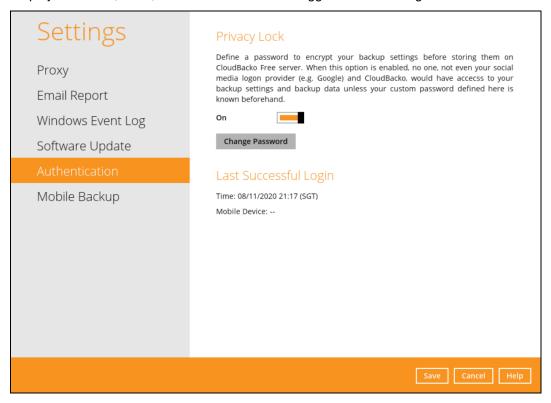


3. Click **OK** then click the **Save** button to store the settings.

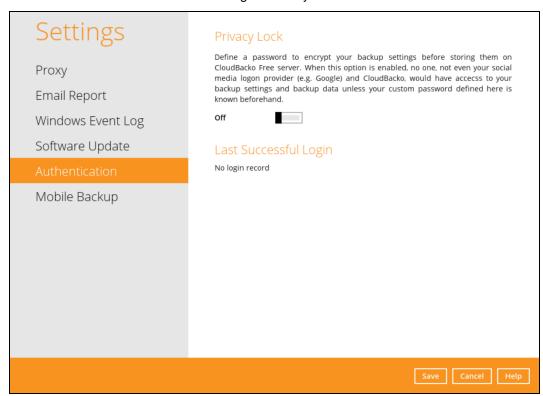


#### **Last Successful Login**

Displays the Date, Time, Timezone the user last logged in and the registered mobile device.



Below is the screenshot if there is no login record yet.





## 7.7.6 Mobile Backup

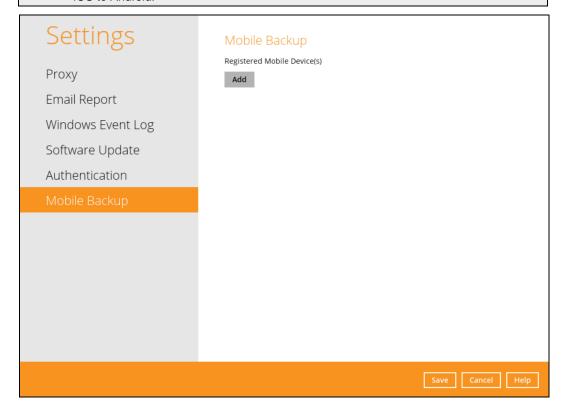
You can use the Mobile backup function to:

- Add one or more device(s) registered for Mobile Backup.
- View backed up photos, videos and documents saved in the mobile backup destination.
- Change your mobile backup destination to:
  - new location in the same local machine
  - new machine
- Remove one or more device(s) registered for mobile backup.

#### **NOTE**

For the restore of photos, videos, documents and 2FA accounts to an alternate mobile device, the other mobile device must be registered first for mobile backup on CloudBacko Home.

- Restore to a different mobile device on the same operating system.
- Restore to a different mobile device on another operating system, i.e., Android to iOS or iOS to Android.

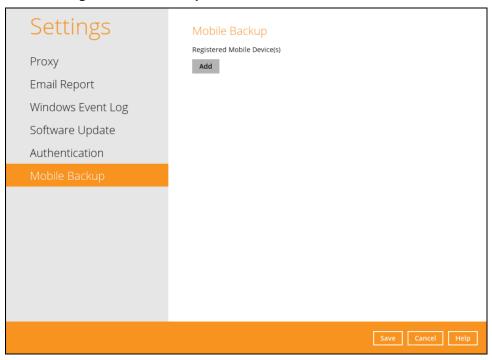




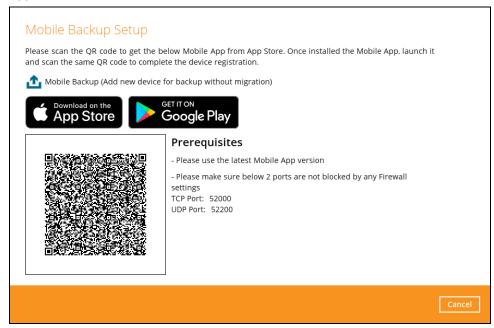
## Add one or more device(s) registered for Mobile Backup

To add a mobile device, follow the instructions below:

1. Go to Settings > Mobile Backup and click Add



2. Download the CloudBacko app from Google Play Store for an Android device and from App Store for an iOS device then scan the QR code.



3. In the CloudBacko app, go to **Backup.** Tap **Activate and start backup** link to scan the QR Code on the CloudBacko Home.





4. Scan the QR Code which can be found in CloudBacko Home. Otherwise, tap **Cancel** to return to previous screen.



5. QR Code is detected, tap  $\mathbf{OK}$  to proceed. Otherwise, tap  $\mathbf{Cancel}$ .

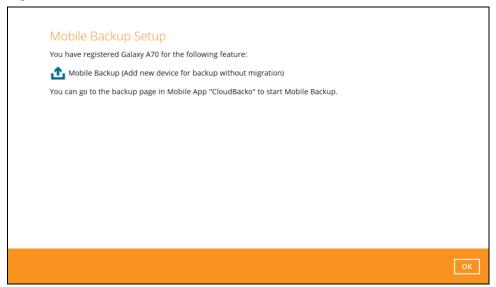


6. Mobile backup registration is successful. Tap OK to proceed.

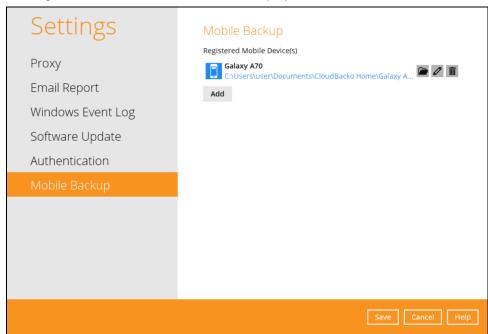




Mobile backup registration is successful in CloudBacko Home. Click  ${\bf OK}$  to finish the registration.



The registered mobile device will now be displayed.

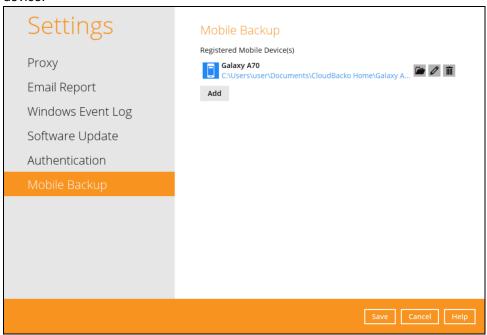




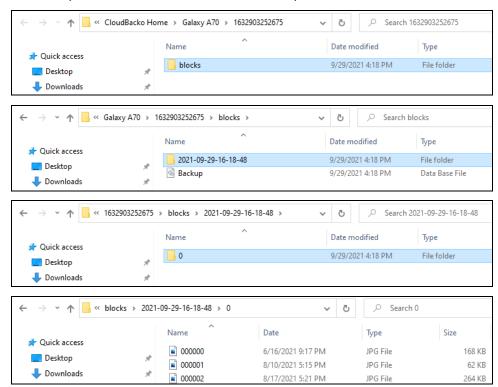
# View backed up photos, videos and documents saved in the mobile backup destination

To view backed up photos, videos and documents saved in the mobile backup destination, follow the instructions below:

1. Click the link under or the **Browse** icon on the right side of the registered mobile device.



2. A new window will be displayed. Double-click the **blocks** folder, then double-click the folder named with the "YYYY-MM-DD-hh-mm-ss" format which is the date and time of the backup. This contains the folders where the photos and videos are saved.



3. Once done, click the  $\boldsymbol{X}$  button to exit.



# Change mobile backup destination location to new location in the same machine

These are scenarios upon changing the mobile backup destination to a new location in the same local machine:

#### Move to a new location in the same machine with enabled Free up space.

If Free up space is enabled on the CloudBacko Mobile app, it is required to copy the previously backed-up photos, videos, documents and 2FA accounts to the new location to prevent missing data upon restore.

In case the previously backed-up photos, videos, documents and 2FA accounts were not copied to the new location, even though the backup will re-upload all the photos, videos, documents and 2FA accounts again from the mobile device, this will not include the photos, videos, documents and 2FA accounts removed by the Free up space feature.

#### Move to a new location in the same machine with disabled Free up space.

If Free up space is disabled on the CloudBacko Mobile app, there are two (2) options available, copy the previously backed-up photos, videos, documents and 2FA accounts to the new location or continue to back up in the new location.

In case the previously backed-up photos, videos, documents and 2FA accounts were not copied to the new location, the backup will re-upload all the photos, videos, documents and 2FA accounts again from the mobile device.

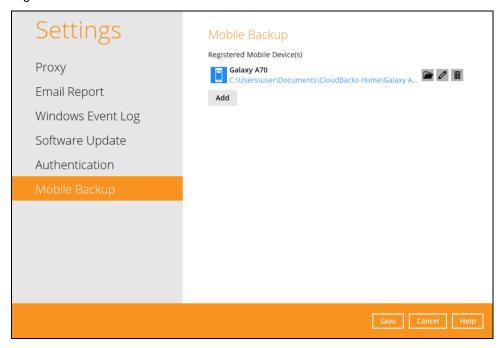
To change the mobile backup destination to another drive or folder on the CloudBacko machine, follow the instructions below:

- From the old location, secure a copy of the previously backed-up photos, videos, documents and 2FA accounts. Skip this step if Free up space is disabled and proceed to Step 2.
- 2. Launch CloudBacko Home.



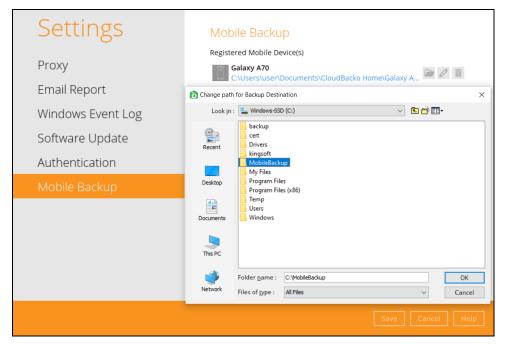


3. Go to **Settings** > **Mobile Backup**. Click the **Edit** icon on the right side of the registered mobile device.



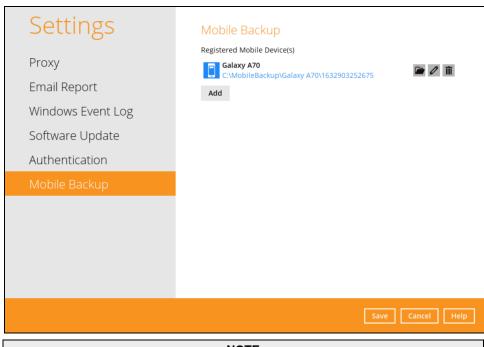
4. **Change path for Backup Destination** screen will be displayed. Select a new mobile backup destination then click **OK**.

In this example, the new mobile backup destination will be **C:\MobileBackup**.





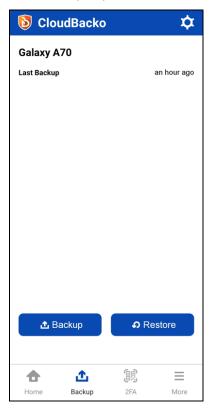
Click Save to store the change made. Otherwise, click Cancel.
 Mobile backup destination is successfully changed to C:\MobileBackup.



#### **NOTE**

The registered mobile device and backup set ID will be appended automatically to the new mobile backup destination.

- 6. Copy the previously backed-up photos, videos, documents and 2FA accounts from the original location to the new mobile backup destination.
- 7. Start backup of photos, videos, documents and 2FA accounts.





#### Change mobile backup destination location to new machine

• Move to a new machine with enabled or disabled Free up space due to a broken, stolen or lost machine.

If the machine is broken, stolen or lost, the previously backed-up photos, videos, documents and 2FA accounts are permanently gone. Also note that if Free up space is enabled on the CloudBacko Mobile app, all photos, videos, documents and 2FA accounts removed by the Free up space feature are permanently lost.

Move to a new machine with enabled or disabled Free up space due to upgrade.

If the machine needs upgrading, the previously backed-up photos, videos, documents and 2FA accounts are still available. Also note that if Free up space is enabled on the CloudBacko Mobile app, it is required to copy the previously backed-up photos, videos, documents and 2FA accounts to the new machine to prevent missing data upon restore.

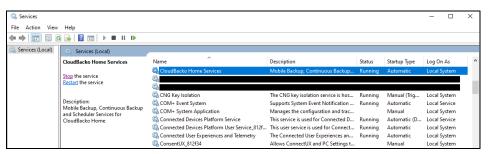
Even if Free up space is disabled, it is recommended to copy the previously backed-up photos, videos, documents and 2FA accounts to the new machine otherwise the photos, videos, documents and 2FA accounts on the mobile device will be backed-up again from scratch.

To change the mobile backup destination to a new machine, follow the instructions below:

1. From the old machine, secure a copy of the previously backed-up photos, videos, documents and 2FA accounts.

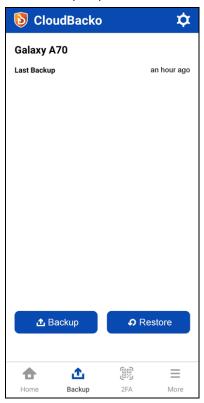
Skip this step if the old machine is broken, stolen or lost and proceed to Step 2.

- 2. On the new machine, install CloudBacko Home.
- 3. Login using the same social media account to retrieve the CloudBacko Home settings.
- 4. If the mobile backup destination needs to be updated, please follow the steps on <u>how to change mobile backup destination to a new location in the same local machine</u>. Otherwise, skip this step and proceed to step 5.
- 5. Copy the previously backed-up photos, videos, documents and 2FA accounts from the old machine to the new mobile destination.
  - Skip this step if the old machine is broken, stolen or lost and proceed to Step 6.
- Restart the CloudBacko Home Services on the newly installed CloudBacko Home to restart the MBS.





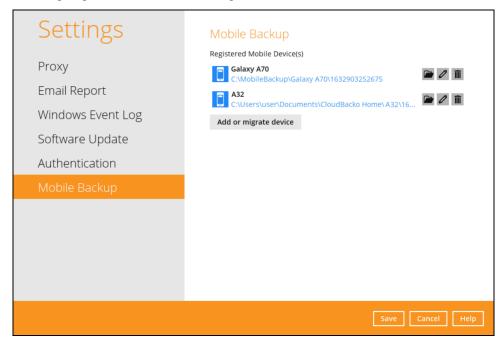
7. Start backup of photos, videos, documents and 2FA accounts.



## Remove one or more device(s) registered for Mobile Backup

To remove a mobile device, follow the instructions below:

1. Click the **Delete** iii icon on the right side of the registered mobile device. In this example, we are going to delete the second registered mobile device.

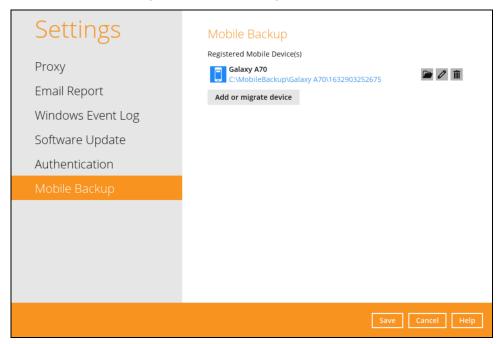




2. A confirmation message will appear, click **Yes** to proceed. Otherwise, click **No**.



3. The mobile device is successfully removed along with any photos, videos, documents and 2FA accounts backed up in the mobile backup destination.



## 7.8 Utilities

This feature allows user to perform **quality check** of the index file and backed-up data, **free up storage space**, **delete**, and **decrypt** backed-up data.



There are five (5) options available for this feature:

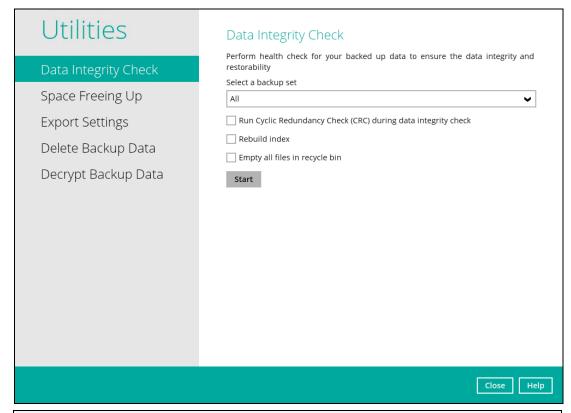
- Data Integrity Check
- Space Freeing Up
- Export Settings
- Delete Backup Data
- Decrypt Backup Data



## 7.8.1 Data Integrity Check

The Data Integrity Check (DIC) is used to identify the data in the backup set that has indexrelated issues, remove any corrupted file(s) from the backup destination(s) to ensure the integrity of the backup data and its restorability, and update the storage statistics.

For an efficient management of overall storage size of the backup destination(s), the data integrity check job will perform check for the backup destination(s) to remove old index files that are more than ninety (90) days old in the backup job folder(s).



#### NOTE

- 1. Data Integrity Check CANNOT fix or repair files that are already corrupted.
- 2. Data Integrity Check can only be started if there is NO active backup or restore job(s) running on the backup set selected for the DIC job. As the **backup**, **restore** and **data Integrity check** are using the same index for read and write operations. Otherwise, an error message will be displayed in the post-DIC to indicate the data integrity check is completed with error(s) and that the data integrity check had skipped a backup set with an active backup job.



#### Run Cyclic Redundancy Check (CRC)

When this option is enabled, the DIC will perform check on the integrity of the files on the backup destination(s) against the checksum file generated at the time of the backup job. If there is a discrepancy, this indicates that the files on the backup destination(s) are corrupted.

These corrupted files will be removed from the backup destination(s). If these files still exist on the client machine on the next backup job, the CloudBacko Home will upload the latest copy. However, if the corrupted files are in Retention Area, they will not be backed up again as the source file has already been deleted from the client machine.

The time required to complete a Data Integrity Check depends on the number of factors such as:

- number of files and/or folders in the backup set(s)
- bandwidth available on the client computer
- o hardware specifications of the client computer such as, the disk I/O and CPU performance

#### **NOTE**

- For user(s) with metered internet connection, additional data charges may be incurred if the Cyclic Redundancy Check (CRC) is enabled. As CRC data involves downloading the data from the backup destination(s) to the client machine in order to perform this check.
- 2. To find out how much data is downloaded from the backup destination(s) for the CRC check, please refer the value for Utilities in the <u>Data Transfer Statistics</u> on <u>Ch. 8.5.3</u>.

#### **Rebuild Index**

When this option is enabled, the Data Integrity Check will start rebuilding corrupted index and/or broken data blocks if there are any.

#### Empty all files in recycle bin

When this option is enabled, all the files in the Recycle Bin will be deleted.



There are four (4) options in performing the Data Integrity Check:

Option 1	For checking of index and data.
Run Cyclic Redundancy Check (CRC) during data integrity check Rebuild index Empty all files in recycle bin Start	
Option 2  ✓ Run Cyclic Redundancy Check (CRC) during data integrity check  ☐ Rebuild index  ☐ Empty all files in recycle bin  Start	For checking of index and integrity of files against the checksum file generated at the time of the backup job.
Option 3  ☐ Run Cyclic Redundancy Check (CRC) during data integrity check ☐ Rebuild index ☐ Empty all files in recycle bin  Start	For checking and rebuilding of index.
Option 4  ✓ Run Cyclic Redundancy Check (CRC) during data integrity check ✓ Rebuild index  — Empty all files in recycle bin  Start	For checking of index, integrity of files against the checksum file generated at the time of the backup job and rebuilding of index.

The following diagrams show the detailed process of the Data Integrity Check (DIC) in four (4) modes:

Option 1

Disabled Run Cyclic Redundancy Check (CRC) and Rebuild index (Default mode)

Option 2

Enabled Run Cyclic Redundancy Check (CRC) and Disabled Rebuild index

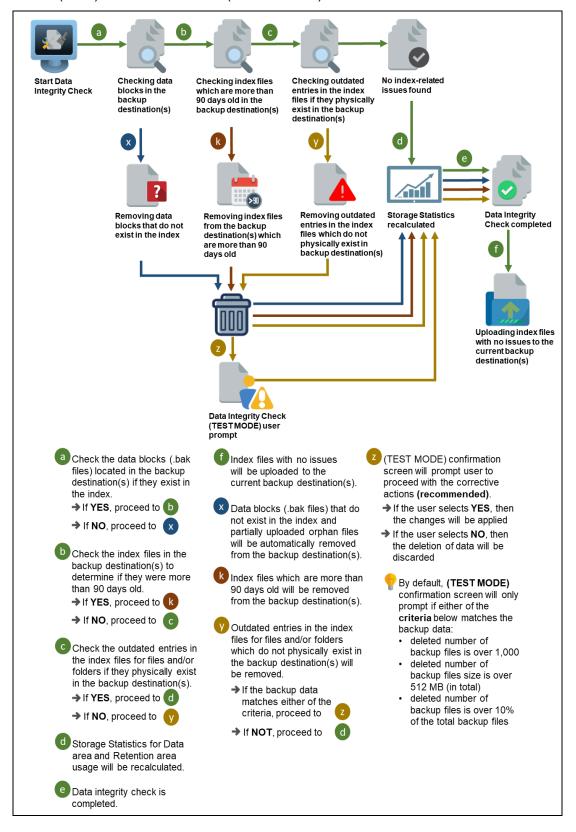
Option 3

Disabled Run Cyclic Redundancy Check (CRC) and Enabled Rebuild index

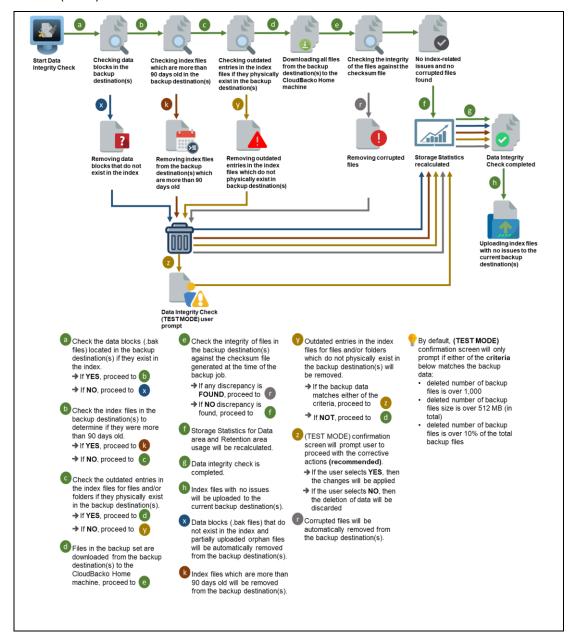
Option 4

Enabled Run Cyclic Redundancy Check (CRC) and Rebuild index

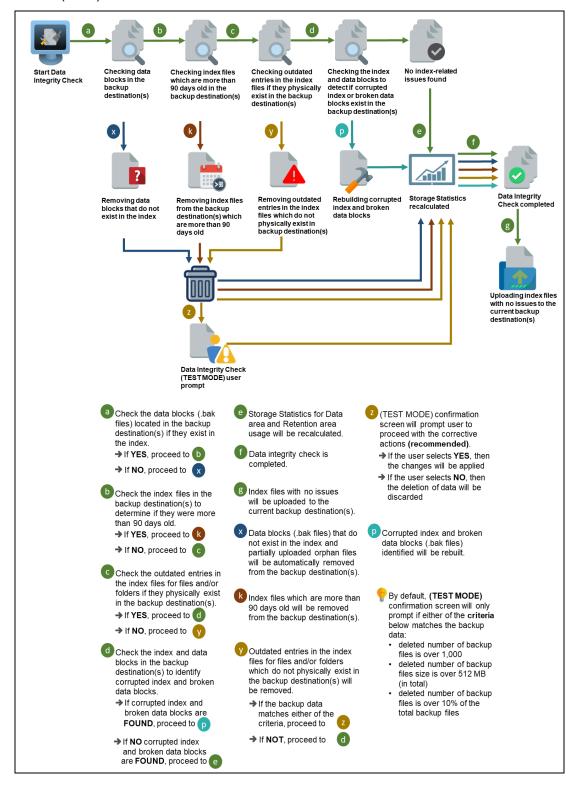
**Option 1**: Disabled Data Integrity Check (DIC) Process with Run Cyclic Redundancy Check (CRC) and Rebuild Index (Default mode)



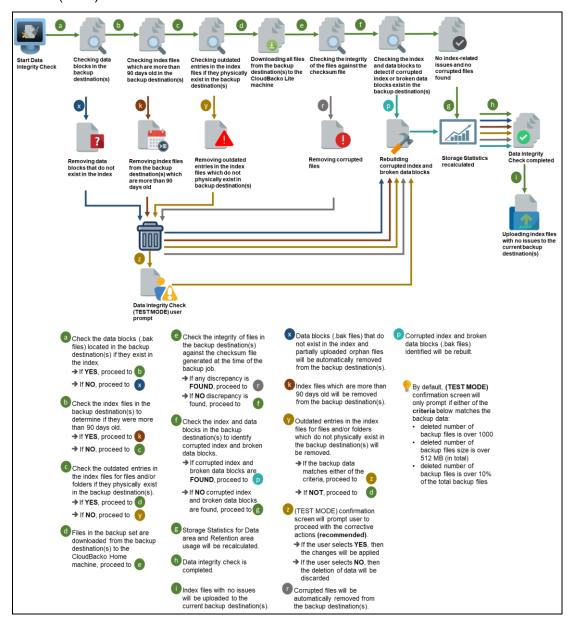
**Option 2**: Enabled Data Integrity Check (DIC) Process with Run Cyclic Redundancy Check (CRC) and Disabled Rebuild Index



**Option 3**: Disabled Data Integrity Check (DIC) Process with Run Cyclic Redundancy Check (CRC) and Enabled Rebuild Index



**Option 4**: Enabled Data Integrity Check (DIC) Process with Run Cyclic Redundancy Check (CRC) and Rebuild Index

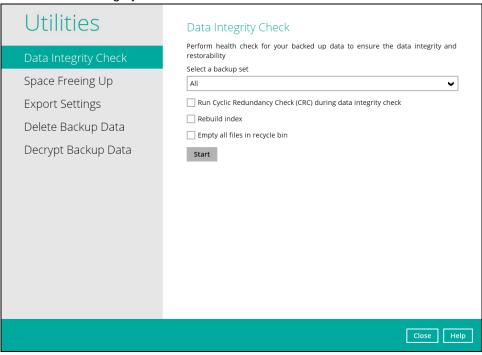




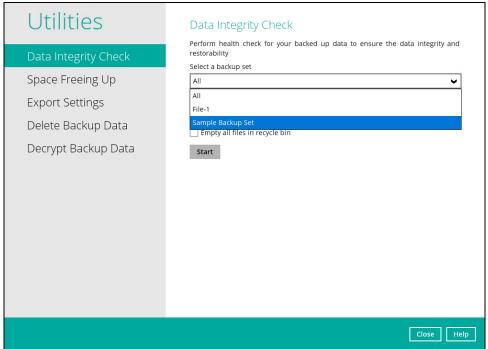
#### **Perform a Data Integrity Check**

To perform a Data Integrity Check, follow the instructions below:

1. Go to the Data Integrity Check tab in the Utilities menu.

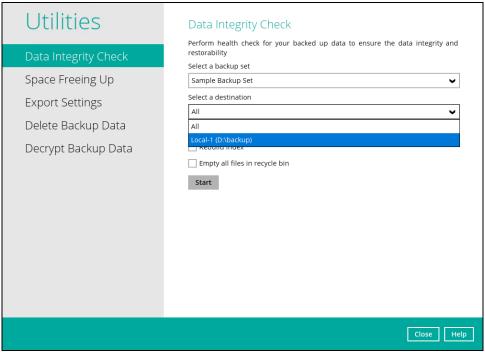


2. Click the drop-down button to select a backup set.

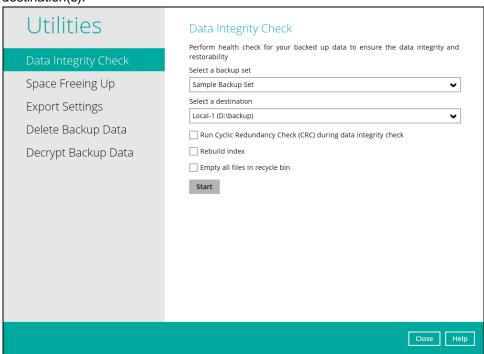




3. Click the drop-down button to select a backup destination.

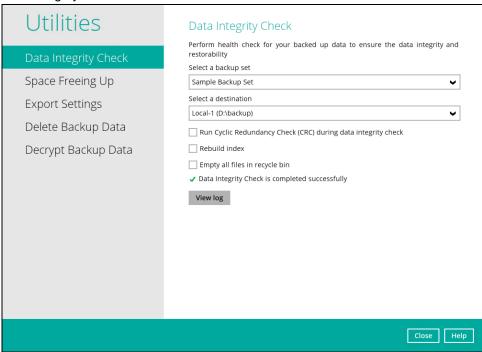


- 4. Click the Start button to begin the Data Integrity Check.
- 5. Data Integrity Check will start running on the selected backup set(s) and backup destination(s).

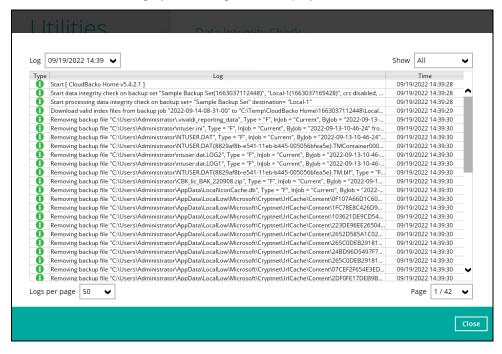




Once the DIC is complete, click the View log button to check the detailed process of the Data Integrity Check.

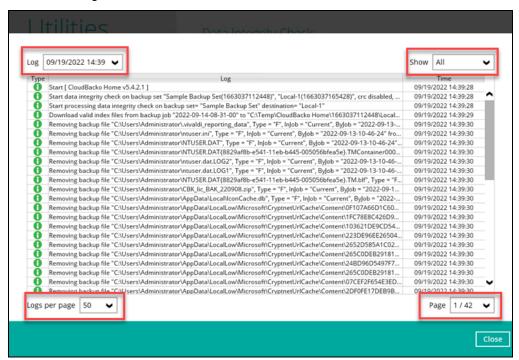


7. The detailed Data Integrity Check log will be displayed.



For further viewing of the detailed DIC log, there are four options that can be used:

- Log filter
- Show filter
- · Logs per page
- Page

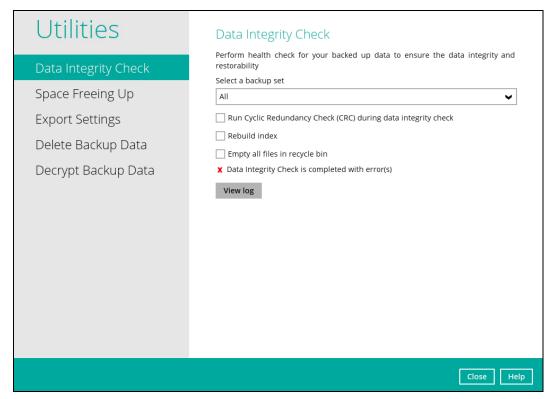


Control	Screenshot	Description
Log filter	Log 09/19/2022 14:39 ✓  Type 09/14/2022 08:17  1 09/14/2022 08:18	This option can be used to display logs of the previous data integrity check jobs.
Show filter	Show All  All  09/19/ 09/19/ 09/19/ 09/19/ Error	This option can be used to sort the data integrity check log by its status (i.e. All, Information, Warning, and Error). With this filter, it will be easier to sort the DIC logs by its status especially for longer data integrity check logs.
Logs per page	Logs per page 50 <b>&gt;</b> 50 100 200	This option allows user to control the displayed number of logs per page.
Page	Page 1/3 V 1/3 2/3 3/3	This option allows user to navigate the logs to the next page(s).

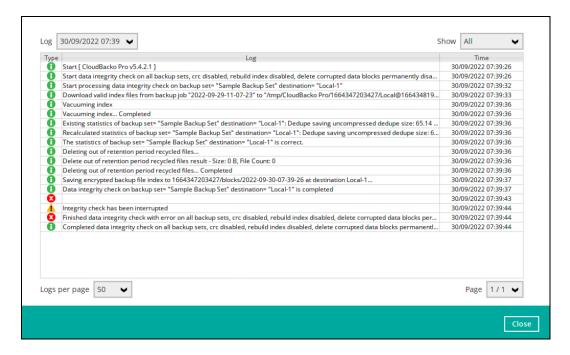


#### 7.8.1.1 Data Integrity Check Completd with Errors

The following screenshot is an example of a Data Integrity Check completed with error(s). A Data Integrity Check is run on a backup set with an active backup job running which resulted the Data Integrity Check to stop with error(s).



Clicking the View log button will display the details of the Data Integrity Check job error(s).



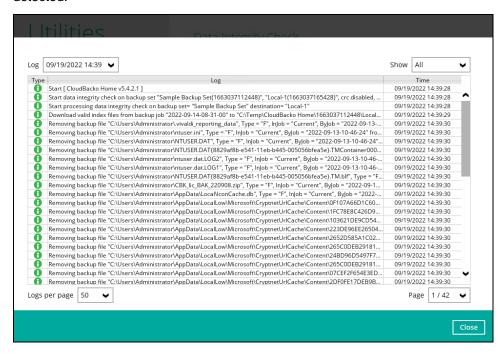


#### 7.8.1.2 Data Integrity Check Result

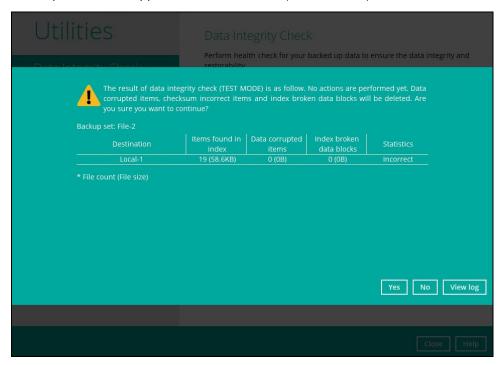
There are two possible outcomes after the completion of a data integrity check:

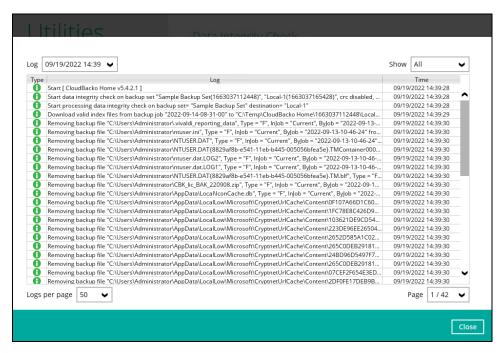
- Data Integrity Check is completed successfully with no data corruption/issues detected
- Corrupted data (e.g. index files, checksum files and/or broken data blocks) has been detected

The screenshot below shows an example of a data integrity check log with NO data corruption/issues detected.



If corrupted data is happened to be found, the (TEST MODE) confirmation screen will be displayed.





This is to inform the user of the following details:

- Backup set that contains an error
- Backup Destination
- Items found in index
- Data corrupted items
- Index broken data blocks
- Statistics (i.e. Correct or Incorrect)

#### 7.8.1.3 Test Mode Confirmation

The (TEST MODE) confirmation will ONLY prompt if either of the **criteria** below matches the backup data during the data integrity check operation:

- deleted number of backup files is over 1,000
- deleted number of backup file size is over 512 MB (in total)
- deleted number of backup files is over 10% of total backup files

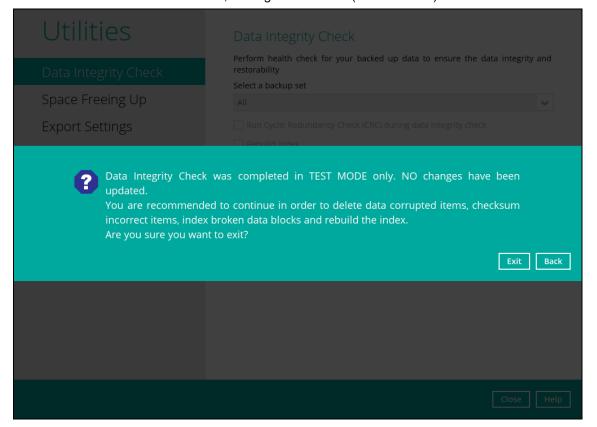
Otherwise, the Data Integrity Check job will automatically take corrective actions.

There are three options on the (TEST MODE) confirmation prompt:

Control	Screenshot	Description
Yes	Yes	Corrupted data (e.g. index files, checksum files and/or broken data blocks) will be deleted and statistics will be recalculated.
No	No	No action will be taken and a prompt message will be displayed.
View log	View log	The detailed process of the data integrity check will be displayed.

Clicking No will display the following screen:

- If the Exit button is clicked, the data integrity check result will be discarded.
- o If the Back button is clicked, it will go back to the (TEST MODE) confirmation screen.

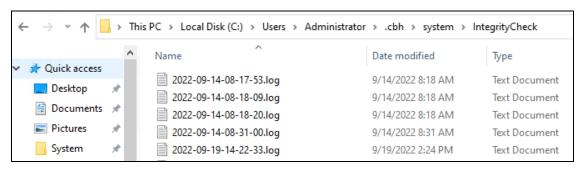


#### **NOTES**

- 1. It is strongly recommended to apply corrective actions when the (TEST MODE) confirmation screen pops up (clicking the Yes button). This is to ensure that the remaining corrupted file(s) will be removed from the backup destination(s), so on the next backup job, these files are backed up again if they are still present on the client machine. However, if the corrupted files are in Retention Area, then they will not be backed up again as the source file has already been deleted from the client machine.
- If the DIC detects data blocks (.bak files) in the backup destination(s) that does not have related index entries, then these physical data blocks will be automatically removed from the backup destination(s) without the (TEST MODE) confirmation prompt.

Besides viewing the Data Integrity Check logs directly on the CloudBacko Home, they can be viewed on the file system of the CloudBacko Home machine. For CloudBacko Home Windows, the DIC logs are located in:

#### %UserProfile%\.cbh\system\IntegrityCheck



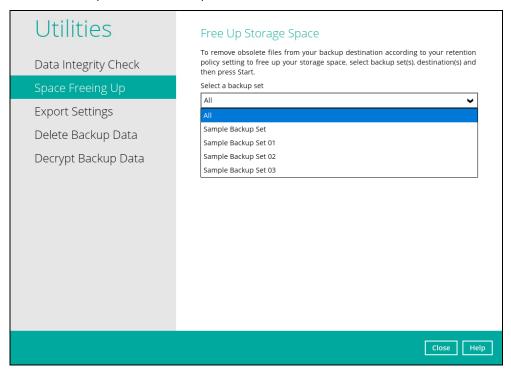


#### 7.8.2 Space Freeing Up

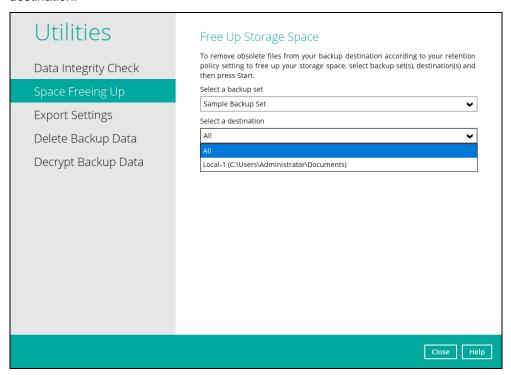
This feature is used to remove obsolete file(s) from your selected backup set and destination (manually start Retention Policy). After the Space Freeing Up job is completed, the storage statistics of the backup set(s) are updated.

To perform deletion of backup data, follow the instructions below:

1. Select a backup set from the drop-down list.

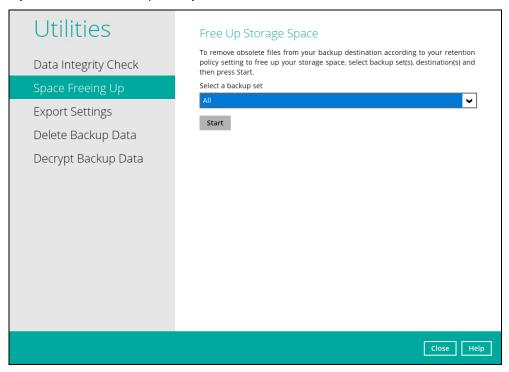


If you select a specific backup set, you will also have to choose a specific or **ALL** destination.

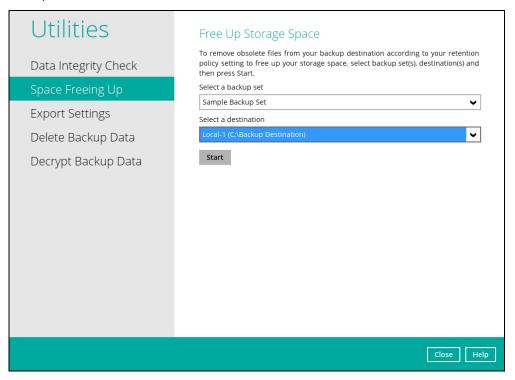




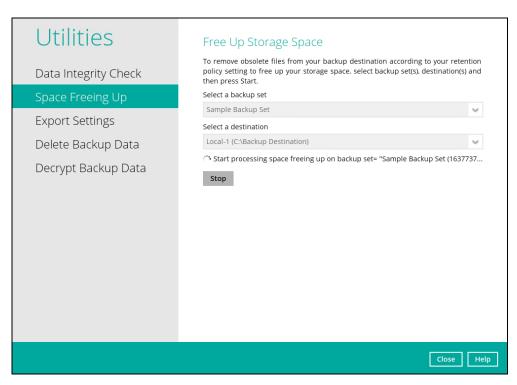
If you select **ALL** backup sets, you will not have to choose a destination.



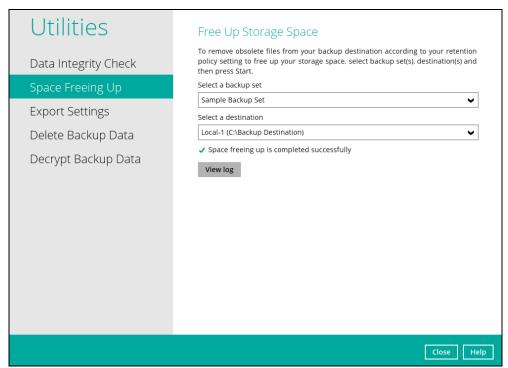
2. Once a backup set and destination have been selected, click **Start** to perform space free up.

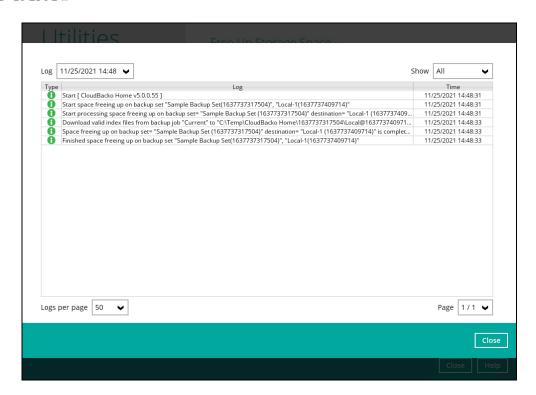






3. Once the space freeing up is completed, click View log to see more details.





#### 7.8.3 Export Settings

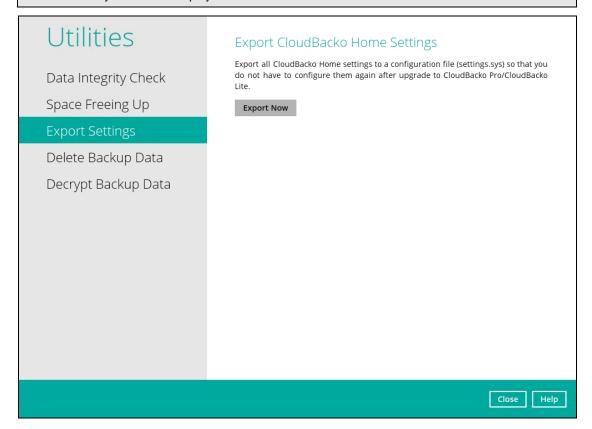
This feature is used to export and import CloudBacko Home Settings to the **settings.sys** file, this includes information on:

- Proxy Settings
- Email Report Settings
- Software Update Settings
- Windows Event log Settings (Windows Platform Only)
- Backup Set Settings

It is strongly recommended to export a copy of the configuration file (settings.sys) whenever there are general settings changes to CloudBacko Home, new backup sets added, or updates to existing backup sets.

#### **WARNING!**

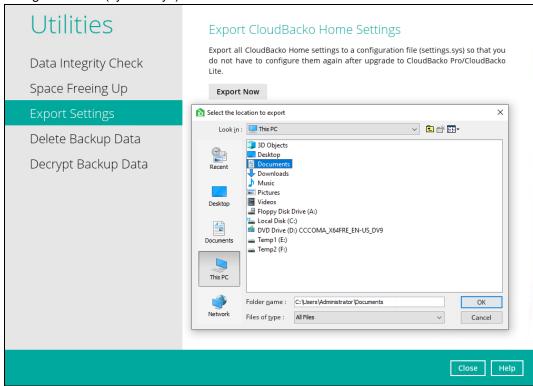
A separate copy of the settings.sys file should be saved in another location for safe keeping. Otherwise, If the machine where the CloudBacko Home is installed on suffers a disk or hardware failure or is stolen and a copy of the settings.sys file is not available, it will not be possible to access and recover any data backed up by CloudBacko Home.



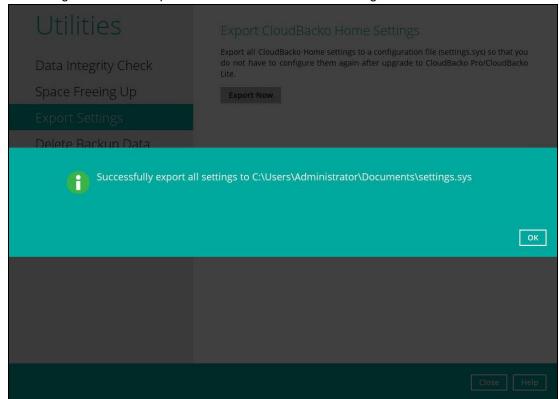


#### **Export CloudBacko Home Settings**

To export, click the **Export Now** button. Select a path where the CloudBacko Home configuration file (system.sys) will be stored then click **OK**.



If the system.sys file is successfully exported to the preferred path, it will display a message containing the status and path of the CloudBacko Home configuration file.



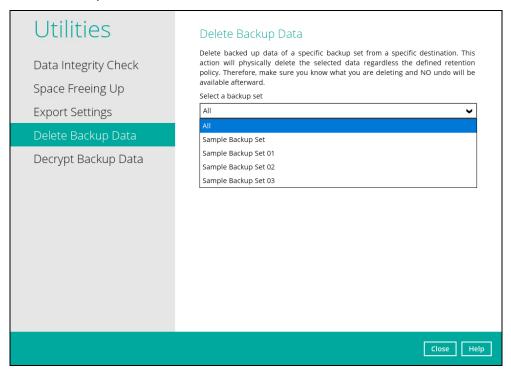


#### 7.8.4 Delete Backup Data

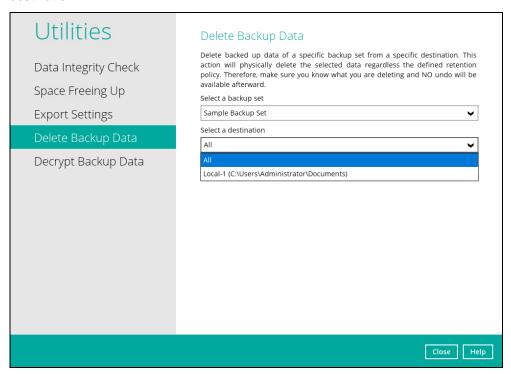
This feature is used to permanently delete backed up data from a backup set(s), destination(s), backup job, or delete all backed-up data. After the data is deleted, the storage statistics of the backup set(s) are updated.

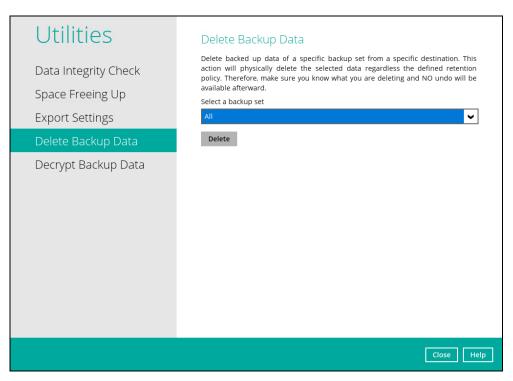
To perform deletion of backup data, follow the instructions below:

1. Select a backup set to delete from.



If you select a specific backup set, you will also have to choose a specific or **ALL** destination.

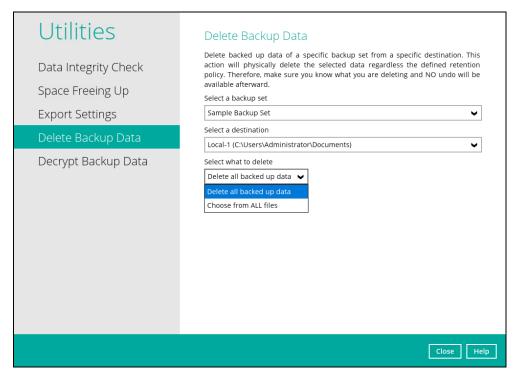




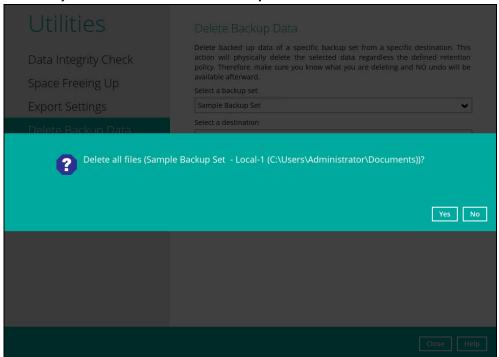
2. If you select ALL backup sets, you will not have to choose a specific destination.

There are two (2) options from the type of file(s) to delete if you select a specific backup set and a specific destination:

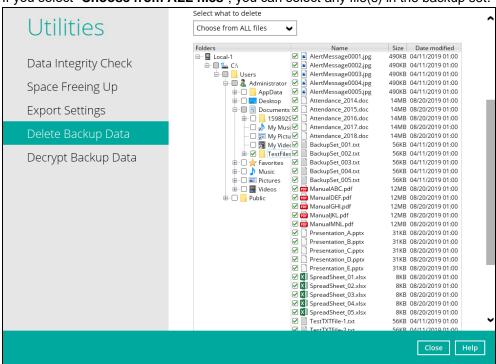
- Delete all backup data
- Choose from ALL files



All backed-up files from the chosen backup set and selected destination will be deleted if you choose "**Delete all backed-up data**". Click **Yes** to confirm.



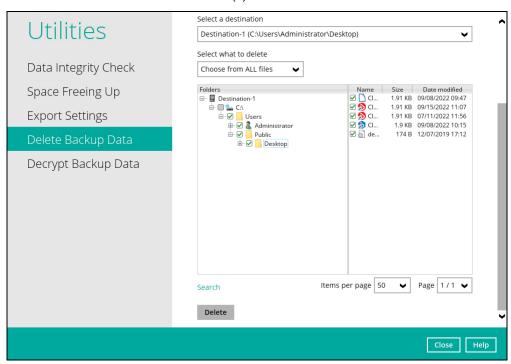
If you select "Choose from ALL files", you can select any file(s) in the backup set.

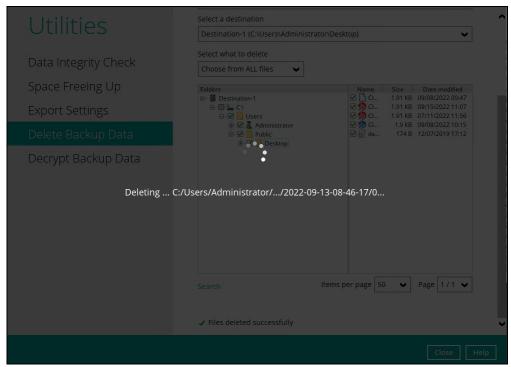


You also have the option to click the **Search** link to do an advance search.



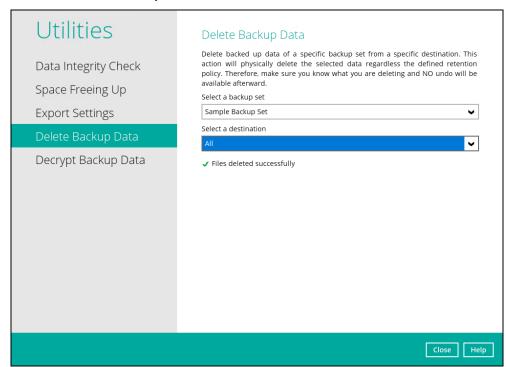
3. Click **Delete** to start the deletion of file(s).







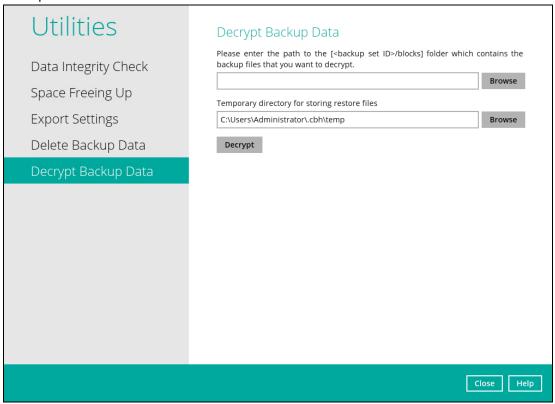
4. Files deleted successfully.



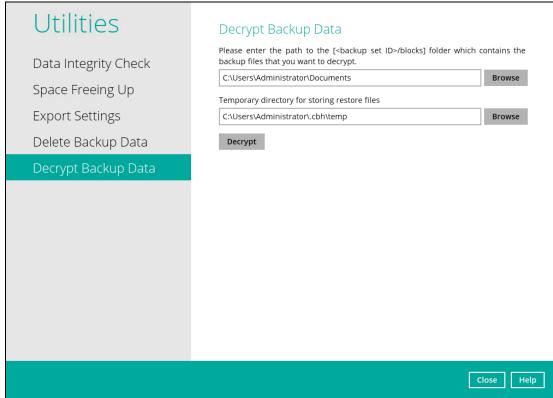


#### 7.8.5 Decrypt Backup Data

This feature is used to restore raw data by using the **data encryption key** that was set for the backup set.



Enter the path of the folder which contains the backup files you want to decrypt. Click **Decrypt** to start decrypting backup data.



### 7.9 Social Media Icons

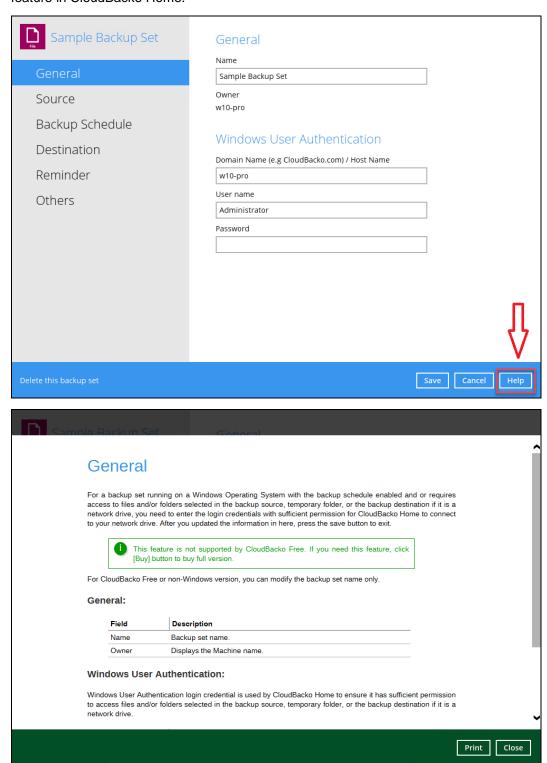
These are the social media accounts of CloudBacko. Each icon links to the CloudBacko page or channel.





### 7.10 Online Help

This allows the user to view the summary of information and instructions for each available feature in CloudBacko Home.

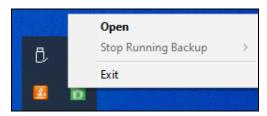


# 7.11 System Tray

If CloudBacko Home is installed in the computer, you will see a CloudBacko Home icon in the taskbar at the lower right corner of the screen.



When you right-click the CloudBacko Home icon, a control menu will pop-up.

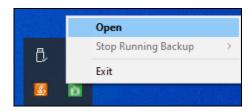


CloudBacko Home system tray has three (3) controls:

- Open
- Stop Running Backup
- Exit

#### 7.11.1 Open

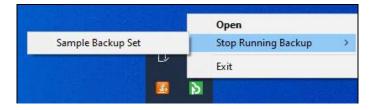
Select this option to open the CloudBacko Home.





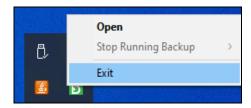
#### 7.11.2 Stop Running Backup

Use this option if you wish to stop a running manual, continuous or scheduled backup.



#### 7.11.3 Exit

Select this option if you want to close the application including the CloudBacko Home icon at the taskbar.



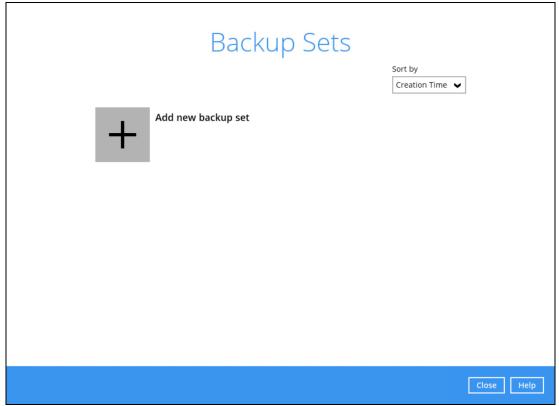


### 8 Create a Backup Set

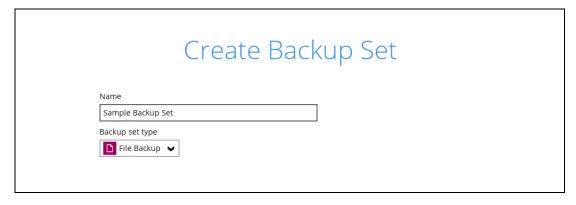
1. Click the **Backup Sets** icon on the main interface of CloudBacko Home.



2. Create a new backup set by clicking + next to **Add new backup set**.

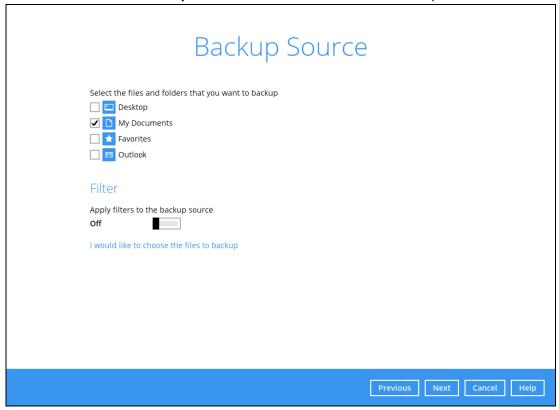


3. When the Create Backup Set window appears, name your new backup set, and select the **Backup set type**. Then, click **Next** to proceed.

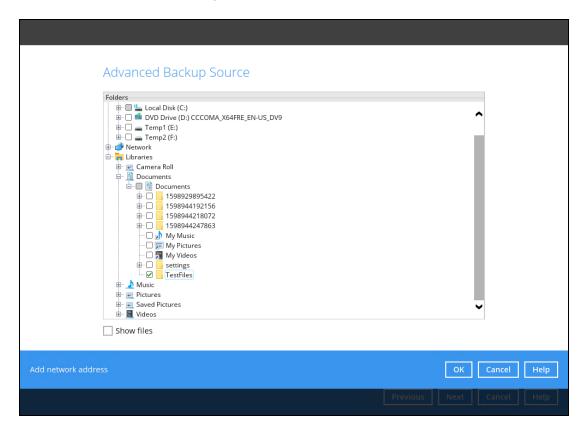




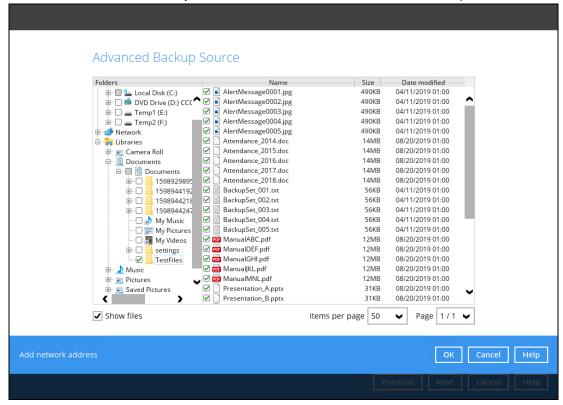
4. In the Backup Source window, select the source files and folders for backup. Click **I would like** to choose the files to backup to select individual folders/files for backup.



- 5. In the **Advanced Backup Source** window, select folder(s) to back up all files in the folder(s).
  - i. Select folder(s) to back up all files in the folder(s). Click **OK** to save the selection and close the Advanced Backup Source window.

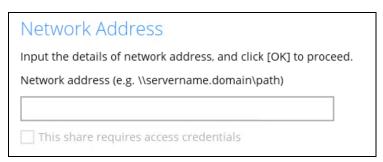


ii. Alternatively, if you want to back up only specific files instead of all files in your selected folder(s), select the **Show files** checkbox at the bottom of the screen. A list of files will appear on the right-hand side. Select the checkbox(es) next to the file(s) to back up. Then, click **OK** to save your selections and close the Advanced Backup Source window.



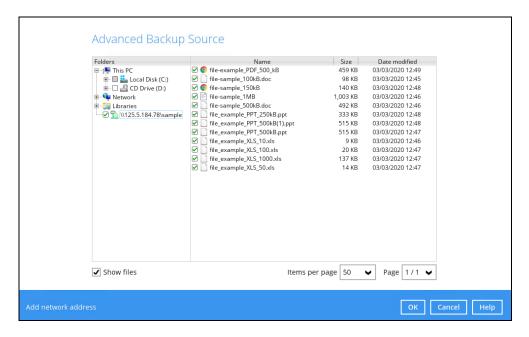
iii. Back up file(s) and/or folder(s) located in a network drive. Click the **Add network address** link at the botton of the screen. In the Network Address window, enter the network address.

Once a network address is entered, **This share requires access credentials** will be enabled. Check the box beside it if access credentials are required to backup and enter the User name and Password. Otherwise leave it unchecked and click **OK**.





The network drive will now be added and automatically selected. There is also an option to select only specific file(s) to back up by checking the **Show files** checkbox. Click **OK** to save your selections and close the Advanced Backup Source window.

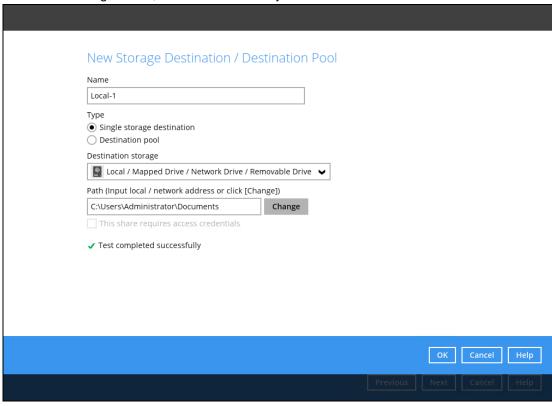


- 6. In the Backup Source window, click **Next** to proceed.
- 7. In the Backup Source window, click **Next** to proceed. The **Destination** window will appear. To select a backup destination for the backup data storage, click + next to **Add new storage destination / destination pool**.

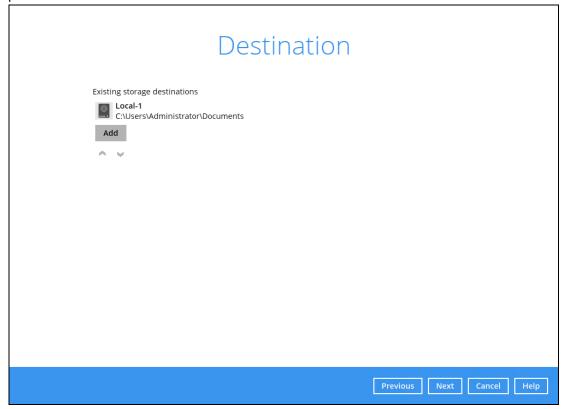




8. In the New Storage Destination / Destination Pool window, select the destination type and destination storage. Then, click **OK** to confirm your selection.

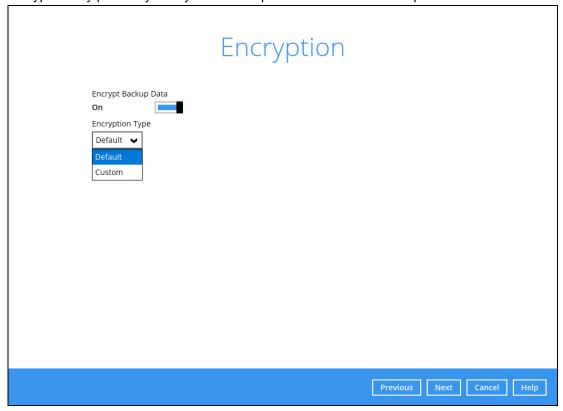


In the Destination window, your selected storage destination will be shown. Click **Next** to proceed.



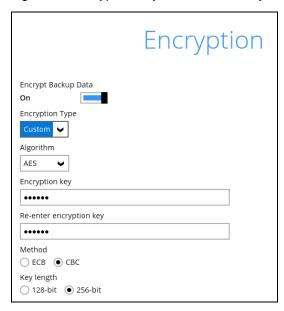


10. In the Encryption window, the default **Encrypt Backup Data** option is enabled with an encryption key preset by the system which provides the most secure protection.



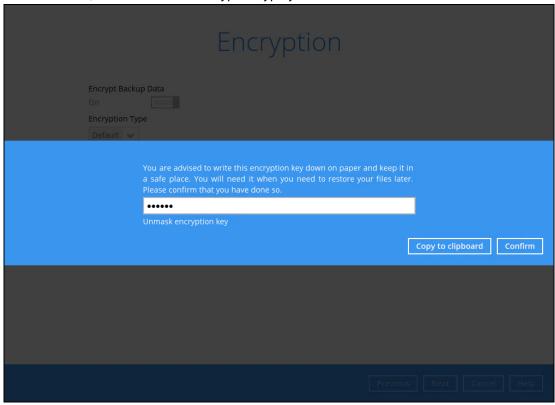
You can choose from one of the following three Encryption Type options:

- ➤ **Default** an encryption key with 44 alpha numeric characters will be randomly generated by the system
- ➤ **Custom** you can customize your encryption key, where you can set your own algorithm, encryption key, method, and key length.



Click Next when you are done setting.

11. 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:

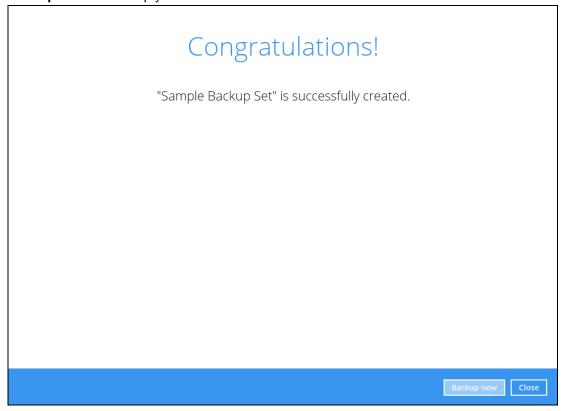
➤ Unmask encryption key – The encryption key is masked by default. Click this option to show the encryption key.



- > 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.

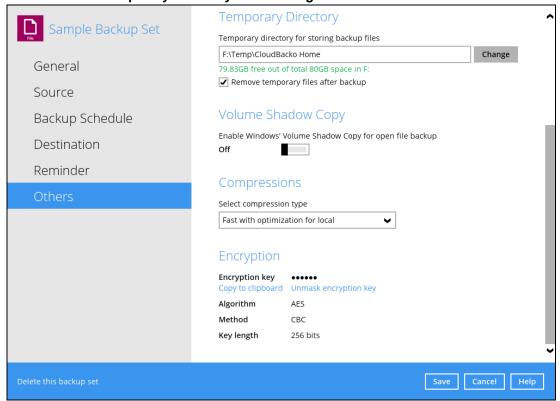


Upon successful creation of the backup set, the following screen will appear. You can click **Backup now** to back up your data or click **Close** to exit.



12. It is highly recommended to change the <u>Temporary Directory</u>. Select another location with sufficient free disk space other than **C:\Temp\CloudBacko Home**.

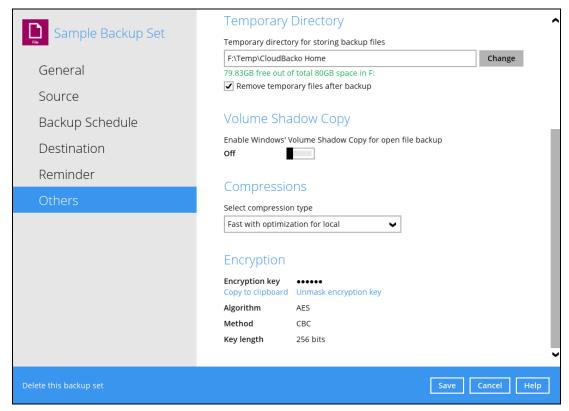
Go to Others > Temporary Directory. Click Change to browse for another location.

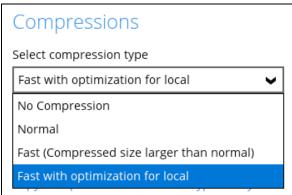


- 13. Optional: Select your preferred **Compression** type. By default, the compression is set per destination,
  - Fast with optimization for local is the default compression type for Local destinations
  - Fast is the default compression type for other destinations such as: SFTP/FTP and Cloud destinations

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

- No Compression
- Normal
- Fast
- Fast with optimization for local





#### **Overview on the Backup Process** 9

The following steps are performed during a backup job. For an overview of the detailed process for Steps 2, 3, 9, and 11, refer to the following chapters:

8

Saving files

11

Removing

temporary files 12

(if enabled).

- Periodic Data Integrity Check (PDIC) Process (Step 2)
- **Backup Set Index Handling Process** 
  - Start Backup Job (Step 3)
  - Completed Backup Job (Step 11) 0
- Data Validation Check Process (Step 9)

### Start backup job

Connection from the backup client to the destination(s) is established. Establishing connection Physical .bak files (data blocks) that do not exist in the index are removed from the backup destination(s), then the statistics of both Data Area and Retention Area will be recalculated. Latest index.db file and checksum files are downloaded from the backup destination(s) to Downloading the temporary folder. Create VSS snapshot of local disk(s) (if enabled). Taking VSS Snapshot Local file list is compiled according to the backup source setting. Compiling 5 Local and remote file lists are compared to identify new, updated, moved, or deleted files and/or folders since the last backup job.

A checksum verification of each backup file which was split into several blocks of varying size is performed where its contents are Data compared, and the duplicated data are removed deduplication (if enabled). Data are compressed, encrypted, divided into individual data block size of 32 or 64MB then **Uploading** uploaded to the backup destination(s). The number of 32 or 64MB data blocks and the individual block size in the backup destination(s) Data is identical to the blocks transferred. validation Retention Policy job is running (if enabled). 10

Latest index files on the client computer are

files are saved to the backup server.

saved to the backup destination(s) and client log

Temporary data is removed from the temporary

Backup job completed

storage location specified in the backup set

6

### 9.1 Periodic Data Integrity Check (PDIC) Process

For CloudBacko Home v4.5.0.0 (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, 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:  $1594627447932 \mod 5 = 2$ 

2 Wednesday

In this example:

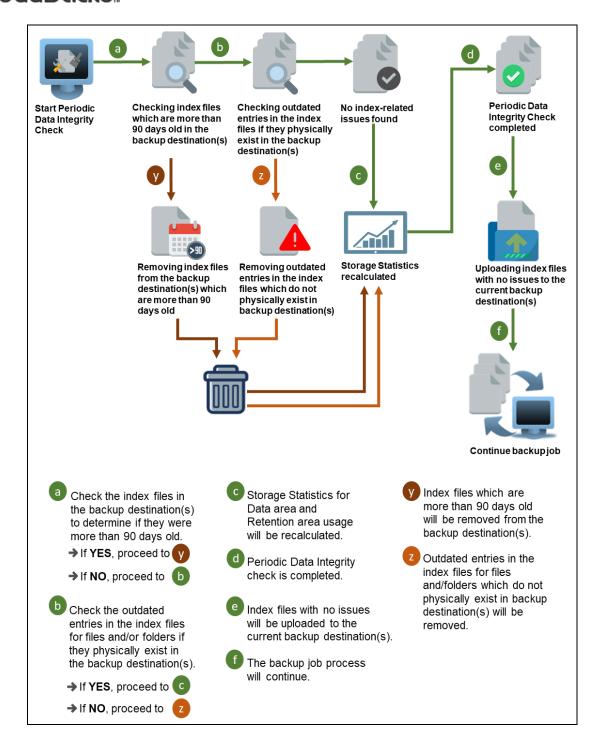
- the PDIC will run on the first backup job that falls on Wednesday; or
- if there is no active backup job(s) running from Monday to Friday, then the PDIC will run on the next available backup job.

#### **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:

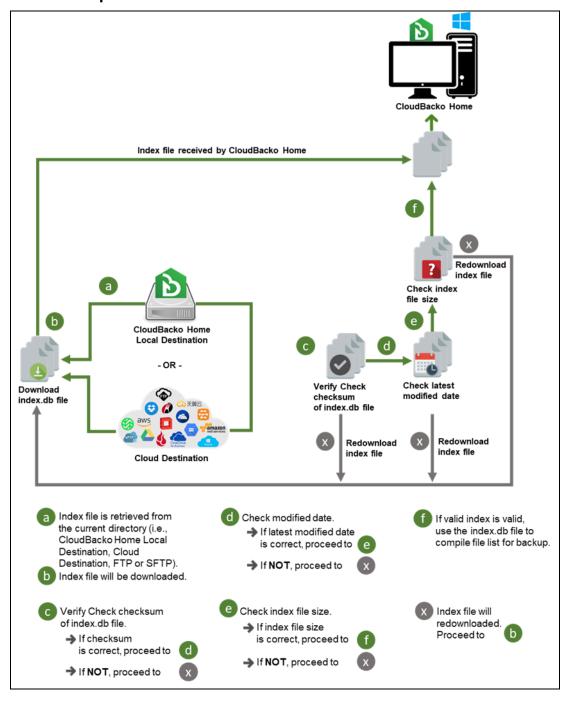
- If backup jobs for a backup set are not run on a regular daily backup schedule (for example: on a weekly or monthly schedule), then the PDIC job will run if it detects that the previous PDIC job was run more than 7 days ago.
- 2. Every time a data integrity check (DIC) is run, the latest PDIC run date is reset, the next PDIC job will run after 7 days.
- 3. 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 <a href="Delete Backup Data">Delete Backup Data</a> feature.



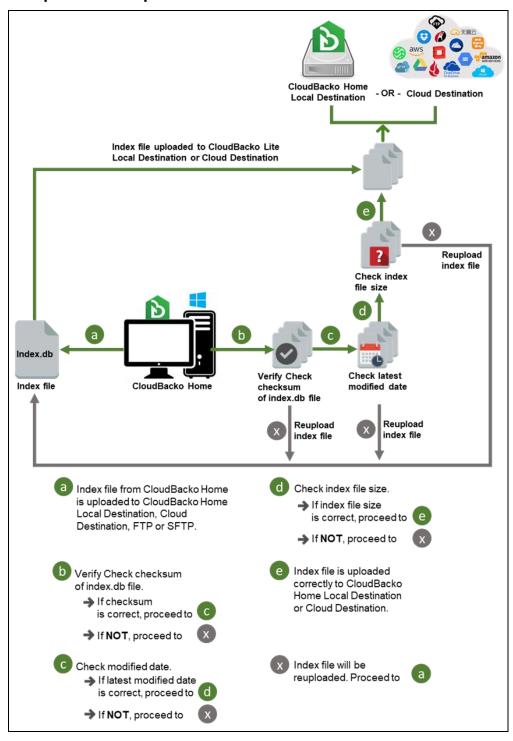
### 9.2 Backup Set Index Handling Process

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.

### 9.2.1 Start Backup Job

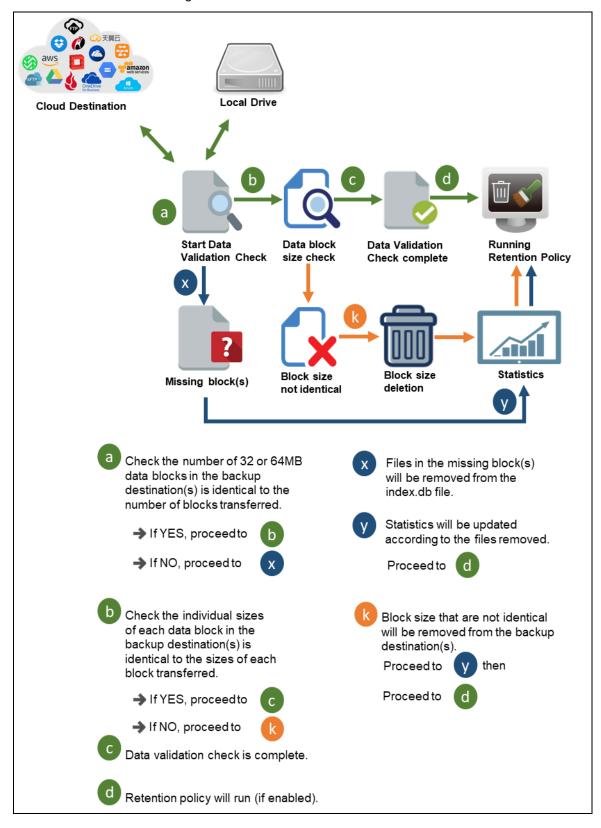


### 9.2.2 Completed Backup Job



### 9.3 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.



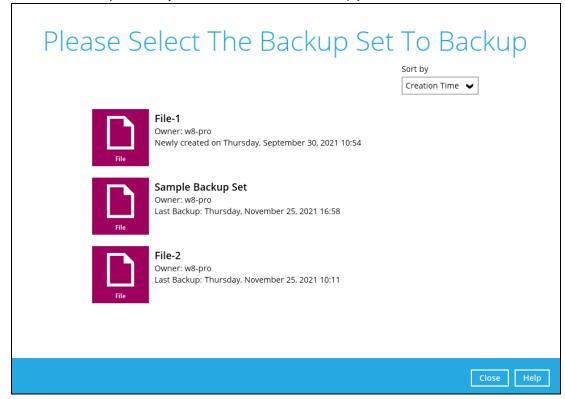


# 10 Run Backup Jobs

1. Click **Backup** on the main interface of CloudBacko Home

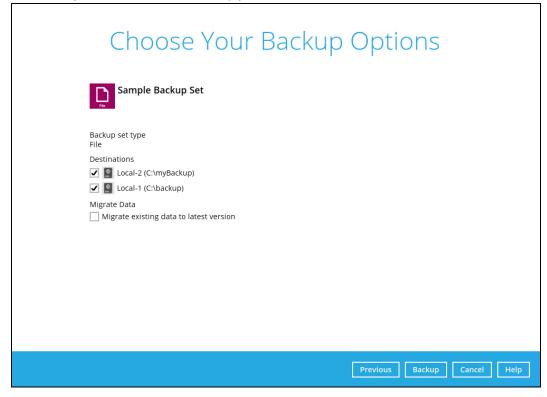


2. Select the backup set that you would like to start a backup job for.





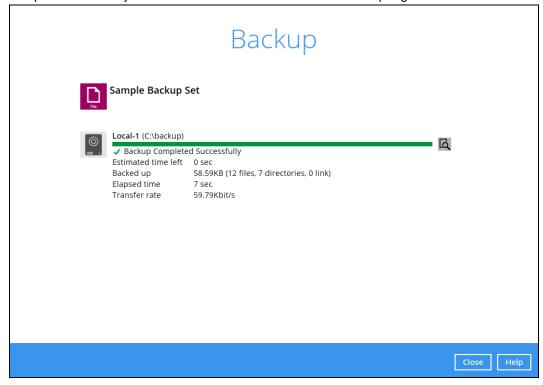
3. You can modify the Destinations and Migrate Data options. Once done with the settings, click the **Backup** button to start the backup job.



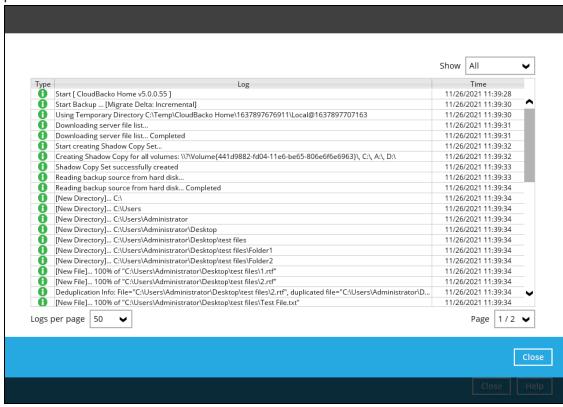
#### **NOTE**

Backup job(s) for backup sets with Migrate Data enabled may take longer to finish.

4. The following screen will be displayed to indicate that the backup job is successfully completed. You may click the button to check for the backup log.



5. Once you are done with checking the backup log, click the **Close** button to return to the previous screen.



### 11 Restore Data

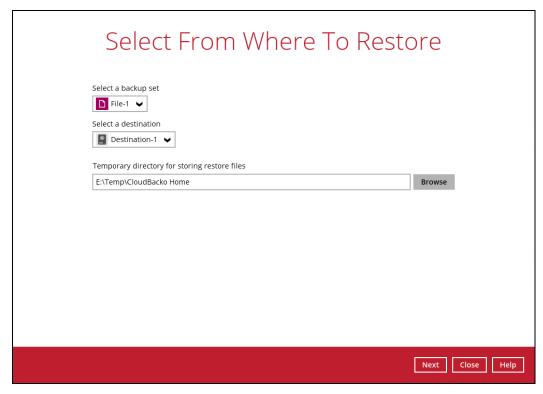
### 11.1 Restore Data

- 1. Log in to the CloudBacko Home application according to the instructions in section <a href="Chapter 6">Chapter 6</a>
  <a href="Start CloudBacko Home">Start CloudBacko Home</a>.
- 2. Click the **Restore** icon on the main interface of CloudBacko Home.



3. In the next page, you will have several options to select. On this page, you may select the **Backup Set** to restore, as well as the **Destination** to which the data will be restored to.

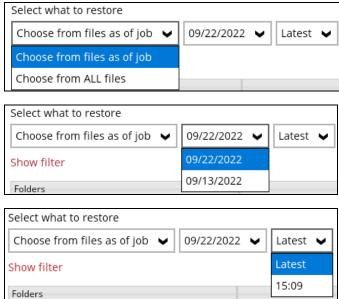
You may also choose the temporary directory for restoring files by selecting a destination beneath **Temporary directory for storing restore files**.



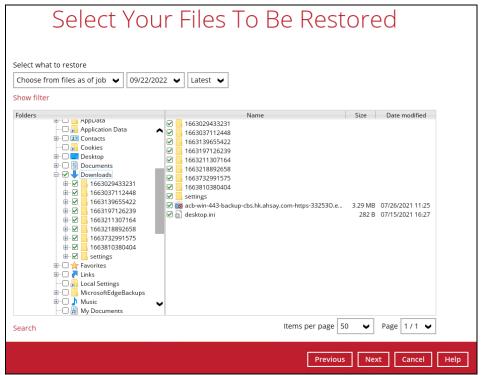
4. Select to restore files from a specific backup job, or from all files available. Then, select the files or folders that you would like to restore.

There are two options from the **Select what to restore** dropdown menu:

 Choose from files as of job – This option allows you to select a backup version from a specific date and time to restore.

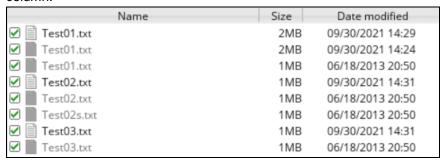


• Choose from ALL files – This option allows you to restore all the available backup versions for this backup set. Among all the available backup versions, you can even select only some of the backup versions of a file to restore. Click the Show files checkbox to select individual files for restoration.

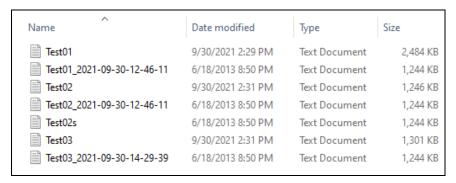




The following is an example showing all the available backup versions of the file **Test01.txt**. The latest version is shown in solid black color and all the previous versions are shown in grey color. You can identify the file version from the **Date modified** column.



When the restore is done, you will see all the selected backup versions in the restore destination. The latest backup version has the file name as the original file, while the previous versions have the time stamps added to their file names for easy identification.



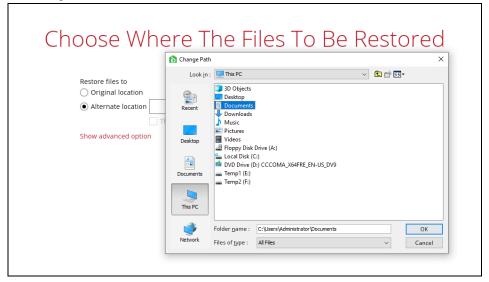
- 5. Click the **Show files** checkbox to select individual files for restoration. Click **Next** to proceed when you are done with the selections.
- Select to restore the files to their **Original location**, or to an **Alternate location**. Then, click **Next** to proceed.
  - Original location the backed-up data will be restored to the computer running the CloudBacko Home under the same directory path as on the machine storing the backup source.

For example, if the backup source files are stored under **Users/User's Name/Downloads** folder, the data will be restored to **Users/User's Name/Downloads** as well on the computer running the CloudBacko Home.



 Alternate location – you can choose to restore the data to a location of your choice on the computer where CloudBacko Home is running.

i. To restore to a location of your choice on the computer where CloudBacko Home is running, click **Browse**. Select the location and click **OK**.



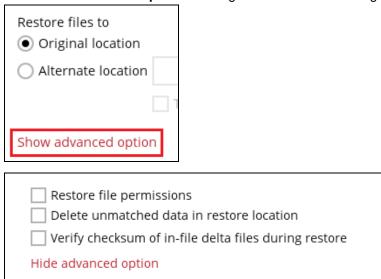
ii. To restore to a network drive, enter the network address where you want the backup files to be restored.







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



#### Restore file permissions

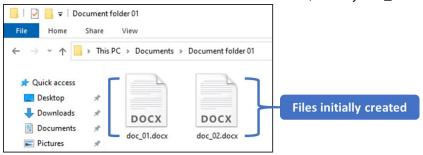
Restore file permissions are disabled by default. When you perform a file restore on shared files or folders using a shared computer, it is recommended that you enable Restore file permissions by ticking the checkbox so that the files restored will not be fully accessible to everyone using the shared computer.

#### Delete unmatched data in restore location

By enabling this option, the restore process will attempt to synchronize the selected restore source with the restore destination, making sure the data in the restore destination is the same as the restore source. Any data created after backup will be treated as "unmatched data" and will be deleted from the restore source if this feature is enabled.

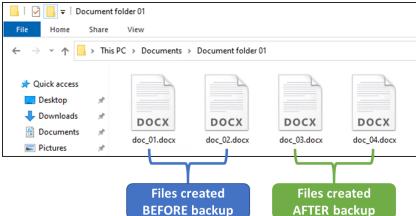
#### **Example:**

i) Two files are created under the **Document folder 01**, namely doc\_1 & doc\_2.



ii) A backup is performed for folder Document folder 01.

iii) Two new files are created, namely doc\_3 & doc\_4.



- iv) A restore is performed for the **Document folder 01**, with **Delete unmatched data** in restore location option enabled.
- v) Since doc\_3 & doc\_4 have never been backed up, therefore they will be deleted from **Document folder 01**, leaving only the two files that have been backed up.



#### **WARNING**

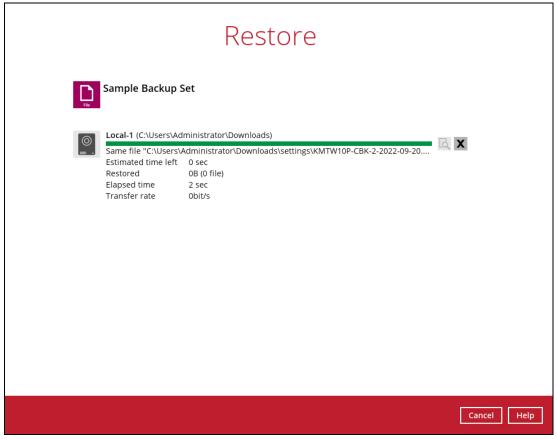
Please exercise extra caution when enabling this feature. Consider what data in the restore source has not been backed up and what impact it would cause if those data were deleted. Prior to the data restore and synchronization, a warning message shows as the one shown below. Only clicking **Yes** will the "unmatched data" be deleted. You can click **Apply to all** to confirm deleting all the "unmatched data" at a time.

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

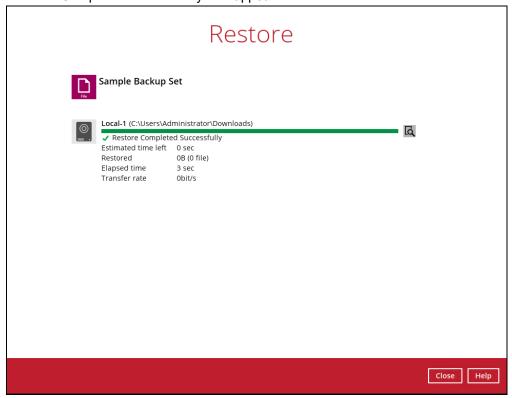
Verify checksum of in-file delta files during restore is disabled by default. You can enable the feature by ticking the checkbox so that the checksum of in-file delta files will be verified. As the feature will make the restore process time longer, it is recommended to enable the feature only if you want to verify whether the merged files were correct.



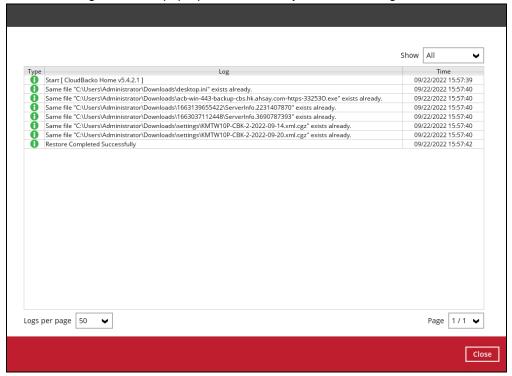
8. Click **Restore** to start the restore job. The status will be shown.



9. When the restore is completed, the progress bar will be green in color and the message "Restore Completed Successfully" will appear.



10. You can click the view icon on the right-hand side to check the log. A window will pop up to show the log. Close the pop-up window when you finish reading it.



- 11. In the Restore window, click **Close** then **Cancel** to close the Restore window.
- 12. To exit CloudBacko Home, click the "x" on the top right corner. A message will appear to ask for your confirmation. Click **Yes** to close the application. If you wish to use CloudBacko Home again, you will then have to launch it again.

### 11.2 Restore Filter

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

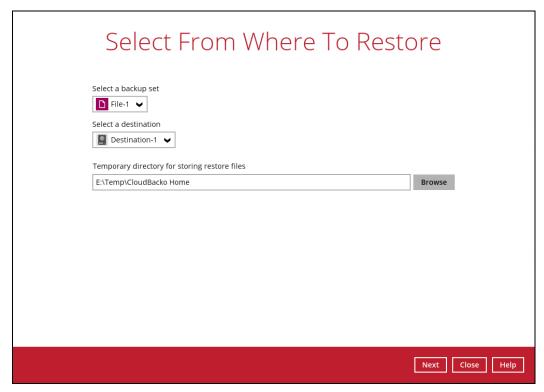
These are Directories, Files, and Folders with the name ending with a specific letter or word.

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 CloudBacko Home, refer to <u>Appendix B:</u> Example Scenarios for Restore Filter.

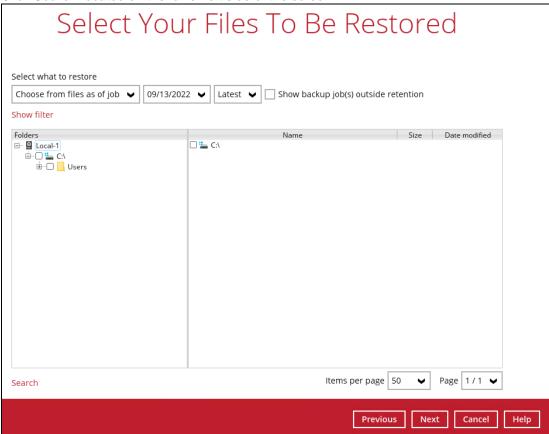
- 1. Log in to the CloudBacko Home application according to the instructions in section Chapter 6 Start CloudBacko Home.
- 2. Click the Restore icon on the main interface of CloudBacko Home.
- 3. In the next page, you will have several options to select. On this page, you may select the **Backup Set** to restore, as well as the **Destination** to which the data will be restored to.

You may also choose the temporary directory for restoring files by selecting a destination beneath **Temporary directory for storing restore files**.

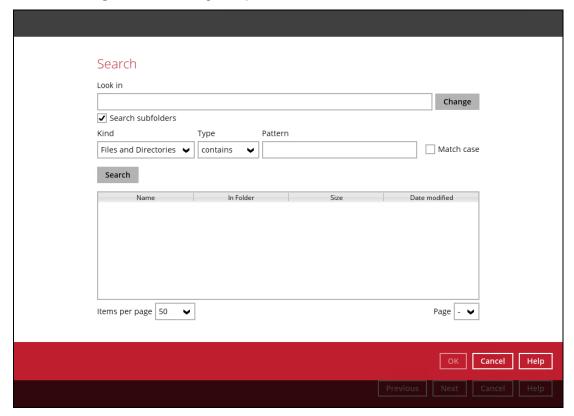


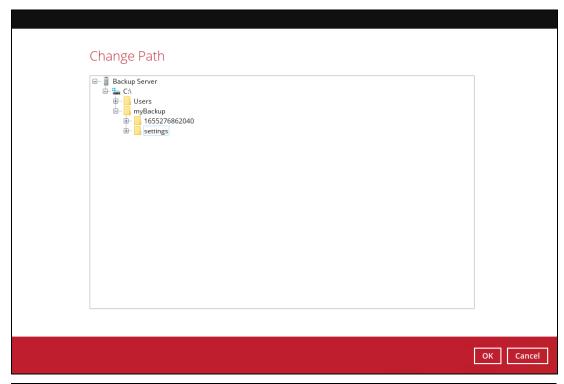


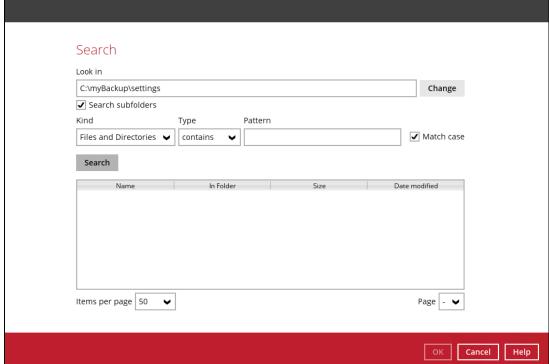
4. Click **Search** located on the lower left side of the screen.



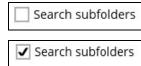
5. Click the **Change** button to change the path of the restore items from other location.





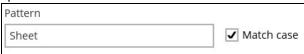


6. Tick the Search subfolders to include available subfolders upon searching.



- 7. Select from the following Kind of files you want to search.
  - Files and Directories
  - Files only
  - Directories

- 8. Select from the following Type of filtering you want to search.
  - Contains
  - Exact
  - Starts With
  - Ends With
- 9. Enter a pattern you want and tick the **Match case** box if you want to accurately search for a specific file.



10. Click the **Search** button and the result will be displayed.



11. Check all the items or check a specific item that you want and click the **OK** button to proceed, and you will return to the restore main screen.

### 12 Mobile Backup and Restore to Cloud

To perform mobile backup and restore to Cloud, follow the steps below:

- Back up photos, videos, documents and 2FA accounts from CloudBacko app to CloudBacko Home local destination. For more detailed information, refer to <u>CloudBacko App User Guide</u> <u>for Android and iOS</u>.
- 2. Create a File backup set according to the instructions in <a href="#">Chapter 8 Create a Backup Set</a> with the following setup:
  - ➤ The backup source should be the photos, videos, documents and/or 2FA account(s) backed up in the CloudBacko Home local destination.
    - Example: C:\MobileBackup\%mobile\_device%
  - ➤ The backup destination should be a Cloud destination (e.g., Google Drive, OneDrive, Wasabi, etc.).
- 3. Run a backup job according to the instructions in <a href="Chapter 10 Run Backup Jobs">Chapter 10 Run Backup Jobs</a>.
- 4. Restore data according to the instructions in <a href="Chapter 11.1 Restore Data">Chapter 11.1 Restore Data</a>. This can be from Original or Alternate Location.

There are two (2) options to restore data from Cloud storage to the mobile device, Original location, and Alternate location.

 Original location - data will be restored on the original location which is the backup destination for your mobile device.

Using this option, you can perform seamless restore to your mobile device as the location is the same with the mobile backup destination.

• Alternate location - data will be restored on an alternate location which can be setup anywhere in the CloudBacko Home local machine. If you choose this option, then restoring to your mobile device will have to be manually done. There are two (2) options available.

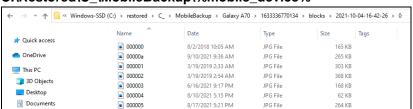
**NOTE:** Restore to alternate location is not supported on another CloudBacko Home machine. Options 1 and 2 must be on the original machine where the backups were performed.

In case the original machine is no longer available, CloudBacko Home will be able to restore the photos, videos, documents and 2FA accounts from the Cloud destination to the mobile backup destination folder. However, as the mobile device was not originally paired with the new installation or machine, the mobile device will not be able to restore the photos, videos, documents and 2FA accounts from the CloudBacko Home.

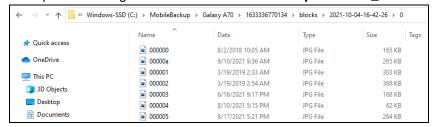
Option 1: Copy the restored data from alternate location to original location which is the backup destination for your mobile device. You can now use the CloudBacko app to restore the photos, videos, documents and 2FA accounts back to your mobile device.

Example of the Alternate location:

C:\Restored\C\_\MobileBackup\%mobile\_device%



#### Example of the Original location: C:\MobileBackup\%mobile\_device%



You can now use the CloudBacko app to restore the photos, videos, documents and 2FA accounts back to your mobile device.

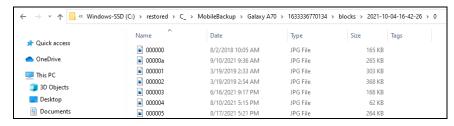
 Option 2: Copy the restored data from the alternate location to your Android or iOS mobile device.

#### Instructions:

 For an Android device, you need to plug your cable and transfer the restored data from the alternate location to your mobile device storage.

Example of the Alternate location:

#### C:\Restored\C\_\MobileBackup\%mobile\_device%



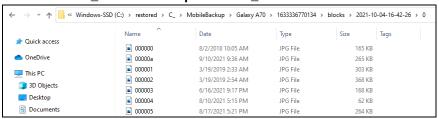
#### Mobile device internal storage



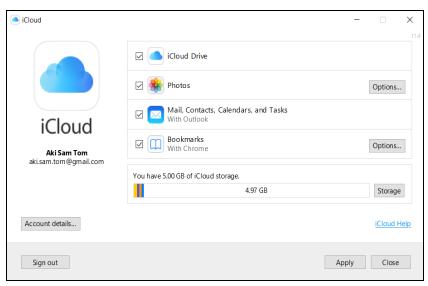
 For an iOS device, you need to transfer the restored data from the alternate location to iCloud.

Example of the Alternate location:

#### C:\Restored\C\_\MobileBackup\%mobile\_device%



### Upload to iCloud using the iCloud app



## 13 Contact CloudBacko

### **Technical Assistance**

To contact CloudBacko support representatives for technical assistance, please visit the Contact Us page to submit a support ticket:

https://www.cloudbacko.com/support

Use the CloudBacko Wiki for resource such as Hardware Compatibility List, Software Compatibility List, and other product information. To also check available documentations and hotfix please visit the <a href="Support page">Support page</a>.

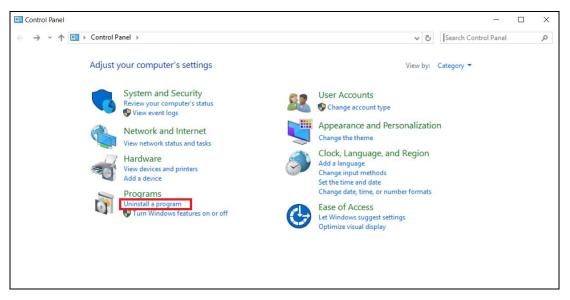
## **Appendix**

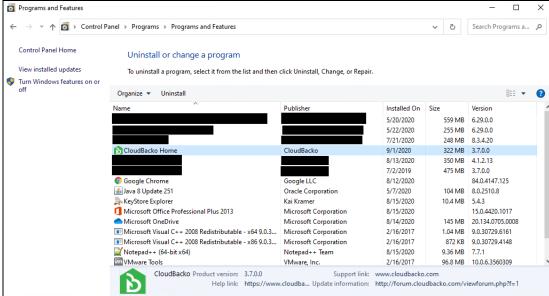
### Appendix A: Uninstall CloudBacko Home

Before you uninstall CloudBacko Home, it is recommended that you make a backup of your current CloudBacko settings, using the **Utilities > Export Settings > Export Now** feature to get a copy of the latest **settings.sys** file. For more information, please check <u>Chapter 7.8.3 Export Settings</u>.

Otherwise, if you intend to re-install CloudBacko Home either on the same machine or a new machine, you will lose your current settings and access to any backed-up data.

 Go to Control Panel > Programs and Features > Uninstall a program, then look for CloudBacko Home and double click on it.

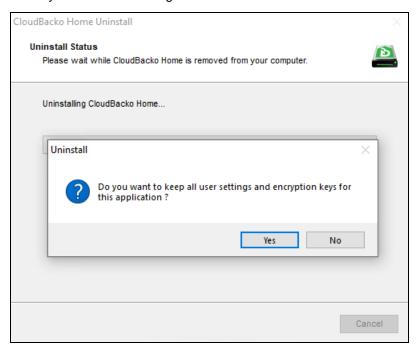




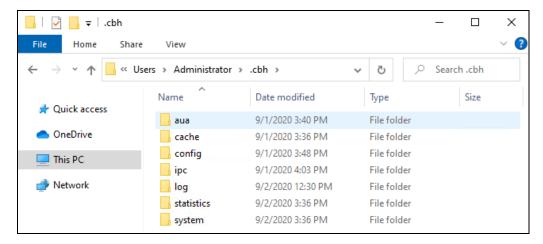
2. Click **Yes** to confirm and proceed with the uninstallation.



3. When you see the following screen:



Choose **Yes** to keep all user settings and the encryption keys associated with the users. If you are likely to install CloudBacko Home on the same machine in the future again, the user settings, e.g. login details, backup sets and so forth will remain in **C:\Users\username\.cbh** by default. The screen capture below shows the folders remain in the machine after uninstallation.

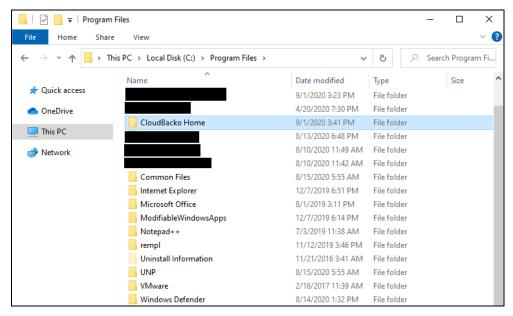


Choose No to delete all user settings and encryption keys with this uninstallation. Please be reminded that the encryption keys are not retrievable once they have been deleted unless the encryption keys have been uploaded to the destination and therefore it will no longer be possible for backup user to recover their encryption key in case they do not have a separate written record.

4. The following screen prompts when the uninstallation is completed.



5. (Optional) For a complete removal of all CloudBacko Home-related files in your machine, please go to **C:\Program Files** and manually remove the **CloudBacko Home** folder.



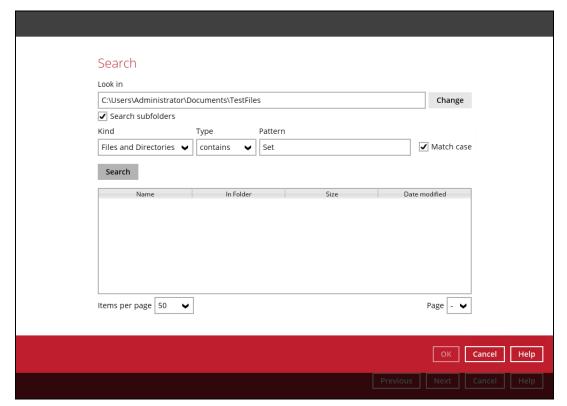


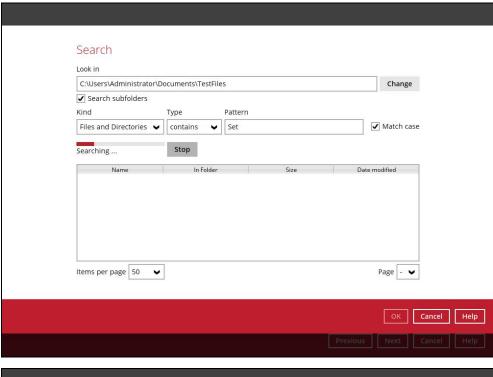
## **Appendix B:** Example Scenarios for Restore Filter

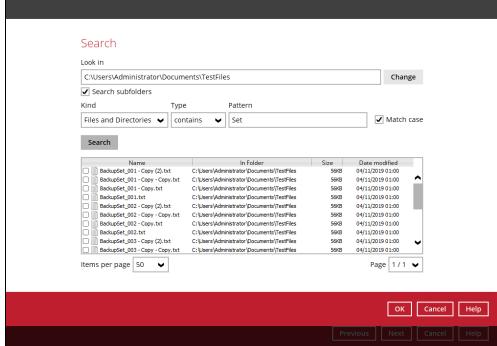
Example No.1: Restore filter setting from C:\Users\Administrator\Documents\TestFiles with filter type Contains

Location:	C:\Users\Administrator\Documents\TestFiles
Search subfolders:	True
Kind:	Files and Directories
Type:	Contains
Pattern:	Set
Match Case:	True

Follow the step-by-step procedure indicated on Restore Filter.







#### **Explanation:**

All files and directories under <u>C:\Users\Administrator\Documents\TestFiles</u> that has the pattern that contains with 'Set' with match case set to true will be included upon performing search.

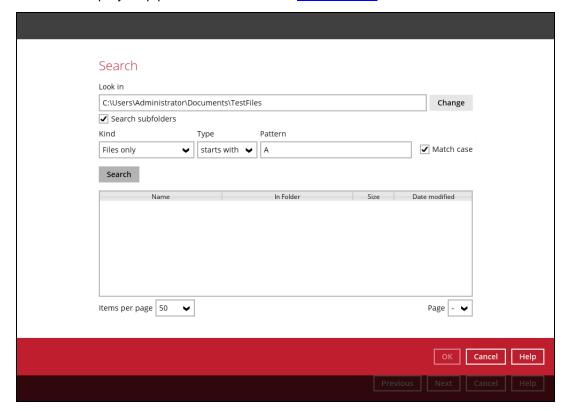
As you can see on the screen shot above, the result panel contains the Name of the file or directory, Directory which are indicated In-Folder column, Size, and Date Modified.

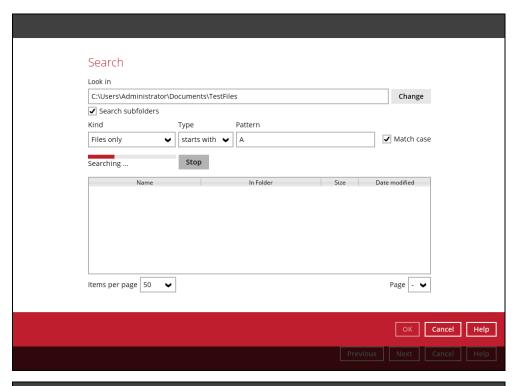
The restore filter setting includes the Search subfolder and Match case set to true. This means that the filter will include all available subfolders in \TestFiles upon searching. And it will strictly search only the specified pattern and case which starts with 'Set'.

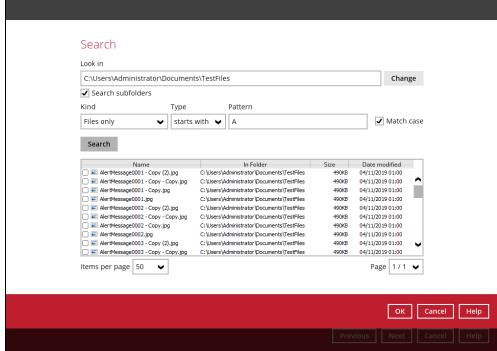
Example No.2: Restore filter setting from C:\Users\Administrator\Documents\TestFiles with filter type Starts With

Location:	C:\Users\Administrator\Documents\TestFiles
Search subfolders:	True
Kind:	Files
Type:	Starts With
Pattern:	A
Match Case:	True

Follow the step-by-step procedure indicated on Restore Filter.







#### **Explanation:**

All files and directories under  $\underline{C:\Users\setminus Administrator\setminus Documents\setminus TestFiles}$  that has the pattern that starts with 'A' with match case set to true will be included upon performing search.

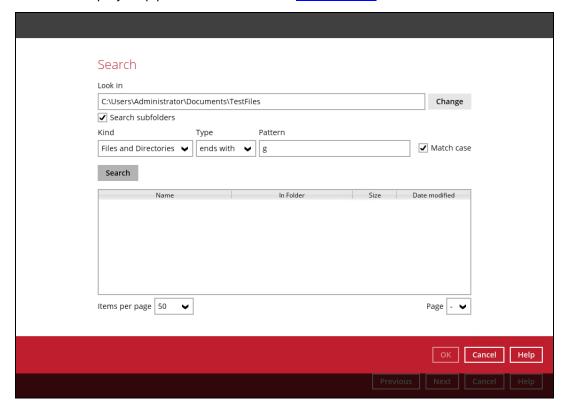
As you can see on the screen shot above, the result panel contains the Name of the file, Directory which are indicated In-Folder column, Size, and Date Modified.

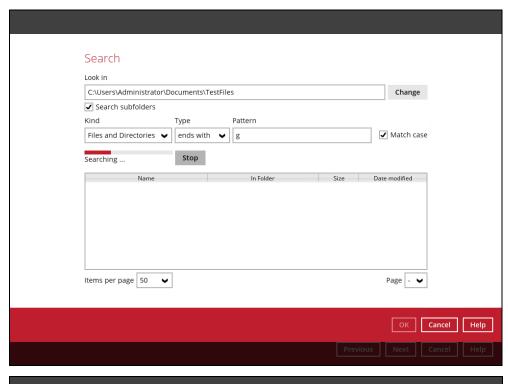
The restore filter setting includes the Search subfolder and Match case set to true. This means that the filter will include all available subfolders in \TestFiles upon searching. And it will strictly search only the specified pattern and case which starts with 'A'.

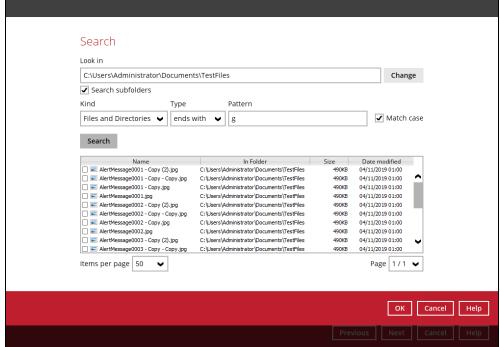
 $\label{lem:condition} \mbox{Example No.3: Restore filter setting from $C:\Users\Administrator\Documents\TestFiles with filter type $Ends With $C:\Users\Administrator\Documents\TestFiles with $C:\Users\Administrator\Documents\TestFi$ 

Location:	C:\Users\Administrator\Documents\TestFiles
Search subfolders:	True
Kind:	Files and Directories
Type:	Ends With
Pattern:	g
Match Case:	True

Follow the step-by-step procedure indicated on Restore Filter.







#### **Explanation:**

All files and directories under C:\Users\Administrator\Documents\TestFiles that has the pattern that ends with 'g' with match case set to true will be included upon performing search.

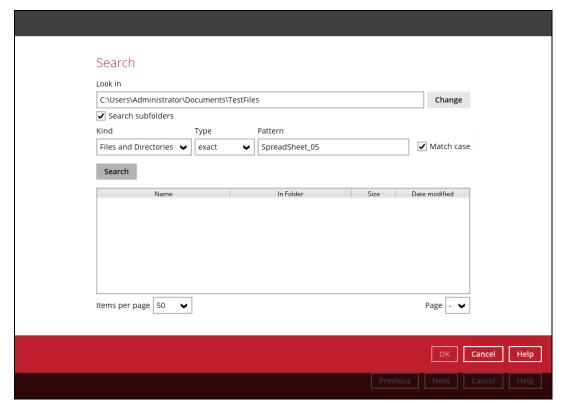
As you can see on the screen shot above, the result panel contains the Name of the files and directories, Directory which are indicated In-Folder column, Size, and Date Modified.

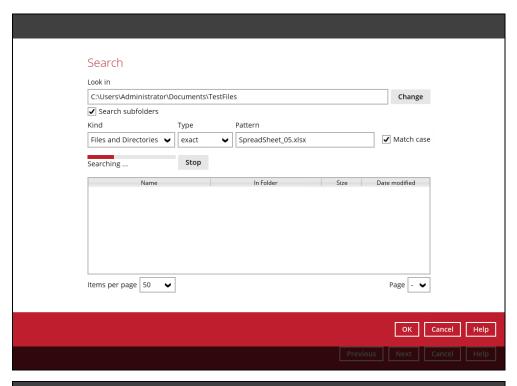
The restore filter setting includes the Search subfolder and Match case set to true. This means that the filter will include all available subfolders in \TestFiles upon searching. And it will strictly search only the specified pattern and case which starts with 'g'.

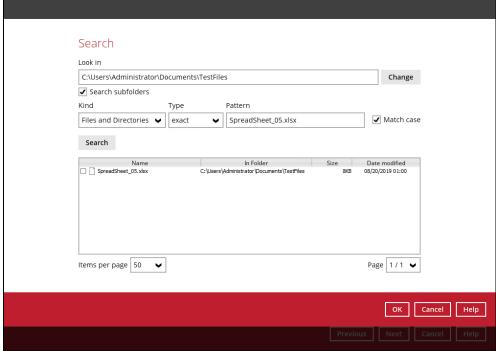
Example No.4: Restore filter setting from C:\Users\Administrator\Documents\TestFiles with filter type Exact

Location:	C:\Users\Administrator\Documents\TestFiles
Search subfolders:	True
Kind:	Files and Directories
Type:	Exact
Pattern:	SpreadSheet_05.xlsx
Match Case:	True

Follow the step-by-step procedure indicated on Restore Filter.







### **Explanation:**

All files and directories under <u>C:\Users\Administrator\Documents\TestFiles</u> that has the pattern that has the exact pattern 'SpreadSheet\_05.xlsx' 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 files and directories, Directory which are indicated In-Folder column, Size, 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 \TestFiles upon searching. And it will strictly search only the specified pattern and case which starts with 'SpreadSheet\_05.xlsx'.

# Appendix C: Batch Files

Below is the list of batch files which can be used as an alternative way to run the CloudBacko Home.

- RunCB.bat
- ListBackupSet.bat
- RunBackupSet.bat
- ListBackupJob.bat
- Restore.bat
- Decrypt.bat
- RunDataIntegrityCheck.bat



### RunCB.bat

This allows the user to open the CloudBacko Home without clicking the CloudBacko Home icon.

On the command prompt (cmd), export the batch file to a text editor using the following script.

```
C:\Program Files\CloudBacko Home\bin>notepad RunCB.bat
C:\Program Files\CloudBacko Home\bin>
```

Configure the following parameters:

 SETTING\_HOME – this is the directory to your setting home. If not set, the directory will be "C:\Users\USER\.cbl" by default.

```
e.g. SET SETTING_HOME="C:\Users\John\.cbh"
```

• **DEBUG\_MODE** – this parameter is used to enable or disable the debug mode when opening the CloudBacko Home application.

```
e.g. SET DEBUG_MODE="--debug" 
or SET DEBUG_MODE=""
```

```
@ECHO OFF
REM # You can use this batch to run the backup client application
REM ----- SETTING HOME -----
REM | Directory to your setting home. Default to
REM | "C:\Users\USER\.cbh" when not set.
REM | e.g. SET SETTING HOME="C:\Users\John\.cbh"
                                                    REM -----
{\it SET SETTING\_HOME="""}
REM ----- DEBUG MODE -----
REM | Enable/Disable debug mode
REM | e.g. SET DEBUG MODE="--debug"
                                                    1
REM | or SET DEBUG_MODE=""
REM -----
                 _____
SET DEBUG MODE=""
SET EXE_DIR=%CD%
SET APP HOME=..
SET JAVA_HOME=%APP_HOME%\jvm
SET JAVA EXE=%JAVA HOME%\bin\bJW.exe
SET JAVA LIB PATH=-Djava.library.path=%APP HOME%\bin
SET PATH=%JAVA HOME%\bin;%PATH%
IF "%PROCESSOR ARCHITECTURE%"=="x86" (
 SET "DEP LIB PATH=X86"
 SET JAVA OPTS=-Xms128m -Xmx768m -XX:MaxDirectMemorySize=512m -
Dsun.java2d.noddraw -Dsun.nio.PageAlignDirectMemory=true
) ELSE (
 SET "DEP_LIB_PATH=X64"
 SET JAVA OPTS=-Xms128m -Xmx2048m -XX:MaxDirectMemorySize=1024m -
```

```
Dsun.java2d.noddraw -Dsun.nio.PageAlignDirectMemory=true
SET PATH=%APP HOME%\bin\%DEP LIB PATH%;%JAVA HOME%\bin;%PATH%
SET CLASSPATH=%APP HOME%\bin;%APP HOME%\bin\cb.jar
*****************************
ECHO -
ECHO APP HOME=%APP HOME%
ECHO SETTING HOME=%SETTING HOME%
ECHO JAVA HOME=%JAVA HOME%
ECHO JAVA EXE=%JAVA EXE%
ECHO JAVA OPTS=%JAVA OPTS%
ECHO JAVA LIB PATH=%JAVA LIB PATH%
ECHO PATH=%PATH%
ECHO CLASSPATH=%CLASSPATH%
ECHO -
@ECHO ON
%JAVA EXE% %JAVA LIB PATH% -cp %CLASSPATH% %JAVA OPTS% Gui %DEBUG MODE%
%APP HOME% %SETTING HOME%
@ECHO OFF
CD "%EXE DIR%"
IF "%APP HOME%"==".." PAUSE
@ECHO ON
```

Once the parameters are configured, save the changes, and close the text editor. Proceed back to cmd and enter RunCB.bat.

```
C:\Program Files\CloudBacko Home\bin>RunCB.bat
APP HOME=..
SETTING HOME="C:\Users\Administrator\.cbh"
JAVA HOME=..\j∨m
JAVA EXE=..\jvm\bin\bJW.exe
JAVA OPTS=-Xms128m -Xmx2048m -XX:MaxDirectMemorySize=1024m -Dsun.java2d.noddraw
-Dsun.nio.PageAlignDirectMemory=true
JAVA_LIB_PATH=-Djava.library.path=..\bin
PATH=..\bin\X64;..\jvm\bin;..\jvm\bin;C:\Program Files (x86)\Common
Files\Oracle\Java\javapath;C:\WINDOWS\system32;C:\WINDOWS;C:\WINDOWS\System32\Wb
em;C:\WINDOWS\System32\WindowsPowerShell\v1.0\;C:\WINDOWS\System32\OpenSSH\;C:\U
sers \ Administrator \ AppData \ Local \ Microsoft \ Windows Apps
CLASSPATH=..\bin;..\bin\cb.jar
C:\Program Files\CloudBacko Home\bin>..\jvm\bin\bJW.exe -
Djava.library.path=..\bin -cp ..\bin;..\bin\cb.jar -Xms128m -Xmx2048m -
XX:MaxDirectMemorySize=1024m -Dsun.java2d.noddraw -
Dsun.nio.PageAlignDirectMemory=true Gui "" .. "C:\Users\Administrator\.cbh"
Press any key to continue . .
```



If the debug mode is ENABLED, more technical information will be displayed for troubleshooting purposes.

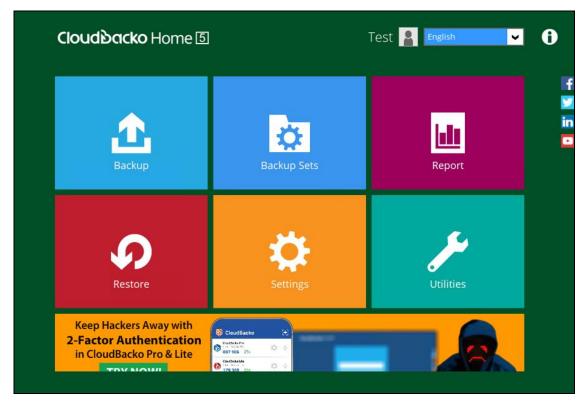
```
C:\Program Files\CloudBacko Home\bin>RunCB.bat
SETTING HOME="C:\Users\Administrator\.cbh"
JAVA HOME=..\jvm
JAVA EXE=..\jvm\bin\bJW.exe
JAVA OPTS=-Xms128m -Xmx2048m -XX:MaxDirectMemorySize=1024m -Dsun.java2d.noddraw
-Dsun.nio.PageAlignDirectMemory=true
JAVA LIB PATH=-Djava.library.path=..\bin
PATH=..\bin\X64;..\jvm\bin;..\jvm\bin;..\jvm\bin;..\jvm\bin;..\jvm\bin;C:\Progra
m Files (x86) \Common
em; C: \WINDOWS \System 32 \Windows Power Shell \v1.0 \c: \WINDOWS \System 32 \Open SSH \c: \V1.0 \c: \WINDOWS \System 32 \Open SSH \c: \V1.0 \c: \V2.0 \c: \V3.0 \c
sers \setminus Administrator \setminus App Data \setminus Local \setminus Microsoft \setminus Windows Apps
CLASSPATH=..\bin;..\bin\cb.jar
C:\Program Files\CloudBacko Home\bin>..\jvm\bin\bJW.exe -
Djava.library.path=..\bin -cp ..\bin;..\bin\cb.jar -Xms128m -Xmx2048m -
XX:MaxDirectMemorySize=1024m -Dsun.java2d.noddraw
Dsun.nio.PageAlignDirectMemory=true Gui "--debug" ..
"C:\Users\Administrator\.cbh"
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\asm-3.1.jar to
classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\b2-core-sdk-
2.0.0.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\b2-http-client-
2.0.0.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\bcmail-jdk15on-
1.51.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\bcmail-jdk15to18-
164.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\bcpkix-jdk15on-
1.51.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\bcpkix-jdk15to18-
164. jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\bcprov-jdk15on-
151.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\bcprov-jdk15to18-
164. jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\cab-parser-2.9.jar
to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\cab-parser-dorkbox-
util-1.1.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\cabinet-maker-
1.0.0.1.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\commons-codec-
1.6. jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\commons-codec-
1.9. jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\commons-io-2.5.jar
to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\commons-logging-
1.1.3. jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\commons-logging-
1.2.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\commons-net-3.3.jar
to classpath ... OK
```

```
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\dom4j-1.6.1.jar to
classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\dropbox-core-sdk-
1.7.5.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\dropbox-core-sdk-
3.0.3.1.jar to classpath ... OK
\label{local-core-sdk-dding} Adding \ file: \C:\Program \& 20 Files \Cloud Backo \& 20 Home \bin \. . \bin \dropbox-core-sdk-dding \dropbox-dding \dropbox-dding \dropbox-dding \dropbox-dding \dropbox-dding \dropbox-dding \
3.0.3.jar to classpath ... OK
to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\forms-1.3.0.jar to
classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\google-api-client-
1.19.1. jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\google-api-client-
jackson2-1.19.1.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\google-api-
services-drive-v2-rev158-1.19.1.jar to classpath ... OK
\label{localization} Adding \ file: \c:\program \cite{CloudBacko} \cite{CloudBacko
1.19.0.jar to classpath ... OK
\label{localization} Adding \ file: \c:\program \cite{CloudBacko} \cite{CloudBacko
jackson2-1.19.0.jar to classpath ... OK
\label{localization} Adding \ file: \c:\program $20$ Files \cloudBacko $20$ Home \bin \c. \bin \google-oauth-oauth-oath \cloud \cloud
client-1.19.0.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\httpclient-
4.3.5. jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\httpclient-
4.5.3. jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\httpclient-cache-
4.3.5.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\httpclient-cache-
4.5.3.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\httpcore-4.3.2.jar
to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\httpcore-4.4.6.jar
to classpath ... OK
\label{lower_adding} Adding \ file: \c:\program $20$ Files \c:\program $20$ Files \c:\program $20$ Home \bin \c:\program $20$ Files \c:
to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\httpmime-4.5.3.jar
to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\jackson-
annotations-2.2.3.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\jackson-
annotations-2.7.4.jar to classpath ... OK
2.2.3.jar to classpath ... OK
2.7.4.jar to classpath ... OK
\label{localization} Adding \ file: \c:\program \cite{CloudBacko} \cite{CloudBacko
1.9.13.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\jackson-databind-
2.2.3.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\jackson-databind-
2.7.4.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\jackson-jaxrs-
1.9.2. jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\jackson-mapper-asl-
1.9.13.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\jackson-xc-
1.9.2.jar to classpath ... OK
```

```
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\java-xmlbuilder-
0.4.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\javax.mail.jar to
classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\jcifs-1.3.18.jar to
classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\jdokan-20170627.jar
to classpath ... OK
Adding \ file: \C: \Program \& 20 Files \Cloud Backo \& 20 Home \bin \... \bin \jdom-1.1.3. jar \ to \end{substitute}
classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\jersey-apache-
client4-1.18.1.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\jersey-bundle-
1.18.1.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\jersey-multipart-
1.18.1.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\jettison-1.1.jar to
classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\jsch-0.1.50.jar to
classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\jsch-0.1.54.1.jar
to classpath ... OK
to classpath ... OK
classpath ... OK
classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\microsoft-
windowsazure-api-0.4.6.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\microsoft-
windowsazure-storage-sdk-1.0.0.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\microsoft-
windowsazure-storage-sdk-6.0.0.1.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\microsoft-
windowsazure-storage-sdk-6.0.0.jar to classpath \dots OK
\label{lower_adding} Adding \ file: \c:\program \& 20 Files \c:\pro
java-5.0.8-bin.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\mysql-connector-
java-5.1.46-bin.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\ojdbc6.jar to
classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\org.json-
20150730.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\servlet-api.jar to
classpath ... OK
\label{localization} Adding \ file: \c:\program \cite{CloudBacko} \cite{CloudBacko
classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\snappy-java-
1.1.7.3.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\bin\..\bin\sqlite-jdbc-
3.27.2.1.jar to classpath ... OK
\label{localization} Adding \ file: \C:\Program \& 20 Files \CloudBacko \& 20 Home \bin \. . \bin \yavijava.jar \ to \end{substantable}
classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\jvm\lib\charsets.jar to
classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\jvm\lib\jce.jar to classpath
Adding file:\C:\Program%20Files\CloudBacko%20Home\jvm\lib\jfxswt.jar to
classpath ... OK
```

```
Adding file:\C:\Program%20Files\CloudBacko%20Home\jvm\lib\jsse.jar to classpath
... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\jvm\lib\management-agent.jar
to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\jvm\lib\resources.jar to
classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Home\jvm\lib\rt.jar to classpath
... OK
Press any key to continue . . .
```

Eventually, the CloudBacko Home main screen will be displayed.





### ListBackupSet.bat

This allows the user to see the list of existing backup set/s under the backup account.

Enter ListBackupSet.bat to display the list of available backup sets with their backup set ID.

```
C:\Program Files\CloudBacko Home\bin>ListBackupSet.bat
APP HOME=..
SETTING HOME=
JAVA HOME=..\jvm
JAVA EXE=..\jvm\bin\bJW.exe
JAVA OPTS=-Xms128m -Xmx768m -Dsun.java2d.noddraw -
Dsun.nio.PageAlignDirectMemory=true
JAVA_LIB_PATH=-Djava.library.path=..\bin
PATH=...\jvm\bin;...\bin\X64;...\jvm\bin;...\jvm\bin;...\jvm\bin;...\jvm\bin
n;C:\Program Files (x86)\Common
Files\Oracle\Java\javapath;C:\WINDOWS\system32;C:\WINDOWS;C:\WINDOWS\System32\Wb
em;C:\WINDOWS\System32\WindowsPowerShell\v1.0\;C:\WINDOWS\System32\OpenSSH\;C:\U
sers \setminus Administrator \setminus App Data \setminus Local \setminus Microsoft \setminus Windows Apps
CLASSPATH=..\bin;..\bin\cb.jar
Listing all backup sets under this backup account ...
C:\Program Files\CloudBacko Home\bin>..\jvm\bin\bJW.exe -
Djava.library.path=..\bin -cp ..\bin;..\bin\cb.jar -Xms128m -Xmx768m -
Dsun.java2d.noddraw -Dsun.nio.PageAlignDirectMemory=true ListBackupSet ..
BackupSet Name= Sample Backup Set 04, ID= 1598929895422
BackupSet Name= Sample Backup Set 01, ID= 1598944192156
BackupSet Name= Sample Backup Set 02, ID= 1598944218072
BackupSet Name= Sample Backup Set 03, ID= 1598944247863
BackupSet Name= Sample Backup Set, ID= 1599016101741
C:\Program Files\CloudBacko Home\bin>PAUSE
Press any key to continue . . .
```



### RunBackupSet.bat

This allows the user to run a backup. Export the batch file to a text editor using the following script.

```
C:\Program Files\CloudBacko Home\bin>notepad RunBackupSet.bat
C:\Program Files\CloudBacko Home\bin>
```

Make sure that the following parameters are set accordingly:

• **BACKUP\_SET** – this is the backup set which you would like to run. There are two (2) options to specify the backup set; using the *backup set name* or the *backup set ID*. If the backup set name is not in English, use the backup set ID.

```
e.g. SET BACKUP_SET="FileBackupSet-1" or SET BACKUP_SET="1119083740107"
```

You can leave this parameter blank if you only have one (1) backup set.

```
e.g. SET BACKUP_SET=""
```

If having multiple backup sets, you must specify which backup set you would like to be run.

• **BACKUP\_DESTS** – this is the destination(s) of the backup set which you will run. There are two (2) options to specify the destination; using the *destination name* or the *destination ID*. If the destination is not in English, use the destination ID.

```
e.g. SET BACKUP_DEST="Local-1" or SET BACKUP_DEST="1119083740107"
```

Multiple destinations can be specified in a comma-separated format, or you can indicate "ALL" to run a backup for all destinations.

```
e.g. SET BACKUP_DESTS="Destination-1,Destination-2" or SET BACKUP_DESTS="ALL"
```

BACKUP\_TYPE – this is the backup set type. This does not need to be changed if backing
up a file backup set.

Options available: FILE/DATABASE/DIFFERENTIAL/LOG

```
e.g. SET BACKUP_TYPE="FILE" for file backup
or SET BACKUP_TYPE="DATABASE" for Full database backup
or SET BACKUP_TYPE="DIFFERENTIAL" for Differential database backup
or SET BACKUP_TYPE="LOG" for Log database backup
```

For MSExchange 2010 BackupSet:

```
e.g. SET BACKUP_TYPE="DATABASE" for Full database backup for SET BACKUP_TYPE="DIFFERENTIAL" for Differential database backup or SET BACKUP_TYPE="LOG" for Incremental database backup for Copy database backup
```

• **SETTING\_HOME** – this is the directory to your setting home. If not set, the directory will be "C:\Users\USER\.cbh" by default.

```
e.g. SET SETTING_HOME="C:\Users\John\.cbh"
```

• **DELTA\_MODE** – this is used to set the In-File Delta mode when running a backup.

```
e.g. SET DELTA_MODE="I" for Incremental In-file delta backup or SET DELTA_MODE="D" for Differential In-file delta backup or SET DELTA_MODE="F" for Full File backup or SET DELTA_MODE="" for using backup set in-file delta setting
```

• **CLEANUP\_MODE** – same as the Retention Policy job and space freeing up, this parameter is used to remove obsolete files from your backup destinations after a backup has been run.

Options available: ENABLE-CLEANUP/DISABLE-CLEANUP

```
e.g. SET CLEANUP_MODE="ENABLE-CLEANUP" or SET CLEANUP_MODE="DISABLE-CLEANUP"
```

• **DEBUG\_MODE** – this parameter is used to enable or disable the debug mode when there is a backup job running.

Options available: ENABLE-DEBUG/DISABLE-DEBUG

e.g. SET DEBUG\_MODE="ENABLE-DEBUG" or SET DEBUG\_MODE="DISABLE-DEBUG"

```
@ECHO OFF
REM # You can use this batch to run any of your backup sets from the
REM # command line. Just customize the "User Defined Section" below with your #
REM # values for your backup action.
REM ----- BACKUP SET -----
REM | The name or ID of the backup set that you want to run.
REM | If backup set name is not in English, please use ID instead.
REM | e.g. SET BACKUP SET="1119083740107"
REM | or SET BACKUP SET="FileBackupSet-1"
REM | You can leave this parameter blank if you have only 1 backup set.
REM -----
SET BACKUP SET=""
REM ----- BACKUP DESTS -----
REM | The list of name or ID of the backup destinations that you want to run. |
REM | If backup destination name is not in English, please use ID instead.
REM | e.g. SET BACKUP DESTS="1740107119083"
REM | or SET BACKUP DESTS="Destination-1, Destination-2"
REM | or SET BACKUP DESTS="ALL"
REM |
REM | You can specify multiple destinations in comma-separated format,
REM | or use "ALL" to run backup for all destinations.
REM -----
SET BACKUP DESTS="ALL"
REM ----- BACKUP TYPE -----
REM | Set backup type. You don't need to change this if you are backing up a
REM | file backup set.
REM | Options available: FILE/DATABASE/DIFFERENTIAL/LOG
REM | e.g. SET BACKUP_TYPE="FILE" for file backup
REM | or SET BACKUP_TYPE="DATABASE" for Full database backup
REM | or SET BACKUP_TYPE="DIFFERENTIAL" for Differential database backup
REM | or SET BACKUP TYPE="LOG"
                                for Log database backup
REM | For MSExchange 2010 BackupSet
REM | e.g. SET BACKUP TYPE="DATABASE" for Full database backup
REM | or SET BACKUP_TYPE="DIFFERENTIAL" for Differential database backup
REM | or SET BACKUP_TYPE="LOG" for Incremental database backup
                                                             REM | or SET BACKUP_TYPE="COPY"
                                for Copy database backup
REM -----
SET BACKUP TYPE="FILE"
REM ----- SETTING HOME -----
REM | Directory to your setting home. Default to
REM | "C:\Users\USER\.cbh" when not set.
REM | e.g. SET SETTING HOME="C:\Users\John\.cbh"
REM -----
SET SETTING HOME=""
REM ----- DELTA MODE -----
REM | Set In-File Delta mode.
REM | Options available: Incremental/Differential/Full (I/D/F)
                                                             {\it REM} \ | \ {\it e.g.} \ {\it SET DELTA\_MODE="I"} \ {\it for Incremental In-file delta backup}
```

```
REM | or SET DELTA MODE="D" for Differential In-file delta backup
REM | or SET DELTA_MODE="F" for Full File backup

REM | or SET DELTA_MODE="" for using backup set in-file delta setting
                                                                  -
                                                                  REM -----
SET DELTA MODE=""
REM ----- CLEANUP MODE -----
REM | You can enable Cleanup mode to remove obsolete files from your backup
REM | destinations after backup.
REM | Options available: ENABLE-CLEANUP/DISABLE-CLEANUP
REM | e.g. SET CLEANUP MODE="ENABLE-CLEANUP"
REM | or SET CLEANUP MODE="DISABLE-CLEANUP"
REM -----
SET CLEANUP MODE="DISABLE-CLEANUP"
                   ----- DEBUG MODE -----
REM | Set Debug mode.
                                                                  1
REM | Options available: ENABLE-DEBUG/DISABLE-DEBUG
                                                                  REM | e.g. SET DEBUG MODE="ENABLE-DEBUG"
                                                                  -
REM | or SET DEBUG MODE="DISABLE-DEBUG"
REM -----
SET DEBUG MODE="DISABLE-DEBUG"
SET APP HOME=..
SET JAVA HOME=%APP HOME%\jvm
SET JAVA EXE=%JAVA HOME%\bin\bJW.exe
SET JAVA LIB PATH=-Djava.library.path=%APP HOME%\bin
SET PATH=%JAVA HOME%\bin;%PATH%
SET CLASSPATH=%APP HOME%\bin;%APP HOME%\bin\cb.jar
IF "%PROCESSOR ARCHITECTURE%"=="x86" (
 SET "DEP LIB PATH=X86"
 SET JAVA OPTS=-Xms128m -Xmx768m -XX:MaxDirectMemorySize=512m -
Dsun.java2d.noddraw -Dsun.nio.PageAlignDirectMemory=true
) ELSE (
SET "DEP LIB PATH=X64"
 SET JAVA OPTS=-Xms128m -Xmx2048m -XX:MaxDirectMemorySize=1024m -
Dsun.java2d.noddraw -Dsun.nio.PageAlignDirectMemory=true
SET PATH=%CD%\%APP HOME%\bin\%DEP LIB PATH%;%PATH%
ECHO APP HOME=%APP HOME%
ECHO SETTING HOME=%SETTING HOME%
ECHO JAVA HOME=%JAVA HOME%
ECHO JAVA EXE=%JAVA EXE%
ECHO JAVA OPTS=%JAVA OPTS%
ECHO JAVA LIB PATH=%JAVA LIB PATH%
ECHO PATH=%PATH%
ECHO CLASSPATH=%CLASSPATH%
ECHO -
ECHO Running Backup Set - '%BACKUP SET%' ...
%JAVA EXE% %JAVA LIB PATH% -cp %CLASSPATH% %JAVA OPTS% RunBackupSet %APP HOME%
*BACKUP SET* *BACKUP DESTS* *BACKUP TYPE* *SETTING HOME* *DELTA MODE*
```

```
%CLEANUP_MODE% %DEBUG_MODE%

@ECHO OFF

CD %APP_HOME%

IF "%APP_HOME%"==".." PAUSE

@ECHO ON
```

#### NOTE

If some parameters are not configured, the backup job will run with the default backup settings.

### Save the changes and close the text editor. Proceed back to cmd and enter RunBackupSet.bat.

```
C:\Program Files\CloudBacko Home\bin>RunBackupSet.bat
APP HOME=..
SETTING HOME="C:\Users\Administrator\.cbh"
JAVA HOME=..\jvm
JAVA_EXE=..\jvm\bin\bJW.exe
JAVA OPTS=-Xms128m -Xmx2048m -XX:MaxDirectMemorySize=1024m -Dsun.java2d.noddraw
-Dsun.nio.PageAlignDirectMemory=true
JAVA LIB PATH=-Djava.library.path=..\bin
PATH=C:\Program Files\CloudBacko
Home \otimes Lin \times Lin \times G4;... \downarrow Jvm \otimes Lin \otimes Lin \otimes Lin \otimes G4;... \downarrow Jvm \otimes Lin \otimes Lin \otimes G4;... \downarrow Jvm \otimes Lin \otimes Lin \otimes G4;... \downarrow Jvm \otimes Lin \otimes Lin \otimes Lin \otimes Lin \otimes G4;... \downarrow Jvm \otimes Lin \otimes Lin
n\X64;...\jvm\bin;..\jvm\bin;C:\Program Files (x86)\Common
Files\Oracle\Java\javapath;C:\WINDOWS\system32;C:\WINDOWS;C:\WINDOWS\System32\Wb
em;C:\WINDOWS\System32\WindowsPowerShell\v1.0\;C:\WINDOWS\System32\OpenSSH\;C:\U
sers\Administrator\AppData\Local\Microsoft\WindowsApps
CLASSPATH=..\bin;..\bin\cb.jar
Running Backup Set - '"Sample Backup Set"' ...
C:\Program Files\CloudBacko Home\bin>..\jvm\bin\bJW.exe -
Djava.library.path=..\bin -cp ..\bin;..\bin\cb.jar -Xms128m -Xmx2048m -
XX:MaxDirectMemorySize=1024m -Dsun.java2d.noddraw -
Dsun.nio.PageAlignDirectMemory=true RunBackupSet .. "Sample Backup Set" "ALL"
"FILE" "C:\Users\Administrator\.cbh" "" "DISABLE-CLEANUP" "DISABLE-DEBUG"
 [2020/09/02 16:24:22] [info] [-] Start [ CloudBacko Home v4.1.2.13 ]
[2020/09/02 16:24:27] [info] [1599016129211] Start Backup ... [In-File Delta:
Incremental1
[2020/09/02 16:24:27] [info] [1599016129211] Using Temporary Directory
F:\Temp\CloudBacko Home\1599016101741\Local@1599016129211
[2020/09/02 16:24:30] [info] [1599016129211] Downloading server file list...
[2020/09/02 16:24:32] [info] [1599016129211] Download valid index files from
backup job "Current" to "F:\Temp\CloudBacko
Home\1599016101741\Local@1599016129211\index".
[2020/09/02 16:24:32] [info] [1599016129211] Downloading server file list...
Completed
[2020/09/02 16:24:35] [info] [-] Start creating Shadow Copy Set...
[2020/09/02 16:24:52] [info] [-] Shadow Copy Set successfully created
[2020/09/02 16:24:52] [info] [1599016129211] Reading backup source from hard
disk ...
[2020/09/02 16:24:56] [info] [1599016129211] Getting all files which have been
[2020/09/02 16:24:56] [info] [1599016129211] Getting all files which have been
moved... Completed
[2020/09/02 16:24:56] [info] [1599016129211] Reading backup source from hard
disk... Completed
[2020/09/02 16:24:57] [info] [1599016129211] Start validating the presence and
size of backup data in destination "Local-1"...
[2020/09/02 16:24:57] [info] [1599016129211] Finished validating the presence
and size of backup data in destination "Local-1"
```

```
[2020/09/02 \ 16:24:57] [info] [1599016129211] Total New Files = 0
[2020/09/02 \ 16:24:57] [info] [1599016129211] Total New Directories = 0
[2020/09/02\ 16:24:57] [info] [1599016129211] Total New Links = 0
[2020/09/02 \ 16:24:57] [info] [1599016129211] Total Updated Files = 0
[2020/09/02 \ 16:24:57] [info] [1599016129211] Total Attributes Changed Files = 0
[2020/09/02 \ 16:24:57] [info] [1599016129211] Total Deleted Files = 0
[2020/09/02\ 16:24:57] [info] [1599016129211] Total Deleted Directories = 0
[2020/09/02\ 16:24:57]\ [info]\ [1599016129211]\ Total\ Deleted\ Links=0
[2020/09/02 \ 16:24:57] [info] [1599016129211] Total Moved Files = 0
[2020/09/02 16:24:57] [info] [-] Deleting Shadow Copy snapshot for volume
"\\?\Volume{9795d85d-0000-0000-100000000000}\"
[2020/09/02 16:24:57] [info] [-] Deleting Shadow Copy snapshot for volume "C:\"
[2020/09/02 16:24:57] [info] [-] Deleting Shadow Copy snapshot for volume
"\\?\Volume{9795d85d-0000-0000-0000-d0cc09000000}\"
[2020/09/02\ 16:24:57] [info] [-] Deleting Shadow Copy snapshot for volume "E:\"
[2020/09/02 16:24:57] [info] [-] Deleting Shadow Copy snapshot for volume "F:\"
[2020/09/02 16:24:57] [info] [1599016129211] Saving encrypted backup file index
to 1599016101741/blocks at destination Local-1...
[2020/09/02 16:24:58] [info] [1599016129211] Saving encrypted backup file index
to 1599016101741/blocks/2020-09-02-16-24-22 at destination Local-1...
[2020/09/02 16:25:00] [info] [1599016129211] Deleting temporary file
F:\Temp\CloudBacko Home\1599016101741\Local@1599016129211
[2020/09/02 16:25:00] [info] [1599016129211] Backup Completed Successfully
Press any key to continue . . .
```



### ListBackupJob.bat

This allows the user to display the list of backup jobs under a specific backup set. Enter the following script to export the batch file to a text editor.

```
C:\Program Files\CloudBacko Home\bin>notepad ListBackupJob.bat
C:\Program Files\CloudBacko Home\bin>
```

Configure the following parameters:

• **BACKUP\_SET** – this is the backup set which you would like to be displayed. There are two (2) ways to specify the backup set; using the *backup set name* or the *backup set ID*. If the backup set name is not in English, use the backup set ID.

```
e.g. SET BACKUP_SET="FileBackupSet-1" or SET BACKUP_SET="1119083740107"
```

You can leave this parameter blank if you only have one (1) backup set.

```
e.g. SET BACKUP_SET=""
```

• **BACKUP\_DEST** – this is the destination of the backup set which you would like to be displayed. There are two (2) ways to specify the backup destination; using the *destination name* or the *destination ID*. If the destination is not in English, use the destination ID.

```
e.g. SET BACKUP_DEST="Local-1" or SET BACKUP_DEST="1119083740107"
```

You can leave this parameter blank if you only have one (1) backup destination.

```
e.g. SET BACKUP_DEST=""
```

```
@ECHO OFF
REM # You can use this batch to list all backup jobs which ran under this
                                                     #
REM # backup set.
REM ----- BACKUP SET -----
REM | The name or ID of the backup set that you want to run
REM | If backup set name is not in English, please use BackupSetID
REM | e.g. SET BACKUP SET="1119083740107"
REM | or SET BACKUP SET="FileBackupSet-1"
REM
REM | You can leave this parameter blank if you have only 1 backup set.
REM -----
SET BACKUP SET=""
REM ----- BACKUP DEST -----
REM | The name or ID of the destination that you want to list
REM | If destination name is not in English, please use DestinationID
REM | e.g. SET BACKUP DEST="1119083740107"
REM | or SET BACKUP DEST="CBS"
REM | You can leave this parameter blank if you have only 1 destination.
REM -----
SET BACKUP_DEST=""
SCRIPT
                                 USAGE
REM # Input Arguments will overwrite the above settings
REM # defined in 'User Defined Section'.
IF NOT %1.==. SET BACKUP SET=%1
IF NOT %2.==. SET BACKUP DEST=%2
**
SET APP HOME=..
SET SETTING HOME=
SET JAVA HOME=%APP HOME%\jvm
SET JAVA EXE=%JAVA HOME%\bin\bJW.exe
SET JAVA OPTS=-Xms128m -Xmx768m -Dsun.java2d.noddraw -
Dsun.nio.PageAlignDirectMemory=true
SET JAVA LIB PATH=-Djava.library.path=%APP HOME%\bin
SET PATH=%JAVA HOME%\bin;%PATH%
SET CLASSPATH=%APP HOME%\bin;%APP HOME%\bin\cb.jar
REM
ECHO -
ECHO APP HOME=%APP HOME%
ECHO SETTING HOME= % SETTING HOME %
ECHO JAVA HOME=%JAVA HOME%
ECHO JAVA_EXE=%JAVA_EXE%
ECHO JAVA_OPTS=%JAVA_OPTS%
ECHO JAVA LIB PATH=%JAVA LIB PATH%
ECHO PATH=%PATH%
ECHO CLASSPATH=%CLASSPATH%
ECHO -
ECHO Listing all backup jobs for Backup Set - '%BACKUP SET%' ...
@ECHO ON
%JAVA EXE% %JAVA LIB PATH% -cp %CLASSPATH% %JAVA OPTS% ListBackupJob --app-
home=%APP HOME% --backup-set=%BACKUP SET% --backup-dest=%BACKUP DEST% --setting-
```



```
home=%SETTING_HOME%
PAUSE
```

#### **NOTE**

You can only select one (1) backup set and one (1) destination at a time.

Save the changes and close the text editor. Proceed back to *cmd* and enter *ListBackupJob.bat*. The list of backup jobs under the specified backup set will be displayed.

```
C:\Program Files\CloudBacko Home\bin>ListBackupJob.bat
APP HOME=..
SETTING HOME=
JAVA HOME=..\j∨m
JAVA EXE=..\jvm\bin\bJW.exe
JAVA OPTS=-Xms128m -Xmx768m -Dsun.java2d.noddraw -
Dsun.nio.PageAlignDirectMemory=true
JAVA LIB PATH=-Djava.library.path=..\bin
PATH=..\jvm\bin;C:\Program Files\CloudBacko
n\X64;..\jvm\bin;..\jvm\bin;C:\Program Files (x86)\Common
Files\Oracle\Java\javapath;C:\WINDOWS\system32;C:\WINDOWS;C:\WINDOWS\System32\Wb
em;C:\WINDOWS\System32\WindowsPowerShell\v1.0\;C:\WINDOWS\System32\OpenSSH\;C:\U
sers \setminus Administrator \setminus App Data \setminus Local \setminus Microsoft \setminus Windows Apps
CLASSPATH=..\bin;..\bin\cb.jar
Listing all backup jobs for Backup Set - '"Sample Backup Set"' ...
C:\Program Files\CloudBacko Home\bin>..\jvm\bin\bJW.exe -
Djava.library.path=..\bin -cp ..\bin;..\bin\cb.jar -Xms128m -Xmx768m -
Dsun.java2d.noddraw -Dsun.nio.PageAlignDirectMemory=true ListBackupJob --app-
home=.. --backup-set="Sample Backup Set" --backup-dest="" --setting-home=
Sample Backup Set [1599016101741]
2020-09-02-16-24-22
2020-09-02-12-30-26
C:\Program Files\CloudBacko Home\bin>PAUSE
Press any key to continue . . .
```



#### Restore.bat

This allows the user to restore backed-up data. Enter the following script to export the batch file to a text editor.

```
C:\Program Files\CloudBacko Home\bin>notepad Restore.bat
C:\Program Files\CloudBacko Home\bin>
```

Configure the following parameters:

 BACKUP\_SET – this is the backup set which you would like to restore. If the backup set name is not in English, use the backup set ID.

```
e.g. SET BACKUP_SET="FileBackupSet-1" or SET BACKUP_SET="1119083740107"
```

 DESTINATION – this is the destination where you want to restore the backed-up data from. If the destination is not in English, use the destination ID.

```
e.g. SET DESTINATION="Local-1" or SET DESTINATION="1119083740107"
```

You can leave this parameter blank if you only have one (1) backup destination.

```
e.g. SET DESTINATION=""
```

RESTORE\_TO – this is the location where the files will be restored.

```
e.g. SET RESTORE_TO=" C:\Temp"
```

RESTORE\_FROM – this is the selected file or directory on the backup server which you
would like to restore.

```
e.g. SET RESTORE_FROM="C:\Users"
```

POINT\_IN\_TIME – this is the point-in-time snapshot (of a successful backup) that you want to
restore from the backup server. Use "Current" for the latest backup snapshot. You can
retrieve the point in time by using the ListBackupJob.bat.

```
e.g. SET POINT_IN_TIME="2006-10-04-12-57-13" or SET POINT_IN_TIME="Current"
```

• **RESTORE\_PERMISSION** – set this to "Y" if you want to restore file permissions. Otherwise, indicate "N" if you do NOT want to restore file permissions.

```
e.g. SET RESTORE PERMISSION="N"
```

• **SKIP\_INVALID\_KEY** – set this to "Y" if you want to skip restore file with an invalid key. Set this to "N" if you want to prompt user to input the correct key.

```
e.g. SET SKIP_INVALID_KEY="N"
```

• **SYNC\_OPTION** – set this to "Y" if you want to enable the sync option. Set this to "N" if you do NOT want to enable sync option. Leave this blank if you want to prompt user for a selection.

```
e.g. SET SYNC OPTION="N"
```

• REPLACE\_EXISTING\_FILE – set to "--all" to replace all existing file(s) of the same filename. Set this to "--none" to skip all existing file(s) with the same filename. Leave this blank if you want to prompt user for a selection.

```
e.g. SET REPLACE_EXISTING_FILE="--all"
```

 SETTING\_HOME – this is the directory to your setting home. If not set, the directory will be "C:\Users\USER\.cbl" by default.

```
e.g. SET SETTING_HOME="C:\Users\John\.cbl"
```

• FILTER – this parameter is used to filter the files that you want to restore.

```
e.g. SET FILTER="-Pattern=.txt-Type=exact-Target=toFile"
```

• **TEMP\_DIR** – this is the directory where you would like to store the restore files temporarily.

```
e.g. SET TEMP_DIR="C:\Temp"
```

• **VERIFY\_CHKSUM** – set this to "Y" if you want to verify the in-file delta file checksum during restore. Otherwise, set this to "N" if you do NOT want to verify the in-file delta file checksum during restore.

```
e.g. SET VERIFY_CHKSUM="N"
```

```
@ECHO OFF
REM # You can use this batch file to restore backup files using command-line. #
REM # Just customize the "User Define Section" below with values for your
REM # restore action.
REM ----- BACKUP SET -----
REM | The name or ID of the backup set that you want to restore.
REM | If backup set name is not in English, please use ID instead.
REM | e.g. SET BACKUP SET="1119083740107"
REM | or SET BACKUP SET="FileBackupSet-1"
REM |
REM | You can leave this parameter blank if you have only 1 backup set.
REM -----
SET BACKUP SET=""
REM ----- DESTINATION -----
REM | The name or ID of the backup destination that you want to restore from. |
REM | If backup destination name is not in English, please use ID instead.
REM | e.g. SET DESTINATION="1740107119083"
REM | or SET DESTINATION="Destination-1"
REM | You can leave this parameter blank if you have only 1 destination.
SET DESTINATION=""
REM ----- RESTORE TO -----
REM | Directory to where you want files to be restored
                                                        - 1
REM | Use "\\\" instead of "\\" when you specify a UNC path
                                                         REM | set to "" to restore files to original location
                                                         REM | e.g. SET RESTORE_TO="C:\Temp"
REM -----
SET RESTORE TO=""
REM ----- RESTORE FROM -----
REM | File/Directory on the backup server that you would like to restore
REM | e.g. SET RESTORE FROM="C:\Data"
SET RESTORE FROM=""
REM ----- POINT IN TIME ------
REM | The point-in-time snapshot (successful backup) that you want to restore |
REM | from the backup server. Use "Current" for the latest backup snapshot
REM | e.g. SET POINT_IN_TIME="2006-10-04-12-57-13"
REM | or SET POINT IN TIME="Current"
REM |
REM | You can retrieve the point in time by using the ListBackupJob.bat
REM -----
SET POINT IN TIME="Current"
REM ----- RESTORE PERMISSION ----
REM | set to "Y" if you want to restore file permissions
REM | set to "N" if you do NOT want to restore file permissions
REM -----
SET RESTORE PERMISSION="N"
```

```
----- SKIP INVALID KEY ------
\textit{REM} \ | \ \textit{set to "Y"} \ \textit{if you want to skip restore file with invalid key}
REM | set to "N" if you want to prompt user to input a correct key
REM -----
SET SKIP INVALID KEY="N"
REM ----- SYNC OPTION -----
REM | Delete extra files
REM | set to "Y" if you want to enable sync option
REM | set to "N" if you do NOT want to enable sync option
REM | set to "" to prompt for selection
REM -----
SET SYNC OPTION="N"
REM ----- REPLACE EXISTING FILE -----
REM | set to "--all" to replace all existing file(s) of the same filename
REM | set to "--none" to skip all existing file(s) with the same filename
                                                               REM | set to "" to prompt for selection
REM -----
SET REPLACE EXISTING FILE="--all"
REM ----- SETTING HOME -----
REM | Directory to your setting home. Default to
REM | "C:\Users\USER\.cbh" when not set.
REM | e.g. SET SETTING_HOME="C:\Users\John\.cbh"
REM -----
SET SETTING HOME=""
REM OPTION:
REM ----- FILTER
REM | Filter out what files you want to restore
REM | -Pattern=xxx-Type=yyy-Target=zzz
REM | where xxx is the filter pattern,
REM | yyy is the filter type, whice can be one of the following:
           [exact | exactMatchCase | contains | containsMatchCase|
            startWith | startWithMatchCase | endWith | endWithMatchCase] |
REM |
         zzz is the filter target, which can be one of the following:
REM |
          [toFile | toFileDir | toDir]
REM | e.g. SET FILTER="-Pattern=.txt-Type=exact-Target=toFile"
RF.M -----
SET FILTER=""
REM ----- TEMP DIR -----
REM | Directory to where you want to store restore files temporarily
REM | Use "\\\" instead of "\\" when you specify a UNC path
\mathit{REM} | set to "" to use the temporary directory in the backup set
REM | e.g. SET TEMP DIR="C:\Temp"
REM -----
SET TEMP DIR=""
REM ----- VERIFY CHKSUM -----
REM | set to "Y" if you want to verify in-file delta file checksum during
REM | restore
REM | set to "N" if you do NOT want to verify in-file delta file checksum
REM | during restore
REM -----
SET VERIFY CHKSUM="N"
```

```
SET APP HOME=..
SET JAVA HOME=%APP HOME%\jvm
\textit{SET JAVA\_EXE=\$JAVA\_HOME\$\backslash bin\backslash bJW.exe}
SET JAVA LIB PATH=-Djava.library.path=%APP HOME%\bin
SET PATH=%JAVA HOME%\bin;%PATH%
SET CLASSPATH=%APP HOME%\bin;%APP HOME%\bin\cb.jar
IF "%PROCESSOR ARCHITECTURE%"=="x86" (
 SET "DEP LIB PATH=X86"
 SET JAVA OPTS=-Xms128m -Xmx768m -XX:MaxDirectMemorySize=512m -
Dsun.java2d.noddraw -Dsun.nio.PageAlignDirectMemory=true
) ELSE (
 SET "DEP LIB PATH=X64"
 SET JAVA OPTS=-Xms128m -Xmx2048m -XX:MaxDirectMemorySize=1024m -
Dsun.java2d.noddraw -Dsun.nio.PageAlignDirectMemory=true
SET PATH=%CD%\%APP HOME%\bin\%DEP LIB PATH%;%PATH%
ECHO APP HOME=%APP HOME%
ECHO SETTING HOME=%SETTING HOME%
ECHO JAVA HOME=%JAVA HOME%
ECHO JAVA EXE=%JAVA EXE%
ECHO JAVA OPTS=%JAVA OPTS%
ECHO JAVA LIB PATH=%JAVA LIB PATH%
ECHO PATH=%PATH%
ECHO CLASSPATH=%CLASSPATH%
ECHO -
@ECHO ON
%JAVA EXE% %JAVA LIB PATH% -cp %CLASSPATH% %JAVA OPTS% Restore --to=%RESTORE TO%
--from=%RESTORE FROM% --backup-set=%BACKUP SET% --backup-dest=%DESTINATION%
%REPLACE EXISTING FILE% --date=%POINT IN TIME% --set-
permission=%RESTORE_PERMISSION% --skip-invalid-key=%SKIP_INVALID_KEY% --
sync=%SYNC OPTION% --filter=%FILTER% --temp-dir=%TEMP DIR% --verify-delta-file-
chksum=%VERIFY CHKSUM% --app-home=%APP HOME% --setting-home=%SETTING HOME%
@ECHO OFF
CD %APP HOME%
IF "%APP HOME%"==".." PAUSE
@ECHO ON
```

### **NOTE**

If some parameters are not set, the restore job will run with the default restore settings.



Save the changes and close the text editor. Proceed back to cmd and enter Restore.bat.

```
C:\Program Files\CloudBacko Home\bin>Restore.bat
APP HOME=..
SETTING HOME="C:\Users\Administrator\.cbh"
JAVA HOME=..\jvm
JAVA EXE=..\jvm\bin\bJW.exe
JAVA OPTS=-Xms128m -Xmx2048m -XX:MaxDirectMemorySize=1024m -Dsun.java2d.noddraw
-Dsun.nio.PageAlignDirectMemory=true
JAVA LIB PATH=-Djava.library.path=..\bin
PATH=C:\Program Files\CloudBacko
Home\bin\..\bin\X64;..\jvm\bin;..\jvm\bin;C:\Program Files\CloudBacko
Home \otimes hin \otimes hom \otimes hin \otimes hom \otimes hom
n\X64;...\jvm\bin;...\jvm\bin;C:\Program Files (x86)\Common
em; C: \WINDOWS \System 32 \Windows Power Shell \v1.0 \c: \WINDOWS \System 32 \Open SSH \c: \UINDOWS \C: \WINDOWS \C: \UINDOWS \C: \U
sers \land Administrator \land AppData \land Local \land Microsoft \land Windows Apps
CLASSPATH=..\bin;..\bin\cb.jar
C:\Program Files\CloudBacko Home\bin>..\jvm\bin\bJW.exe -
Djava.library.path=..\bin -cp ..\bin;..\bin\cb.jar -Xms128m -Xmx2048m -
XX:MaxDirectMemorySize=1024m -Dsun.java2d.noddraw -
Dsun.nio.PaqeAliqnDirectMemory=true Restore --to="C:\Temp" --from="C:\Data" --
backup-set="Sample Backup Set" --backup-dest="" "--all" --date="Current" --set-
permission="N" --skip-invalid-key="N" --sync="N" --filter="" --temp-
dir="C:\Temp" --verify-delta-file-chksum="N" --app-home=.. --setting-
home="C:\Users\Administrator\.cbh"
Filter Pattern not set, filter would not apply to restore
[2020-09-02 16:44:53] Start [ CloudBacko Home v4.1.2.13 ]
[2020-09-02 16:44:55] OS: Windows 10 (w10-pro); CPU Model: VMware-Intel(R)
                                                                              E5520 @ 2.27GHz, Intel(R) Xeon(R) CPU
Xeon(R) CPU
2.27GHz; Number of Processors: 4; Heap Size: 22.1MB (Current) / 1.8GB (Maximum);
Physical Memory: 1.7GB (Free) / 4GB (Total)
 [2020-09-02 16:44:55] start, Start [ CloudBacko Home v4.1.2.13 ],0,0,0,0,0
[2020-09-02 16:44:55] Selected job: 2020-09-02-16-44-48
 [2020-09-02 16:44:55] Selected source: [C:\Data]
[2020-09-02 16:44:55] Info: [followLink=true marshalTargetPath=false
deleteForSync=false skipFaultKey=false verifyDeltaFileChecksum=false
restore \textit{Permission=false} \ [\textit{RestoreLocation}] \ \textit{type=RAW} \ \textit{path=[C:\Temp]}]
[2020-09-02 16:44:55] Initializing decrypt action...
 [2020-09-02 16:44:55] Initializing decrypt action... Completed
[2020-09-02 16:44:56] Restore Completed Successfully
 [2020-09-02 16:44:56] end, RESTORE STOP SUCCESS, 0, 0, 0, 0, 0
 Press any key to continue . . .
```



### Decrypt.bat

This allows the user to restore raw data. Enter the following script to export the batch file to a text editor.

```
C:\Program Files\CloudBacko Home\bin>notepad Decrypt.bat
C:\Program Files\CloudBacko Home\bin>
```

Configure the following parameters:

- **SOURCE\_DIR** this is the path of the folder which contains the backed-up files that you want to decrypt.
  - e.g. SOURCE\_DIR="C:\john\backupdata\1498444438340\blocks"
- **ENCRYPT\_KEY** this is the encryption key that was set for the backup set. You can leave this parameter blank if the backed-up data is not encrypted.

```
e.g. ENCRYPT_KEY="NjQAtHhBSyAVgfFkaFl=" e.g. ENCRYPT_KEY=""
```

- DECRYPT\_TO this is the specified directory where the decrypted files will be stored.
  - e.g. SET DECRYPT\_TO=" C:\Temp"
- DECRYPT\_FROM this is the file or directory on the backup data that you would like to decrypt.

```
e.g. SET DECRYPT_TO="C:\Data"
```

POINT\_IN\_TIME – this is the point-in-time snapshot (of a successful backup) that you want to
decrypt from the backed-up data. Use "Current" for the latest backup snapshot. The pointin- time should be one of the directory names under SOURCE\_DIR.

```
e.g. SET POINT_IN_TIME="2006-10-04-12-57-13" or SET POINT_IN_TIME="Current"
```

• **RESTORE\_PERMISSION** – set this to "Y" if you want to restore file permissions. Otherwise, indicate "N" if you do NOT want to restore file permissions.

```
e.g. SET RESTORE PERMISSION="N"
```

• **SKIP\_INVALID\_KEY** – set this to "Y" if you want to skip decrypt file with invalid key. Set this set to "N" if you want to prompt user to input a correct key.

```
e.g. SKIP_INVALID_KEY="Y"
```

SYNC\_OPTION – set this to "Y" if you want to enable sync option. Set this to "N" if you do
NOT want to enable sync option. Leave this parameter blank if you want to prompt user for
selection.

```
e.g. SET SYNC_OPTION="N"
```

e.g. SET SYNC\_OPTION=""

- REPLACE\_EXISTING\_FILE set this to "--all" if you want to replace all existing file(s) of the same filename. Set this to "--none" if you want to skip all existing file(s) with the same filename. Leave this parameter blank if you want to prompt user for selection.
  - e.g. SET REPLACE\_EXISTING\_FILE="--all"
  - e.g. SET REPLACE\_EXISTING\_FILE="--none"
  - e.g. SET REPLACE\_EXISTING\_FILE=""
- **SETTING\_HOME** this is the directory to your setting home. This is where the log files will be placed. If not set, the directory will be "C:\Users\USER\.cbh" by default.
  - e.g. SET SETTING\_HOME="C:\Users\John\.cbh"
- FILTER this parameter is used to filter the files that you want to decrypt.
  - e.g. SET FILTER="-Pattern=.txt-Type=exact-Target=toFile"
- TEMP\_DIR this is the directory where you would like to store the decrypt files temporarily.
  - e.g. SET TEMP\_DIR="C:\Temp"
- VERIFY\_CHKSUM set this to "Y" if you want to verify the in-file delta file checksum during decrypt. Set this to "N" if you do NOT want to verify the in-file delta file checksum during decrypt.
  - e.g. SET VERIFY\_CHKSUM="N"

```
@ECHO OFF
REM # You can use this batch file to decrypt backup files using command-line. #
REM # Just customize the "User Define Section" below with values for your
REM # decrypt action.
REM ----- SOURCE DIR -----
REM | The path to the [<backup set ID>/blocks] folder which contains
REM | the backup files that you want to decrypt.
REM | This folder should located under backup destination physically.
REM | e.g. SET SOURCE_DIR="C:\john\backupdata\1498444438340\blocks"
REM |
       where directory "C:\john\backupdata" is path of local destination
REM ----
       ______
SET SOURCE DIR=""
REM ----- ENCRYPT KEY -----
REM | The encrypting key of the backup data.
REM | e.g. SET ENCRYPT KEY="RU5DU11QVF9LRVk="
REM | You can leave this parameter blank if backup data is not encrypted.
REM -----
SET ENCRYPT KEY=""
REM ----- DECRYPT TO -----
REM | Directory to where you want files to be decrypted
REM | Use "\\\" instead of "\\" when you specify a UNC path
REM | e.g. SET DECRYPT TO="C:\Temp"
REM -----
SET DECRYPT TO=""
REM ----- DECRYPT FROM -----
REM | File/Directory on the backup data that you would like to decrypt
REM | e.g. SET DECRYPT_FROM="C:\Data"
REM -----
SET DECRYPT FROM=""
REM -----POINT IN TIME ------
REM | The point-in-time snapshot (successful backup) that you want to decrypt |
REM | from the backup data. Use "Current" for the latest backup snapshot
REM | e.g. SET POINT_IN_TIME="2006-10-04-12-57-13"
REM | or SET POINT IN TIME="Current"
REM |
REM | The point in time should be one of the directory name under SOURCE DIR
REM | unless you want to decrypt latest backup snapshot.
REM -----
SET POINT IN TIME="Current"
REM ----- RESTORE PERMISSION -----
REM | set to "Y" if you want to restore file permissions
REM | set to "N" if you do NOT want to restore file permissions
SET RESTORE PERMISSION="N"
REM ----- SKIP INVALID KEY -----
REM | set to "Y" if you want to skip decrypt file with invalid key
REM | set to "N" if you want to prompt to input a correct key
REM -----
SET SKIP INVALID KEY="N"
REM ----- SYNC OPTION -----
REM | Delete extra files
REM | set to "Y" if you want to enable sync option
\mathit{REM} | set to "N" if you do NOT want to enable sync option
REM | set to "" to prompt for selection
```

```
SET SYNC OPTION="N"
REM ----- REPLACE EXISTING FILE -----
REM | set to "--all" to replace all existing file(s) of the same filename
\mathit{REM} | set to "--none" to skip all existing file(s) with the same filename
REM | set to "" to prompt for selection
REM -----
SET REPLACE EXISTING FILE="--all"
         ----- SETTING HOME
REM | Directory to your setting home. Log files will be located inside.
REM | Default to "C:\Users\USER\.cbh" when not set.
REM | e.g. SET SETTING HOME="C:\Users\John\.cbh"
REM -----
SET SETTING HOME=""
REM OPTION:
         ----- FILTER ------
REM | Filter out what files you want to decrypt
REM | -Pattern=xxx-Type=yyy-Target=zzz
REM | where xxx is the filter pattern,
      yyy is the filter type, whice can be one of the following:
            [exact | exactMatchCase | contains | containsMatchCase|
REM |
              startWith | startWithMatchCase | endWith | endWithMatchCase]
REM |
REM |
         zzz is the filter target, which can be one of the following:
          [toFile | toFileDir | toDir]
REM |
REM | e.g. SET FILTER="-Pattern=.txt-Type=exact-Target=toFile"
SET FILTER=""
REM ----- TEMP DIR -----
REM | Directory to where you want to store decrypt files temporarily
REM | Use "\\\\" instead of "\\" when you specify a UNC path
REM | e.g. SET TEMP DIR="C:\Temp"
REM -----
SET TEMP DIR=""
REM ----- VERIFY CHKSUM -----
REM | set to "Y" if you want to verify in-file delta file checksum during
REM | decrypt
REM | set to "N" if you do NOT want to verify in-file delta file checksum
                                                                   REM | during decrypt
REM -----
SET VERIFY CHKSUM="N"
SET APP HOME=..
SET JAVA HOME=%APP HOME%\jvm
SET JAVA EXE=%JAVA HOME%\bin\bJW.exe
SET JAVA_LIB_PATH=-Djava.library.path=%APP_HOME%\bin
SET PATH=%JAVA HOME%\bin;%PATH%
SET CLASSPATH=%APP_HOME%\bin;%APP_HOME%\bin\cb.jar
IF "%PROCESSOR ARCHITECTURE%"=="x86" (
 SET "DEP LIB PATH=X86"
 SET JAVA OPTS=-Xms128m -Xmx768m -XX:MaxDirectMemorySize=512m -
Dsun.java2d.noddraw -Dsun.nio.PageAlignDirectMemory=true
) ELSE (
 SET "DEP LIB PATH=X64"
 SET JAVA OPTS=-Xms128m -Xmx2048m -XX:MaxDirectMemorySize=1024m -
Dsun.java2d.noddraw -Dsun.nio.PageAlignDirectMemory=true
SET PATH=%CD%\%APP HOME%\bin\%DEP LIB PATH%;%PATH%
ECHO -
```

```
ECHO APP HOME=%APP HOME%
ECHO SETTING HOME=%SETTING HOME%
ECHO JAVA_HOME=%JAVA HOME%
ECHO JAVA EXE=%JAVA EXE%
ECHO JAVA OPTS=%JAVA OPTS%
ECHO JAVA LIB PATH=%JAVA LIB PATH%
ECHO PATH=%PATH%
ECHO CLASSPATH=%CLASSPATH%
ECHO -
@ECHO ON
%JAVA EXE% %JAVA LIB PATH% -cp %CLASSPATH% %JAVA OPTS% Decrypt --to=%DECRYPT TO%
--from=%DECRYPT FROM% --source-dir=%SOURCE DIR% --key=%ENCRYPT KEY%
%REPLACE EXISTING_FILE% --date=%POINT_IN_TIME% --set-
permission=%RESTORE_PERMISSION% --skip-invalid-key=%SKIP_INVALID_KEY% --sync=%SYNC_OPTION% --filter=%FILTER% --temp-dir=%TEMP_DIR% --verify-delta-file-
chksum=%VERIFY CHKSUM% --app-home=%APP HOME% --setting-home=%SETTING HOME%
@ECHO OFF
CD %APP HOME%
IF "%APP HOME%"==".." PAUSE
@ECHO ON
```

Save the changes and close the text editor. On the *cmd*, enter *Decrypt.bat*. When asked if you want to input the encrypting key, select '1' (Yes). Enter the correct encryption key to continue.

```
C:\Program Files\CloudBacko Home\bin>Decrypt.bat
APP HOME=..
SETTING HOME="C:\Users\Administrator\.cbh"
JAVA HOME=..\j∨m
JAVA_EXE=..\jvm\bin\bJW.exe
{\it JAVA\_OPTS=-Xms128m--Xmx2048m--XX:MaxDirectMemorySize=1024m--Dsun.java2d.noddraw.}
-Dsun.nio.PageAlignDirectMemory=true
JAVA LIB PATH=-Djava.library.path=..\bin
PATH=C:\Program Files\CloudBacko Home\bin\..\bin\X64;..\jvm\bin;C:\Program
Files \ CloudBacko\ Home \ bin \ ... \ bin \ X64;... \ jvm \ bin; c. \ Program
Files\CloudBacko
Home\bin\...\bin\X64;...\jvm\bin;...\bin\X64;...\jvm\bin;...\bin\X64;...\jvm\bin;...\bin\X64;...\jvm\bin;...\bin\X64;...\jvm\bin;...\bin\X64;...\jvm\bin\X64;...\jvm\bin\X64;...\bin\X64;...\jvm\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin\X64;...\bin
n\X64;...\jvm\bin;...\jvm\bin;C:\Program Files (x86)\Common
Files\Oracle\Java\javapath;C:\WINDOWS\system32;C:\WINDOWS;C:\WINDOWS\System32\Wb
em;C:\WINDOWS\System32\WindowsPowerShell\v1.0\;C:\WINDOWS\System32\OpenSSH\;C:\U
sers \Administrator \AppData \Local \Microsoft \Windows Apps
CLASSPATH=..\bin;..\bin\cb.jar
C:\Program Files\CloudBacko Home\bin>..\jvm\bin\bJW.exe -
Djava.library.path=..\bin -cp ..\bin;..\bin\cb.jar -Xms128m -Xmx2048m -
XX:MaxDirectMemorySize=1024m -Dsun.java2d.noddraw -
Dsun.nio.PageAlignDirectMemory=true Decrypt --to="C:\Temp" --from="C:\Data" --
source-dir="C:\Users\Administrator\Documents\1598929895422\blocks" --key="""-key="""-key="""-key="""-key="""-key="""-key="""-key="""-key="""-key="""-key="""-key="""-key="""-key="""-key=""-key="""-key="""-key="""-key="""-key="""-key="""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key=""-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-key="-k
all" --date="Current" --set-permission="N" --skip-invalid-key="N" --sync="N" --sync="N"
 filter="" --temp-dir="C:\Temp" --verify-delta-file-chksum="N" --app-home=.. --
setting-home="C:\Users\Administrator\.cbh"
Filter Pattern not set, filter would not apply to decrypt
Cannot decrypt backup file. Decrypting key is incorrect.
 (C:\Users\Administrator\Documents\1598929895422\blocks\index.db.12000.1744ca1766
Please input the Encrypting Key.
Want to input encrypting key?
1.YES
                                   2.CANCEL >>1
[2020-09-02 16:57:59] Start [ CloudBacko Home v4.1.2.13 ]
 [2020-09-02 16:58:02] OS: Windows 10 (w10-pro); CPU Model: VMware-Intel(R)
```

```
Xeon(R) CPU
                                                                       E5520 @ 2.27GHz, Intel(R) Xeon(R) CPU
2.27GHz; Number of Processors: 4; Heap Size: 13.2MB (Current) / 1.8GB (Maximum);
Physical Memory: 1.5GB (Free) / 4GB (Total)
[2020-09-02 16:58:02] start, Start [ CloudBacko Home v4.1.2.13 ],0,0,0,,0,0
[2020-09-02 16:58:02] Selected job: 2020-09-02-16-56-45
[2020-09-02 16:58:02] Selected source: [C:\Data]
 [2020-09-02\ 16:58:02] \ Info: [followLink=true\ marshalTargetPath=false] 
{\tt deleteForSync=false~skipFaultKey=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksum=false~verifyDeltaFileChecksu
restorePermission=false [RestoreLocation] type=RAW path=[C:\Temp]]
[2020-09-02 16:58:02] Initializing decrypt action...
[2020-09-02 16:58:02] Initializing decrypt action... Completed
[2020-09-02 16:58:02] No files in backup set
[2020-09-02 16:58:03] Restore completed with error(s)
[2020-09-02 16:58:03] end, RESTORE_STOP_SUCCESS_WITH_ERROR, 0, 0, 0, 0, 0
Press any key to continue . . .
```



### RunDataIntegrityCheck.bat

This allows the user to perform data integrity check to all available backup sets. Enter the following script to export the batch file to a text editor.

```
C:\Program Files\CloudBacko Home\bin>notepad RunDataIntegrityCheck.bat

C:\Program Files\CloudBacko Home\bin>
```

To perform a data integrity check, the following parameters must be set first:

• **SETTING\_HOME** (Optional)— this is the directory to your setting home. This is where the log files will be located. If not set, the directory will be "C:\Users\USER\.cbh" by default

```
e.g. SET SETTING_HOME="C:\Users\John\.cbh"
```

• **BACKUP\_SET** – this is the backup set which you would like to run a data integrity check on. If the backup set name is not in English, use the backup set ID.

```
e.g. SET BACKUP_SET="FileBackupSet-1" or SET BACKUP_SET="1119083740107"
```

You can leave this parameter blank if you only have one (1) backup set.

```
e.g. SET BACKUP_SET=""
```

 BACKUP\_DEST – this is the destination of the backup set which you will run a data integrity check on. If the destination is not in English, use the destination ID.

```
e.g. SET BACKUP_DEST="Destination-1" or SET BACKUP_DEST="1740107119083"
```

This parameter can be left blank if you have a single destination.

```
e.g. SET BACKUP_DEST=""
```

This parameter will be ignored if the BACKUP\_SET is set to "ALL".

```
e.g. SET BACKUP_SET="ALL"
```

 CRC\_MODE – when enabled, a Cyclic Redundancy Check (CRC) will run during the data integrity check.

```
e.g. SET CRC_MODE="ENABLE-CRC"
SET CRC_MODE="DISABLE-CRC"
```

```
@ECHO OFF
REM ##################### RunDataIntegrityCheck.bat ############################
REM # You can use this batch to run any of your backup sets from the
REM # command line. Just customize the "User Defined Section" below with your #
REM # values for your backup action.
REM ##################### START: User Defined Section ##########################
REM ----- SETTING_HOME (Optional) -----
                                                                  REM | Directory to your setting home. Default to
REM | "C:\Users\USER\.cbh" when not set.
                                                                   REM | e.g. SET SETTING HOME="C:\Users\John\.cbh"
                                                                   SET SETTING_HOME="C:\Users\Administrator\.cbh"
REM ----- BACKUP SET -----
REM | The name or ID of the backup set that you want to run.
REM | If backup set name is not in English, please use ID instead.
                                                                   REM | e.g. SET BACKUP SET="1119083740107"
REM | or SET BACKUP SET="FileBackupSet-1"
REM | You can use "ALL" to run data integrity check for all backup sets.
REM | i.e. SET BACKUP SET="ALL"
REM | You can leave this parameter blank if you have only 1 backup set.
RFM -----
SET BACKUP SET="ALL"
REM ----- BACKUP DEST ------
REM | The name or ID of the backup destination that you want to run.
REM | If backup destination name is not in English, please use ID instead.
REM | e.g. SET BACKUP DEST="1740107119083"
                                                                   REM | or SET BACKUP DEST="Destination-1"
REM | You can use "ALL" to run data integrity check for all destinations.
REM | i.e. SET BACKUP DEST="ALL"
REM | You can leave this parameter blank if you have only 1 destination.
REM | Remark: This option is ignored if BACKUP SET="ALL"
REM -----
SET BACKUP DEST="ALL"
REM -----CRC MODE ------
REM | You can run Cyclic Redundancy Check (CRC) during data integrity check |
REM | Options available: ENABLE-CRC/DISABLE-CRC
                                                                   REM | i.e. SET CRC_MODE="ENABLE-CRC"
                                                                   REM | or SET CRC_MODE="DISABLE-CRC"
SET CRC MODE="DISABLE-CRC"
REM ###################### END: User Defined Section ############################
SET APP HOME=..
SET JAVA HOME=%APP HOME%\jvm
SET JAVA EXE=%JAVA HOME%\bin\bJW.exe
SET JAVA LIB PATH=-Djava.library.path=%APP HOME%\bin
SET PATH=%JAVA HOME%\bin;%PATH%
SET CLASSPATH=%APP HOME%\bin;%APP HOME%\bin\cb.jar
IF "%PROCESSOR ARCHITECTURE%"=="x86" (
```

```
SET "DEP LIB PATH=X86"
 SET JAVA OPTS=-Xms128m -Xmx768m -XX:MaxDirectMemorySize=512m -
Dsun.java2d.noddraw -Dsun.nio.PageAlignDirectMemory=true
) ELSE (
 SET "DEP LIB PATH=X64"
 SET JAVA OPTS=-Xms128m -Xmx2048m -XX:MaxDirectMemorySize=1024m -
Dsun.java2d.noddraw -Dsun.nio.PageAlignDirectMemory=true
SET PATH=%CD%\%APP HOME%\bin\%DEP LIB PATH%;%PATH%
ECHO -
ECHO APP HOME=%APP_HOME%
ECHO SETTING HOME=%SETTING HOME%
ECHO JAVA HOME=%JAVA HOME%
ECHO JAVA EXE=%JAVA EXE%
ECHO JAVA OPTS=%JAVA OPTS%
ECHO JAVA_LIB_PATH=%JAVA_LIB_PATH%
ECHO PATH=%PATH%
ECHO CLASSPATH=%CLASSPATH%
ECHO -
ECHO Running data integrity check for backup set - '%BACKUP SET%', destination -
'%BACKUP DEST%' ...
@ECHO ON
%JAVA EXE% %JAVA LIB PATH% -cp %CLASSPATH% %JAVA OPTS% RunDataIntegrityCheck
%APP HOME% %SETTING HOME% %BACKUP SET% %BACKUP DEST% %CRC MODE%
@ECHO OFF
CD %APP HOME%
IF "%APP HOME%"==".." PAUSE
@ECHO ON
```

#### Save the changes and close the text editor. Proceed back to cmd and enter the following script.

```
C:\Program Files\CloudBacko Home\bin>RunDataIntegrityCheck.bat
APP HOME=..
SETTING HOME="C:\Users\Administrator\.cbh"
JAVA HOME=..\jvm
JAVA EXE=..\jvm\bin\bJW.exe
JAVA OPTS=-Xms128m -Xmx2048m -XX:MaxDirectMemorySize=1024m -Dsun.java2d.noddraw
-Dsun.nio.PageAlignDirectMemory=true
JAVA LIB PATH=-Djava.library.path=..\bin
PATH=C:\Program Files\CloudBacko Home\bin\..\bin\X64;..\jvm\bin;C:\Program
Files\CloudBacko Home\bin\..\bin\X64;..\jvm\bin;C:\Program Files\CloudBacko
Home\bin\..\bin\X64;..\jvm\bin;..\jvm\bin;C:\Program Files\CloudBacko
n\X64;...\jvm\bin;...\jvm\bin;C:\Program Files (x86)\Common
em;C:\WINDOWS\System32\WindowsPowerShell\v1.0\;C:\WINDOWS\System32\OpenSSH\;C:\U
sers \Administrator \AppData \Local \Microsoft \Windows Apps
CLASSPATH=..\bin;..\bin\cb.jar
Running data integrity check for backup set - '"ALL"', destination - '"ALL"' ...
C:\Program Files\CloudBacko Home\bin>..\jvm\bin\bJW.exe -
Djava.library.path=..\bin -cp ..\bin;..\bin\cb.jar -Xmx128m -Xmx2048m -
XX:MaxDirectMemorySize=1024m -Dsun.java2d.noddraw -
Dsun.nio.PageAlignDirectMemory=true RunDataIntegrityCheck ..
"C:\Users\Administrator\.cbh" "ALL" "ALL" "DISABLE-CRC"
```

```
[doInfo] Start [ CloudBacko Home v4.1.2.13 ]
[doStart] Start data integrity check on all backup sets, crc disabled
[doDetail] Start processing data integrity check on backup set= "Sample Backup
Set 04" destination= "Local-1"
[doLogProgress] Start processing data integrity check on backup set= "Sample
Backup Set 04" destination= "Local-1"
[doLogProgress] Download valid index files from backup job "Current" to
"F:\Temp\CloudBacko Home\1598929895422\Local@1598929961297\index".
[doInfo] Download valid index files from backup job "Current" to
"F:\Temp\CloudBacko Home\1598929895422\Local@1598929961297\index".
[doInfo] Skipped to run Data Integrity Check for backup set "Sample Backup Set
04" in destination "Local-1" because no data is in index.
[doLogProgress] Saving encrypted backup file index to 1598929895422\blocks at
destination Local-1...
[doInfo] Saving encrypted backup file index to 1598929895422\blocks at
destination Local-1...
[doDetail] Data integrity check on backup set= "Sample Backup Set 04"
destination= "Local-1" is completed
[doLogProgress] Data integrity check on backup set= "Sample Backup Set 04"
destination= "Local-1" is completed
[doDetail] Start processing data integrity check on backup set= "Sample Backup
Set 01" destination= "Local-1"
[doLogProgress] Start processing data integrity check on backup set= "Sample
Backup Set 01" destination= "Local-1"
[doInfo] Skipped to run Data Integrity Check for backup set "Sample Backup Set
01" in destination "Local-1" because no data is in index.
[doLogProgress] Saving encrypted backup file index to 1598944192156\blocks at
destination Local-1...
[doInfo] Saving encrypted backup file index to 1598944192156\blocks at
destination Local-1...
[doDetail] Data integrity check on backup set= "Sample Backup Set 01"
destination= "Local-1" is completed
[doLogProgress] Data integrity check on backup set= "Sample Backup Set 01"
destination= "Local-1" is completed
[doDetail] Start processing data integrity check on backup set= "Sample Backup
Set 02" destination= "Local-1"
[doLogProgress] Start processing data integrity check on backup set= "Sample
Backup Set 02" destination= "Local-1"
[doInfo] Skipped to run Data Integrity Check for backup set "Sample Backup Set
02" in destination "Local-1" because no data is in index.
[doLogProgress] Saving encrypted backup file index to 1598944218072\blocks at
destination Local-1...
[doInfo] Saving encrypted backup file index to 1598944218072\blocks at
destination Local-1...
[doDetail] Data integrity check on backup set= "Sample Backup Set 02"
destination= "Local-1" is completed
[doLogProgress] \ \textit{Data integrity check on backup set= "Sample Backup Set 02"} \\
destination= "Local-1" is completed
[doDetail] Start processing data integrity check on backup set= "Sample Backup
Set 03" destination= "Local-1"
[doLogProgress] Start processing data integrity check on backup set= "Sample
Backup Set 03" destination= "Local-1"
[doInfo] Skipped to run Data Integrity Check for backup set "Sample Backup Set
03" in destination "Local-1" because no data is in index.
[doLogProgress] Saving encrypted backup file index to 1598944247863\blocks at
destination Local-1...
[doInfo] Saving encrypted backup file index to 1598944247863\blocks at
destination Local-1...
[doDetail] Data integrity check on backup set= "Sample Backup Set 03"
destination= "Local-1" is completed
```

```
[doLogProgress] Data integrity check on backup set= "Sample Backup Set 03"
destination= "Local-1" is completed
[doDetail] Start processing data integrity check on backup set= "Sample Backup
Set" destination= "Local-1"
[doLogProgress] Start processing data integrity check on backup set= "Sample
Backup Set" destination= "Local-1"
[doLogProgress] Download valid index files from backup job "Current" to
"F:\Temp\CloudBacko Home\1599016101741\Local@1599016129211\index".
[doInfo] Download valid index files from backup job "Current" to
"F:\Temp\CloudBacko Home\1599016101741\Local@1599016129211\index".
[doLogProgress] Browsing "1599016101741\blocks\2020-09-02-12-30-26"
[doLogProgress] Browsing "1599016101741\blocks\2020-09-02-12-30-26\0"
[doLogProgress] Browsing "1599016101741\blocks\2020-09-02-16-24-22"
[doLogProgress] Processing Job "2020-09-02-12-30-26", ""
[doLogProgress] Processing Job "2020-09-02-16-24-22", ""
[doLogProgress] Processing Job "Current", ""
[doLogProgress] Processing Job "Current", "C:"
[doLogProgress] Processing Job "Current", "C:\Users"
[doLogProgress] \ \ Processing \ \ Job \ \ "Current", \ \ "C: \ \ \ Administrator"
[doLogProgress] Processing Job "Current", "C:\Users\Administrator\Documents"
[doLogProgress] Processing Job "Current",
[doInfo] Checking dangling backup file index entries...
[doLogProgress] Checking dangling backup file index entries...
[doLogProgress] Saving encrypted backup file index to 1599016101741\blocks at
destination Local-1...
[doInfo] Saving encrypted backup file index to 1599016101741\blocks at
destination Local-1...
[doDetail] Data integrity check on backup set= "Sample Backup Set" destination=
"Local-1" is completed
[doLogProgress] Data integrity check on backup set= "Sample Backup Set"
destination= "Local-1" is completed
[doDetail] Start processing data integrity check on backup set= "Sample Backup
Set 04" destination= "Local-1" Retry #1
[doLogProgress] Start processing data integrity check on backup set= "Sample
Backup Set 04" destination= "Local-1" Retry #1
[doLogProgress] Download valid index files from backup job "Current" to
"F:\Temp\CloudBacko Home\1598929895422\Local@1598929961297\index".
[doInfo] Download valid index files from backup job "Current" to
"F:\Temp\CloudBacko Home\1598929895422\Local@1598929961297\index".
[doInfo] Skipped to run Data Integrity Check for backup set "Sample Backup Set
04" in destination "Local-1" because no data is in index.
[doLogProgress] Saving encrypted backup file index to 1598929895422\blocks at
destination Local-1...
[doInfo] Saving encrypted backup file index to 1598929895422\blocks at
destination Local-1...
[doDetail] Data integrity check on backup set= "Sample Backup Set 04"
destination= "Local-1" is completed
[doLogProgress] Data integrity check on backup set= "Sample Backup Set 04"
destination= "Local-1" is completed
[doDetail] Start processing data integrity check on backup set= "Sample Backup
Set 01" destination= "Local-1" Retry #1
[doLogProgress] Start processing data integrity check on backup set= "Sample
Backup Set 01" destination= "Local-1" Retry #1
[doInfo] Skipped to run Data Integrity Check for backup set "Sample Backup Set
01" in destination "Local-1" because no data is in index.
[doLogProgress] Saving encrypted backup file index to 1598944192156\blocks at
destination Local-1...
[doInfo] Saving encrypted backup file index to 1598944192156\blocks at
destination Local-1...
```

[doDetail] Data integrity check on backup set= "Sample Backup Set 01" destination= "Local-1" is completed [doLogProgress] Data integrity check on backup set= "Sample Backup Set 01"

destination= "Local-1" is completed

[doDetail] Start processing data integrity check on backup set= "Sample Backup Set 02" destination= "Local-1" Retry #1

[doLogProgress] Start processing data integrity check on backup set= "Sample Backup Set 02" destination= "Local-1" Retry #1

[doInfo] Skipped to run Data Integrity Check for backup set "Sample Backup Set 02" in destination "Local-1" because no data is in index.

[doLogProgress] Saving encrypted backup file index to  $1598944218072\blocks$  at destination Local-1...

[doInfo] Saving encrypted backup file index to  $1598944218072\blocks$  at destination Local-1...

[doDetail] Data integrity check on backup set= "Sample Backup Set 02" destination= "Local-1" is completed

[doLogProgress] Data integrity check on backup set= "Sample Backup Set 02" destination= "Local-1" is completed

[doDetail] Start processing data integrity check on backup set= "Sample Backup Set 03" destination= "Local-1" Retry #1

[doLogProgress] Start processing data integrity check on backup set= "Sample Backup Set 03" destination= "Local-1" Retry #1

[doInfo] Skipped to run Data Integrity Check for backup set "Sample Backup Set 03" in destination "Local-1" because no data is in index.

[doLogProgress] Saving encrypted backup file index to  $1598944247863\blocks$  at destination Local-1...

[doInfo] Saving encrypted backup file index to  $1598944247863\$ blocks at destination Local-1...

[doDetail] Data integrity check on backup set= "Sample Backup Set 03" destination= "Local-1" is completed

[doLogProgress] Data integrity check on backup set= "Sample Backup Set 03" destination= "Local-1" is completed

[doEnd][INFO] Finished data integrity check on all backup sets, crc disabled [doInfo] Completed data integrity check on all backup sets, crc disabled Press any key to continue . . .

### Cloudbacko...

# Appendix D: Example Scenarios for the Reminder for Windows Logoff, Restart, and Shutdown

### Windows Log Off

The following example shows when the user performs Windows Log off with the Reminder setting turned on.

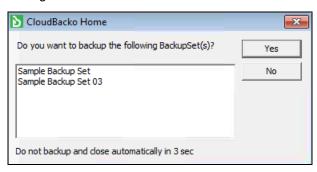
1. Turn on the Reminder setting, then click the **Save** button.



2. Perform Windows logoff.



3. A dialog box will prompt the user to back up all the backup sets with enabled 'Reminder' setting.

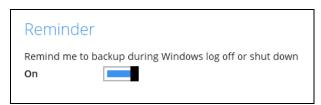




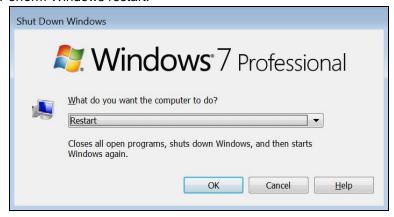
#### **Windows Restart**

The following example shows when the user performs Windows restart with the Reminder setting turned on.

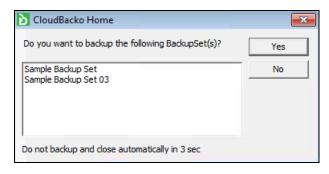
1. Turn on the Reminder setting, then click the **Save** button.



2. Perform Windows restart.



3. A dialog box will prompt the user to back up all the backup sets with enabled 'Reminder' setting.



### Cloudbacko...

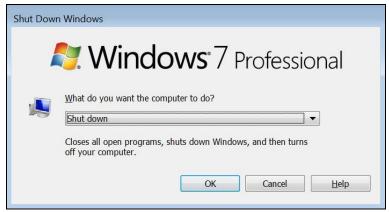
### **Windows Shutdown**

The following example shows when the user performs Windows shutdown with the Reminder setting turned on.

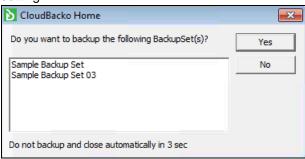
1. Turn on the Reminder setting, then click the **Save** button.



2. Perform Windows shutdown.



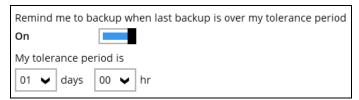
3. A dialog box will prompt the user to back up all the backup sets with enabled 'Reminder' setting.



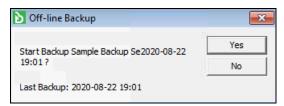


## Appendix E Example Scenarios for the Reminder for completed Tolerance Period

In this example, "Remind me to backup when last backup is over my tolerance period" is enabled and the tolerance period set is 1 day and 00 hour.



If the last backup is done, then this pop-up message will be displayed. It also shows the last backup details such as Date and Time. Click the **Yes** button to start backup. Otherwise, click the **No** button.





## Appendix F: How to Manage Network Drives which are not set in Windows

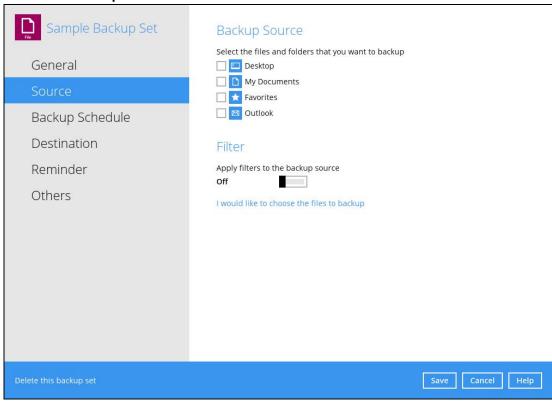
Users have several options in managing network drives that are not set up on Windows, which are the following:

- Select All selects all the files and folders in the network drive
- Select Only will only deselect the network drive but the file selection will remain the same.
- Deselect All deselects all the files and folders in the network drive
- <u>Edit Credential</u> allows changing the credentials of the network drive even after it has been set upon creation of the backup set.
- Delete deletes the network drive

For instructions on how to use the different functions, see instructions below:

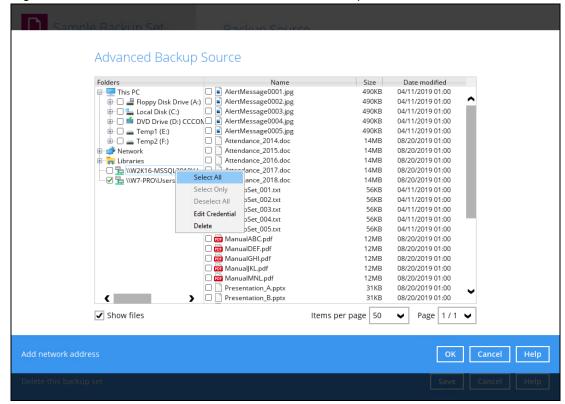
#### Select All

1. Go to Backup Sets, select the backup set. Select Source and click I would like to choose the files to backup.

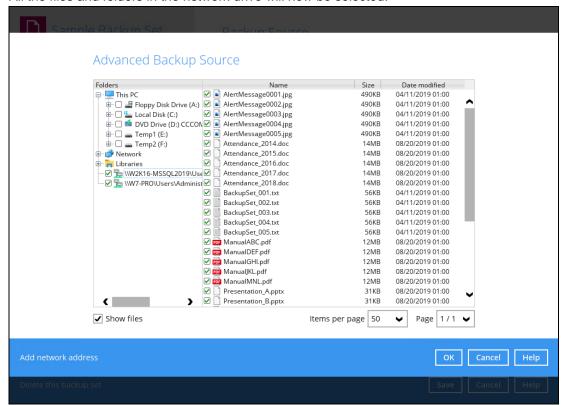




2. Right-click on the network drive and select the Select All option.



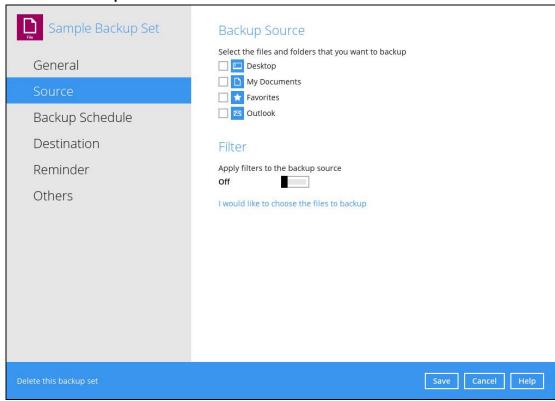
3. All the files and folders in the network drive will now be selected.



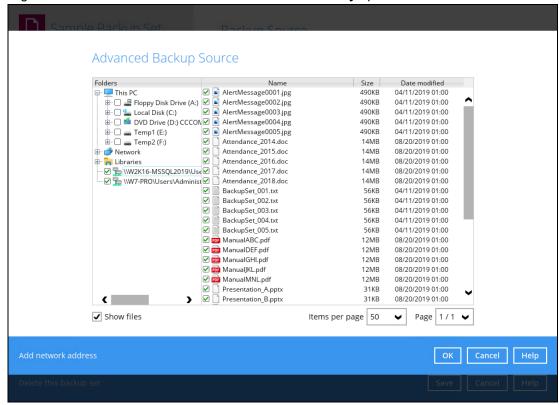


### **Select Only**

1. Go to Backup Sets, select the backup set. Select Source and click **I would like to choose** the files to backup.

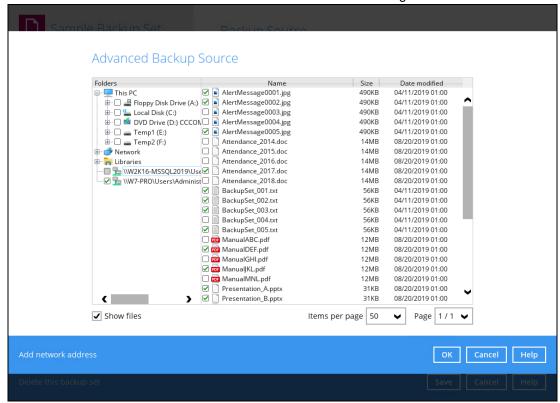


2. Right-click on the network drive and select the Select Only option.



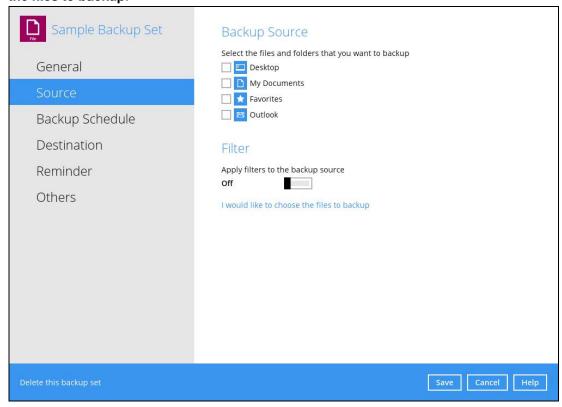


3. The network drive will now be deselected but there will be no change in the file selection.



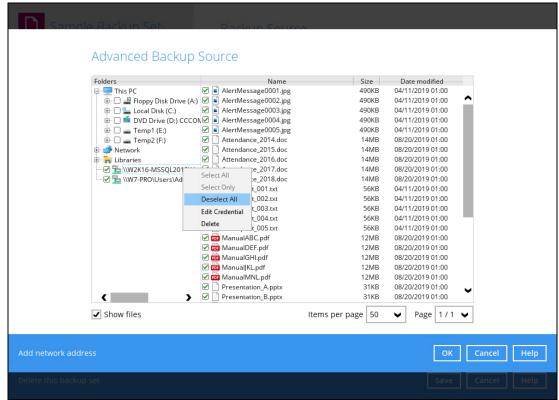
### **Deselect All**

1. Go to Backup Sets, select the backup set. Select Source and click I would like to choose the files to backup.

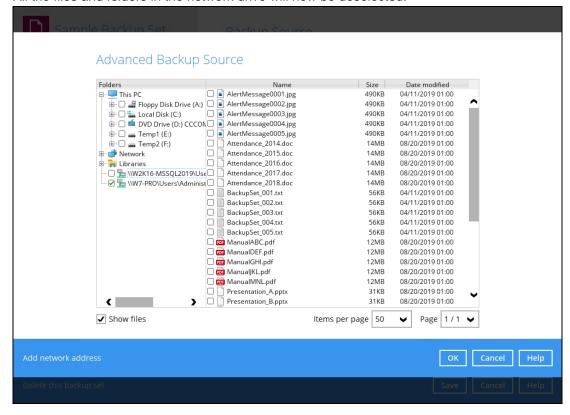




Right-click on the network drive and select Deselect All.



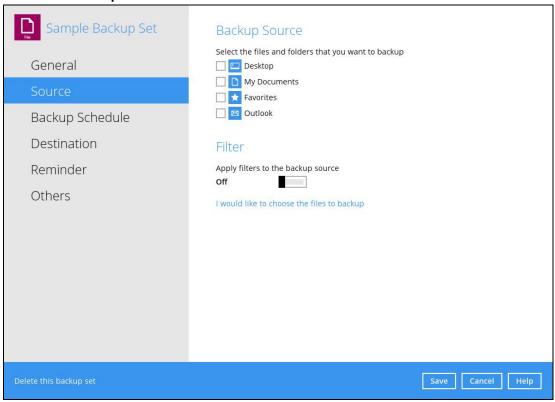
3. All the files and folders in the network drive will now be deselected.



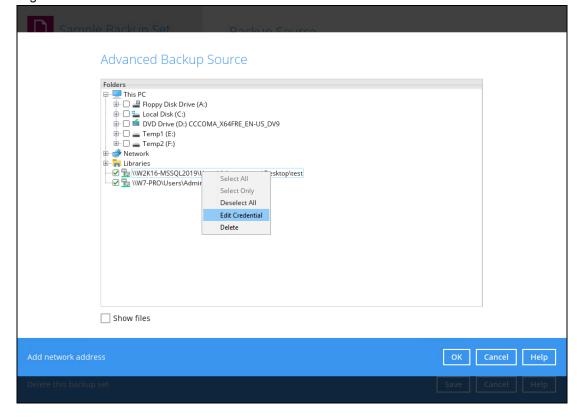


### **Edit Credential**

1. Go to Backup Sets, select the backup set. Select Source and click I would like to choose the files to backup.

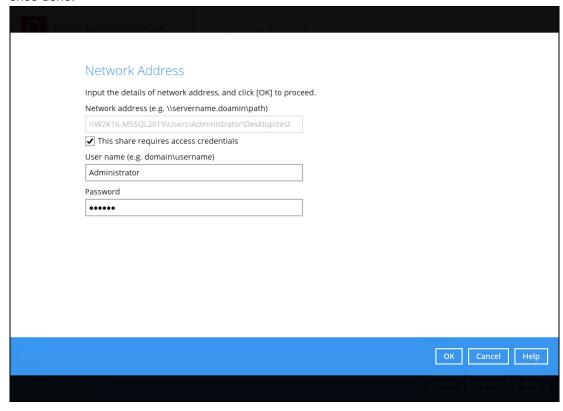


2. Right-click on the network drive and select Edit Credential.



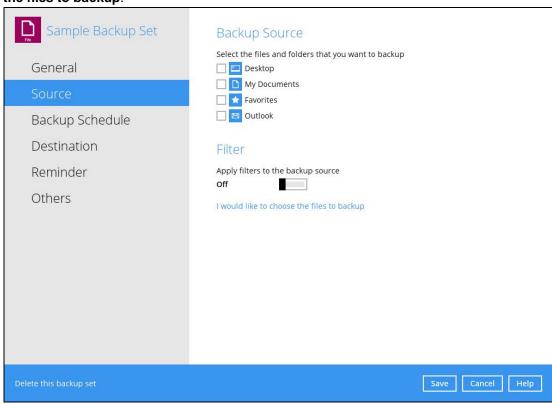


3. The Network Address window will appear, update the Username and/or Password. Click **OK** once done.



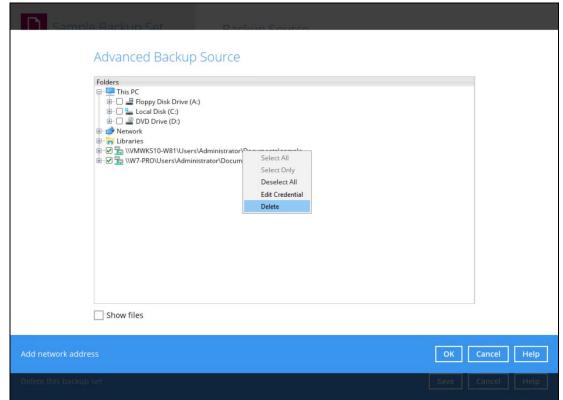
### **Delete**

1. Go to Backup Sets, select the backup set. Select Source and click **I would like to choose** the files to backup.





2. Right-click on the network drive and select **Delete**.



3. The network drive will now be deleted.