

**™** CloudBacko Lite

# Quick Start Guide for Windows

CloudBacko Corporation 6 January 2025

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	<ul><li>Ch. 12.1.1 – Updated Restore steps</li></ul>	
	<ul> <li>Ch. 12.2 – Updated Restore Filter instructions</li> </ul>	

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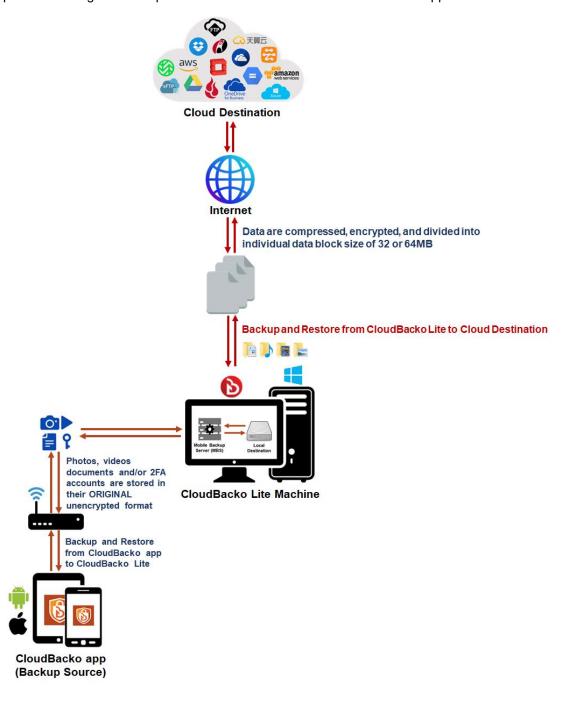
### 1 Overview

#### 1.1 What is this software?

CloudBacko brings you specialized client backup software, namely CloudBacko Lite, to provide a comprehensive 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 Lite 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 Lite, which is located in the "mbs" folder inside the CloudBacko Lite 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 Lite. Afterwards, it will be automatically restarted whenever the CloudBacko Lite services is restarted or when the CloudBacko Lite 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 Lite services is restarted.

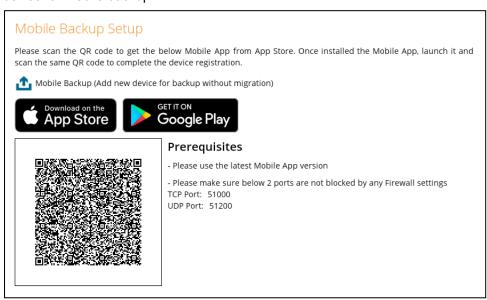
The MBS will use the following port ranges:

TCP Port: 51000 to 51099
 UDP Port: 51200 to 51299

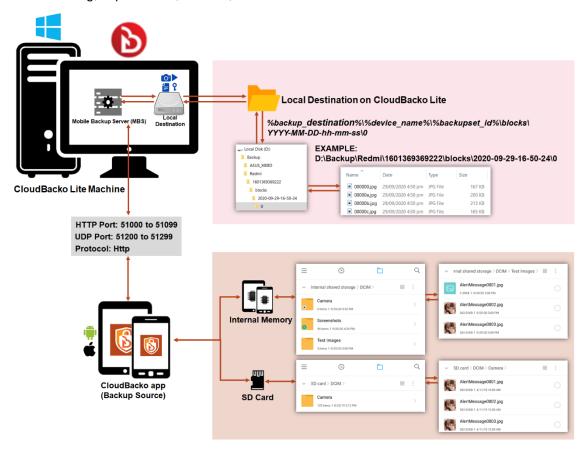
Protocol: Http, for the request of CloudBacko app.

The default TCP and UDP ports are **51000** and **51200**, 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 Lite when pairing a mobile device for mobile backup.



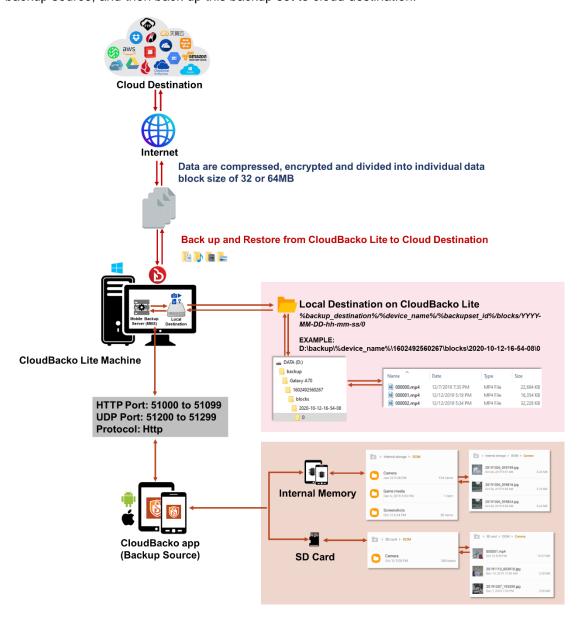
Photos, videos, documents and 2FA accounts are stored either in the mobile device's internal memory or SD Card. These are selected as backup source using the CloudBacko app and will be backed up to the local destination of a CloudBacko machine, that can be a Hard Drive, Flash Drive, and/or Network Drive 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 Lite 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 Lite and Cloud, is a two-step process.

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

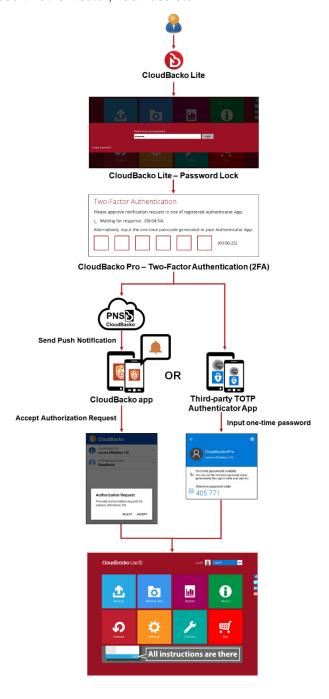


#### 1.4 Two-Factor Authentication

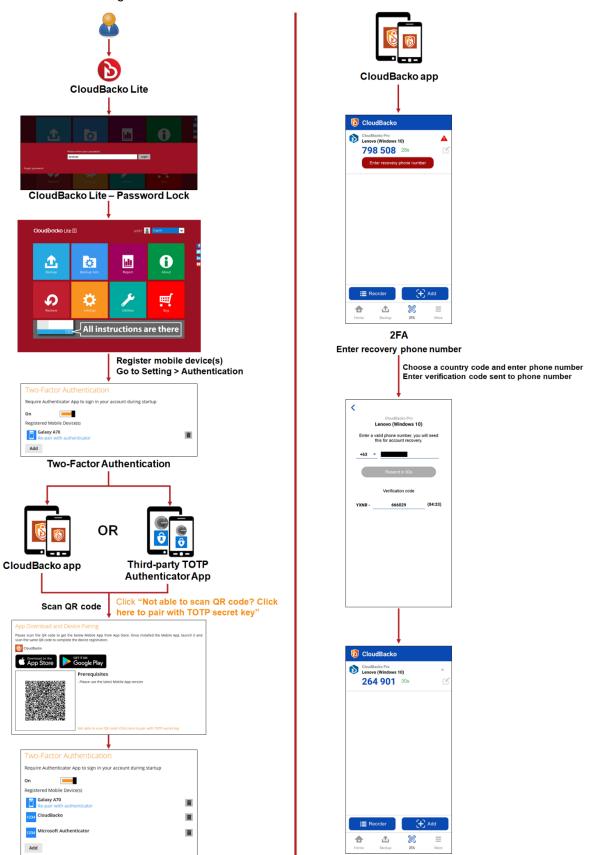
The two-factor authentication implemented on CloudBacko Lite include support for TOTP (Time-based One-time Password) and Push notification authentication using the CloudBacko app to provide additional security for the user login process.

Upon initial login, you will have an option to setup your two-factor authentication feature. You may skip the setup and do it later. If you continue the setup of two-factor authentication, it will be automatically enabled for future CloudBacko sign in process. If you like, you may register your CloudBacko Lite with multiple mobile devices for two-factor authentication.

For logins with two-factor authentication enabled CloudBacko Lite, you will be asked to select the method that you would like to use. This depends on the authenticator app registered, you will either accept the login request via push notification in the CloudBacko app or enter a one-time password generated in the third-party authenticator apps such as Authy, Duo, Google Authenticator, Microsoft Authenticator, LastPass etc.



This illustrates the registration of mobile devices for Two-Factor Authentication.





# 2 Requirements for CloudBacko app

## 2.1 Backup Software Version Requirement

- Download and install the latest version of CloudBacko Lite.
- 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 Lite. Failure to do so will prevent you from performing backup and/or restore.

#### 2.3 Android and iOS Version Requirement

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

# 3 Requirements for CloudBacko Lite on Windows

### 3.1 Hardware Requirements

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

CloudBacko Lite: Hardware Requirement

### 3.2 Supported Platforms

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

CloudBacko Lite: Supported Operating Systems

#### 3.3 Antivirus Exclusion Requirement

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

CloudBacko Lite: Exclusion of CloudBacko in your Antivirus software

#### NOTE

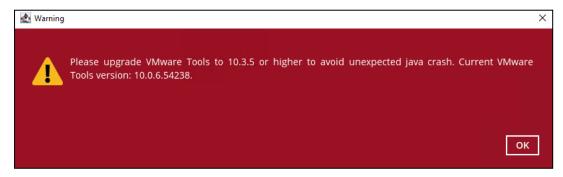
The bJW.exe process is automatically added to Windows Defender exclusion list for Windows 10 and 2016 / 2019 during installation.

For mobile backups, the mobile backup destination must also be added to all antivirus software white-list / exclusion list.

# 3.4 Upgrade VMware Tools Requirement

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

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



#### 3.5 Internet Connection

CloudBacko Lite machine must have a fixed internet connection.

#### 3.6 SMTP Server

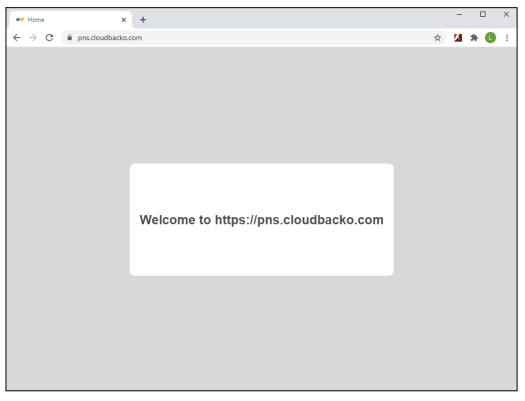
- CloudBacko Lite supports SMTP server using TLS v1.0, v1.1, or v1.2
- CloudBacko Lite supports SMTP server with or without authentication.

### 3.7 Firewall Settings

Make sure that your firewall settings allow network traffic through the following domain and/or ports:

- For CloudBacko Lite 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: 51000 and UDP port: 51200.
  - The actual ports used may be different, please refer to <u>Chapter 1.3: Mobile Backup Server (MBS)</u> for more details.
- For CloudBacko app 2FA push notifications must allow outbound connection to pns.cloudbacko.com via port 80 and 443. Failure to do this will prevent you from using Push Notification feature for two-factor authentication.

To check if the firewall is correctly configured, go to a browser, and enter **pns.cloudbacko.com**, there should be a welcome message to https://pns.cloudbacko.com. Below is a sample screenshot.



# 3.8 Supported Applications

Refer to the link below for the details of the applications supported by CloudBacko Lite.

CloudBacko Lite: Supported Applications

## 3.9 Java Heap Size

The default maximum Java heap size setting is 2048M. This value is usually sufficient for most types backups, however for backup sets with large number of files and or very large files the value may need to be increased.

Refer to the link below for the details on how to increase Java Heap Size for CloudBacko Lite.

CloudBacko Lite: How to increase Java Heap Size

### 3.10 Two-Factor Authentication Requirements

Please refer to the <u>CloudBacko App v1 User Guide for Android and iOS – Chapter 2.4</u> for details of the minimum and recommended requirements for using Two-Factor Authentication on CloudBacko app.

#### 3.11 Mobile Device Requirements

Refer to the <u>CloudBacko App v1 User Guide for Android and iOS – Chapter 2.5</u> for details of the minimum and recommended requirements for installing the CloudBacko app.

### 3.12 Temporary Directory Requirement

The temporary directory is used for various purposes, such as storage of temporary spooled file, remote file list, local file list, temporary delta file and other files of temporary nature.

It is strongly recommended to use a local drive instead of a network drive to ensure optimal backup/restore performance.

#### 3.13 Network Drive Requirement

The login accounts for network drives must have read and write access permission to ensure that backup and restore would be successful.

### 3.14 Date, Time, and Time zone for 2FA (TOTP only)

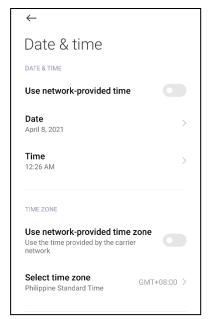
Make sure to check the date, time, and time zone are synced between the CloudBacko Lite machine and mobile device installed with CloudBacko app before pairing the device for 2FA (TOTP only) to avoid unsuccessful pairing of devices and/or TOTP authentication failures. This also applies to third-party TOTP Authenticators.

To check the date, time, and time zone, follow the instructions below. For a different date, time, and time zone and how to change it, refer to <a href="Appendix J: Different Date">Appendix J: Different Date</a>, <a href="Time">Time</a>, and <a hre

# Same Date, Time, and Time zone with CloudBacko Lite machine and mobile device

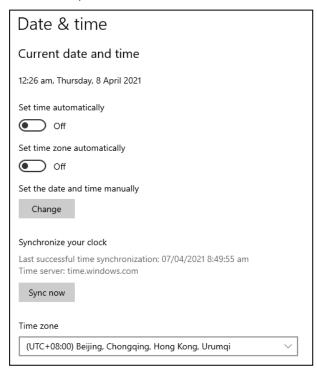
1. Check the date, time, and time zone in mobile device.

Example: Time zone settings of a mobile device used in the Philippines (time zone GMT+08:00).



2. Check the date, time, and time zone in CloudBacko Lite machine.

Example: Time zone setting of a Windows machine used in the Philippines (time zone GMT+08:00).



#### 3.15 Limitations

#### 3.15.1 Advanced Retention Policy

Advanced Retention Policy is not supported on CloudBacko Lite.

#### 3.15.2 Bandwidth Control

Bandwidth Control is not supported on CloudBacko Lite

#### 3.15.3 Command Line Tool

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

#### 3.15.4 Enhanced Network Drive Support

- For network drives which have not been already setup or mapped in Windows.
- Temporary folder location is not supported with individual login credentials but can still be setup separately using existing Windows User Authentication login.

#### 3.15.5 File Permissions

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

#### 3.15.6 Follow Link

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

#### 3.16 Best Practices and Recommendations

#### 3.16.1 Periodic Backup Schedule

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

When using periodic backup schedules with small backup intervals such as backup every 1 minute, 2 minutes, 3 minutes etc., although the increased backup frequency does ensure that changes to files are captured regularly, which allows greater flexibility in recovery to a point in time.

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

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

#### 3.16.2 Set up of both Periodic and Continuous Backup Schedule

On a Windows platform, although it is possible to setup both <u>Periodic</u> backup schedule and <u>Continuous</u> backup schedule on a File backup sets, it is recommended to only use one schedule as only one schedule backup job can run at any one time.

For example, a backup job is started by the Periodic backup schedule and is running, if a Continuous backup is scheduled to run, the backup job will be skipped and vice versa.



## 3.16.3 Periodic Backup Schedule vs. Continuous Backup Schedule

The following table shows the comparison between a periodic and continuous backup schedule.

Features	Periodic Backup	Continuous Backup Schedule
Will run whether or not a change on the backup source is made		*
Run Retention Policy after backup		*
Exclude system files from the backup	×	<b>~</b>
Only apply to files smaller than (MB) size	×	<b>~</b>
Exclude Filter	×	
Supported on all operating systems (i.e. Windows, MacOS, Linux, and FreeBSD)	<b>~</b>	Only supported on Windows operating system
Supports all backup set types	<b>V</b>	Only supports File Backup Sets

### 4 Get Started with CloudBacko Lite

This quick start guide will walk you through the following six (6) major parts to get you started with using CloudBacko Lite.

## **Download and Install**

Download and Install CloudBacko Lite on your Windows machine

# Launch the App

Launch CloudBacko Lite on your Windows machine

# Set up 2FA and/or Mobile Backup

Register mobile device for 2FA and/or mobile backup (optional)

# **Create Backup Set**

Create a backup set according to your preferences

# **Run Backup Jobs**

Run backup jobs to back up data

### **Restore Data**

Restore backed up data to your system

# 5 OpenDirect Restore

### 5.1 What is OpenDirect Restore?

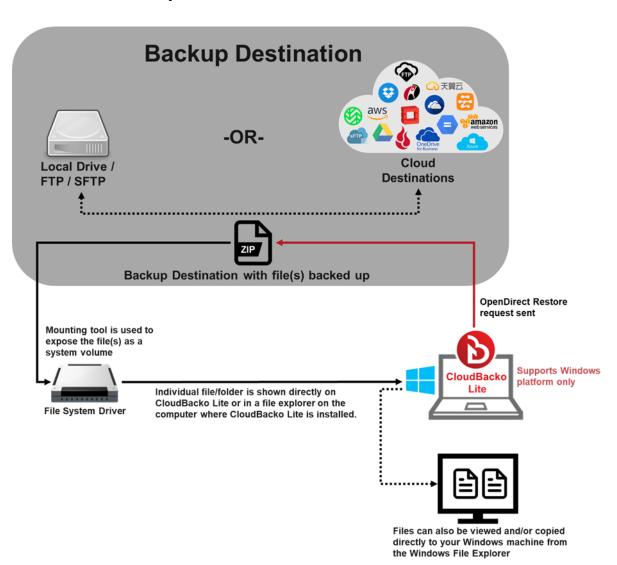
OpenDirect restore is an additional restore options for restoring files from a Windows File backup set. The OpenDirect restore method makes use of the granular restore technology to make selective restore of individual files from a large compressed or image file, for example zip, RAR, ISO files, without the need to restore the compressed or image file first, to give you a fast and convenient file restore solution.

During the OpenDirect restore process, the file(s)/folders can be viewed and/or copied from the Windows File Explorer on the Windows machine you are performing the restore. OpenDirect restore is only supported on File backup sets created and backed up using CloudBacko Lite on Windows platform with OpenDirect restore feature enabled.

#### **Important**

OpenDirect / Granular Restore is included in basic CloudBacko License.

### 5.2 How does OpenDirect Restore work?





# 5.3 Benefits of using OpenDirect Restore

## Comparison between OpenDirect File Restore and Traditional File Restore

OpenDirect Restore			
	Introduction		
OpenDirect restore allows you to quickly access individual files from a large compressed or image file by viewing and/or copying files from the file explorer on the Windows you are performing the restore, without having to fully restore the whole compressed or image file first.			
	Pros		
Restore of Entire Compressed File Not Required	As opposed to the traditional restore where you have to restore the entire compressed or image file first before you can access any individual file in it, OpenDirect restore allows you to view and download individual files from a compressed or image file, without having to restore compressed file or image file first.		
Ability to Restore Selected Files	When restoring a large compressed or image file, sometimes, you may only need to restore individual file(s) out of the entire file, therefore, OpenDirect restore gives you the flexibility to restore selective file(s) quickly, so it saves you time and effort to achieve your restore goal.		
	Cons		
No Encryption and Compression	To ensure optimal restore performance, the backup of the files in an OpenDirect file backup set will <b>NOT</b> be encrypted and compressed, therefore, you may have to take these factors in consideration when selecting this restore option.		

Traditional Restore			
	Introduction		
The traditional restore method restores the entire compressed file or image file. Backed up data can only be accessed when complete restore is performed.			
Pros			
Backup with Compression and Encryption  Backup file(s) are compressed, therefore in smaller file size, and encrypted before being uploaded to the backup destination.			
	Cons		
Slower Recovery	As the entire compressed or image file must be restored before you can access any individual files, restore time could be long if the file size is large		

#### 5.4 Requirements

#### 5.4.1 Supported Backup Modules

OpenDirect restore is only supported on File backup sets created and backed up using CloudBacko Lite on Windows platform with OpenDirect restore feature enabled.

#### 5.4.2 License Requirements

OpenDirect is included in basic CloudBacko License.

#### 5.4.3 Backup Quota Storage

As compression is not enabled for OpenDirect file backup sets, to optimize restore performance the storage quota required will be higher than non-OpenDirect file backup sets. Contact your backup service provider for details.

#### 5.4.4 Windows Operating System

CloudBacko Lite must be installed on a 32 bit or 64-bit Windows Desktop Operating System as libraries for OpenDirect only supports Windows platform.

Windows 7 SP1 or above	Windows 8
Windows 8.1	Windows 10

#### 5.4.5 Temporary Directory Requirement

The temporary directory folder should have at least the same available size as the compressed file to be restored and should be located on a local drive to ensure optimal performance.

#### 5.4.6 Available Spare Drive Letter

One spare drive letter must be available on the Windows machine for the OpenDirect restore process, as the compressed file or image is mounted on Windows as a logical drive. CloudBacko Lite will automatically take the next available drive letter in alphabetical order for the compressed or image file.

#### **NOTE**

- 1. The Windows drive letters A, B, and C are not used by OpenDirect restore.
- The OpenDirect restore assigned drive letter(s) will be released once you exit from CloudBacko Lite UI.

#### 5.4.7 Network Requirements

Recommended minimum network speed is at least 100Mbps download speed.

The network bandwidth requirements will increase in proportion to the size of the compressed file/image and or the incremental delta chain length to ensure optimal performance. Working with limited network bandwidth may severely affect the granular restore performance.

You can use an online network speed test website (e.g. <u>www.speedtest.net</u>) to get an idea of the actual bandwidth of the machine.

#### 5.4.8 Other Dependencies

The following dependencies are restore related and therefore they will be checked by CloudBacko Lite only when an OpenDirect restore is performed. Absence of these elements will not affect the backup job but would cause the restore to fail.

- Microsoft Visual C++ 2015 Redistributable (x86) / (x64)
   https://www.microsoft.com/en-us/download/details.aspx?id=48145
- Update for Universal C Runtime in Windows
   https://support.microsoft.com/en-us/help/2999226/update-for-universal-c-runtime-in-windows
- For Windows 7 only

Microsoft Security Advisory 3033929 https://www.microsoft.com/en-sg/download/details.aspx?id=46078

#### 5.4.9 Permissions

The Windows login account used for installation and operation of the CloudBacko Lite client machine requires Administrator privileges.



## 6 Download and Install CloudBacko Lite

#### 6.1 Download CloudBacko Lite

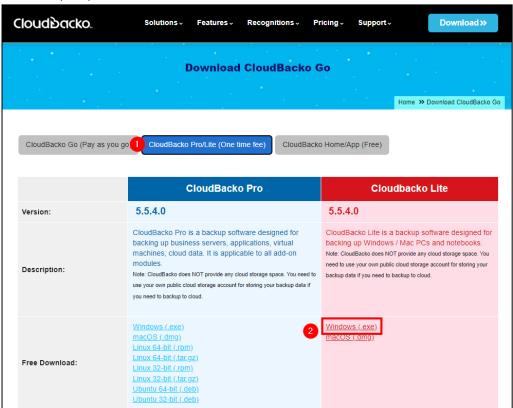
1. In a web browser, go to the CloudBacko website and click Download.



#### NOTE

Screenshot was taken as of 2023-September-12, it may be different in the future.

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





#### 6.2 Install CloudBacko Lite

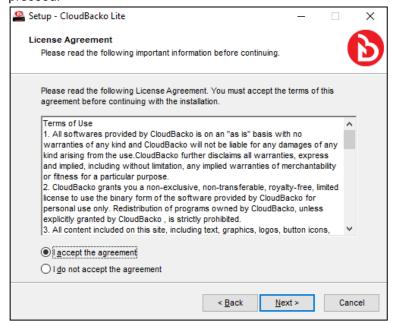
 Double-click the icon of the CloudBacko Lite installation package cbl-win.exe file you have downloaded.



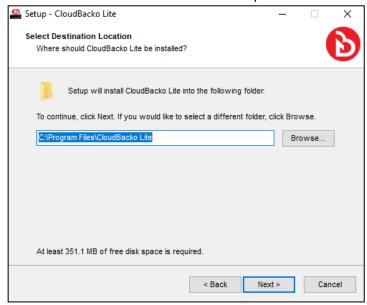
2. CloudBacko Lite Setup Wizard will be displayed. Click the Next to proceed.



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



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

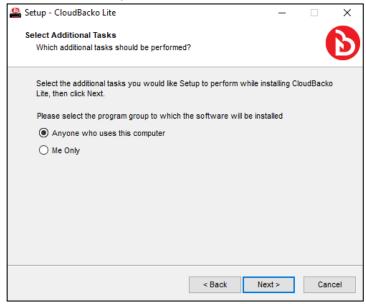


- 5. Select the program group to which the CloudBacko Lite will be installed. The default setting is "Anyone who uses this computer". The following are the difference between the two settings:
  - Anyone who uses this computer the CloudBacko Lite System Tray icon will be available to all Windows user and backup notifications will be displayed on the Windows System Tray. For more information please refer to <a href="Chapter 8.12">Chapter 8.12</a>: System <a href="Tray">Tray</a>.
  - Me only the CloudBacko Lite Tray icon will not be available and backup notifications will not be displayed on the Windows System Tray.

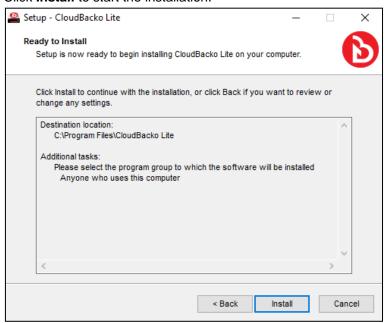
#### **NOTE**

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.

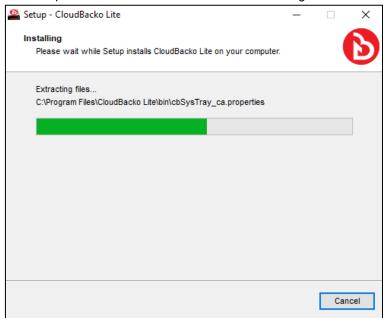
Then, click **Next** to proceed.



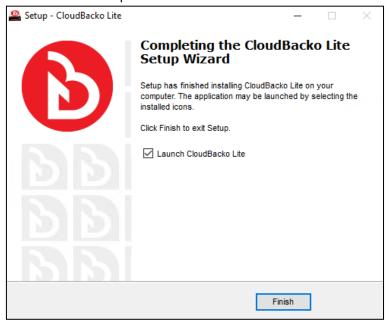
6. Click Install to start the installation.



7. The component files will be downloaded first during installation



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



### 6.3 CloudBacko Lite Services

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

Function	Description
Scheduled Backups	Ensures that backup job which are setup to run at a certain date and or time are started.
Regular License Checks	Perform daily license checks to update the status of the license key.
Email Reports	Ensures backup error / warning report, missed backup report, and report, and storage alert report are sent to the customer according to the report settings.
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 Lite.
	The MBS will be activated when a mobile device is registered for mobile backup on CloudBacko Lite.
	The MBS will be deactivated when all mobile devices have been deregistered from the mobile backup settings and the CloudBacko Lite services is restarted.

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

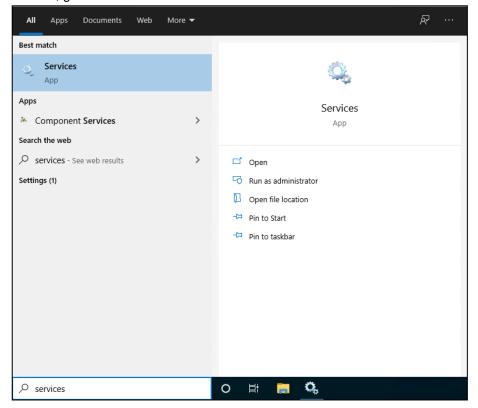
- a new CloudBacko installation
- a CloudBacko software update
- when the machine rebooted
- the machine is powered on
- the machine wakes up from hibernation or standby mode

Otherwise, all the functions above will stop working.

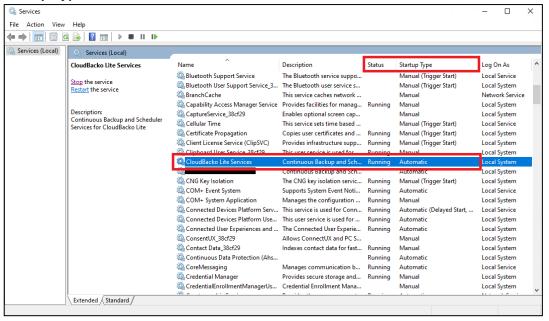


This option is used to kick automated or scheduled backup jobs.

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



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

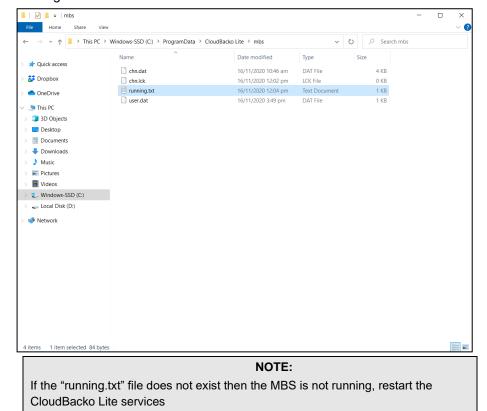




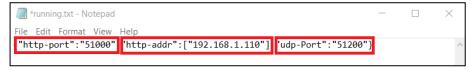
# 6.4 Mobile Backup Server (MBS) Health Check and CloudBacko app connection Check

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 Lite\mbs.



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 Lite is installed.

```
Command Prompt

Ethernet adapter Ethernet 4:

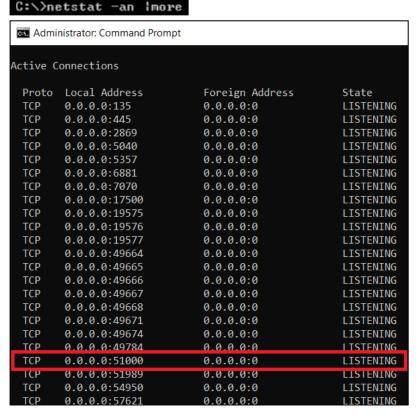
Connection-specific DNS Suffix :
Link-local TPv6 Address : fe80::e01a:d946:5bac:8f79%15

IPv4 Address : 192.168.1.110

Subnet Mask : 255.255.255.0

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 Lite machine and type the IP address, followed by TCP port.

**For example**: If the HTTP port used is 51000, http://192.168.110:51000 you should get the following result that shows "Running" status, which means the MBS is running.

In the CloudBacko Lite 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 51000, http://192.168.110:51000 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



### 7 Start CloudBacko Lite

Several scenarios will be encountered during log in. Log in steps for the different scenarios will be discussed in this chapter.

- Launch CloudBacko Lite without 2FA
- Launch CloudBacko Lite with 2FA

#### 7.1 Launch CloudBacko Lite

To launch CloudBacko Lite without two-factor authentication follow the steps below:

- Initial launch skipping two-factor authentication and mobile backup features setup.
- Subsequent login without 2FA
- Subsequent login without 2FA and password lock

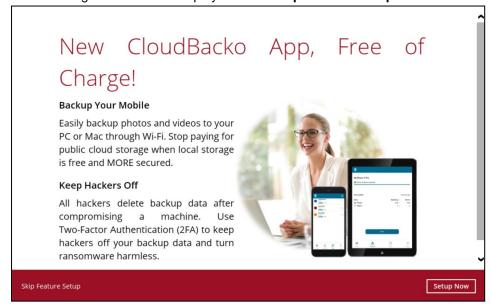
# 7.1.1 Initial launch skipping two-factor authentication and mobile backup features setup

When launching the CloudBacko Lite for the first time and skipping the two-factor authentication feature setup, please follow the steps below:

1. A shortcut icon of CloudBacko Lite will be available on your desktop after installation. Double click the icon to launch the application.



2. The following screen will be displayed. Click **Skip Feature Setup**.





3. Click **Yes** in the pop-up message that will be displayed. Otherwise, click **No** to continue with the set-up of mobile feature.



4. CloudBacko Lite main screen will appear.



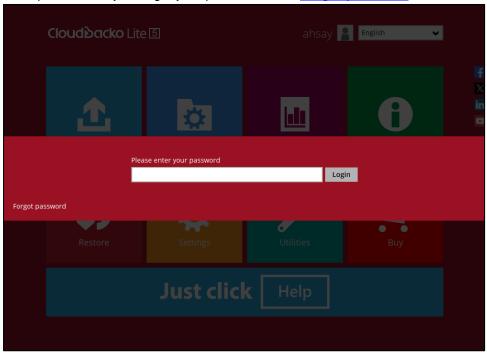
#### 7.1.2 Subsequent logins without 2FA

For subsequent logins to CloudBacko Lite without two-factor authentication, please follow the steps below:

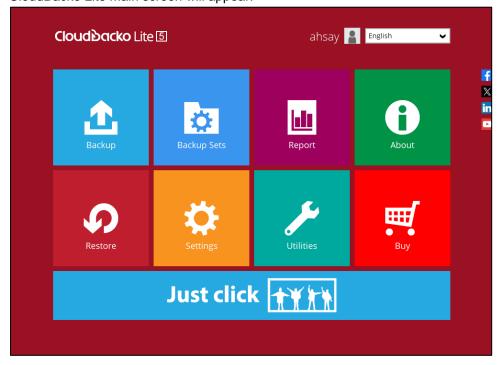
1. A shortcut icon of CloudBacko Lite will be available on your desktop after installation. Double click the icon to launch the application.



2. Enter password. If you forgot your password, click Forgot password link.



3. CloudBacko Lite main screen will appear.





#### 7.1.3 Subsequent logins without 2FA and password lock

For subsequent logins to CloudBacko Lite without two-factor authentication and password lock, please follow the steps below:

1. A shortcut icon of CloudBacko Lite will be available on your desktop after installation. Double click the icon to launch the application.



2. CloudBacko Lite main screen will appear.



# 7.2 Launch CloudBacko Lite with 2FA using Android or iOS mobile device

There are two types of authenticator that can be used for the 2FA:

- CloudBacko app Authenticator
  - Supports two types of authentication:
    - Push Notification
    - TOTP
  - Oan be configured to support two 2FA modes:
    - Push Notification and TOTP (default mode) or,
    - TOTP only
- Third-party TOTP Authenticator

(e.g. Auth, Duo, Google)

To launch to CloudBacko Lite with two-factor authentication follow the steps below:

- Initial launch setting up two-factor authentication and mobile backup features
- Subsequent logins with 2FA
- Subsequent logins with 2FA and password lock

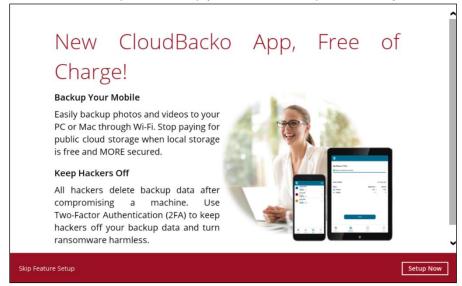
# 7.2.1 Initial launch setting up two-factor authentication and mobile backup features

When launching the CloudBacko Lite for the first time and setting up the two-factor authentication feature, please follow the steps below:

1. A shortcut icon of CloudBacko Lite will be available on your desktop after installation. Double click the icon to launch the application.



2. You will have the option to set up your mobile backup. Click **Setup Now**.

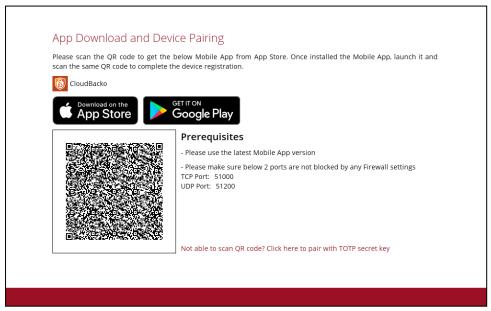




If you do not want to set up the mobile feature, click the **Skip Feature Setup** link. Click **Yes** in the pop-up message that will be displayed. Otherwise, click **No** to continue with the set-up of mobile feature.



Download the CloudBacko app from Google Play for an Android device and from App Store for an iOS device.



- 4. CloudBacko app supports two types of authentication method:
  - Push Notification
  - TOTP

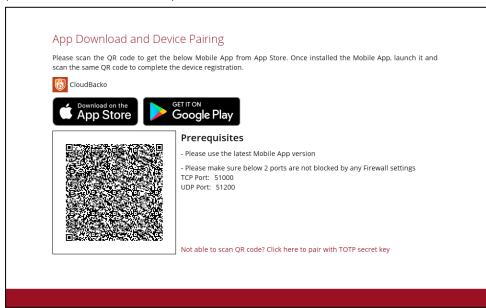
CloudBacko app can be configured to support two 2FA modes:

- Push Notification and TOTP (default mode) or,
- TOTP only

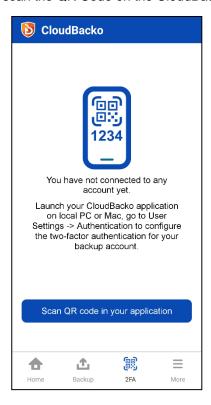


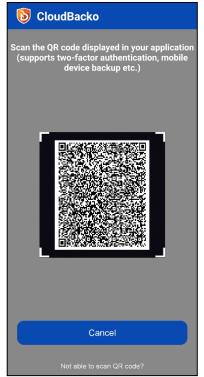
#### **Push Notification and TOTP**

a. Scan the QR code to complete the device registration for two-factor authentication (Push notification and TOTP) feature.

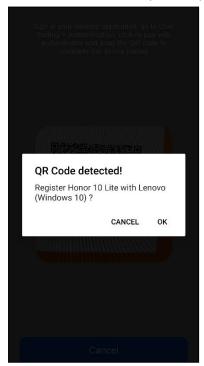


b. In the CloudBacko app, go to **2FA**. Tap the Scan QR code in your application link to scan the QR Code on the CloudBacko Lite.

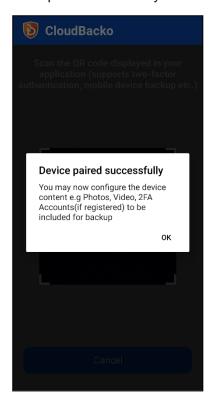




c. QR Code is detected, tap **OK** to proceed.

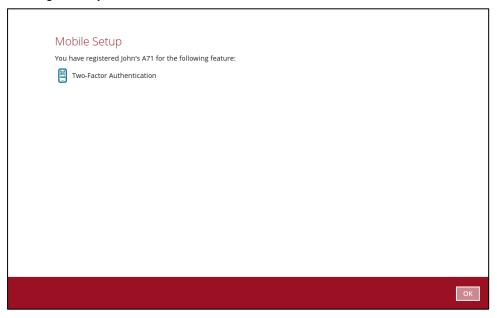


Device paired successfully.





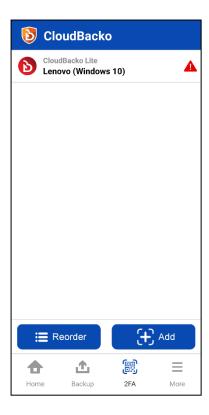
d. Once the registration is successful, the following screen will be displayed. You have now registered your device for two-factor authentication then click **OK**.



e. In the CloudBacko app, go to 2FA to enter the phone number for account recovery. Tap Enter recovery phone number.

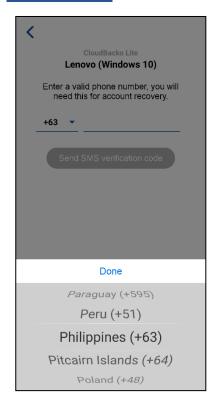
#### **NOTE**

Although push notification and TOTP will still work if the recovery phone number registration is not completed, it is still strongly recommended to complete step e as you will not be able to access the CloudBacko Lite if you lose your mobile device which also means loss of access to backup data.



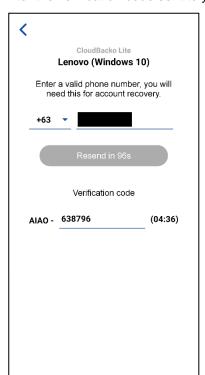


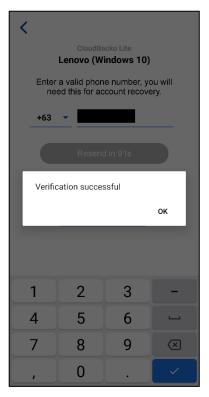
Select your country code and enter your phone number then click **Send SMS verification code**.



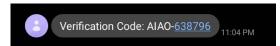


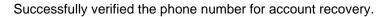
Enter the verification code sent to your mobile device.

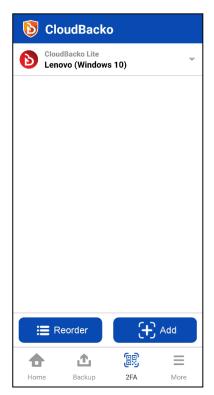




Sample verification code.





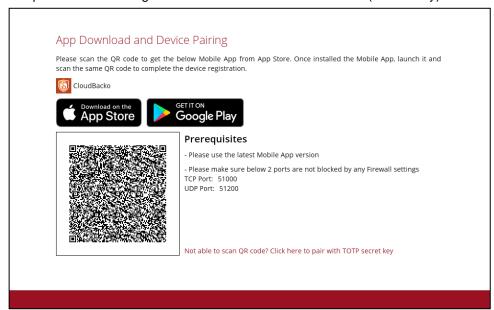




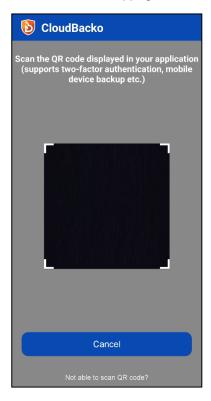


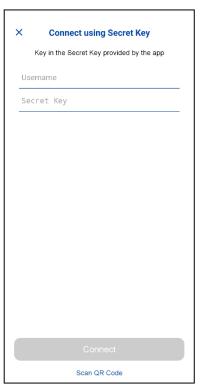
#### **TOTP** only

a. Click Not able to scan QR code? Click here to pair with TOTP secret key link to complete the device registration for two-factor authentication (TOTP only) feature.



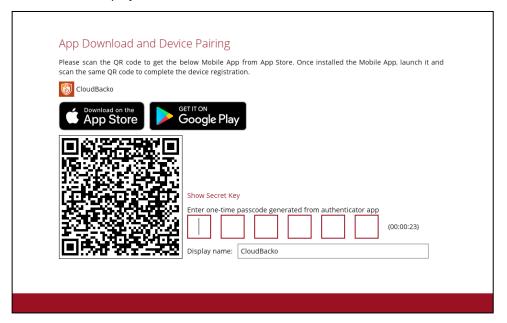
b. In the CloudBacko app, go to 2FA. Tap the Not able to scan QR code? link.



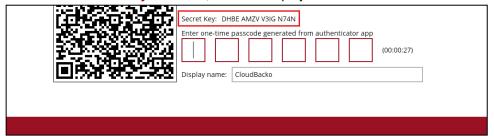




To see the secret key, click the **Show Secret Key** link to display the 16-digit secret key. And enter the display name.



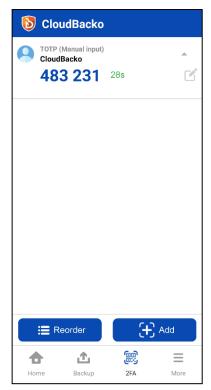
Once Show Secret Key is clicked, it will be displayed.



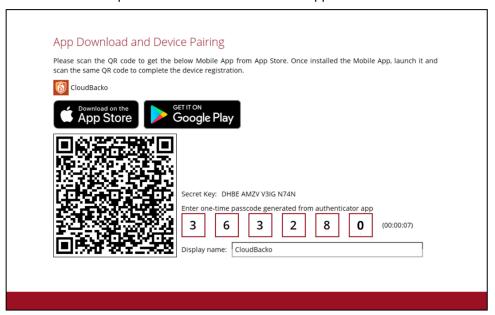
c. Enter the Username and Secret Key from CloudBacko Lite then tap Connect then OK.



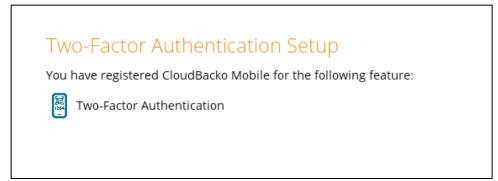




Enter the one-time passcode from the CloudBacko app.

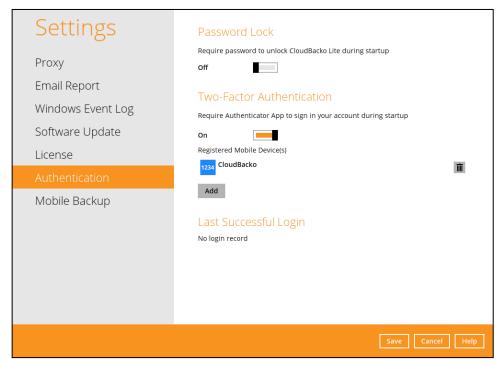


d. Once the registration is successful, the following screen will be displayed. You have now registered your device for two-factor authentication. Click **OK**.





The device will now be available under **Settings** > **Authentication** > **Two-Factor Authentication**.



#### NOTE

In case device pairing takes a while, session timeout message will be displayed. Just click  $\mathbf{OK}$  to resume with the device pairing.

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



#### **NOTE**

- Please refer to the <u>CloudBacko App v1 User Guide for Android and iOS Appendix A: Troubleshooting Login</u> if you are experiencing problems logging into CloudBacko Lite with Two-Factor Authentication using the CloudBacko app.
- For instructions on how to register a device using third-party TOTP authenticator please refer to <a href="Appendix G">Appendix G</a>.

#### 7.2.2 Subsequent logins with 2FA

For succeeding logins to CloudBacko Lite with two-factor authentication, please follow the steps below:

1. A shortcut icon of CloudBacko Lite will be available on your desktop after installation. Double click the icon to launch the application.

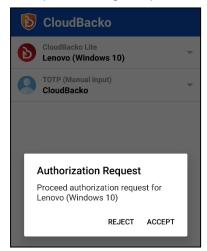


- 2. One of the two authentication methods will be displayed to continue with the login:
  - Push Notification and TOTP when using CloudBacko app or,
  - ► TOTP only
  - If CloudBacko app was configured to use Push Notification and TOTP then there are two 2FA modes that can be used:
    - Push Notification (default)

Push notification is the default 2FA mode. Accept the login request on the CloudBacko app to complete the login.

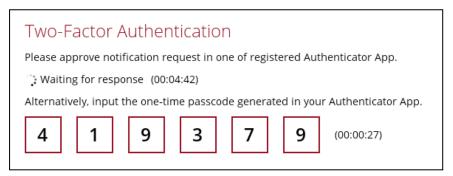


Example of the login request sent to CloudBacko app.



#### TOTP

However, if push notification is not working or you prefer to use one-time password, click the Authenticate with one-time password link, then input the one-time password generated from CloudBacko app to complete the login.

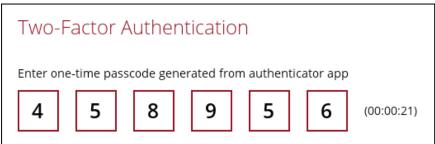


Example of the one-time password generated from CloudBacko app to complete the login.



#### TOTP only

Enter the one-time password that is generated by the Authenticator App to proceed with login.



Example of the one-time password that is generated in the third-party Authenticator App, Microsoft Authenticator.



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



#### NOTE

Please refer to the <u>CloudBacko App v1 User Guide for Android and iOS – Appendix A:</u> <u>Troubleshooting Login</u> if you are experiencing problems logging into CloudBacko Lite with Two-Factor Authentication with CloudBacko app.



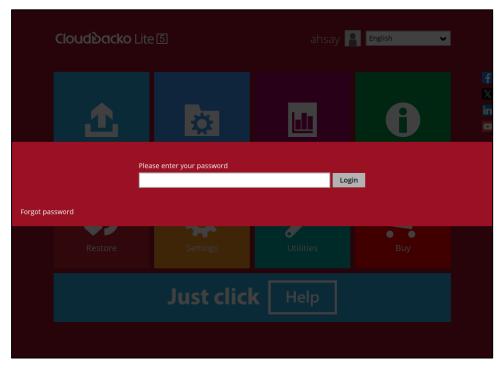
#### 7.2.3 Subsequent logins with 2FA and password lock

For succeeding logins to CloudBacko Lite with two-factor authentication and password lock, please follow the steps below:

1. A shortcut icon of CloudBacko Lite will be available on your desktop after installation. Double click the icon to launch the application.



2. Enter password. If you forgot your password, click Forgot password link.

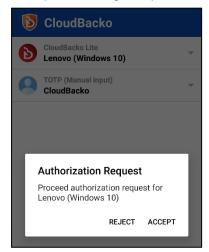


- 3. One of the two authentication methods will be displayed to continue with the login:
  - Push Notification and TOTP when using CloudBacko app or,
  - ► TOTP only
  - ▶ If CloudBacko app was configured to use Push Notification and TOTP then there are two 2FA modes that can be used:
    - Push Notification (default)

Push notification is the default 2FA mode. Accept the login request on the CloudBacko app to complete the login.

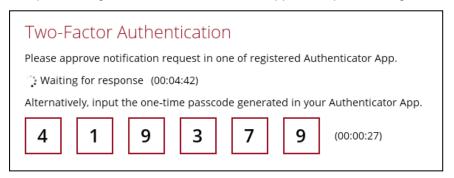


Example of the login request sent to CloudBacko app.



#### TOTP

However, if push notification is not working or you prefer to use one-time password, click the Authenticate with one-time password link, then input the one-time password generated from CloudBacko app to complete the login.

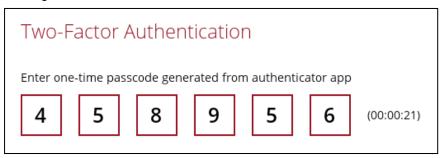


Example of the one-time password generated from CloudBacko app to complete the login.



#### TOTP only

Enter the one-time password that is generated by the Authenticator App to proceed with login.



Example of the one-time password that is generated in the third-party Authenticator App, Microsoft Authenticator.



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



#### **NOTE**

Please refer to the <u>CloudBacko App v1 User Guide for Android and iOS – Appendix A: Troubleshooting Login</u> if you are experiencing problems logging into CloudBacko Lite with Two-Factor Authentication with CloudBacko app.

#### 7.3 Trial Mode

When CloudBacko Lite is downloaded and installed on a machine, these are some key points to consider:

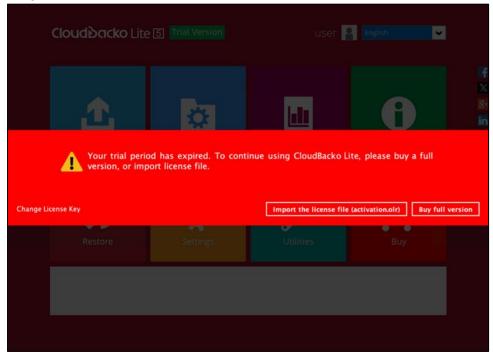
#### Trial Mode



CloudBacko Lite will start in trial mode. Trial mode will expire after 30 days.

- If you want to purchase a license key, refer to the following chapters:
  - 1. Ch. 8.9 Buy
  - 2. <u>Ch. 8.9.1 Credit Card</u>
  - 3. Ch. 8.9.2 TT (Telegraphic Transfer)
- An existing license key may be applied even if CloudBacko Lite is still in trial. For more details, refer to Ch. 8.7.5 License.

#### Expired Trial Mode

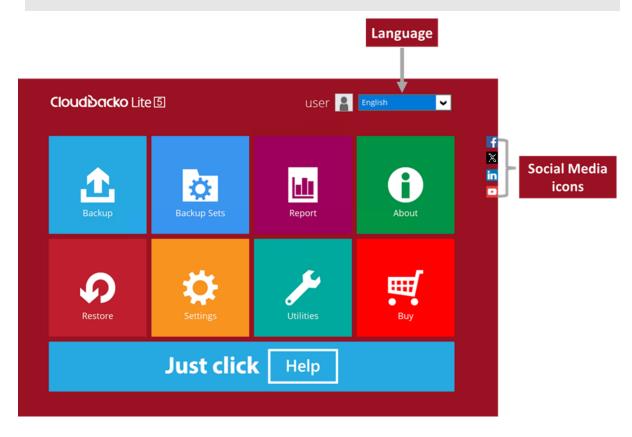


If you want to apply the license key after Trial mode has expired, please check <u>Appendix H:</u> How to apply a license key to a CloudBacko Lite installation with an expired trial license?

#### CloudBacko License Key

If you want to find your purchased CloudBacko Lite license key, please check <u>Appendix I:</u> Where to find the CloudBacko Lite purchase license key?

### 8 CloudBacko Lite Overview

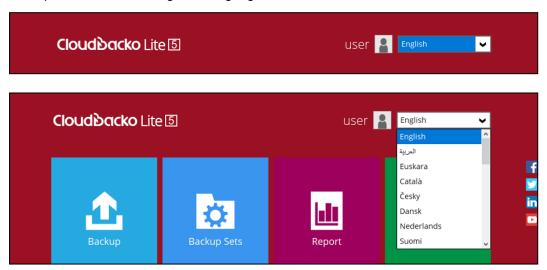


CloudBacko Lite main interface has 11 icons that can be accessed by the user:

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

### 8.1 Language

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



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

#### 8.2 About

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





### 8.3 Backup

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



For instructions on how to start a backup, refer to Chapter 11 Run Backup Jobs.

### 8.4 Backup Sets

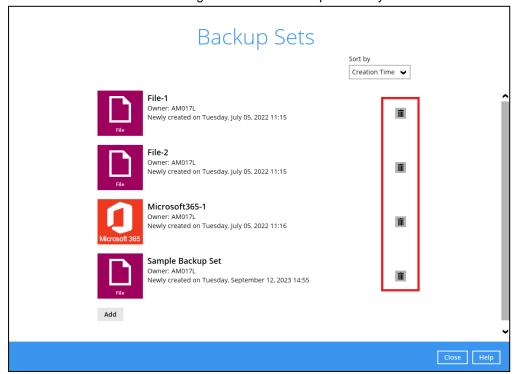
The backup set is where you will select files and/or folders to be backed up as well as configure other settings related to it. This feature allows the user to select files individually or an entire folder to backup. It is also used to delete backup set(s).



For instructions on how to create a backup set, refer to Chapter 9 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.

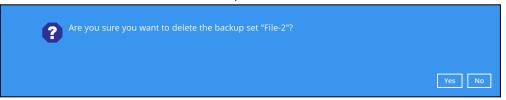




2. If the account is registered for 2FA, accept the push notification or enter the one-time password. Otherwise, skip to the next step.



3. 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.



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



#### 8.4.1 Backup Set Settings

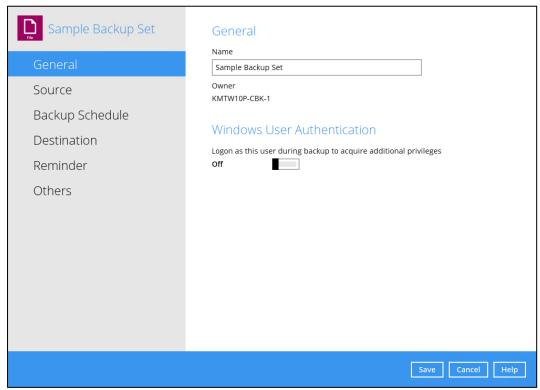
Below is the list of configurable settings under a Backup Set:

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



#### 8.4.1.1 General

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



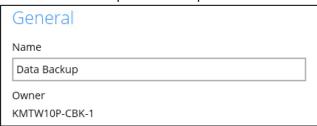
#### **Backup Set Name**

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

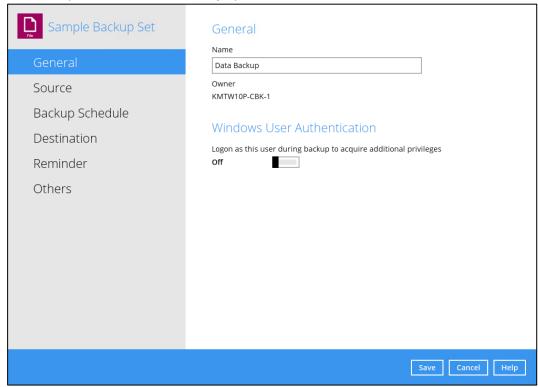
1. In the Name field, enter a new backup set name.



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**

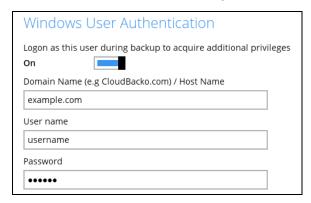
In assigning a backup set name, make sure that it does not have an identical name.



#### Windows User Authentication

To successfully perform backup and restore operations, CloudBacko Lite 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 Lite 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 Lite Services is a local system account which does not have access to network resources.





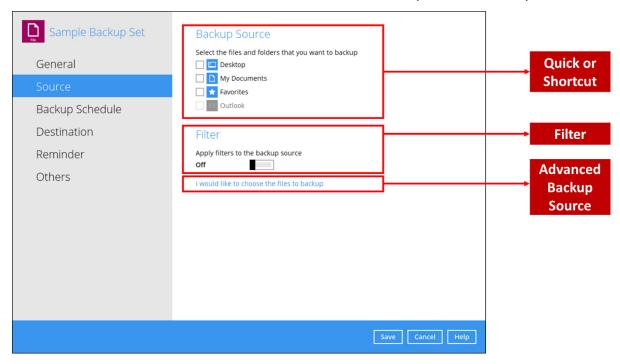
- If files and/or folders selected are located on network drive(s), the login credentials for the Windows User Authentication must have permission to access network resources, (e.g. an administrator account).
- If the machine is a file server shared by multiple users, then the CloudBacko Lite will require 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 Lite 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 Lite to access files and/or folders selected in the backup source.
Password	Login password used by the CloudBacko Lite to access files and/or folders selected in the backup source.

#### 8.4.1.2 Source

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



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

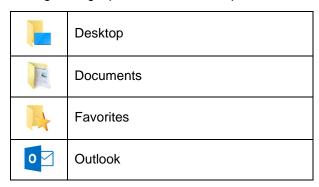
Option	Description
Quick or Shortcut	This allows the user to back up files and/or folders in the selected backup source entirely.
Filter	This allows the user to select or exclude files and/or folders from the backup job.
Advanced Backup Source	This allows the user to select files and/or folders individually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

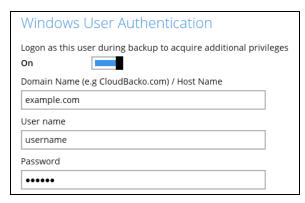
#### **Option 1: Quick or Shortcut**

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**

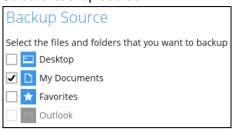
During the creation of backup set, if this type of backup source (Quick or Shortcut) is selected and the Schedule is set to "on", the Windows User Authentication screen will be displayed. You will need to enter the login password, otherwise, the creation of backup set will not continue.

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

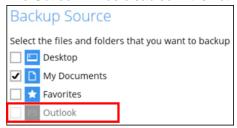
Backup So	urce	Description
Desktop	1	If Desktop is selected, all files and/or folders in the following location will be backed up:  **WuserProfile**\Desktop**
Documents	Jun 6	If Documents is selected, all files and/or folders located in the following location will be backed up:  **UserProfile**\Documents*  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		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.



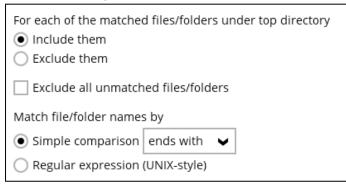
2. Click the **Add** button to create filter.



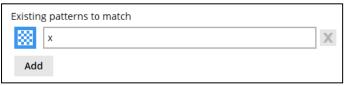
3. Assign a desired name to the backup filter.



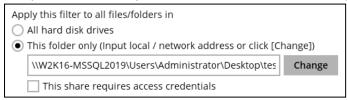
4. Select from the options below.



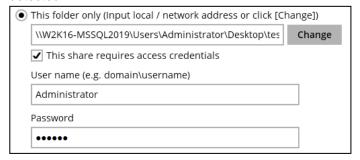
5. In this example, all files and/or folders that end with the letter 'X' will be included to the backup job. You can add multiple patterns here.



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.



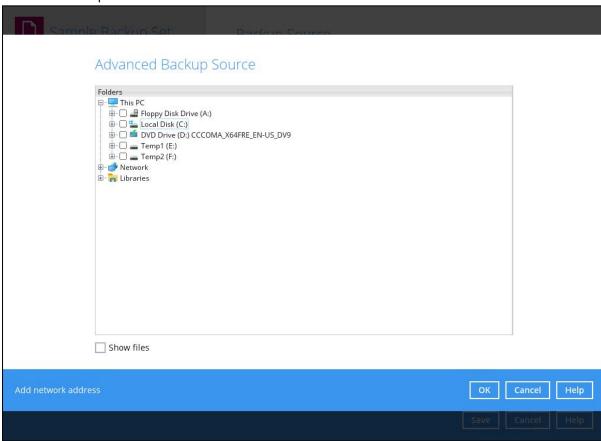
- 8. Click the **OK** button to save the created filter, then click the **Save** button to save the settings. Once you run a backup, all files and/or folders that match the applied filter will be backed up.
- 9. Multiple backup filters can be created by clicking the **Add** button.





### **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:

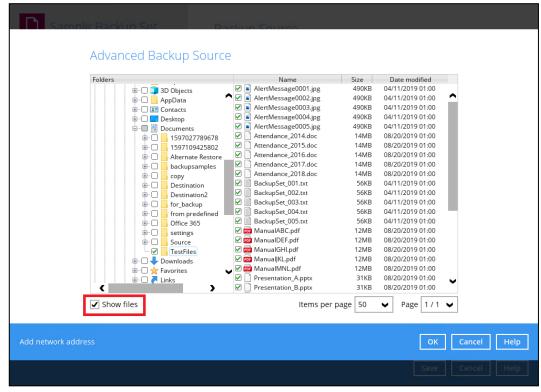
Advanced Backup Source		Description	
Local Disk		Does not require Windows User Authentication login password.	
Network drive		Requires Windows User Authentication login password. For network drive/s, you will need to enter the login credentials which has permission to access network resources in order to back up selected files and/or folders.	
		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:	
Libraries		<ul><li>Windows 11</li><li>Windows 10</li><li>Windows 8.1</li><li>Windows 8</li></ul>	
		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

- 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

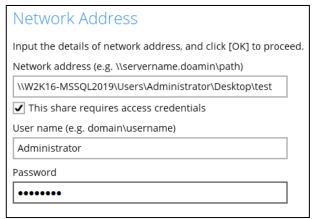


ii. If the files and/or folders are located in a network drive, click the 'Add network address' link. Enter the network address.

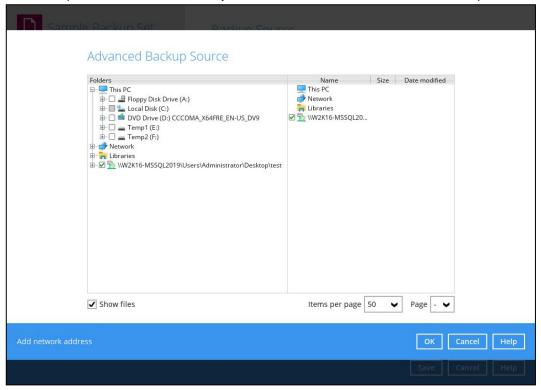




If access credentials are required to access the network, then check the "This share requires access credentials' checkbox. The checkbox will only be enabled once the network address is entered. Enter the Username and Password of the network drive and click the **OK** button.



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)

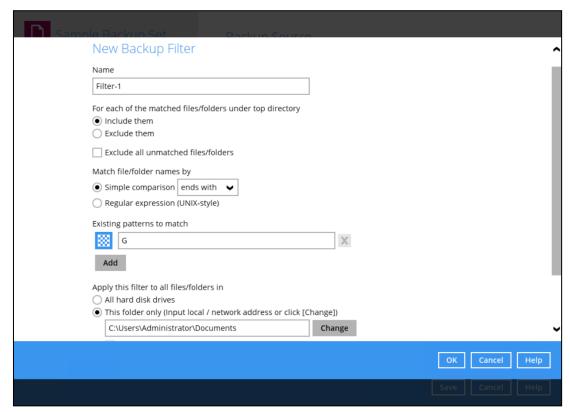
You can use the quick or shortcut option and apply filter to the selected backup source at the same time. To use this type of combination, follow the steps below:

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)

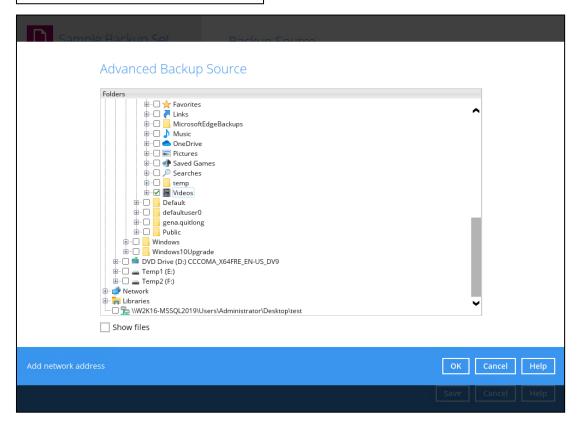
You can use the quick or shortcut option and select files and/or folders in the advanced backup source at the same time. To use this type of combination, follow the steps below:

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



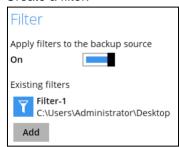
3. Click the **OK** button to save the selection, then click the **Save** button to save settings.



## Scenario 3 (Filter + Advanced Backup Source)

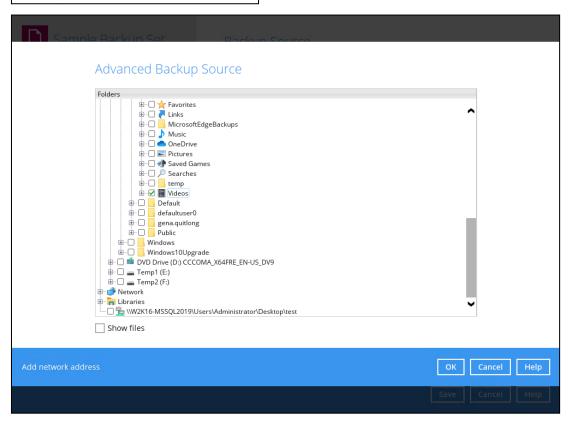
You can use the filter backup source and select files and/or folders in the advanced backup source at the same time. To use this type of combination, follow the steps below:

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

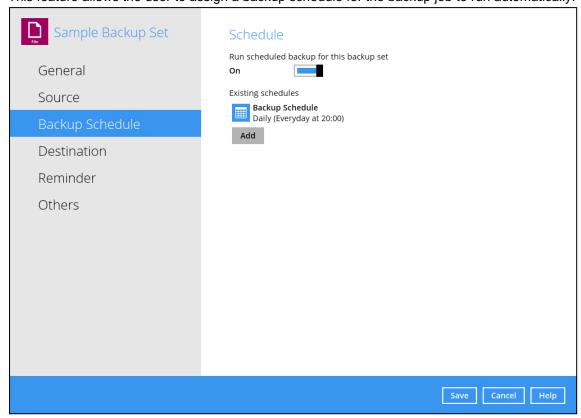


3. Click the **OK** button to save the selection, then click the **Save** button to store settings.



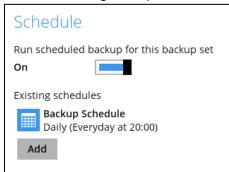
## 8.4.1.3 Backup Schedule

This feature allows the user to assign a backup schedule for the backup job to run automatically.

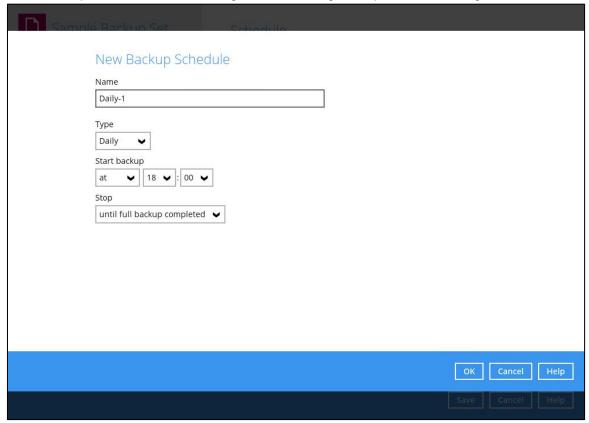


To configure a backup schedule, follow the steps below:

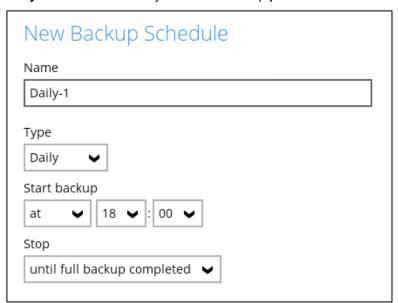
1. Select an existing backup schedule to modify or click the **Add** button to create a new one.



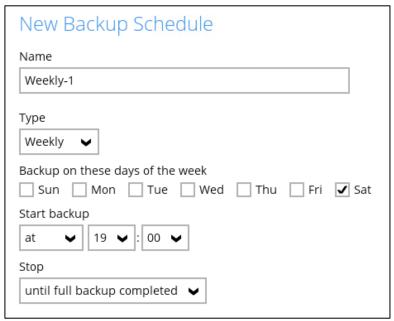
2. In the Backup Schedule window, configure the following backup schedule settings.



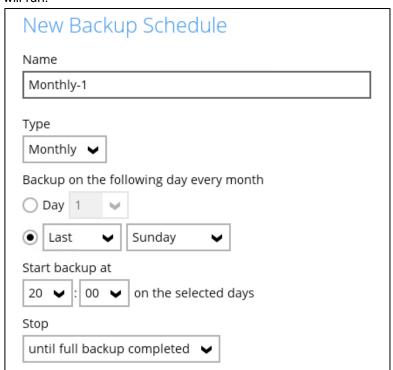
- Name the name of the backup schedule.
- ▼ Type the type of the backup schedule. There are four (4) different types of backup schedule: Daily, Weekly, Monthly and Custom.
  - Daily the time of the day when the backup job will run.



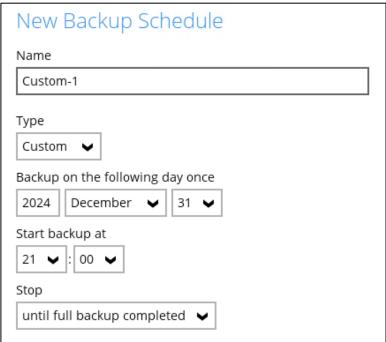
 Weekly – the day of the week and the time of the day when the backup job will run.



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

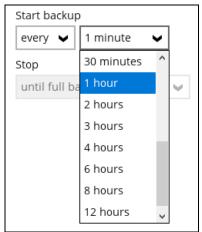


Custom – a specific date and the time when the backup job will run.



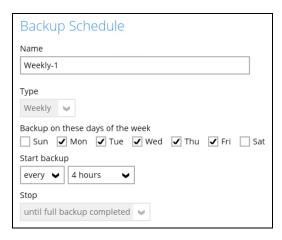
- Start backup the start time of the backup job.
  - o at this option will start a backup job at a specific time.
  - every this option will start a backup job in intervals of minutes or hours.







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



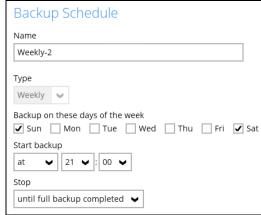


Figure 1.2

Figure 1.1

**Figure 1.1** – Periodic scheduled every 4 hours Monday - Friday during business hours

**Figure 1.2** – Normal schedule run at 21:00 or 9:00 PM daily on Saturday & Sunday during weekend non-business hours

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

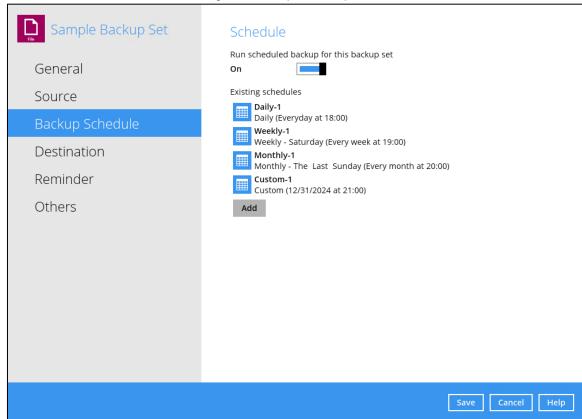
The number of hours must be enough to complete a backup of all files in the backup set. For small files in a backup, if the number of hours is not enough to back up all files, then the outstanding files will be backed up in the next backup job. However, if the backup set contains large files, this may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

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

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

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

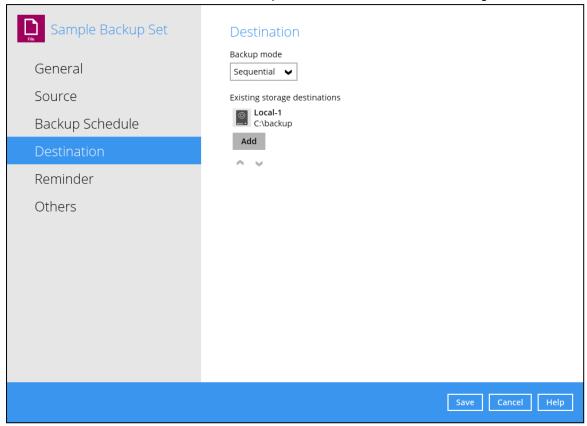
4. Click the Save button to save settings and multiple backup schedules can be created.



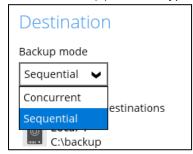


### 8.4.1.4 Destination

This feature allows the user to select a backup mode and add an additional storage destination.



There are two (2) different types of backup mode:



Backup mode	Description		
Sequential	This is the configured backup mode by default. This backup mode will run a backup job to each backup destination one by one.		
Concurrent	This backup mode will run a backup job to all backup destinations simultaneously.		

#### Comparison between Sequential and Concurrent Backup mode

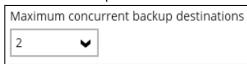
Backup mode	Pros	Cons	
Sequential	Takes less resources in the local machine (e.g. memory, CPU, bandwidth, etc.) to complete a backup job.	Backup job is slower than in concurrent mode since the backup job will upload the backup data to the selected backup destinations one at a time.	
Concurrent	Backup job is faster than in Sequential mode.	Requires more resources in the local machine (e.g. memory, CPU, bandwidth, etc.) to complete a backup job.	
	Maximum number of concurrent backup destinations can be configured.		

### To modify the Backup mode, follow the steps below:

- 1. Go to Backup Sets, then choose a backup set.
- 2. Select the **Destination** tab in the backup set settings.
- 3. Click the drop-down button to select a backup mode.



4. If "Concurrent" is selected, click the drop-down button to select the no. of maximum concurrent backup destinations.



5. Click the **Save** button to save the selected backup mode.

Starting with version 5.7, a new type of destination is introduced, in the form of immutable storage destination. This prevents backup data that is saved in immutable destination from being deleted or overwritten.

Only the following destinations supports immutable storage:

- Amazon S3
- AWS S3 Compatible Cloud Storage
- Backblaze
- Google Cloud Storage
- Microsoft Azure
- Wasabi

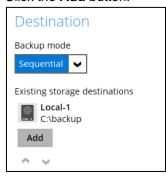
An "Immutable" checkbox is provided to be able to create an immutable storage destination.

These are the requirements to be able to setup an immutable storage destination:

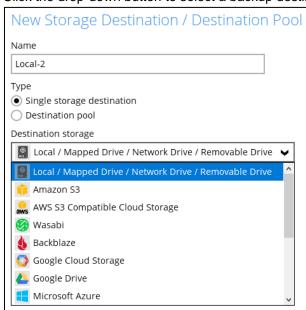
- The user account must have a device registered for 2FA.
- The user account of the storage destination must not be setup with delete permission.

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

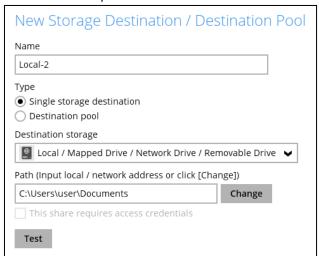
1. Click the Add button.

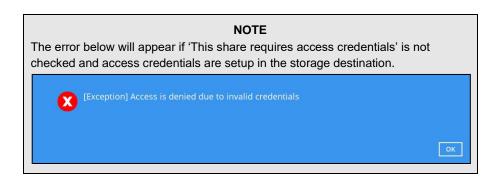


2. Click the drop-down button to select a backup destination.



If the Local / Mapped Drive / Removable Drive is selected, click the Change button to select a
new storage destination or input the local or network address. Check 'This share requires access
credentials' if required then click the Test button to validate access to it.

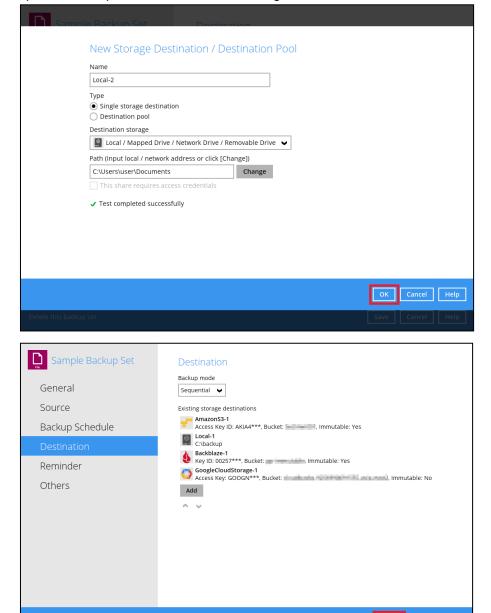




If you want to create an immutable storage destination, select one of the supported destinations then provide the needed information. Check 'Immutable' then click the **Test** button to validate access to it.



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.



#### **NOTE**

Cancel Help

The immutable status of a destination is included in the details, it indicates whether Yes or No if the particular destination is setup as an immutable storage destination or not.



#### 8.4.1.5 Reminder

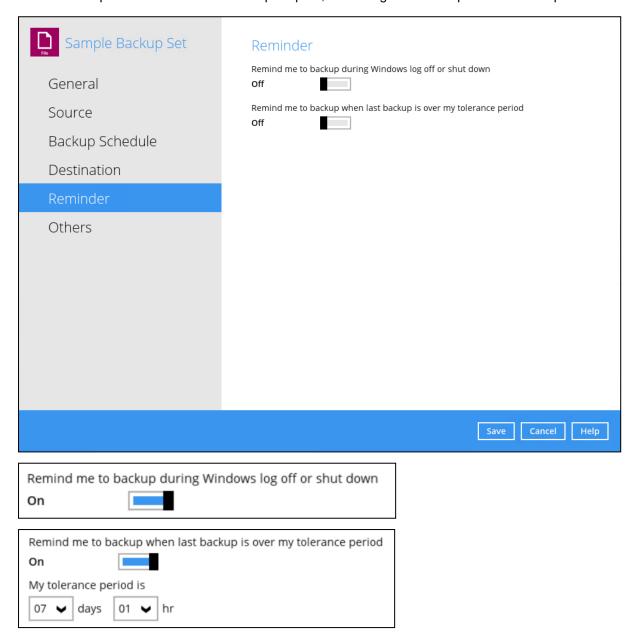
This reminder is designed for users who do not have a regular backup schedule setup. It allows CloudBacko Lite users to setup two types of reminder. Both reminders are disabled by default.

#### 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.

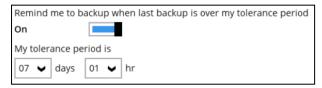
For more detailed examples of the reminder feature, please refer to <u>Appendix D: Example Scenarios for the Reminder for Windows Logoff, Restart, and Shutdown.</u>



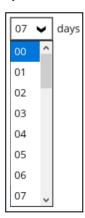
### Remind me to backup when last backup is over my tolerance period

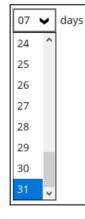
To enable the Reminder setting when the last backup is over the tolerance period, follow the steps below:

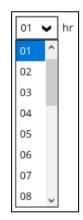
- 1. Go to Backup Sets, then select a backup set.
- 2. Choose the Reminder tab in the backup set settings.
- 3. Swipe the lever to the right to turn on the reminder.

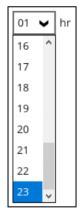


4. Set the tolerance period. Default is 7 days and 1 hour. Range for the day is between 1 to 31 days, for the hour, it is 1 to 23 hours.









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 for the Reminder for completed Tolerance Period</u>.

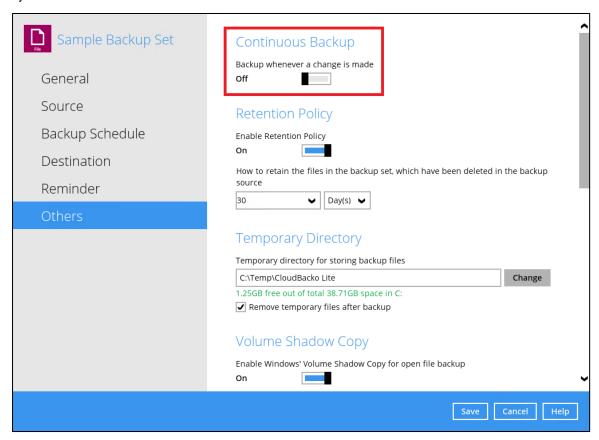
### 8.4.1.6 Others

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.

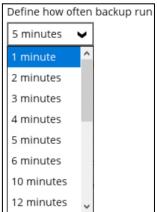


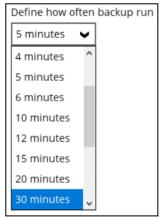
To enable the continuous backup, follow the steps below:

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



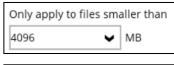
2. Define how often the continuous backup job will run. The backup time interval can be set from 1 minute to 12 hours. Default setting is 5 minutes.

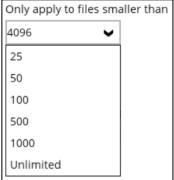






3. This applies the continuous backup on small regular update files. The file size can range from 25MB to unlimited MB.





#### 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).

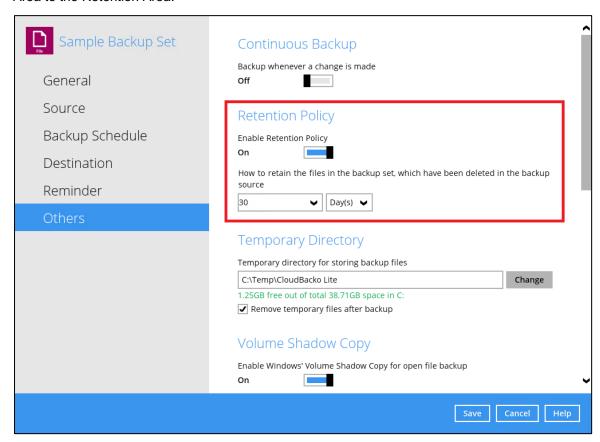
4. Click the **Save** button to save the settings.





## **Retention Policy**

When the CloudBacko Lite 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.

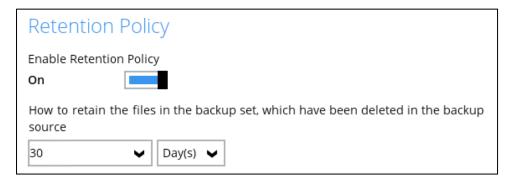


**Retention Area** is a place used as a temporary destination to store these files (deleted, updated, or with updated permission/attributes during a backup job). Files and/or folders in the Retention Area can still be restored.

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 Ch. 8.8.2 Space Freeing Up

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:

- 1. Select the **Others** tab in the Backup Set Settings.
- 2. Slide the switch to the right to turn on **Enable Retention Policy**.
- 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.

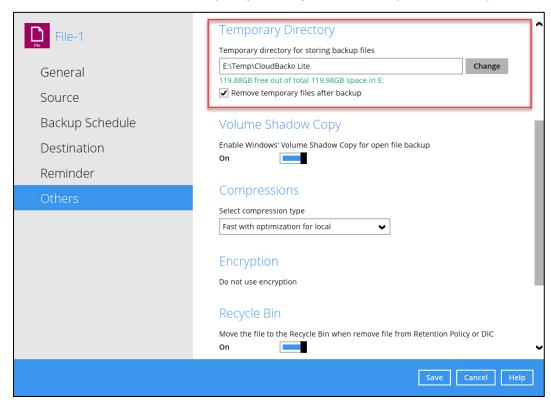
#### **WARNING**

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 Lite 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:

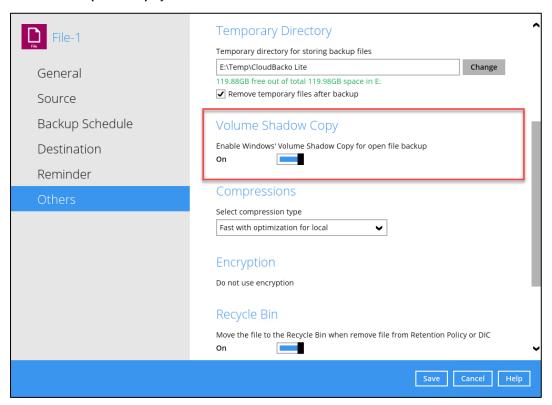
Click the Change button to select a directory path for storing temporary data.



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 Lite 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 Lite 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.



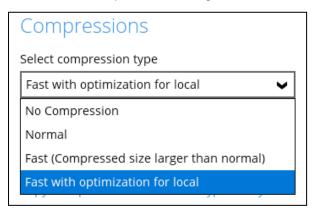
#### **WARNING**

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 the compression is enabled, the CloudBacko Lite will compress all the files before it is backed up to the backup destination(s).

For created backup sets are configured to use "Fast with optimization for local" by default.



These are the four (4) compression types:

- No Compression file will not be compressed before backup.
- Normal compression is comparable to gzip Normal compression ratio.
- Fast (Compressed size larger than normal) compression will be faster but with less compression and lower CPU usage compared to Normal.
- Fast with optimization for Local uses Snappy compression library when backing up to local destination only, otherwise setting will default to gzip if backing up to other destinations. Has the lowest CPU usage, very high speed and reasonable compression but compressed file size may be larger than Fast.

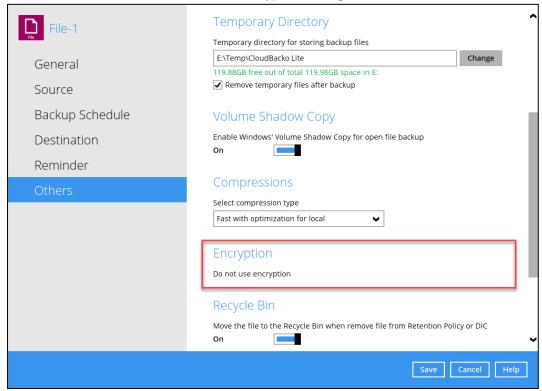
#### NOTE

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.



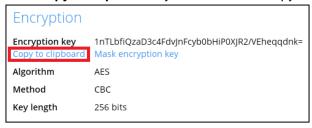
To view the encryption key of the backup set, follow the steps below:

- 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 if you would like 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:

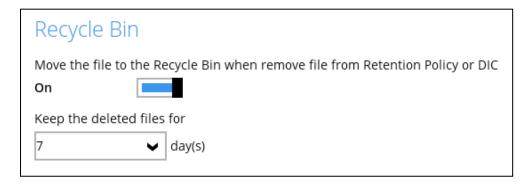
- Data in the Recycle Bin will consume Quota.
- It does not move the data in another location within the storage, instead the index tracks xxxxxx.bak files and its remaining time in the Recycle Bin.
- If the index is reverted to a previous timestamp, the settings of the Recycle Bin in the reverted index 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.
- Viewing Recycle Bin contents is not available.
- Recycle Bin cleanup is done at the start of the backup job process.

Recovering from Recycle Bin requires reverting the index. For instructions on how to revert the index please refer to this article: <u>FAQ: How to un-delete backup data moved</u> to Retention, or revert indexes to a healthy state from an earlier successful backup.

#### **WARNING**

When reverting index, new data will be lost.

This is enabled by default set with 7 days.



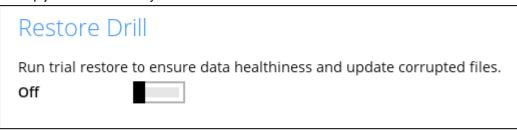
To set the number of days, follow the steps below:

- 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**

This feature is used to run a trial restore to detect corrupted data. It helps to ensure that backup data is always restorable since it will alert users regarding the corrupted data, which requires running the backup job either manually or via schedule to fix.



To configure the restore drill, follow the steps below:

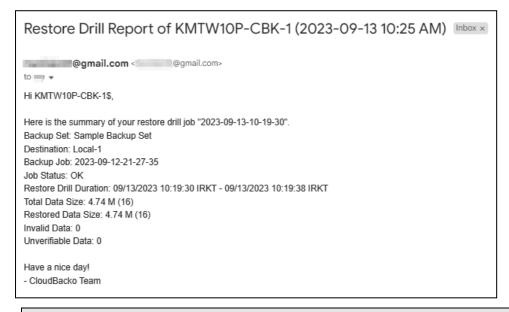
- 1. Go to Backup Sets, then select a backup set.
- 2. Click the **Others** tab in the backup set settings.
- 3. Enable the Restore Drill by sliding the lever to the right.
- 4. Select the interval in months when the restore drill will run.



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

In order to receive an email report after a restore drill job was run, ensure that you have set up your email in Settings > Email Report. For more information on how to do this please refer to <a href="Ch. 8.7.2 Email Report">Ch. 8.7.2 Email Report</a>. The report received will depend on this setting.

Here is a sample of the restore drill report.



#### NOTE

If there are several restore drill jobs that ran, it will all be displayed in this email.

If the email report setting was changed, all the previous restore drill job report that was not sent will be sent according to the new email report setting.

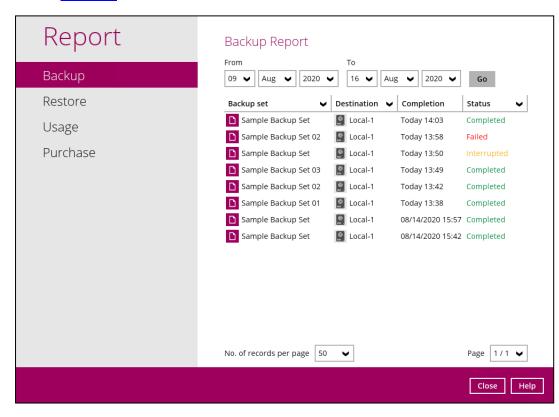
## 8.5 Report

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



There are four (4) options available for this feature:

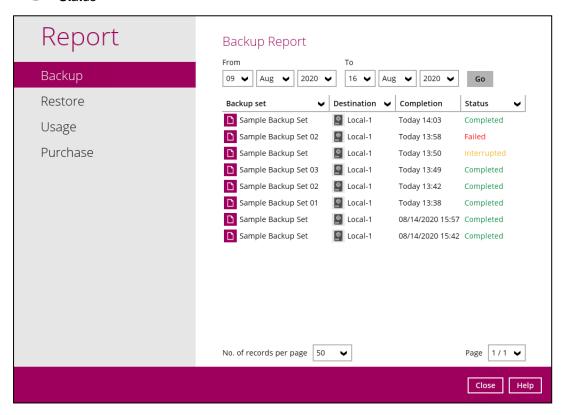
- Backup
- Restore
- Usage
- Purchase



### **8.5.1** Backup

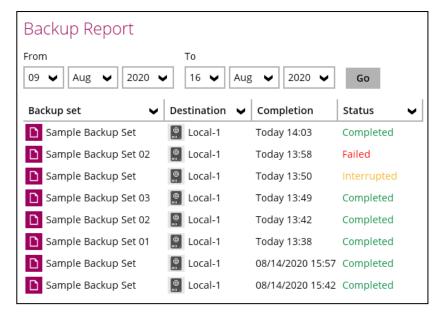
This option is used to run and view **backup reports**. There are four (4) filters that can be applied on this feature, namely:

- Date
- Backup set
- Destination
- Status



#### **Date**

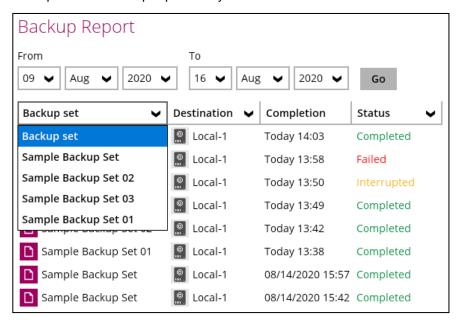
Use this filter to display all the available backup report(s) within a date range.





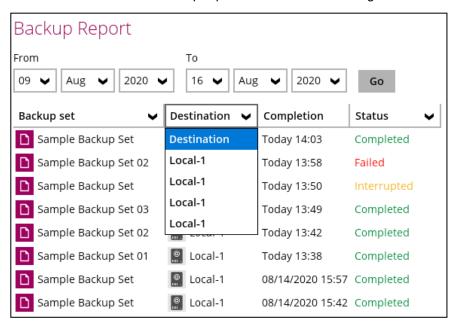
#### Backup set

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**

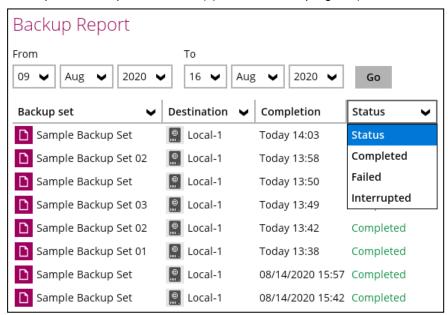
Use this filter to view the backup report for the selected storage location.





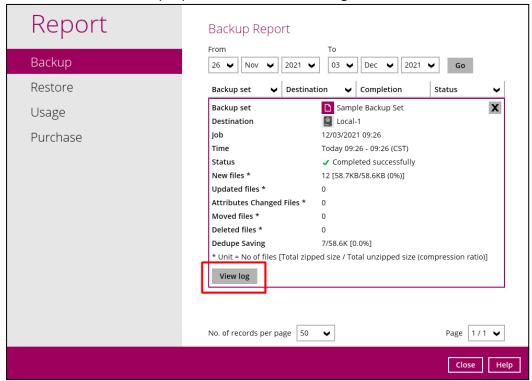
#### **Status**

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).

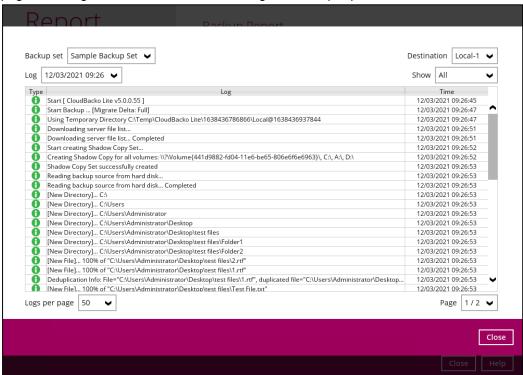


To view the backup log, follow the instructions below:

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



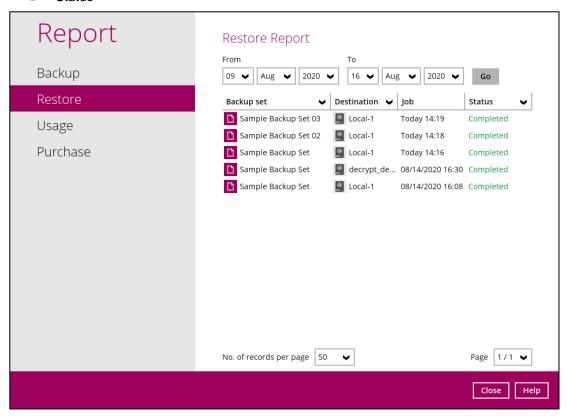
2. The Backup set, Destination, Log Date and Time, Status, the number of Logs per page, and Page can be filtered when viewing the backup report.



## 8.5.2 Restore

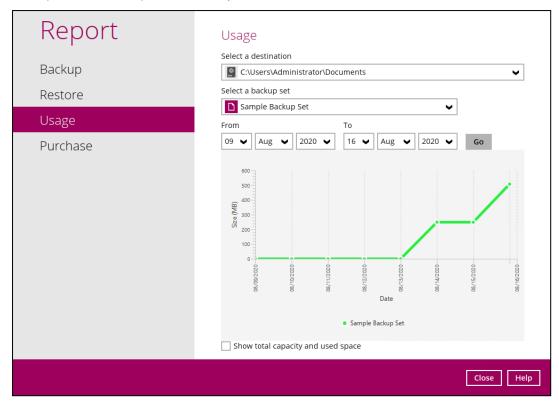
This feature displays the restore report logs for each backup set. Similar to the **Backup** tab, this feature also consists of the following filters:

- Date
- Backup set
- Destination
- Status



### 8.5.3 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.



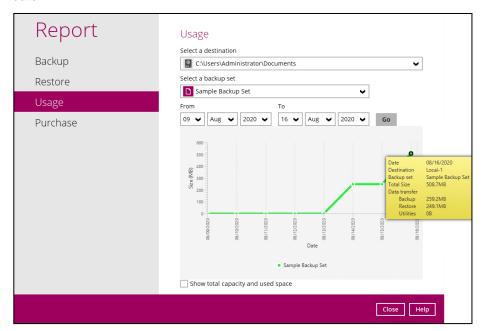
### Storage Statistics

**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. Delete Backup Data

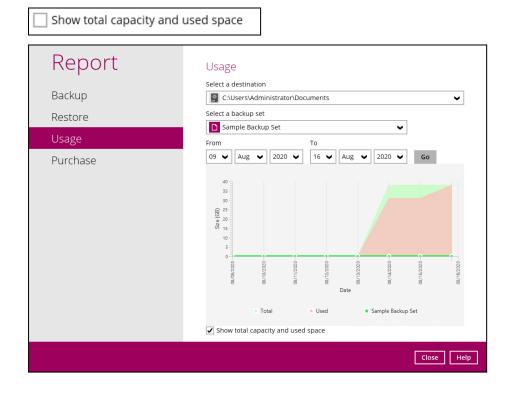
**Example:** The data transfer statistics will pop up when mouse pointer moves over a specific date.



### 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.

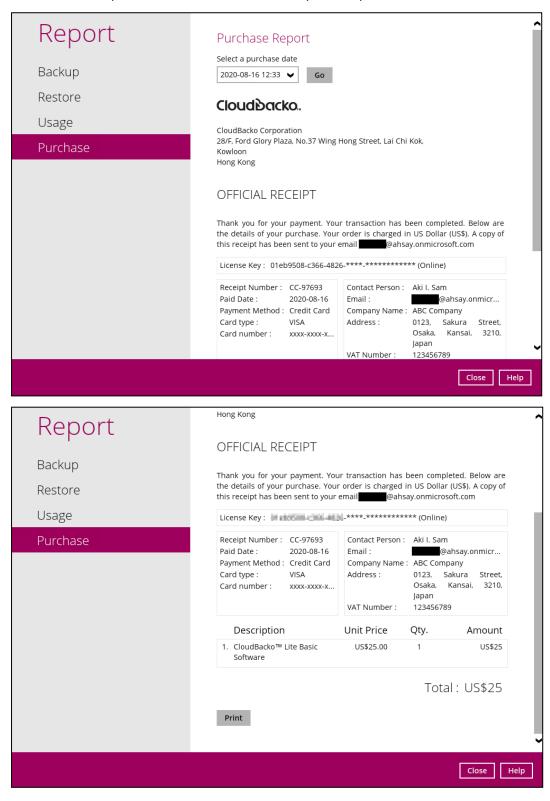




### 8.5.4 Purchase

This feature is used for viewing purchase report(s) for license key and/or modules purchased based on the license key which is currently applied on CloudBacko Lite.

You can select a purchase date and search for a specific report.



## 8.6 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 Chapter 12 Restore Data.

## 8.7 Settings



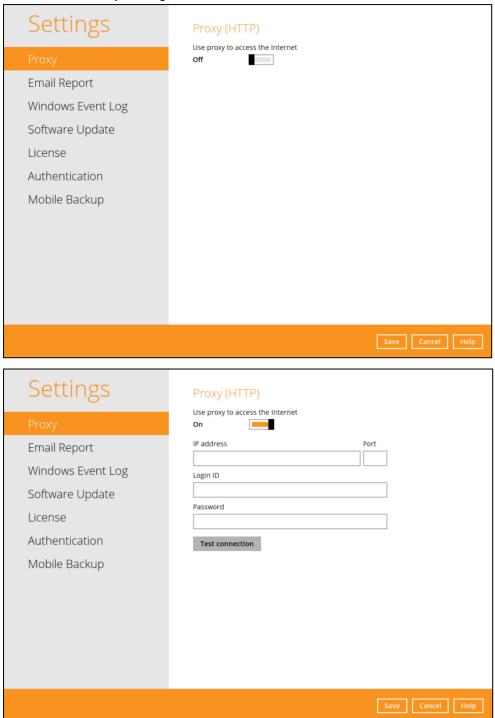
Settings consist of seven (7) sub modules:

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



## 8.7.1 Proxy

To enable the Proxy Settings, follow the instructions below.

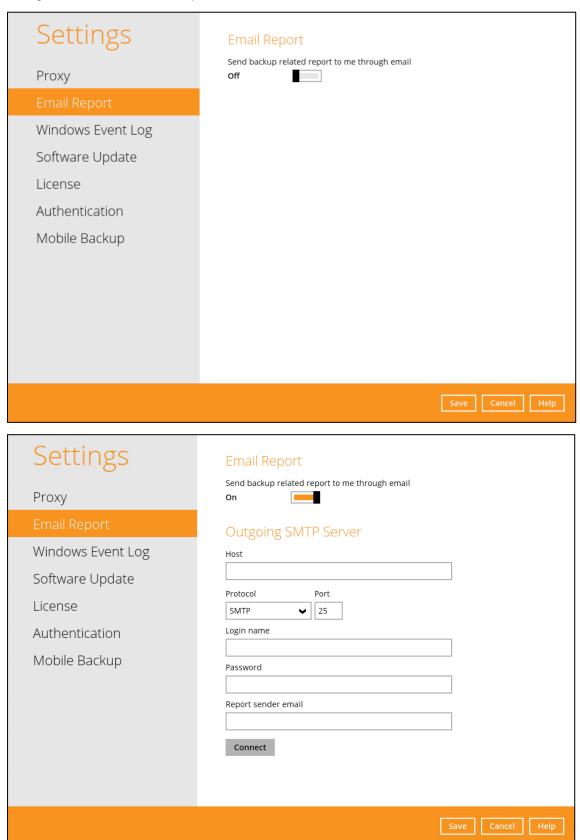


- 1. Complete the following fields:
  - IP address
  - Port
  - Login ID
  - Password
- 2. Click the **Test Connection** button to validate the connection.
- 3. Click the **Save** button to store the settings.



### 8.7.2 Email Report

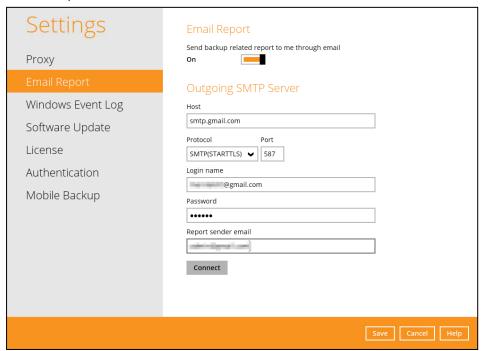
The email report will send notifications for backup errors or warnings, missed backup reports, storage alert and restore drill report.

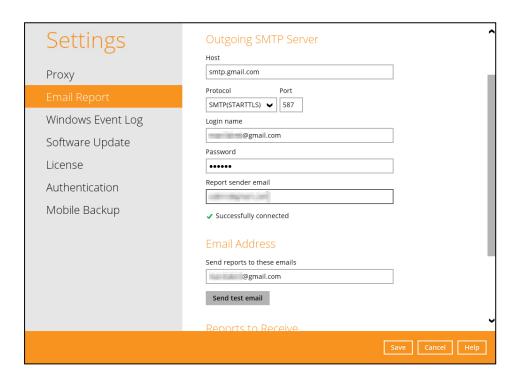




To enable the Email Report feature, follow the instructions below

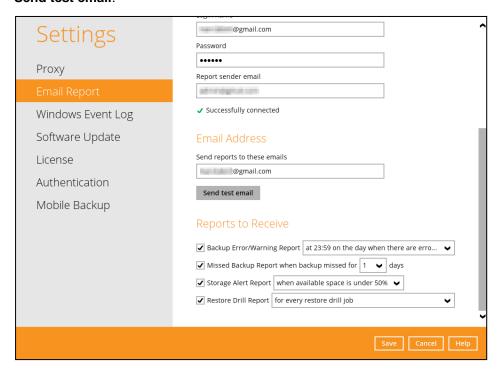
- 1. Complete the following fields then click the **Connect** button to validate the connection.
  - Host
  - Protocol / Port
  - Login name
  - Password
  - Report sender email







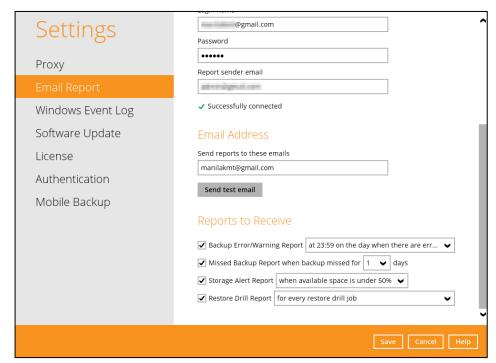
If successfully connected, the email address where the reports will be sent should be displayed as well as the list of reports to be received. Enter a valid email then click the **Send test email**.



Below is the sample screenshot of the test email.



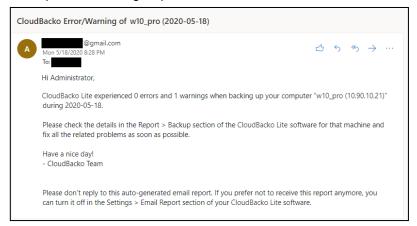
- 2. Select the reports you want to receive by ticking the checkboxes then click the **Save** button to store the settings.
  - Backup Error/Warning Report
    - at 23.59 on the day when there are error or warning
    - at 23:59 everyday, when there are no error or warning
  - Missed Backup Report when backup missed for a specific number of days
    - Number of days: from 1 to 30
  - Storage Alert Report
    - when available space is under 50%
    - when available space is under 40%
    - when available space is under 30%
    - when available space is under 20%
    - when available space is under 10%
  - Restore Drill Report
    - for every restore drill job
    - for every restore drill job with corrupted data found



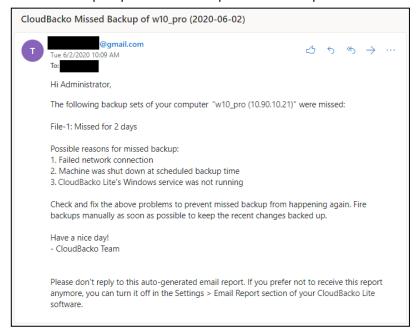


### These are sample reports:

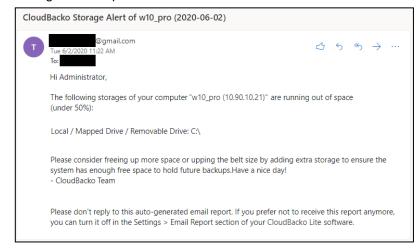
### Backup Error/Warning Report



### Missed Backup Report when backup missed for a specific number of days



### Storage Alert Report



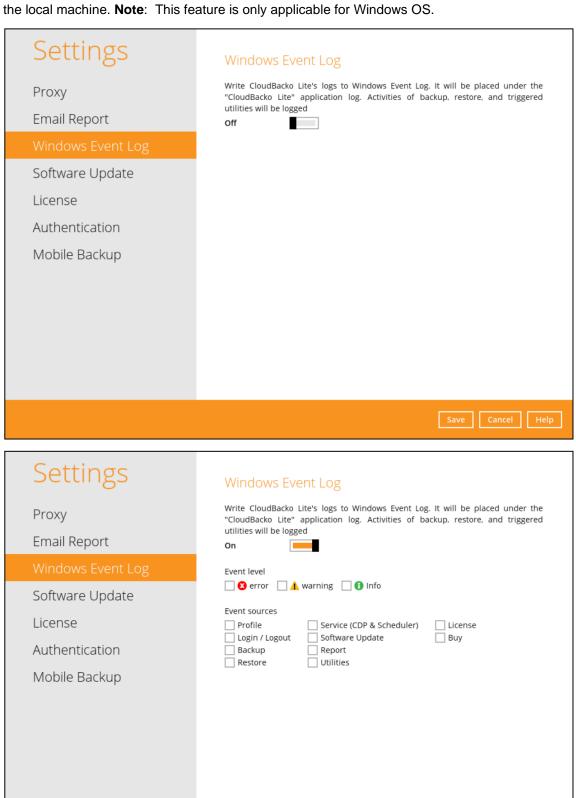


### Restore Drill Report



### 8.7.3 Windows Event Log

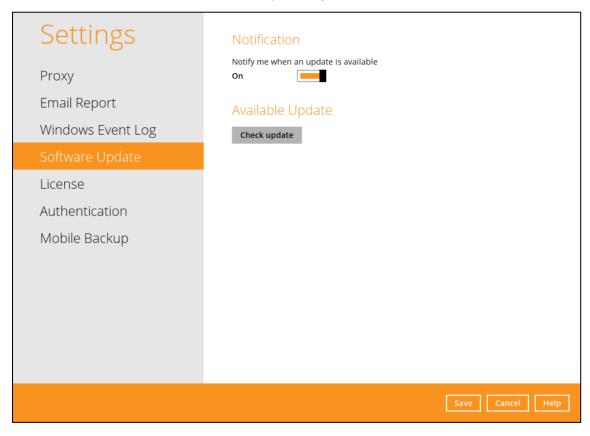
When this feature is on, all CloudBacko Lite system log information will be written under **Applications and Services Logs**. User may access them through **Windows event viewer** in the local machine. **Note**: This feature is only applicable for Windows OS.





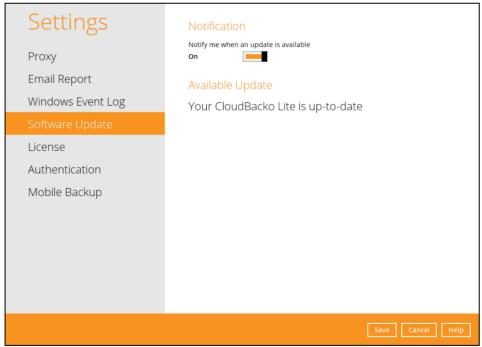
### 8.7.4 Software Update

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.

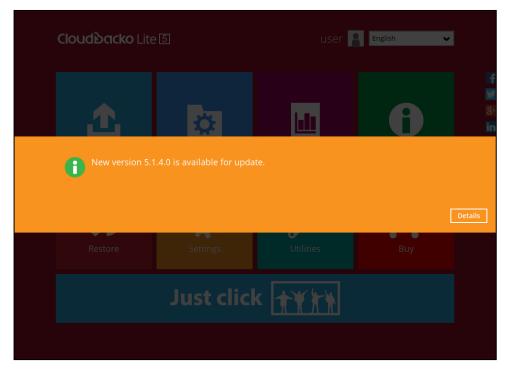


To check for the available Update, follow the instructions below:

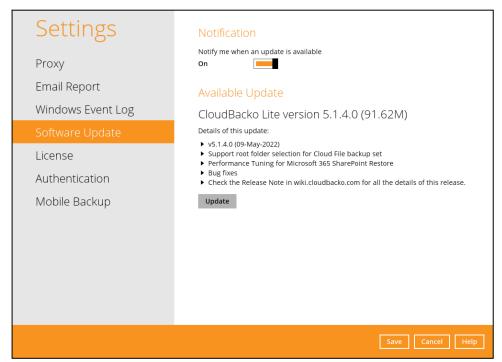
- 1. Click the **Check update** button.
- 2. If there is no available update, it will display this message, "Your CloudBacko Lite is up-to-date".



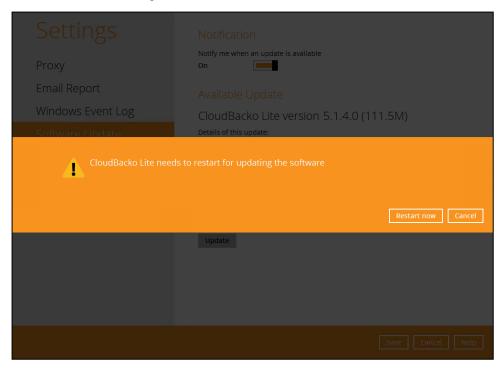
 However, if there is an available update, upon launching the CloudBacko Lite, an alert message will prompt that there is an available version for update. Click the **Details** button to proceed.



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

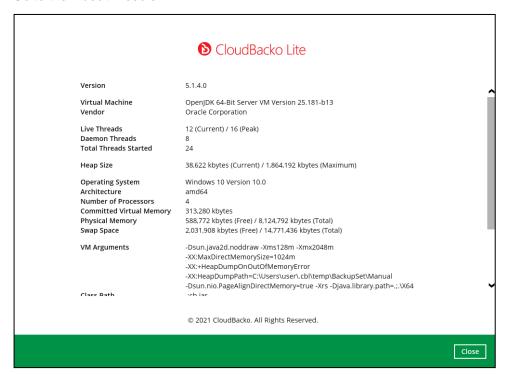


5. It will show the download progress of the latest patch. Once download is completed, it will prompt an alert message that the CloudBacko Lite needs to restart for the updating the software. Click the **Restart now** to proceed. Otherwise click the **Cancel** button to abort restarting.



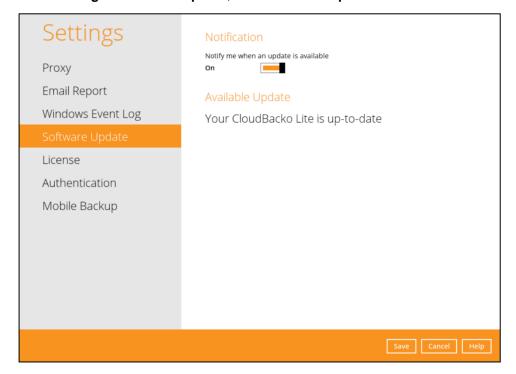
6. The CloudBacko Lite should launch automatically. To check if the update is successful,

### Go to the About module





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



### 8.7.5 License

The License module allows the customer to apply trial or full license key. These are the following fields displayed:

### License Key

Displays the current license key. It could be a trial or full license key.

### Change License Key

This feature allows the customer to apply a full license key.

### Mode

Displays the mode of the license key either Online or Offline license. Online license key requires a fixed internet connection.

#### Version

Displays the version of the installed CloudBacko whether it is trial or full version. For trial license, it will indicate the number of days before the trial expires.

Buy full version (Displays in trial version only)

This feature allows the customer to buy the full version of the CloudBacko Lite.

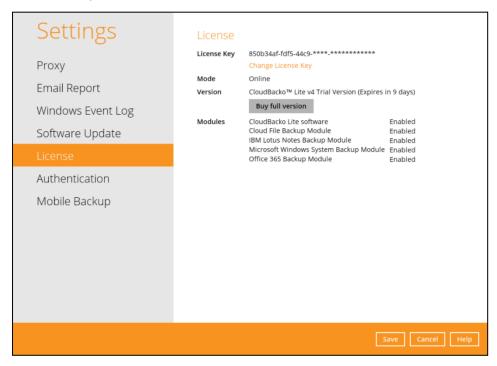
Modules (Displays in trial version only)

This are the following modules enabled for CloudBacko Lite.

- CloudBacko Lite software
- Cloud File Backup Module
- IBM Notes Backup Module
- Microsoft Windows System Backup Module
- Microsoft 365 Backup Module
- Installations (Displays in full version only)
  - Item these are the software and modules allowed for CloudBacko Lite.
    - CloudBacko Lite software
    - Cloud File Backup Module
    - IBM Notes Backup Module
    - Microsoft Windows System Backup Module
    - Microsoft 365 Backup Module
  - Allowed displays the allowed number for each module for CloudBacko Lite.
  - Used (This computer) displays the total number of used software or add on modules on all computers. The number in brackets refers to the used software or add on modules on the current computer.



This is a sample screenshot for a trial version of CloudBacko Lite.



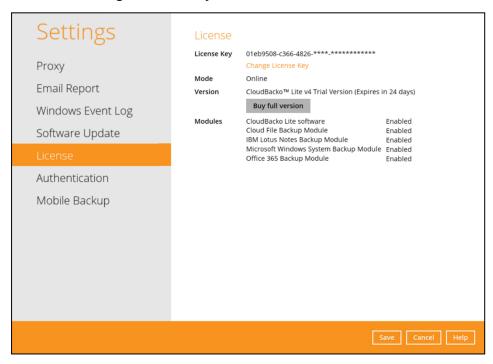
This is a sample screenshot for a full version of CloudBacko Lite.



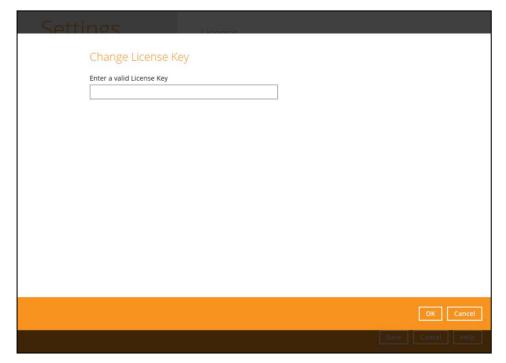


To apply a license key, follow the instructions below:

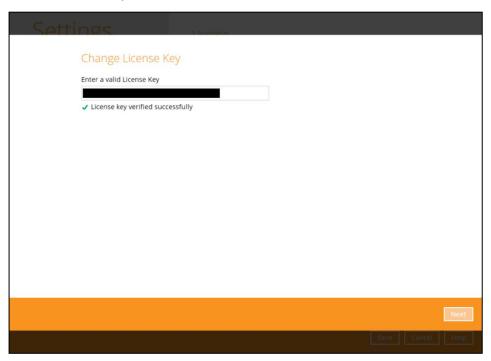
1. Click the Change License Key link.



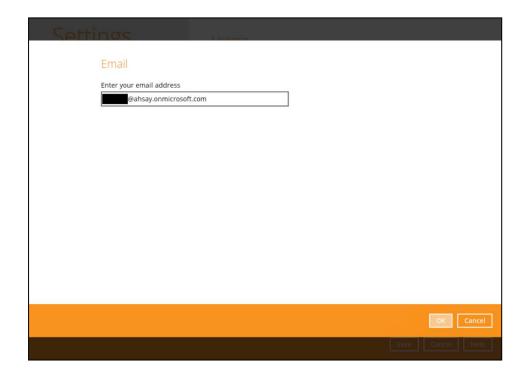
2. Enter a valid license key then click the **OK** button.

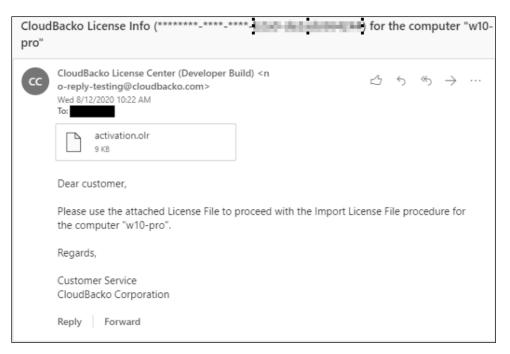


3. Once license key is verified, click the **Next** button.

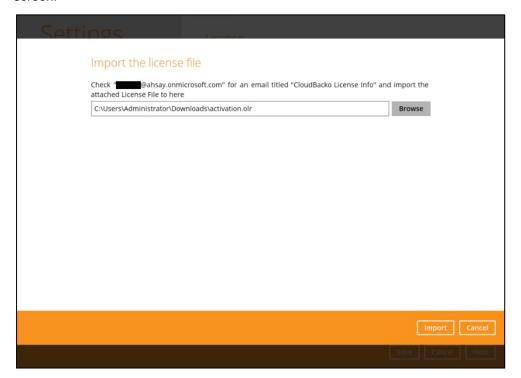


4. Enter a valid email address.



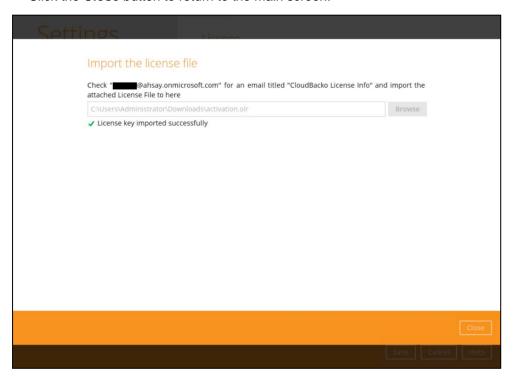


 Click Browse to search for the activation.olr sent to thru email. Click the Import button to process the activation then click the Close button to return to the main screen.

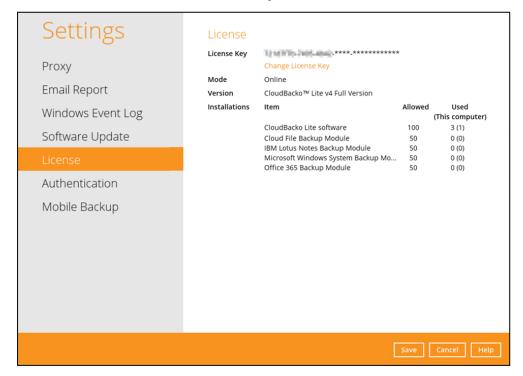




6. Click the **Close** button to return to the main screen.



7. Click the **Save** button to store the settings.



### 8.7.6 Authentication

You can use the Authentication function to:

- Enable or disable the "Password Lock". Change the password of the "Password Lock".
- Enable or disable the "<u>Two-Factor Authentication</u>". Add or remove one or more device(s) registered for Two-Factor Authentication (2FA).
- Add one or more device(s) registered for Two-Factor Authentication (2FA).

#### **NOTE**

Please refer to the <u>CloudBacko App v1 User Guide for Android and iOS</u> for the detailed step-by-step procedure.

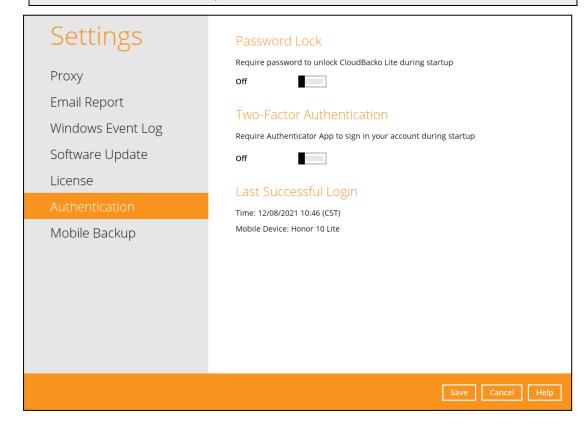
Re-pair with authenticator.

This is used once migration is completed to re-pair with authenticator to enable the sign-in using push notification feature and disable the one in the original device.

- Remove one or more device(s) registered for Two-Factor Authentication (2FA).
- View details of the "<u>Last Successful Login</u>" for Password Lock and Two-Factor Authentication (2FA).

#### NOTE

- If both the "Password Lock" and Two-Factor Authentication are enabled, users will be prompted to enter the "Password Lock" first before the Two-Factor Authentication (2FA).
- For Two-Factor Authentication (2FA), you can register your mobile device on both CloudBacko app and a third-party TOTP Authenticator (e.g. Google Authenticator, Microsoft Authenticator, and LastPass Authenticator).

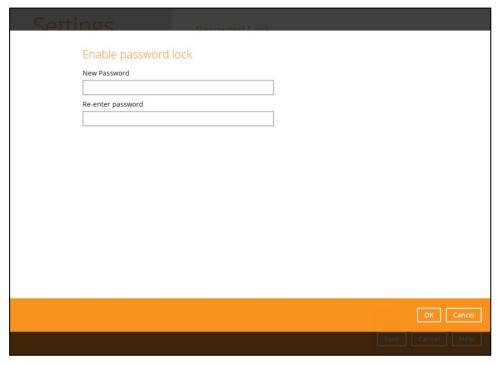




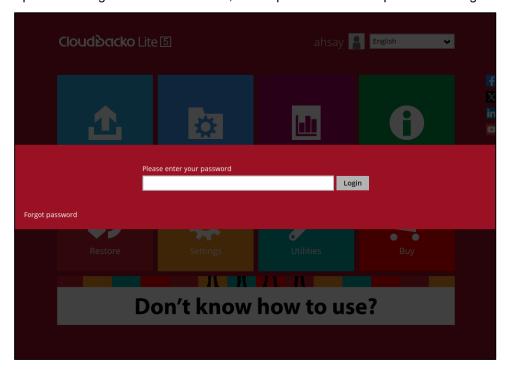
### **Password Lock**

To enable the Password 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.



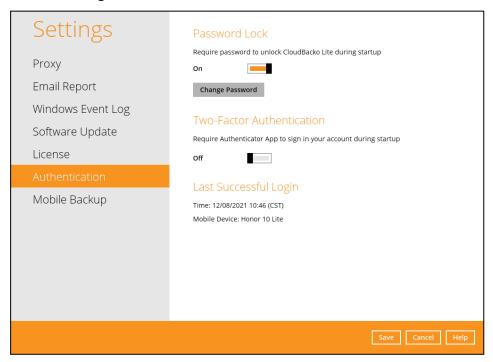
- 3. Click **OK** then click **Save** button to store the settings.
- 4. Upon launching the CloudBacko Lite, it is required to enter the password to login.



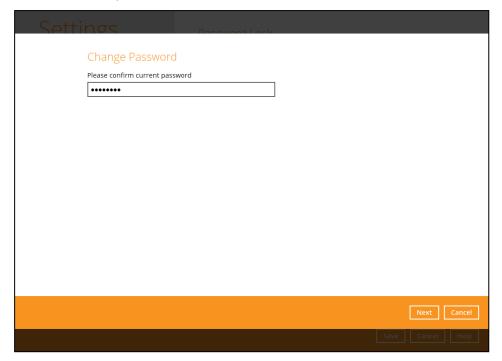


To change the password, follow the instructions below:

1. Click the Change Password.

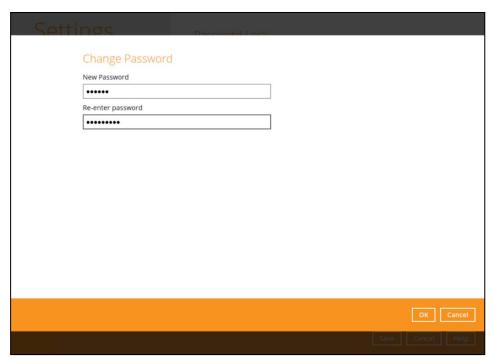


2. Enter the current password.

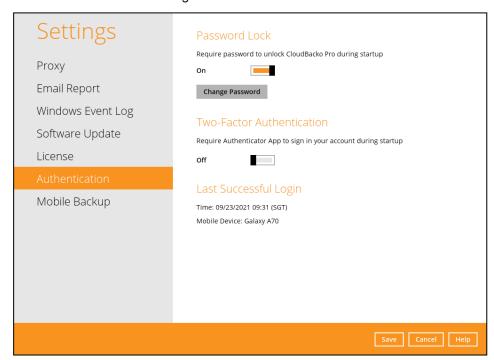




3. Enter the new password and re-enter it for authentication purposes. Click **OK** to return to main screen.



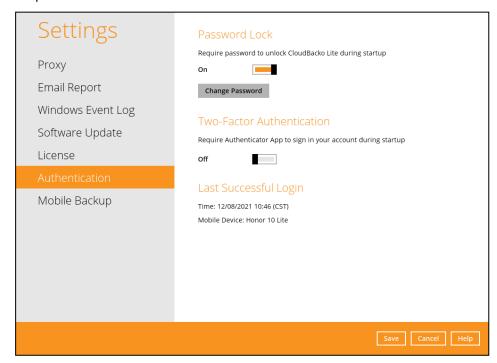
4. Click **Save** to store the settings.



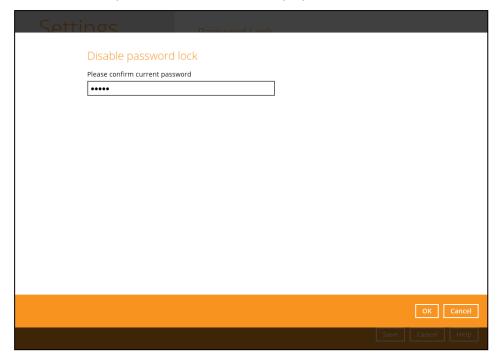


To disable the Password Lock feature, follow the instructions below:

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



2. Enter the current password for authentication purposes.



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



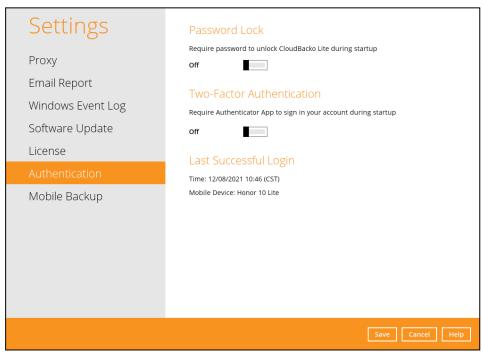
### **Two-Factor Authentication**

To enable the two-factor authentication feature and add a mobile device, follow the instructions below:

### NOTE

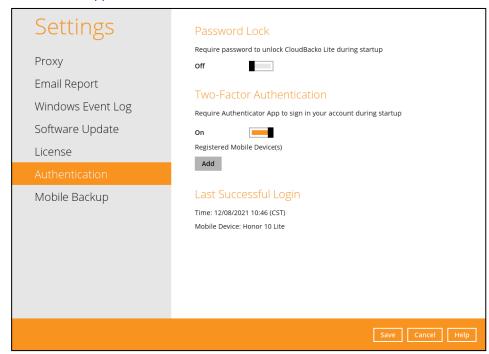
The CloudBacko app or a third-party TOTP Authenticator is needed for 2FA.

1. Go to Settings > Authentication > Two-Factor Authentication.



2. Swipe lever to the right to turn it on. Click Add.

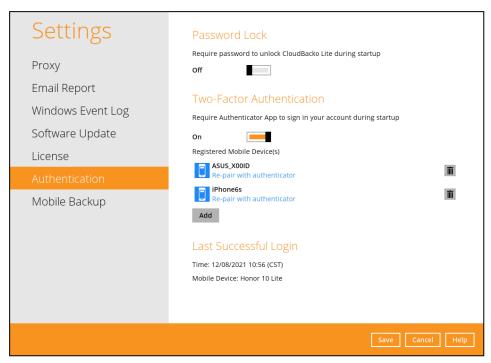
For the detailed step-by-step procedure on how to add a mobile device, please refer to CloudBacko App v1 User Guide for Android and iOS.





To re-pair the authenticator, follow the instructions below:

1. Go to Settings > Authentication > Two-Factor Authentication. Click Re-pair with authenticator.



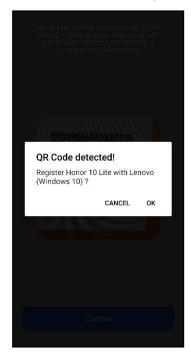
2. In the CloudBacko app, go to 2FA then tap Re-pair with backup user account.



3. Scan the QR Code to re-pair with authenticator.



4. QR Code is detected, tap **OK** to proceed.

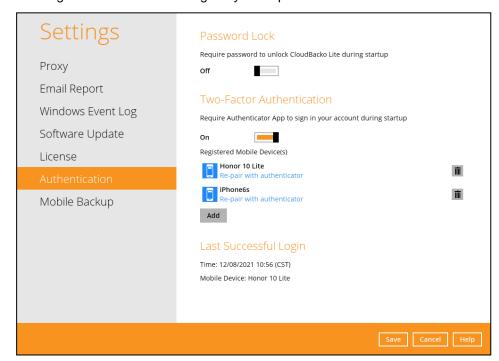


5. The migrated 2FA account has been successfully re-paired.





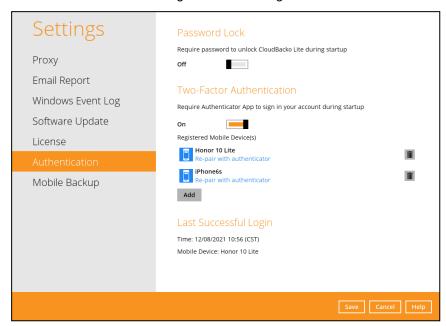
6. The original device will be changed by the replacement device.



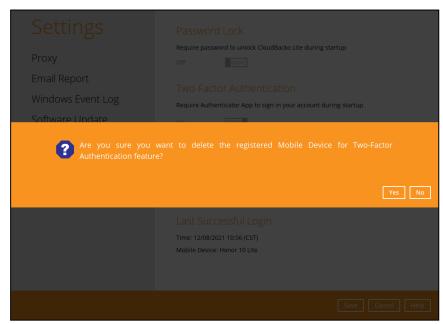


To remove a mobile device, follow the instructions below:

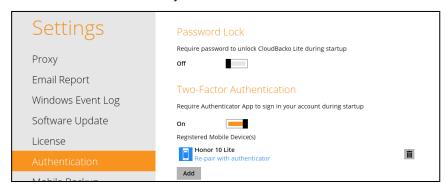
1. Click the button on the right side of the registered mobile device.



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



3. Mobile device is successfully removed.



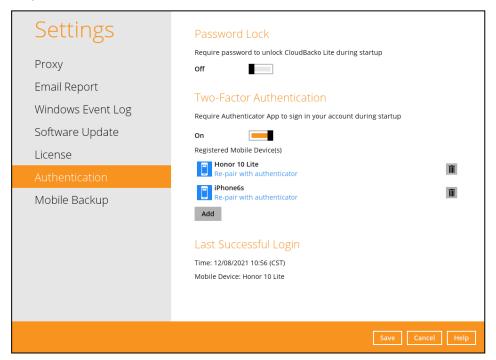


To disable the two-factor authentication feature, follow the instructions below:

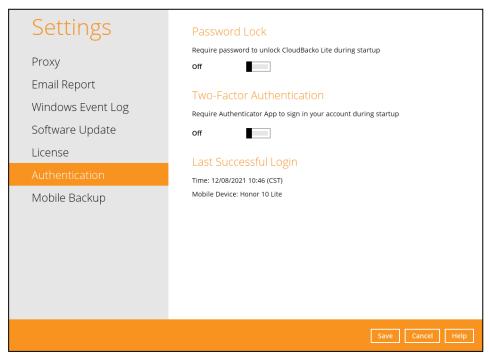
#### NOTE

Sliding the lever to the left hand side will only turn off the two-factor authentication but it will not automatically delete the registered mobile device(s) for Two-Factor Authentication. If you need to delete the registered mobile device(s), this must be done manually first before disabling Two-Factor Authentication

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



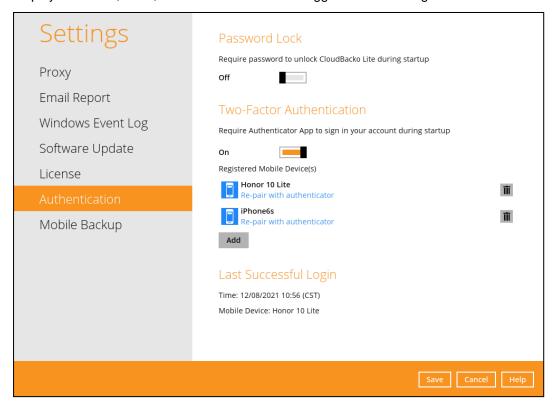
2. Click Save to save the settings.



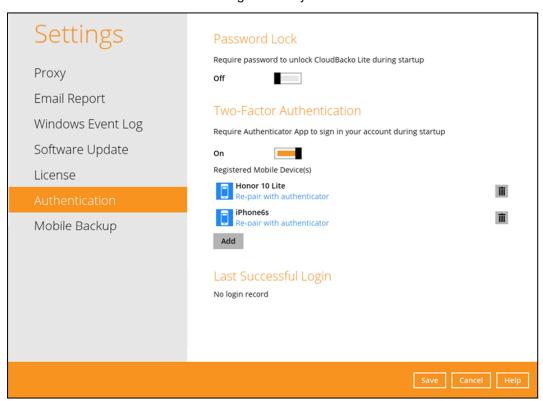


### **Last Successful Login**

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



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



### 8.7.7 Mobile Backup

You can use the Mobile backup function to:

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

#### **NOTE**

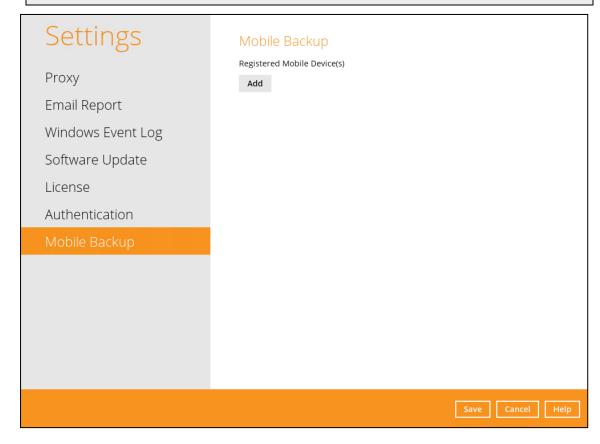
Please refer to the <u>CloudBacko App v1 User Guide for Android and iOS</u> for the detailed step-by-step procedure.

- 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 devices must be registered first for mobile backup on CloudBacko Lite.

- 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.

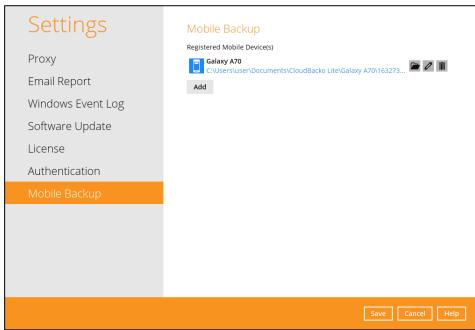




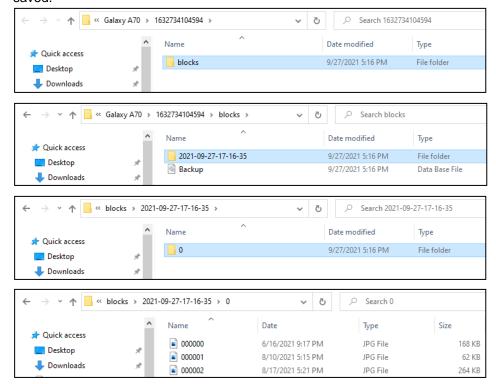
# View backed up photos, videos and documents saved in the mobile backup destination

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.



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, videos and documents are
saved.



3. Once done, click the X button to exit.



### Change mobile backup destination 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 a 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.

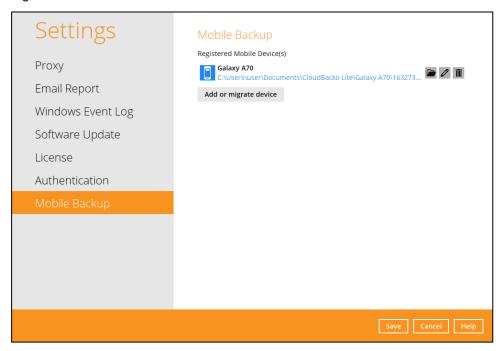
To change the mobile backup destination to another drive or folder on the CloudBacko machine, follow the instructions below:

- 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 Lite.



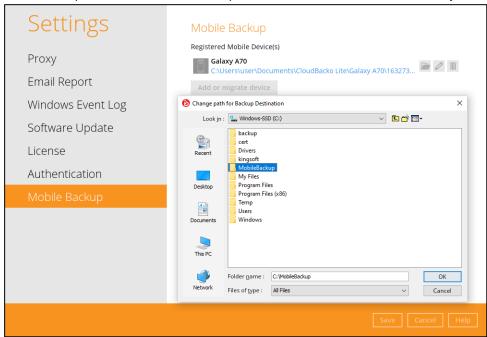


3. Go to **Settings** > **Mobile Backup**. Click the **Edit** icon on the right side of the registered mobile device.



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

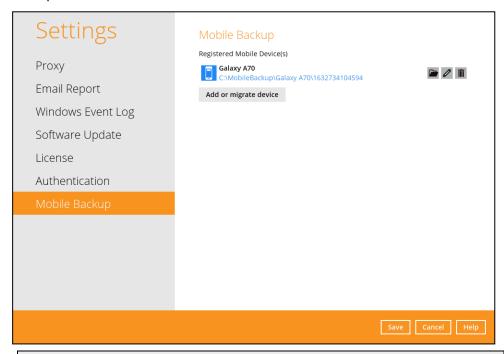
In this example, the new mobile backup destination will be C:\MobileBackup.





5. Click Save to store the change made. Otherwise, click Cancel.

Mobile backup destination is successfully changed to **C:\MobileBackup**. All mobile backups will now be saved to this destination.



#### **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.



### Change mobile backup destination location to new machine

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.

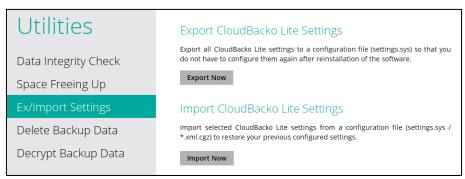
Even if Free up space is disabled, it is recommended to copy the previously backed up photos, videos, documents and 2FA accounts to the new machine otherwise the photos, videos, documents and 2FA accounts on the mobile device will be backed up again from scratch.

#### NOTE

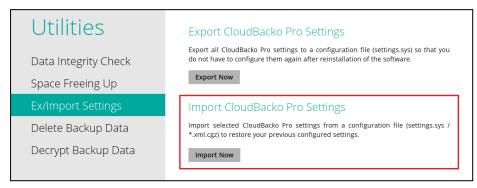
If the machine is lost/stolen, changing the mobile destination is not supported as it is required to reregister your mobile devices on CloudBacko Lite and perform backup of photos, videos, documents and 2FA accounts again.

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.
  - save a copy of the configuration file by going to Utilities > Ex/Import Settings
    then click Export Now. Select the destination where the file will be saved.

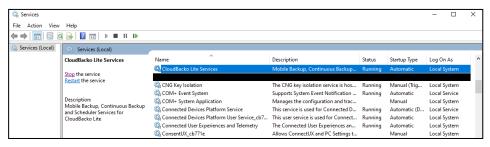


- 2. On the new machine, install CloudBacko Lite.
- 3. Apply the CloudBacko license key to the new installation.
- Copy the configuration file (settings.sys) from the old machine to the new machine.
   Import it by going to **Utilities** > **Ex/Import Setting** then click **Import Now**. Select the destination where the configuration file was saved.



If the mobile backup destination needs to be updated, please follow the steps on how to change mobile backup destination to a new location in the same local machine.
 Otherwise, skip this step and proceed to step 6.

- 6. Copy the previously backed up photos, videos, documents and 2FA accounts from the old machine to the new mobile destination.
- 7. Restart the **CloudBacko Lite Services** because importing the configuration file (settings.sys) on a newly installed CloudBacko Lite will not trigger the MBS.



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

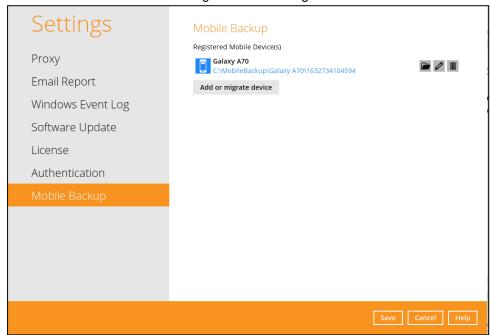




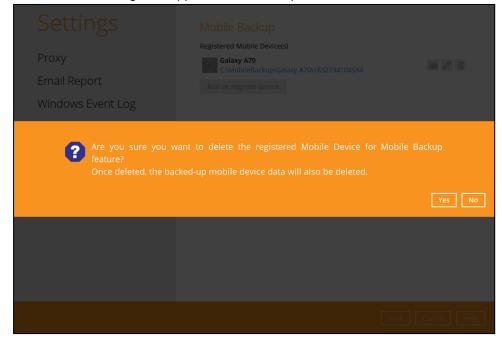
### Remove one or more device(s) registered for Mobile Backup

To remove a mobile device, follow the instructions below:

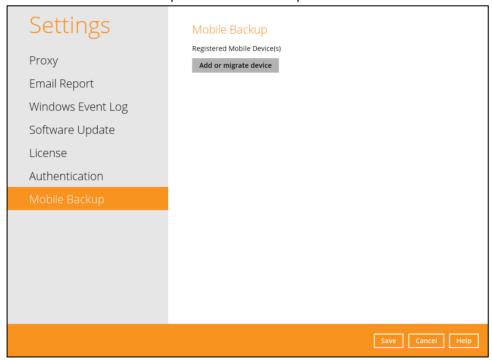
1. Click the **Delete** iii icon on the right side of the registered mobile device.



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.



# 8.8 Utilities

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



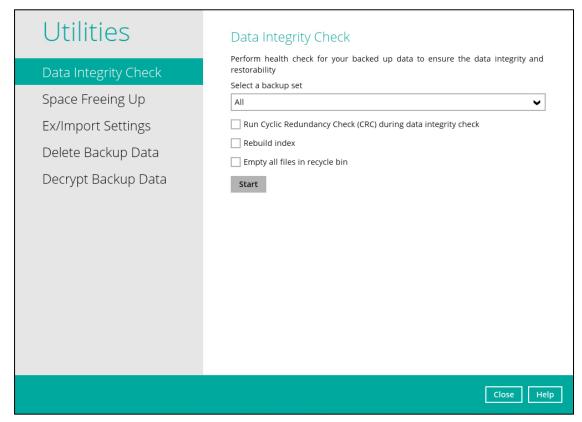
There are five (5) options available for this feature:

- Data Integrity Check
- Space Freeing Up
- Ex/Import Settings
- Delete Backup Data
- Decrypt Backup Data

### 8.8.1 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 Lite 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
- 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	For checking of index and integrity of	
Run Cyclic Redundancy Check (CRC) during data integrity check	files against the checksum file generated at the time of the backup job.	
Rebuild index	at the time of the backup job.	
Empty all files in recycle bin		
Start		
Option 3	For checking and rebuilding of index.	
Run Cyclic Redundancy Check (CRC) during data integrity check		
✓ Rebuild index		
Empty all files in recycle bin		
Start		
Option 4	For checking of index, integrity of files	
☑ Run Cyclic Redundancy Check (CRC) during data integrity check	against the checksum file generated at the time of the backup job and rebuilding	
<b>✓</b> Rebuild index	of index.	
Empty all files in recycle bin		
Start		

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

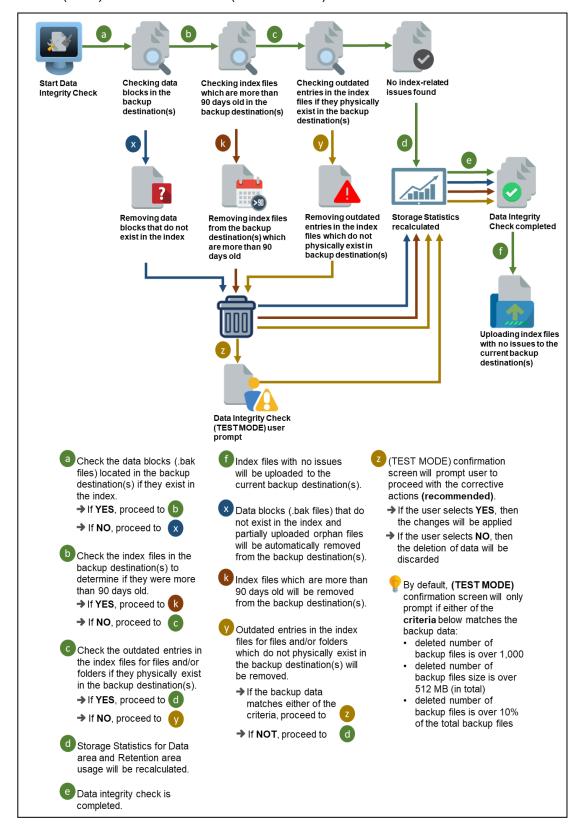
Option 3

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

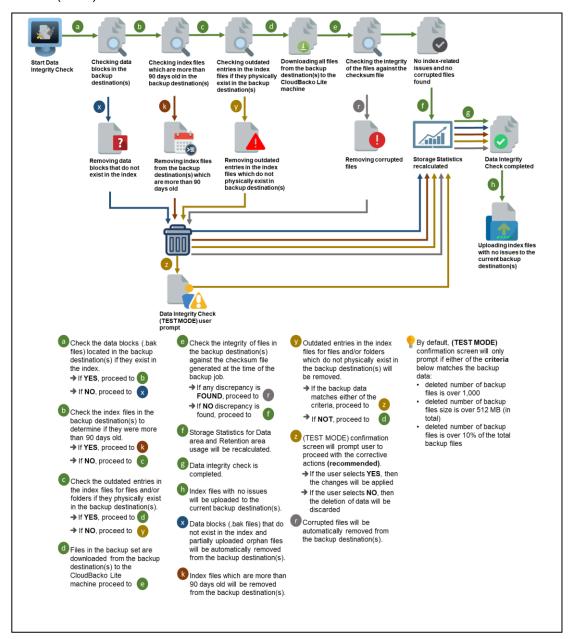
Option 4

Enabled Run Cyclic Redundancy Check (CRC) and Rebuild index

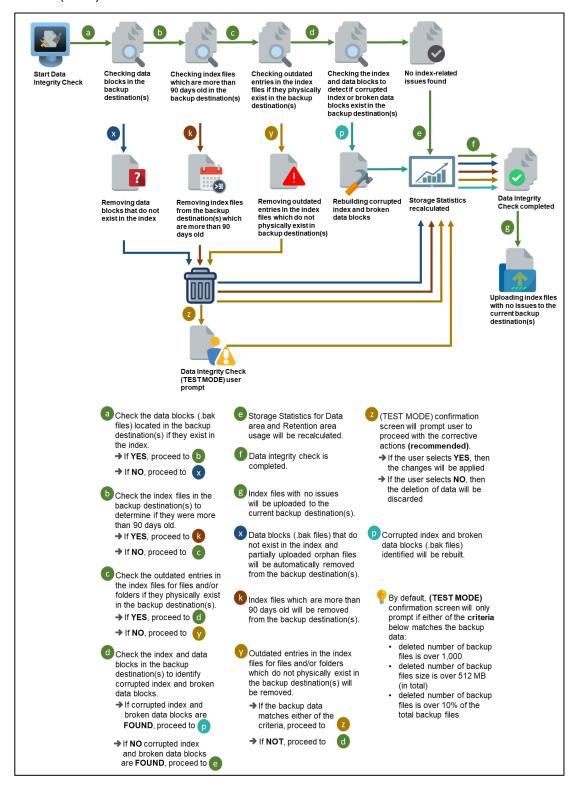
**Option 1**: Disabled Data Integrity Check (DIC) Process with Run Cyclic Redundancy Check (CRC) and Rebuild Index (Default mode)



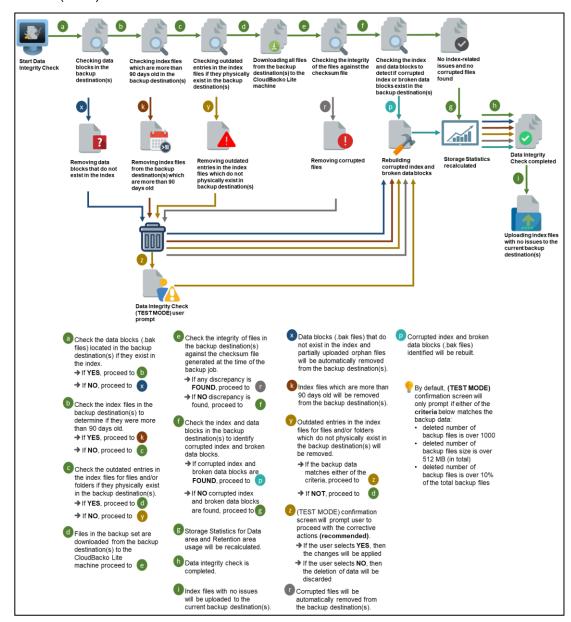
**Option 2**: Enabled Data Integrity Check (DIC) Process with Run Cyclic Redundancy Check (CRC) and Disabled Rebuild Index



**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

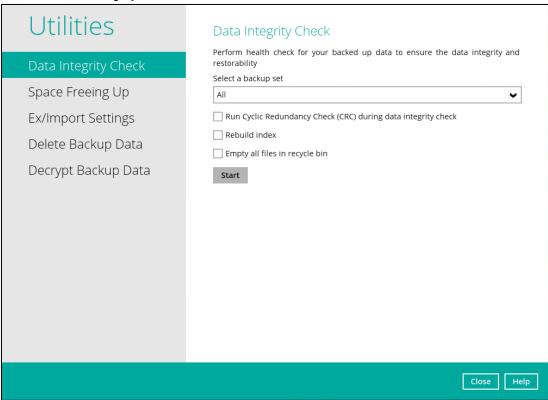




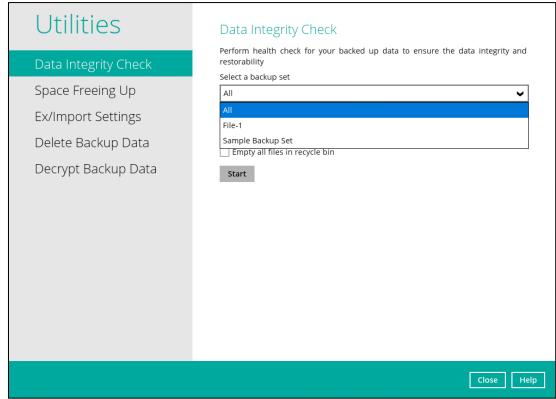
### **Perform a Data Integrity Check**

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

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

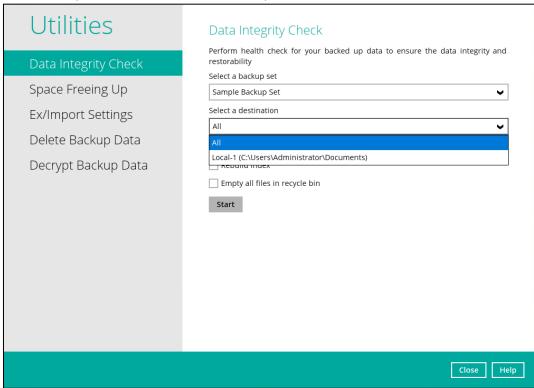


2. Click the drop-down button to select a backup set.

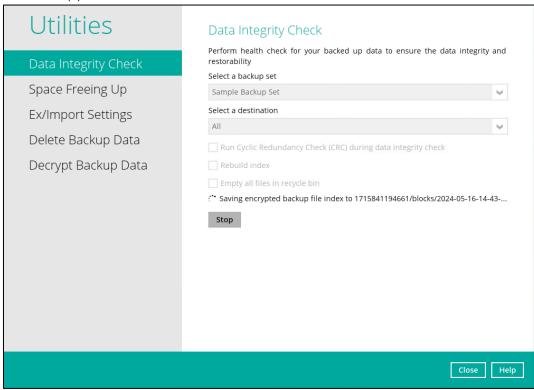




3. Click the drop-down button to select a backup destination.

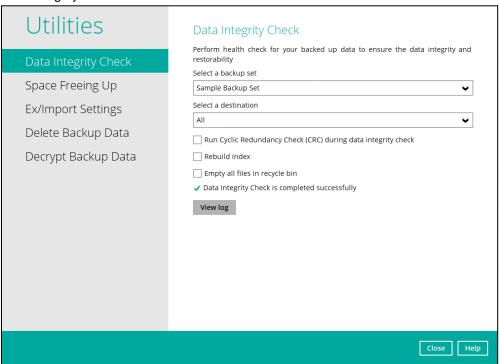


- 4. Click the Start button to begin the Data Integrity Check.
- 5. Data Integrity Check will start running on the selected backup set(s) and backup destination(s).

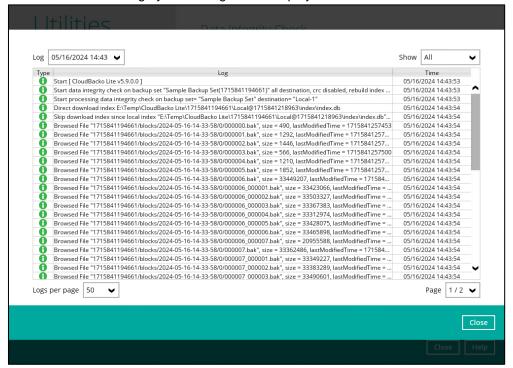




Once the DIC is complete, click the View log button to check the detailed process of the Data Integrity Check.

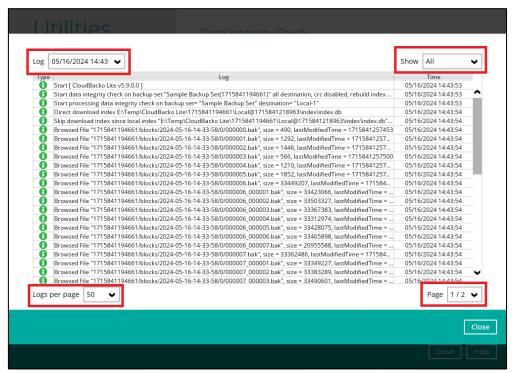


7. The detailed Data Integrity Check log will be displayed.



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

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

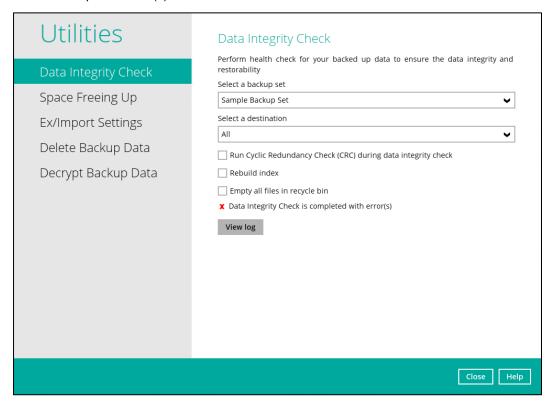


Control	Screenshot	Description
Log filter	Log 05/16/2024 14:46 ✓  Type 05/16/2024 14:43  05/16/2024 14:46	This option can be used to display logs of the previous Data Integrity Check jobs.
Show filter	Show All  All  O11  O11  O11  Warning  O11  Error	This option can be used to sort the Data Integrity 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>V</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).

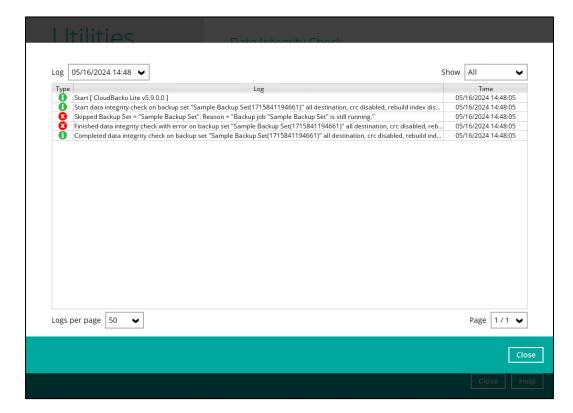


### 8.8.1.1 Data Integrity Check Completd with Errors

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).



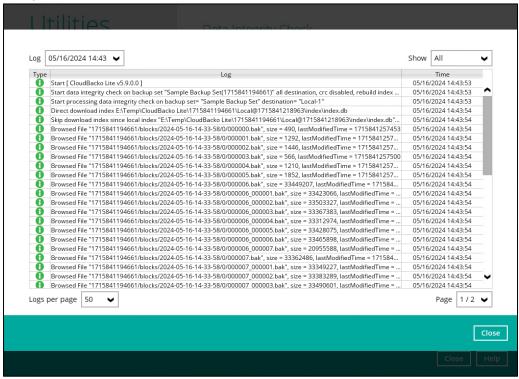


### 8.8.1.2 Data Integrity Check result

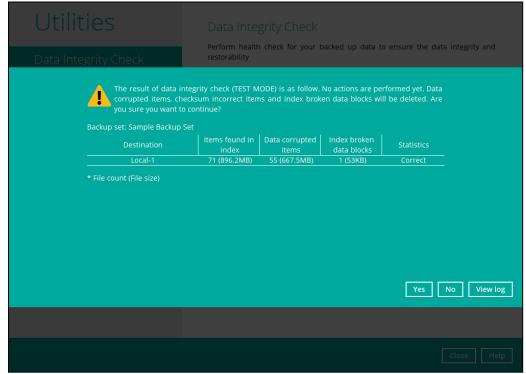
There are two possible outcomes after the completion of a Data Integrity Check:

- 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)

#### 8.8.1.3 Test Mode Confirmation

The (TEST MODE) confirmation will ONLY prompt if either of the **criteria's** 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

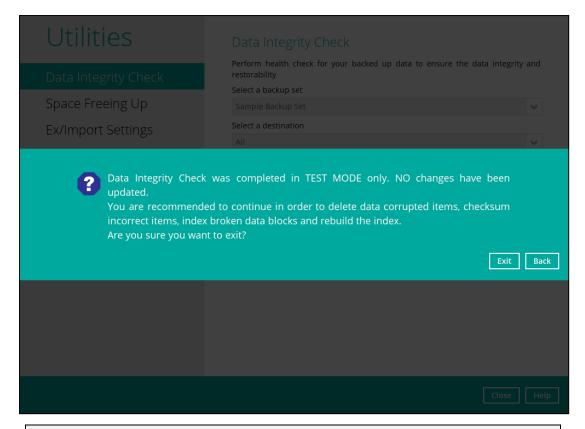
Otherwise, the Data Integrity Check job will automatically take corrective actions.

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.
- If the Back button is clicked, it will go back to the (TEST MODE) confirmation screen.

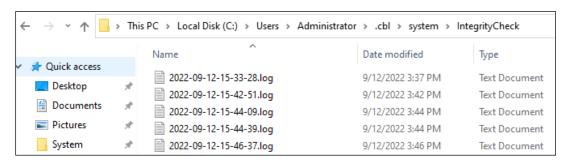


#### **NOTES**

- 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.
- 2. 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 Lite, they can be viewed on the file system of the CloudBacko Lite machine. For CloudBacko Lite Windows, the DIC logs are located in:

#### %UserProfile%\.cbl\system\IntegrityCheck



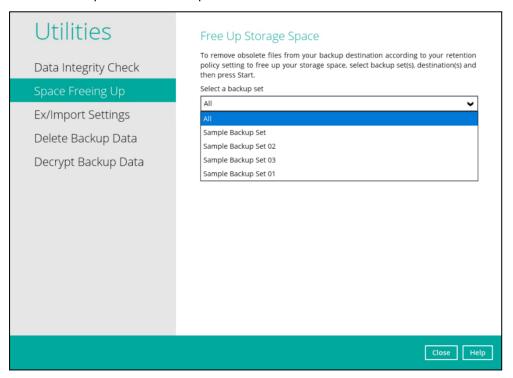


### 8.8.2 Space Freeing Up

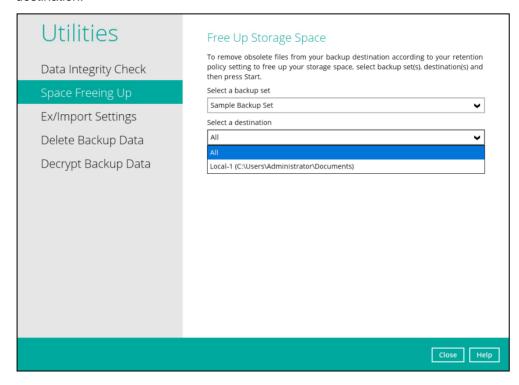
This feature is used to remove obsolete file(s) from your selected backup set and destination (manually start Retention Policy). After the Space Freeing Up job is completed, the storage statistics of the backup set(s) are updated.

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

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

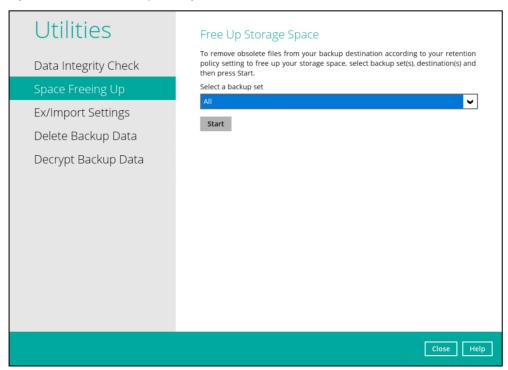


If you select a specific backup set, you will also have to choose a specific or **ALL** destination.

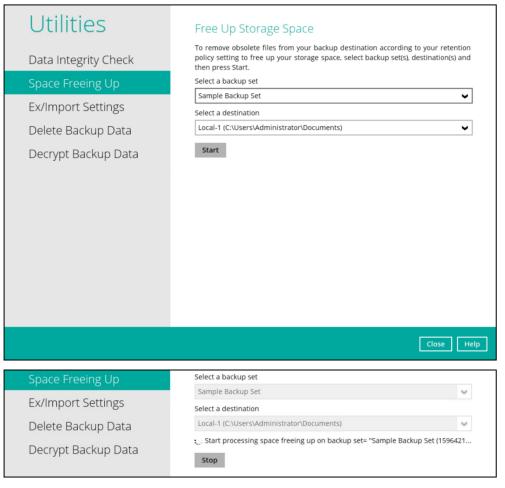




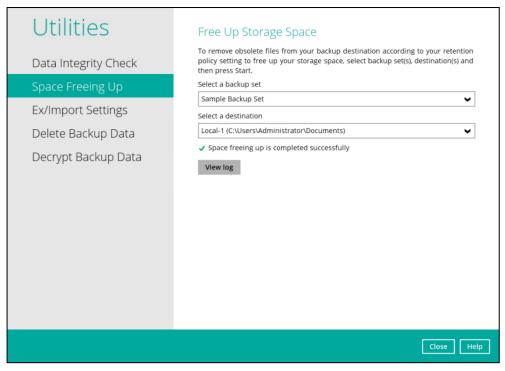
If you select ALL backup sets, you will not have to choose a destination.

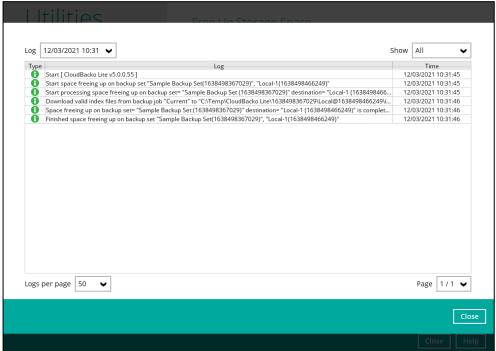


2. Once a backup set and destination have been selected, click **Start** to perform space free up.



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





### 8.8.3 Ex/Import Settings

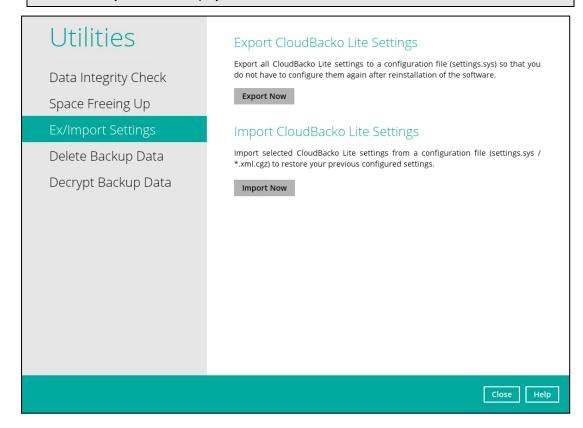
This feature is used to export and import CloudBacko Lite Settings to the **settings.sys** file, this includes information on:

- 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 setting changes to CloudBacko Lite, new backup sets added, or updates to existing backup sets.

#### **WARNING!**

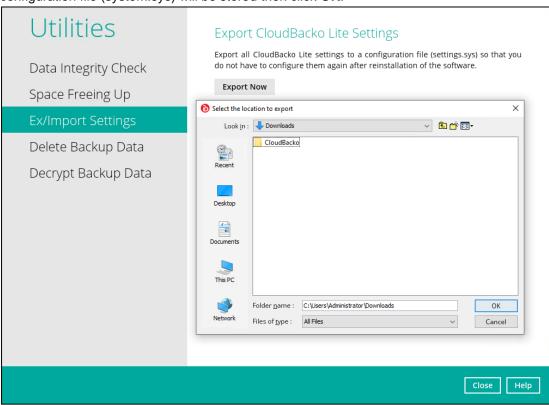
A separate copy of the settings.sys file should be saved in another location for safe keeping. Otherwise, If the machine where the CloudBacko Lite is installed on suffers a disk or hardware failure or is stolen and a copy of the settings.sys file is not available, it will not be possible to access and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



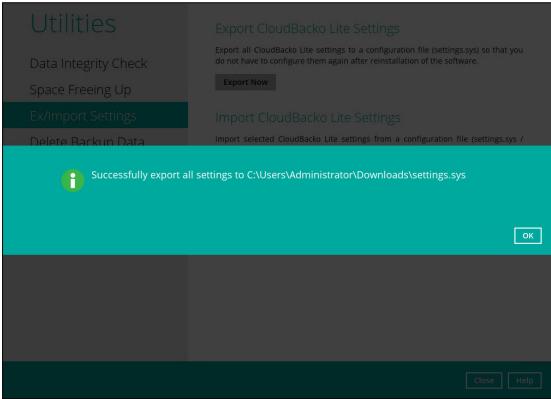


# **Export CloudBacko Lite Settings**

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



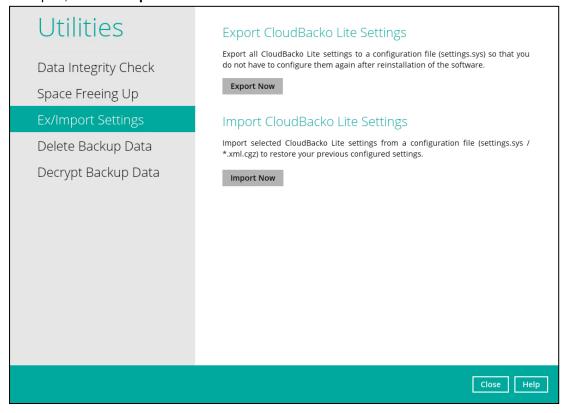
If the system.sys file is successfully exported to the preferred path, it will display a message containing the status and path of the CloudBacko Lite configuration file.



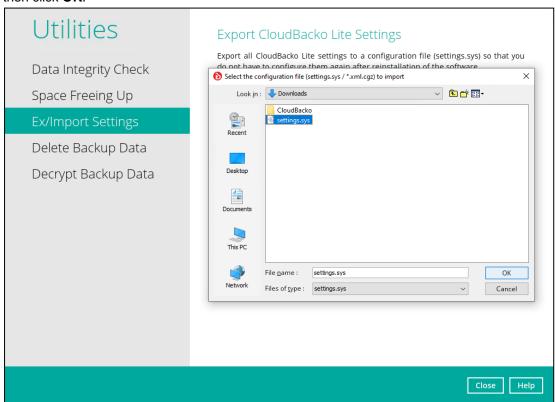


# Import CloudBacko Lite Settings

To import, click the **Import Now** button.

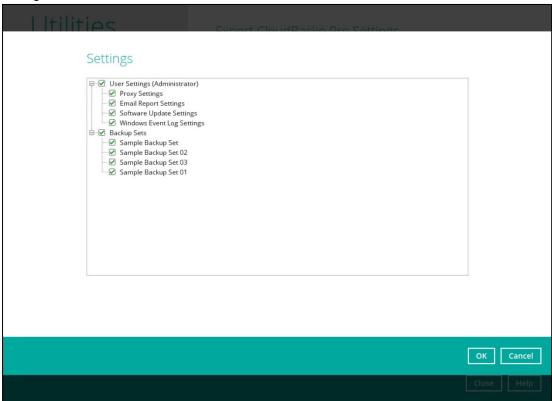


Select a path where the CloudBacko Lite configuration file (system.sys / .xml.cgz) is stored then click  $\bf OK$ .

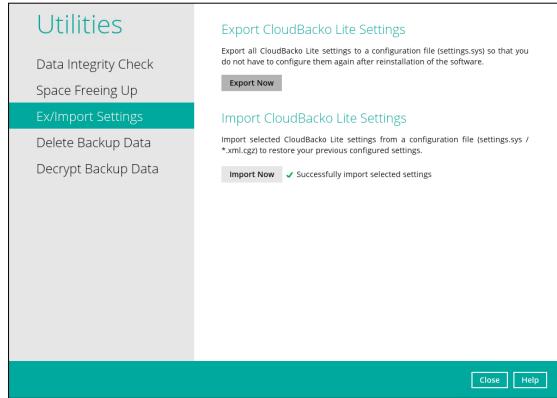




It will show the following Settings: User Settings and Backup Sets. By default, all settings are included, however, there is an option to uncheck the checkboxes and choose the preferred settings.



If the system.sys / .xml, .cgz file is successfully imported, it will display a check sign besides the **Import Now** button with a successful status of imported settings.



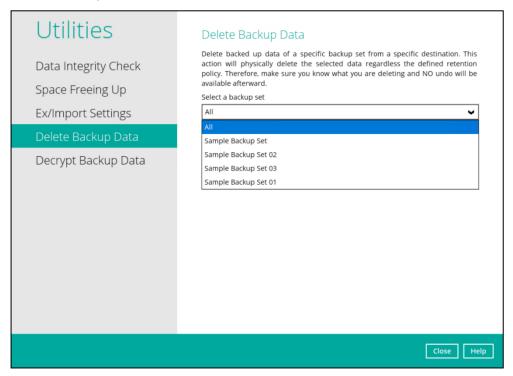


### 8.8.4 Delete Backup Data

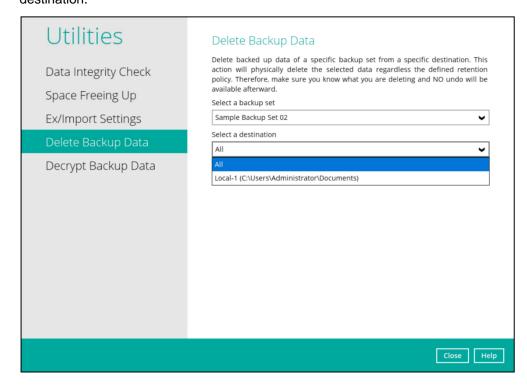
This feature is used to permanently delete backed up data from a backup set(s), destination(s), backup job, or delete all backed up data. After the data is deleted, the storage statistics of the backup set(s) are updated.

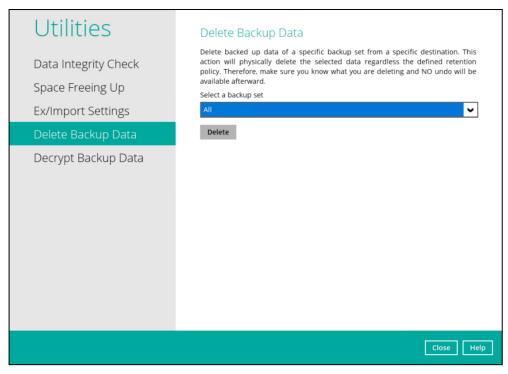
To perform deletion of backup data, follow the instructions below:

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.

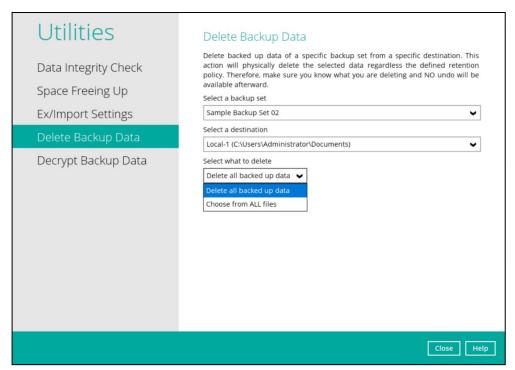




2. If you select **ALL** backup sets, you will not have to choose a specific destination.

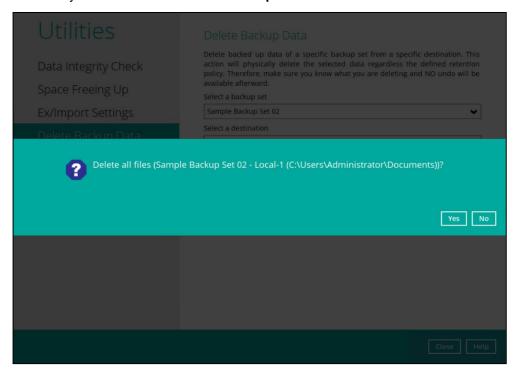
There are two (2) options from the type of file(s) to delete if you select a specific backup set and a specific destination:

- Delete all backup data
- Choose from ALL files

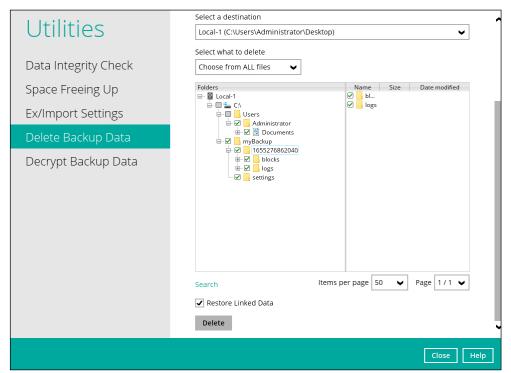




All backed up files from the chosen backup set and selected destination will be deleted if you choose "**Delete all backed up data**". Click **Yes** to confirm.



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

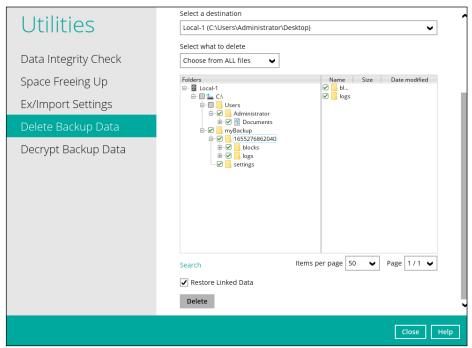


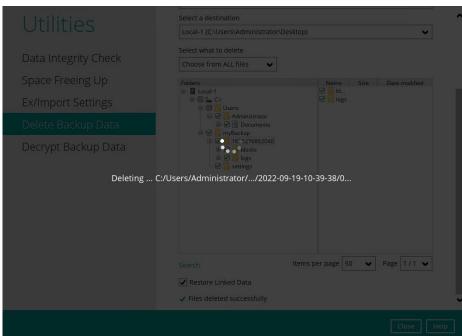


You also have the option to click the **Search** link to do an advance search.

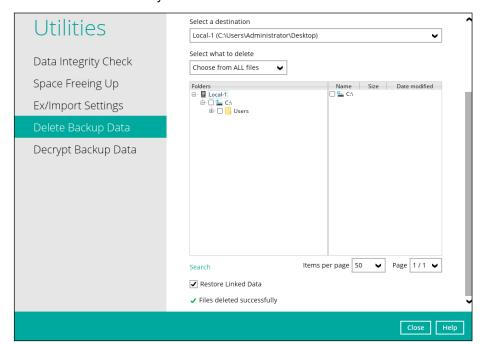


3. Click the **Delete** button, then click **Yes** to start the deletion of files.





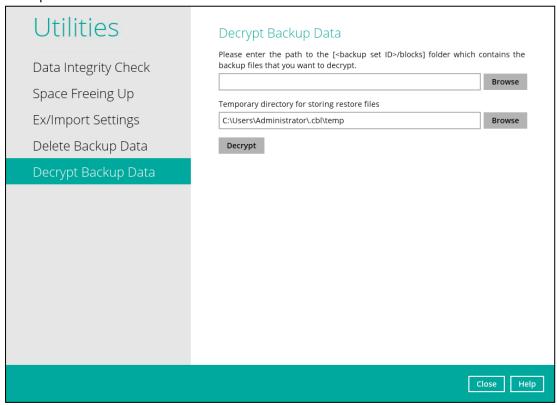
4. Files deleted successfully.



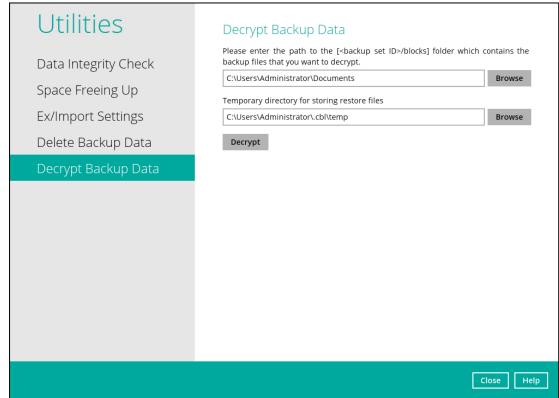


#### 8.8.5 Decrypt Backup Data

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.



### 8.9 **Buy**

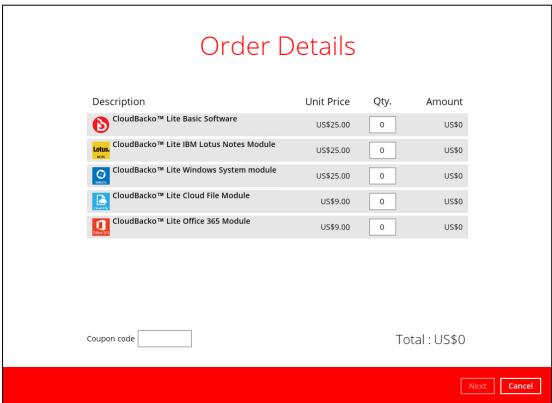
This feature allows customer to buy additional software license and or modules.

This feature allows,

- new customers who are evaluating the product using a trial key to purchase a license key and/or module
- existing customers to purchase additional software license and/or module

Please refer to the CloudBacko article for the license purchase instructions: <a href="https://wiki.cloudbacko.com/doku.php?id=public:license:how-to-buy-cloudbacko-pro-lite">https://wiki.cloudbacko.com/doku.php?id=public:license:how-to-buy-cloudbacko-pro-lite</a>



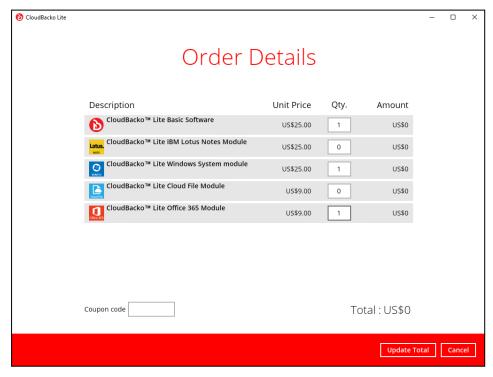


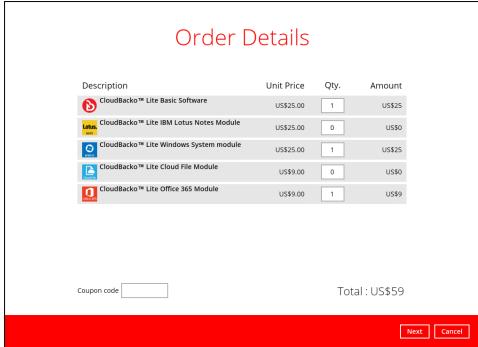


To purchase additional software license and/or modules, follow the instructions below:

1. Select the software license and/or modules by adding a number on the **[Qty]** field then click the **Update Total** button to show the updated cost. Click **Next** to proceed.

If Coupon code is available, input it in the "Coupon code" field.





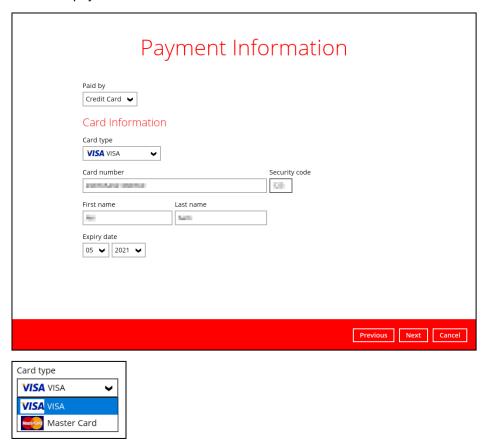
2. The Payment Information screen will be displayed. Select the payment mode, Credit Card or TT (Telegraphic Transfer), by clicking the dropdown **Paid by**.



#### 8.9.1 Credit Card

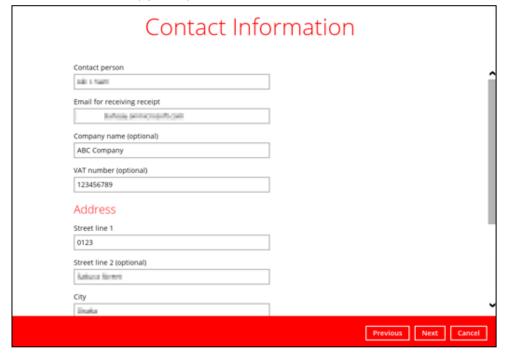
Payment through online via a Credit Card (Visa or Mastercard is accepted) is the quickest way to purchase a software license or additional add-on modules. The only requirements are a valid Credit Card and Contact Information. Once the payment is confirmed, purchased software license or add-on modules will be available immediately.

- 1. Complete the following fields then click the **Next** button to proceed.
  - Card type
    - VISA
    - Master Card
  - Card number
  - Security code
  - First name
  - Last name
  - Expiry date

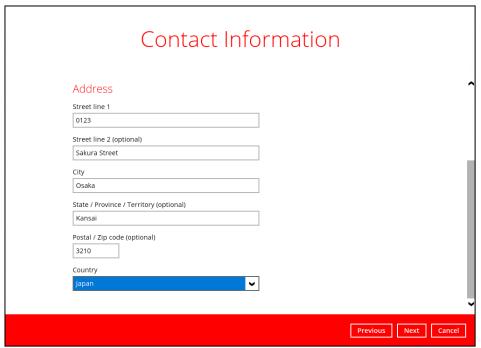




- Complete the following fields for the Contact Information then click the Next button to proceed.
  - Contact person
  - Email for receiving receipt
  - Company name (optional)
  - VAT number (optional)



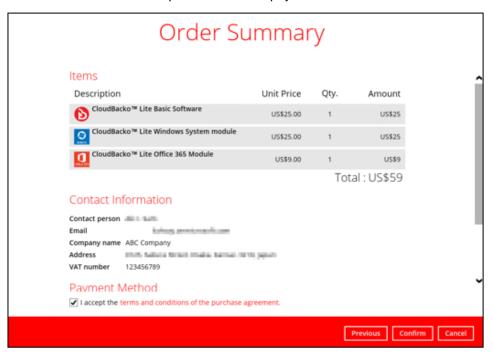
- Street line 1
- Street line 2 (optional)
- City
- State / Province / Territory (optional)
- Postal / Zip code (optional)
- Country





3. In the Order Summary screen, ordered Items, Contact Information, and Payment Method are displayed.

Tick the "I accept the terms and conditions of the purchase agreement" and click the Confirm button to proceed with the payment.

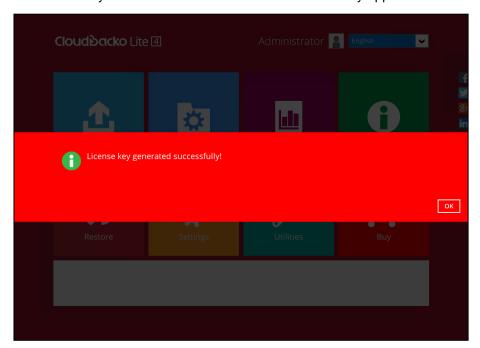


4. The payment will be processed.

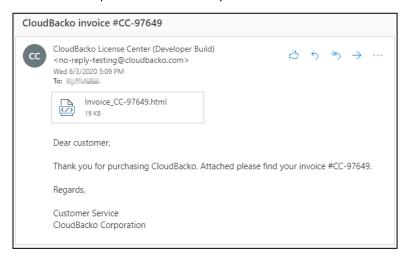
If the payment is successful, an official receipt will be displayed.



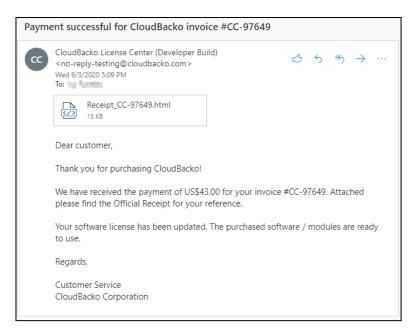
The license key on the CloudBacko Lite is now successfully applied.



These are sample emails for the copies of Invoice and Official Receipt.



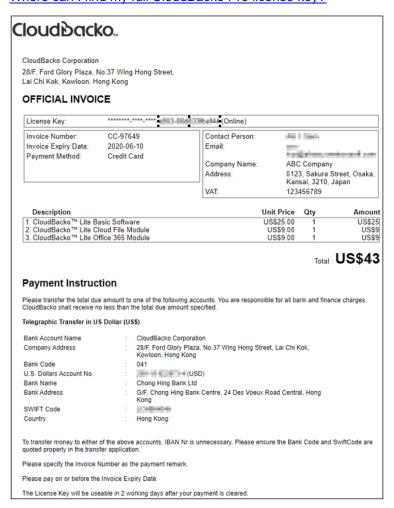


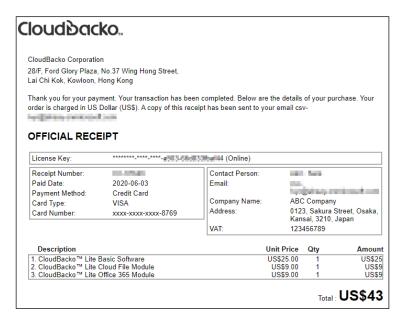


Please keep the copy of your invoice as it contains half of your license key. The other half of the license key can be found on CloudBacko Lite. Both parts of the license key is required if you need to reinstall CloudBacko Lite or apply the license to another installation.

Please check this article for more information:

Where can I find my full CloudBacko Pro license key?





However, if the payment is not successful, this prompt message will appear.

It will state the reason and four (4) options for the failed transaction:

Retry

This will process the payment again.

Try another card

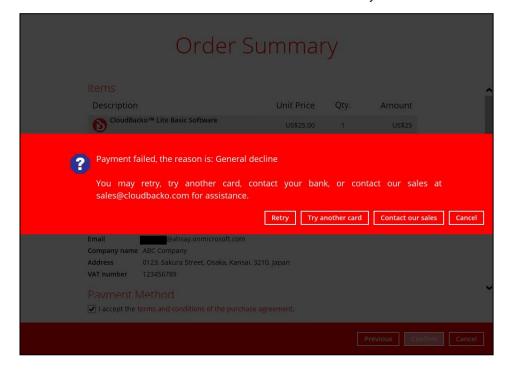
This will redirect you to the Credit Card Information and input another Credit Card details.

Contact our sales

This will redirect you to the CloudBacko website.

Cancel

This will cancel the transaction and exit from the Buy module.

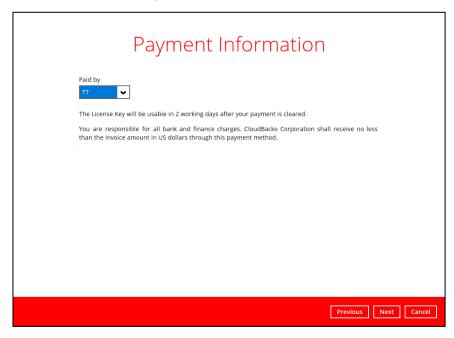


### 8.9.2 TT (Telegraphic Transfer)

TT (Telegraphic Transfer) is an electronic mode of transferring funds from bank to bank. Processing time can take up to two weeks to settle, depending on the origin, destination, and individual bank.

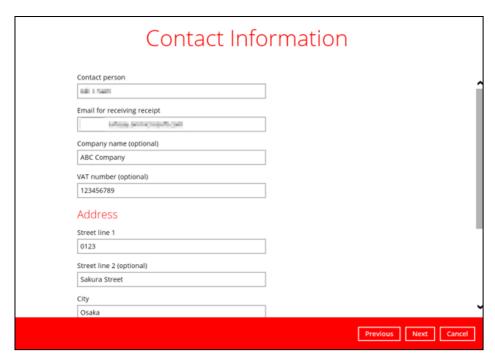
This payment mode can be used to purchase software licenses and/or additional add-on modules for trial users and for paid license users who want to avail add-on modules.

1. Click the **Next** button to proceed.



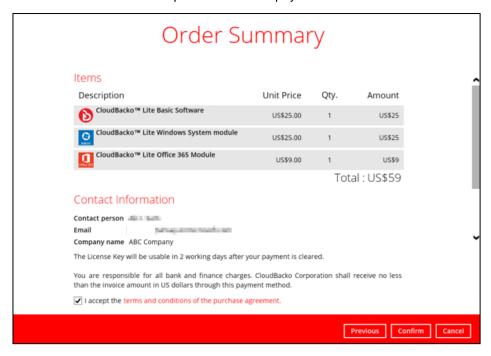
- 2. Complete the following fields for the Contact Information then click the **Next** button to proceed.
  - Contact person
  - Email for receiving receipt
  - Company name (optional)
  - VAT number (optional)
  - Street line 1
  - Street line 2 (optional)
  - City
  - State / Province / Territory (optional)
  - Postal / Zip code (optional)
  - Country





3. In the Order Summary screen, ordered Items, Contact Information, and Payment Method are displayed.

Tick the "I accept the terms and conditions of the purchase agreement" and click the Confirm button to proceed with the payment.





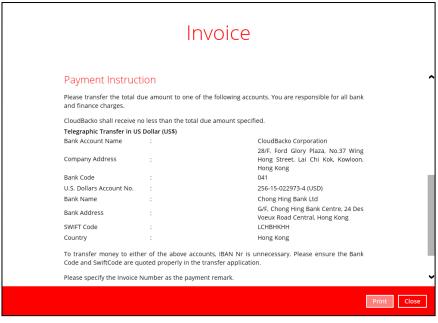
4. The invoice for the license purchase will be generated.



The Invoice will be displayed. Click the **Print** button to print out the invoice and bring it to your bank to arrange TT payment.

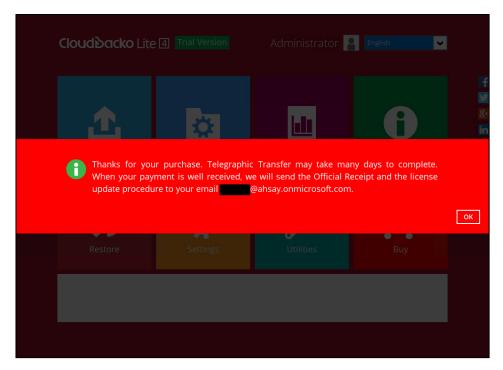




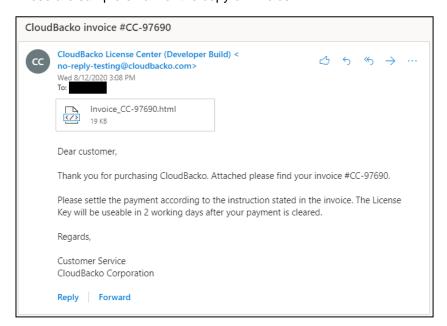




This prompt message will appear to inform customer that if the payment through telegraphic transfer is successful, the official receipt, software license, and license update procedure will be sent to the email address indicated in the Contact Information.



These are sample email for the copy of Invoice.



## Cloud backo...

CloudBacko Corporation

28/F, Ford Glory Plaza, No.37 Wing Hong Street, Lai Chi Kok, Kowloon, Hong Kong

#### OFFICIAL INVOICE

License Key: (Online)			
Invoice Number:	CC-97690	Contact Person:	Aki I. Sam
Invoice Expiry Date: Payment Method:	2020-08-19 TT/PayPal	Email:	csv- ivyr@ahsay.onmicrosoft.com
		Company Name:	ABC Company
		Address:	0123, Sakura Street, Osaka, Kansai, 3210, Japan
		VAT:	123456789

Description	Unit Price	Qty	Amount
1. CloudBacko™ Lite Basic Software	US\$25.00	1	US\$25
<ol> <li>CloudBacko™ Lite Windows System module</li> </ol>	US\$25.00	1	US\$25
<ol> <li>CloudBacko™ Lite Office 365 Module</li> </ol>	US\$9.00	1	US\$9

Total: US\$59

#### Payment Instruction

Please transfer the total due amount to one of the following accounts. You are responsible for all bank and finance charges. CloudBacko shall receive no less than the total due amount specified.

#### Telegraphic Transfer in US Dollar (US\$)

Bank Account Name : CloudBacko Corporation

28/F, Ford Glory Plaza, No.37 Wing Hong Street, Lai Chi Kok, Kowloon, Hong Kong Company Address

Bank Code

: 041 : 256-15-022973-4 (USD) : Chong Hing Bank Ltd U.S. Dollars Account No. Bank Name

G/F, Chong Hing Bank Centre, 24 Des Voeux Road Central, Hong Kong Bank Address

SWIFT Code : LCHBHKHH : Hong Kong Country

To transfer money to either of the above accounts, IBAN Nr is unnecessary. Please ensure the Bank Code and SwiftCode are quoted properly in the transfer application.

Please specify the Invoice Number as the payment remark.

Please pay on or before the Invoice Expiry Date.

The License Key will be useable in 2 working days after your payment is cleared.

### 8.10 Social Media Icons

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



Facebook <a href="https://www.facebook.com/cloud.backo">https://www.facebook.com/cloud.backo</a>

X / Twitter <a href="https://twitter.com/CloudBacko">https://twitter.com/CloudBacko</a>

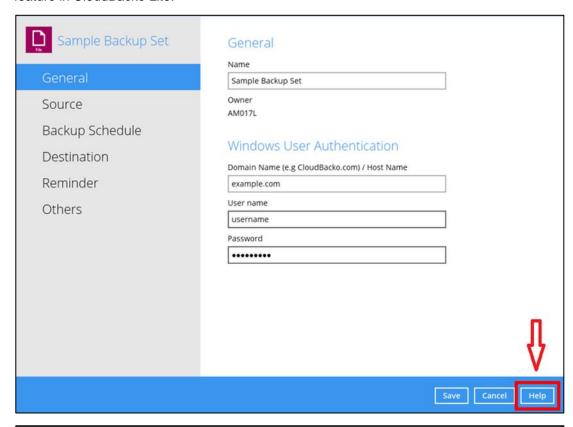
LinkedIn <a href="https://www.linkedin.com/company/cloudbacko-corporation">https://www.linkedin.com/company/cloudbacko-corporation</a>

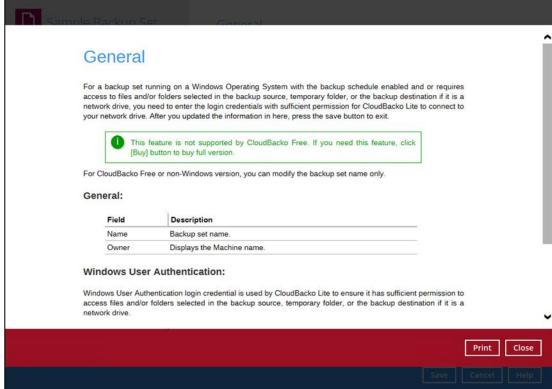
YouTube <a href="https://www.youtube.com/user/CloudBacko">https://www.youtube.com/user/CloudBacko</a>



### 8.11 Online Help

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



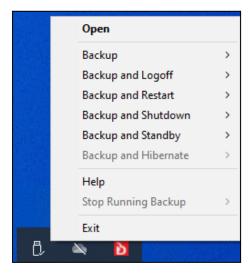


### 8.12 System Tray

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



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



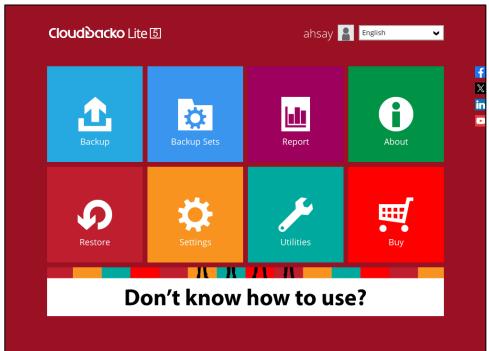
CloudBacko Lite system tray has ten (10) controls:

- Open
- Backup
- Backup and Logoff
- Backup and Restart
- Backup and Shutdown
- Backup and Standby
- Backup and Hibernate
- Help
- Stop Running Backup
- Exit

### 8.12.1 Open

Select this option to open the CloudBacko Lite.

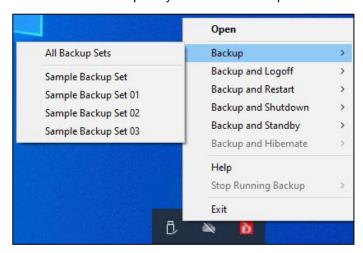






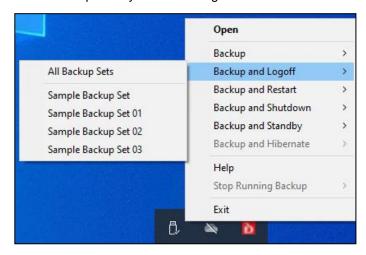
#### 8.12.2 Backup

If you want to perform a backup without going to the interface, hover the mouse to this option and select the backup set you want to back up.



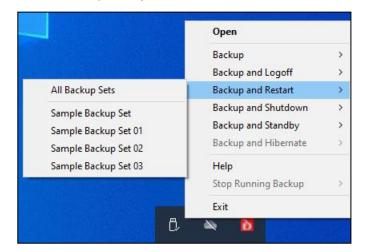
#### 8.12.3 Backup and Logoff

Select this option if you want to logoff Windows after a manual backup job is done.



#### 8.12.4 Backup and Restart

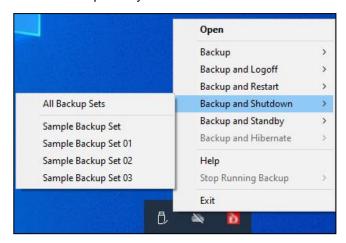
Choose this option if you want the machine to restart after a manual backup job is done.





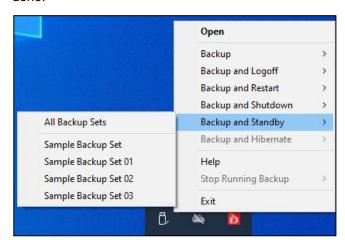
#### 8.12.5 Backup and Shutdown

Choose this option if you want the machine to shut down after a manual backup job is done.



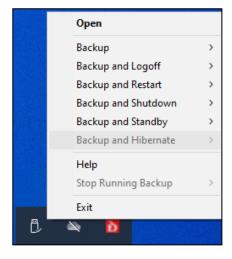
### 8.12.6 Backup and Standby

Choose this option if you want the machine to go on standby after a manual backup job is done.



### 8.12.7 Backup and Hibernate

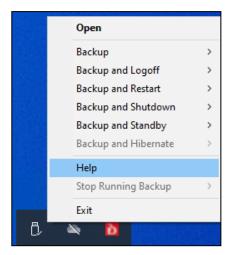
Choose this option if you want the machine to hibernate after a manual backup job is done. This will be disabled if hibernate mode is not available on the Windows version you are using.

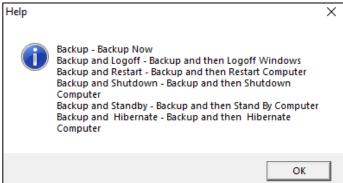




### 8.12.8 Help

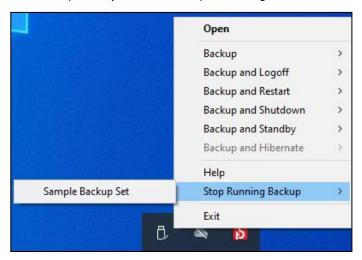
This tab will show you the function of each backup option.





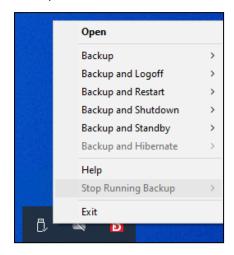
### 8.12.9 Stop Running Backup

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



### 8.12.10 Exit

This option will be disabled if there is no backup job running.



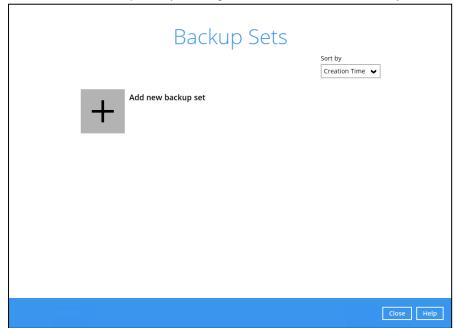


# 9 Create a Backup Set

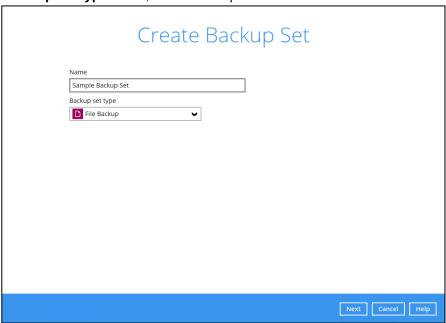
1. Click the **Backup Sets** icon on the main interface of CloudBacko Lite.



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

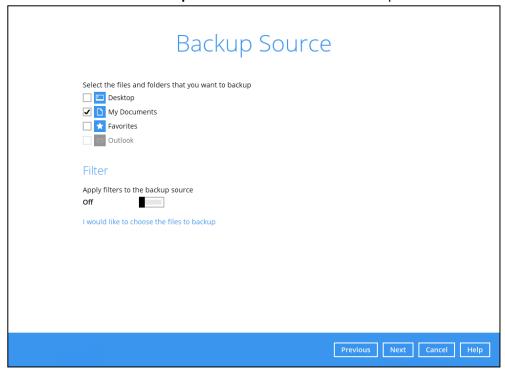


3. When the Create Backup Set window appears, name your new backup set, and select the **Backup set type**. Then, click **Next** to proceed.

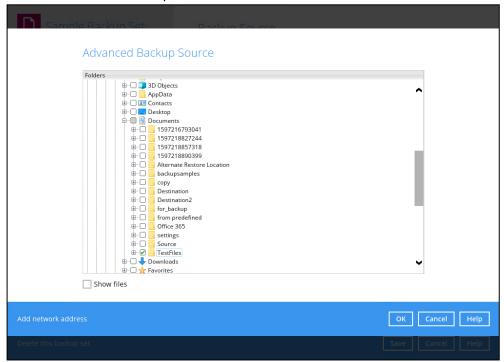




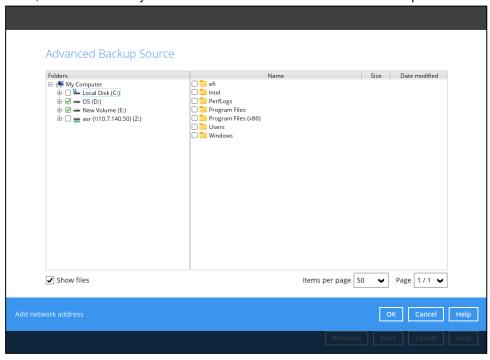
4. In the Backup Source window, select the source files and folders for backup. Click I would like to choose the files to backup to select individual files for backup.



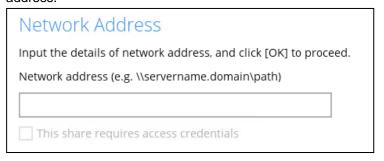
- 5. In the **Advanced Backup Source** window, there are three (3) ways to select file(s) and/or folder(s) for back up:
  - i. Select folder(s) to back up all files in the folder(s). Click **OK** to save the selection and close the Advanced Backup Source window.



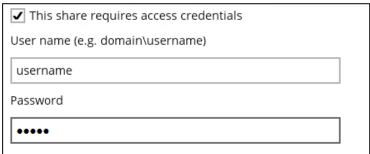
ii. Alternatively, if you want to back up only specific files instead of all files in your selected folder(s), select the **Show files** checkbox at the bottom of the screen. A list of files will appear on the right-hand side. Select the checkbox(es) next to the file(s) to back up. Then, click **OK**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

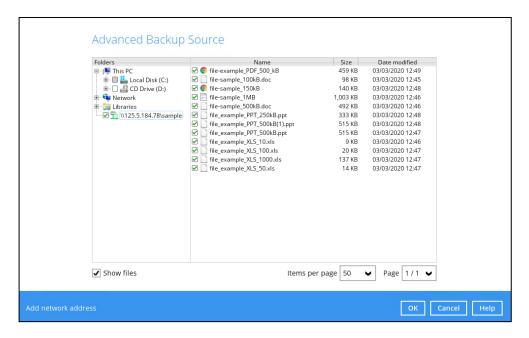


Once a network address is entered, **This share requires access credentials** will be enabled. Check the box beside it if access credentials are required to backup and enter the User name and Password. Otherwise leave it unchecked and click **OK**.



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.

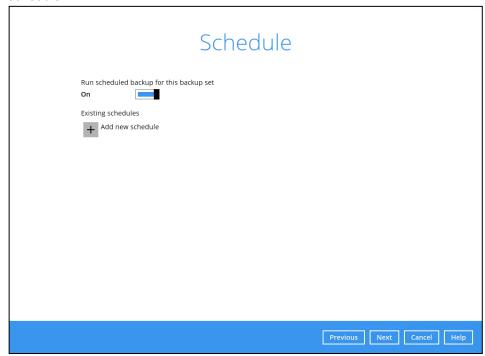




6. In the Backup Source window, click Next to proceed.

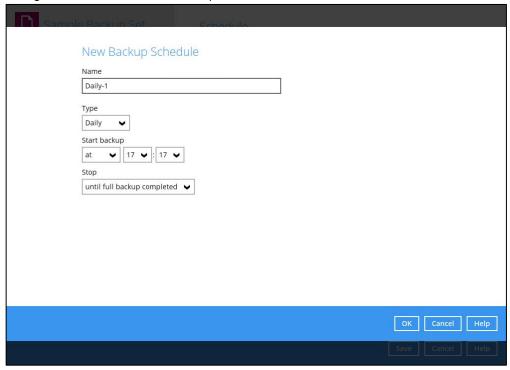
When the Schedule window appears, you can configure a backup schedule to automatically run a backup job at your specified time interval. In the Schedule window, the Run scheduled backup for this backup set is **Off** by default.

- 7. When the **Schedule** window appears, you can configure a backup schedule to automatically run a backup job at your specified time interval. In the Schedule window, the Run scheduled backup for this backup set is **On** by default.
  - In the default backup schedule, there will be a scheduled backup that will be performed daily at 8pm. You can leave it as is or you can modify it by clicking on the existing backup schedule.

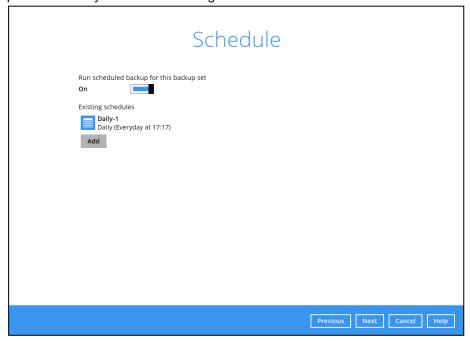




If you want to add another schedule, click the Add button. When the New Backup Schedule window appears, specify your backup schedule. Then, click OK to save your changes and close the New Backup Schedule window.

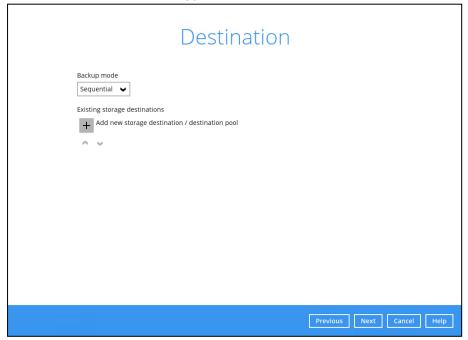


8. In case you have added a schedule, it will be shown in the Schedule window. Click **Next** to proceed when you are done setting.





9. The **Destination** window will appear.

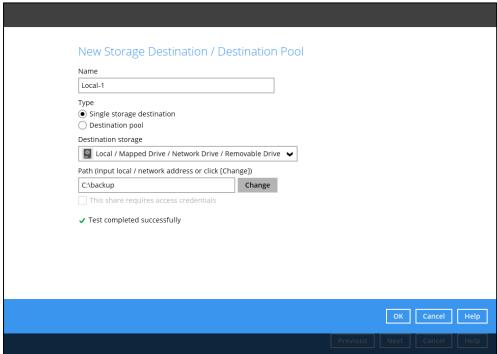


Select the appropriate option from the Backup mode dropdown menu.

- Sequential (default value) run backup jobs to each backup destination one by one
- Concurrent run backup jobs to all backup destinations at the same time

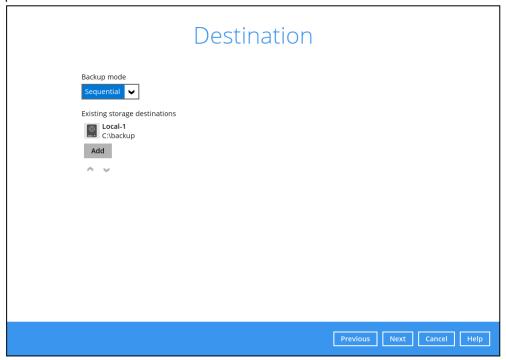
To select a backup destination for the backup data storage, click + next to **Add new** storage destination / destination pool.

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

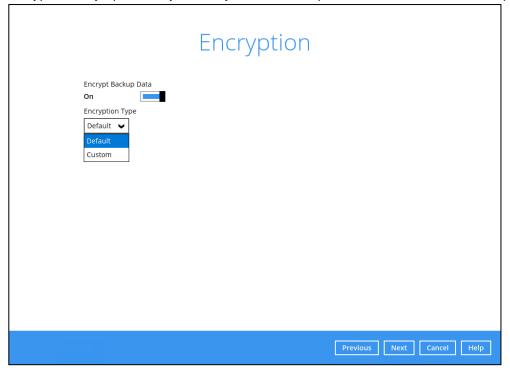




11. In the Destination window, your selected storage destination will be shown. Click **Next** to proceed.



12. 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



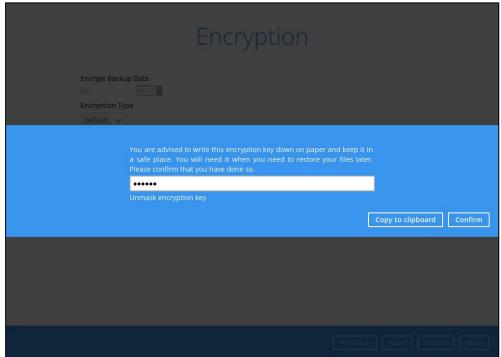
You can choose from one of the following three Encryption Type options:

- ➤ **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.

13. 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.



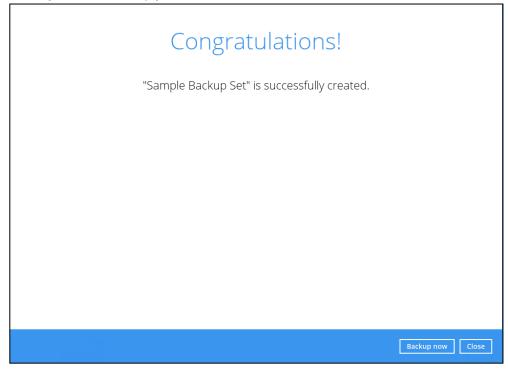


The pop-up window has the following three options to choose from:

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

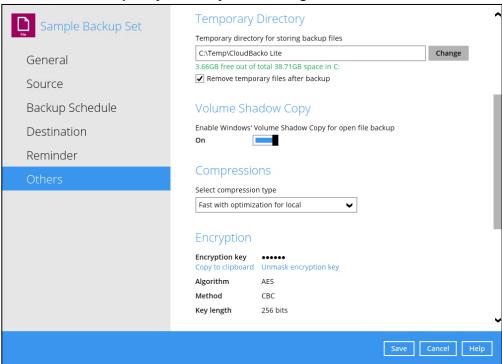


- Copy to clipboard Click to copy the encryption key, then you can paste it in another location of your choice.
- > Confirm Click to exit this pop-up window and proceed to the next step.
- 14. Upon successful creation of the backup set, the following screen will appear. You can click **Backup now** to back up your data or click **Close** to exit.



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

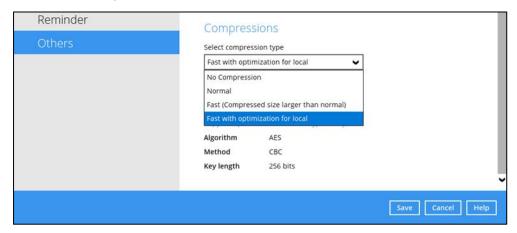
Go to Others > Temporary Directory. Click Change to browse for another location.



16. Optional: Select your preferred **Compression** type. By default, the compression is set Fast with optimization for local. Go to **Others** > **Compressions**.

Select from the following list:

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



### 10 Overview on Backup Process

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:

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

### Start backup job

Establishing connection

Connection from the backup client to the destination(s) is established.

V

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.

Downloading files

Latest index.db file and checksum files are downloaded from the backup destination(s) to the temporary folder.

Taking VSS Snapshot Create VSS snapshot of local disk(s) (if enabled).

Compiling file list

Local file list is compiled according to the backup source setting.

Comparing files

6

Local and remote file lists are compared to identify new, updated, moved, or deleted files and/or folders since the last backup job.

Data deduplication

7

A checksum verification of each backup file which was split into several blocks of varying size is performed where its contents are compared, and the duplicated data are removed (if enabled).

Uploading files

Data are compressed, encrypted, divided into individual data block size of 32 or 64MB then uploaded to the backup destination(s).

Data validation The number of 32 or 64MB data blocks and the individual block size in the backup destination(s) is identical to the blocks transferred.

check 9

Running Retention Policy

10

Retention Policy job is running (if enabled).

Saving files

Latest index files on the client computer are saved to the backup destination(s) and client log files are saved to the backup server.

11

Removing temporary files

12

Temporary data is removed from the temporary storage location specified in the backup set (if enabled).

**Backup job completed** 

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

For CloudBacko Lite 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:

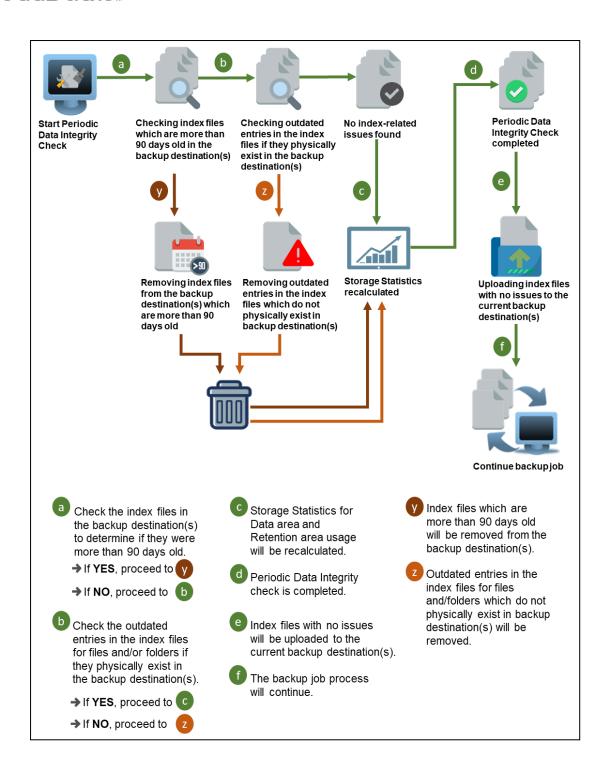
- the PDIC will run on the first backup job that falls on Wednesday; or
- if there is no active backup job(s) running from Monday to Friday, then the PDIC will run on the next available backup job.

#### **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:

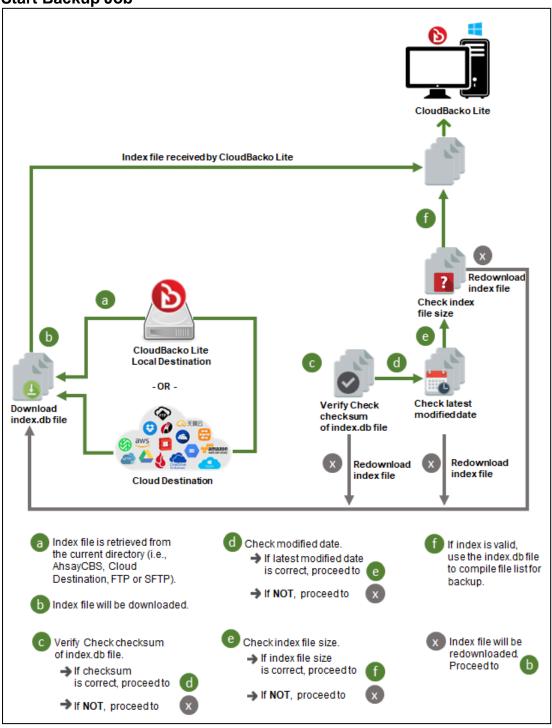
- If backup jobs for a backup set are not run on a regular daily backup schedule (for example: on a weekly or monthly schedule), then the PDIC job will run if it detects that the previous PDIC job was run more than 7 days ago.
- 2. Every time a Data Integrity Check (DIC) is run, the latest PDIC run date 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.



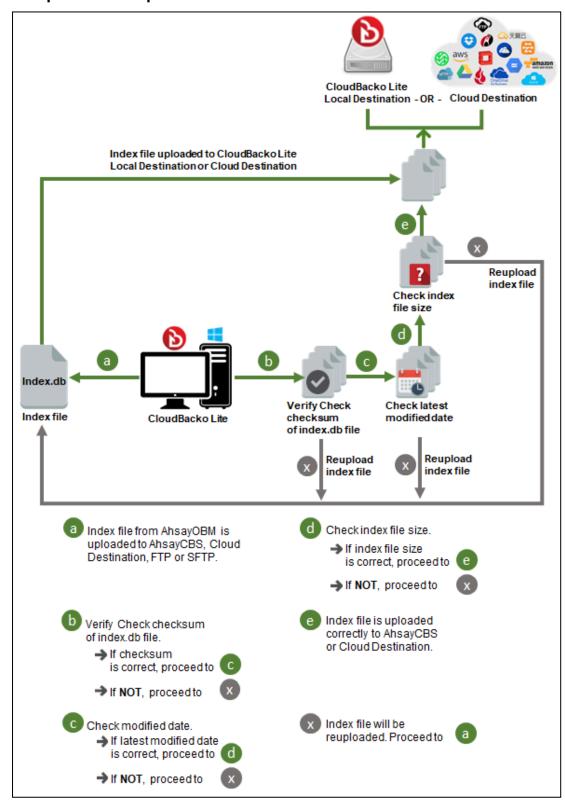
## 10.2 Backup Set Index Handling Process

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.

10.2.1 Start Backup Job

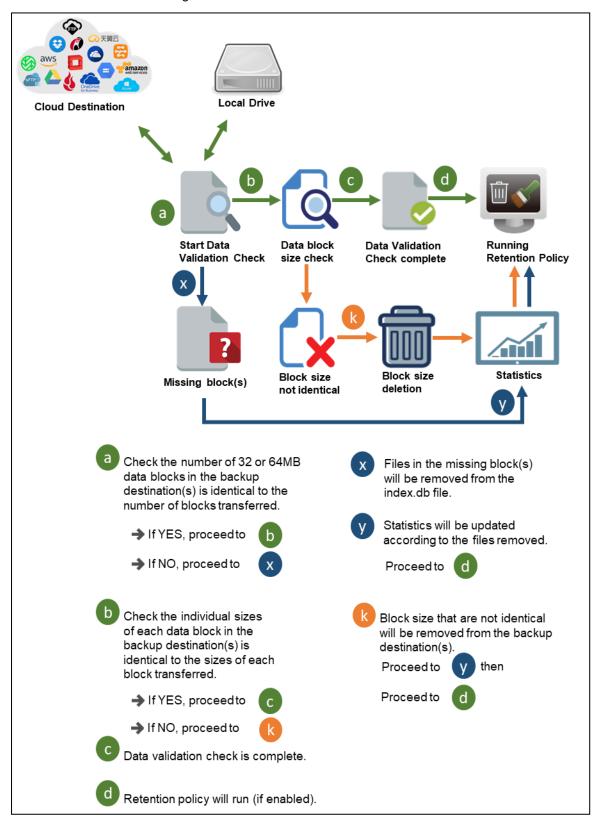


## 10.2.2 Completed Backup Job



### 10.3 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 32 or 64MB data block files and the size of each block file are checked again after the files are transferred.



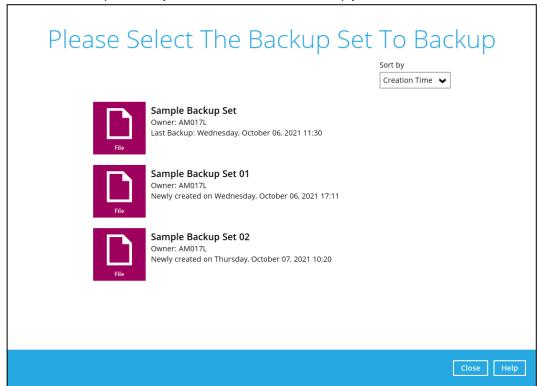


# 11 Run Backup Jobs

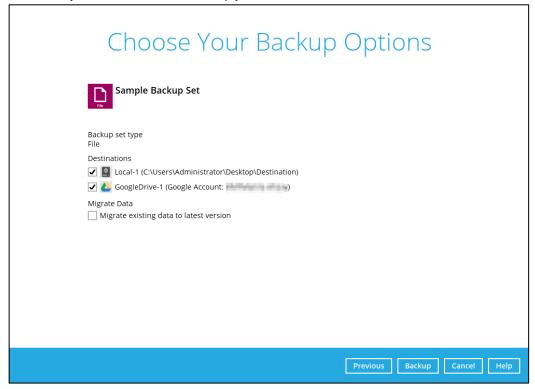
1. Click **Backup** on the main interface of CloudBacko Lite.



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



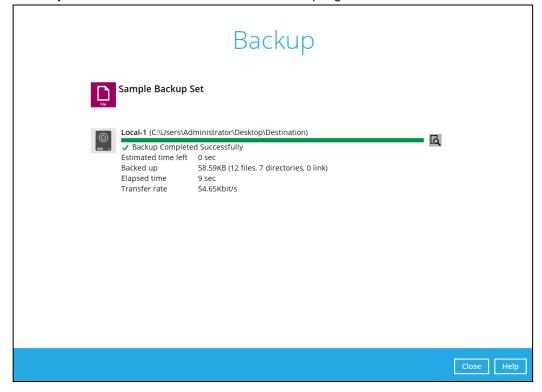
4. You can modify the Destinations and Migrate Data options. Once done with the settings, click the **Backup** button to start the backup job.



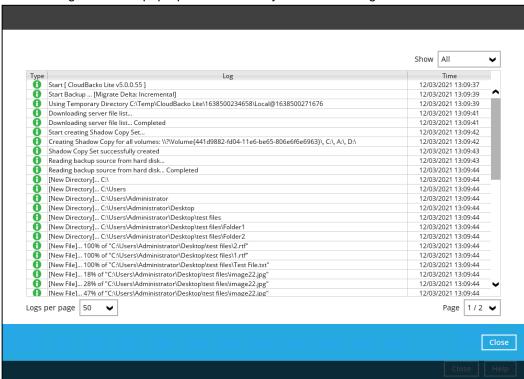
#### **NOTE**

The Migrate Data option will only be displayed if Deduplication is enabled for the backup set. Backup job(s) for backup sets with Migrate Data enabled may take longer to finish.

5. 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.



6. 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.



## 12 Restore Data

### 12.1 Restore Method

There are two restore methods available, the traditional restore and OpenDirect restore. OpenDirect restore applies only to File backup sets with OpenDirect feature enabled.

For more details on the differences of the two restore methods, refer to <u>Chapter 5.3: Benefits of</u> using OpenDirect Restore.

### 12.1.1 Traditional Restore

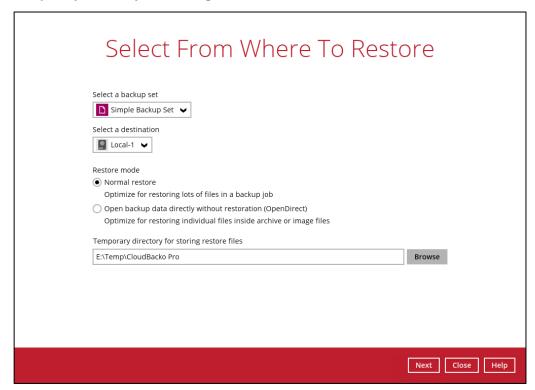
- Log in to the CloudBacko Lite application according to the instructions in section <u>Chapter 7 Start</u> CloudBacko Lite.
- 2. Click the **Restore** icon on the main interface of CloudBacko Lite.



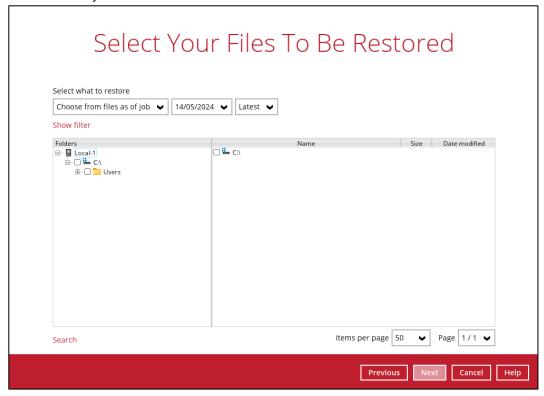
3. In the next page, you will have several options to select. On this page, you may select the **Backup**Set to restore, as well as the **Destination** to which the data will be restored to.

For "Restore mode", select Normal restore.

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

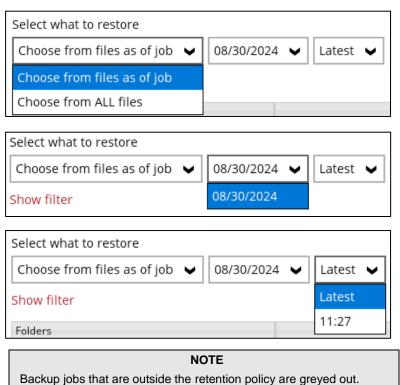


4. Select to restore files from a specific backup job, or from all files available. Then, select the files or folders that you would like to restore.

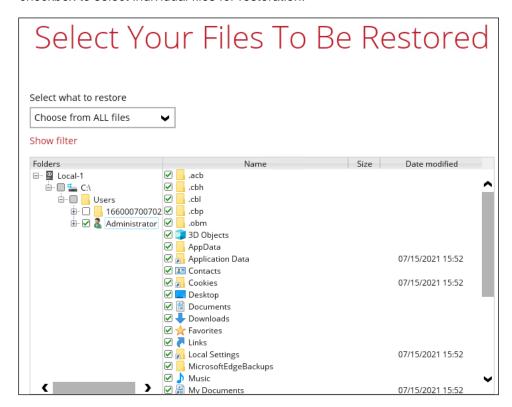


There are two options from the **Select what to restore** dropdown menu:

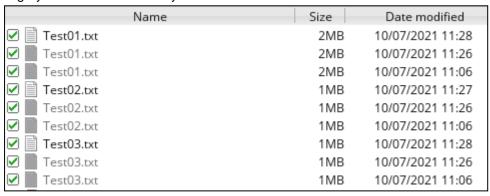
 Choose from files as of job – This option allows you to select a backup version from a specific date and time to restore.



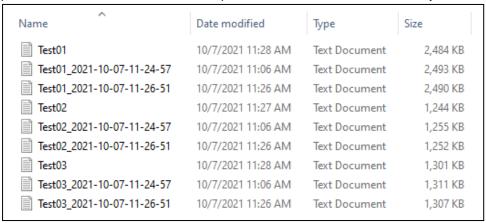
• Choose from ALL files – This option allows you to restore all the available backup versions for this backup set. Among all the available backup versions, you can even select only some of the backup versions of a file to restore. Click the Show files checkbox to select individual files for restoration.



The following is an example showing all the available backup versions of the file **Test.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.



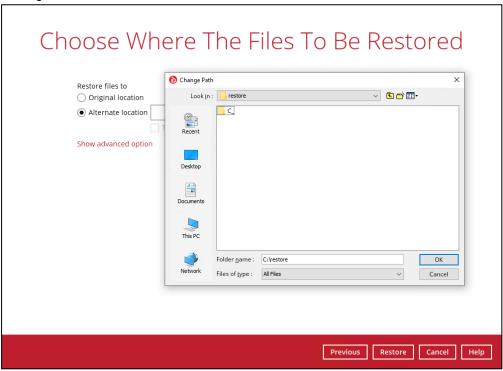
When the restore is done, you will see all the selected backup versions in the restore destination. The latest backup version has the file name as the original file, while the previous versions have the time stamps added to their file names for easy identification.



- 5. Click the **Show files** checkbox to select individual files for restoration. Click **Next** to proceed when you are done with the selections. Click **Next** to proceed when you are done with the selections.
- 6. 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 Lite 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 Lite.



- Alternate location you can choose to restore the data to a location of your choice on the computer where CloudBacko Lite is running.
  - i. To restore to a location of your choice on the computer where CloudBacko Lite is running, click Browse. Select the location and click **OK**.

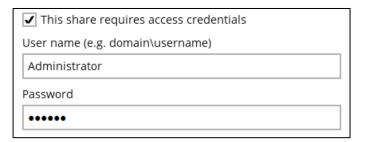


ii. To restore to a network drive, enter the network address where you want the backup files to be restored.

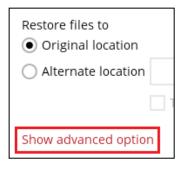


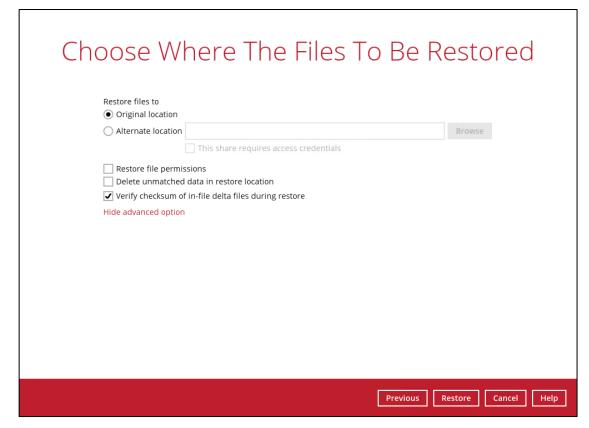


If access credentials are required, tick the checkbox beside This share requires access credentials then provide the User name and Password.



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.

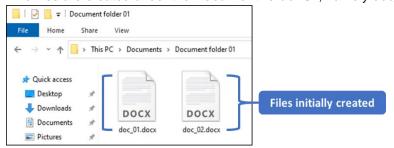


#### Delete unmatched data in restore location

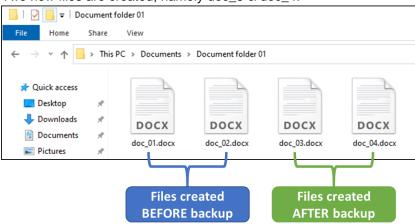
By enabling this option, the restore process will attempt to synchronize the selected restore source with the restore destination, making sure the data in the restore destination is the same as the restore source. Any data created after backup will be treated as "unmatched data" and will be deleted from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

### **Example:**

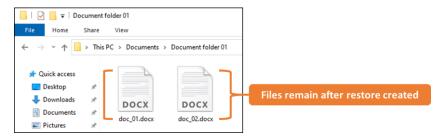
i) Two files are created under the **Document folder 01**, namely doc 1 & doc 2.



- 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.

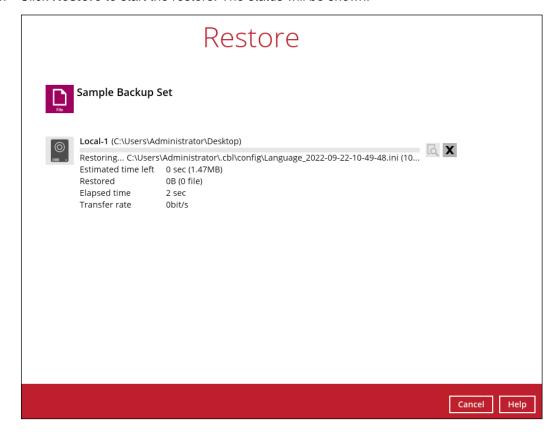


Prior to the data restore and synchronization, a warning message shows as the one shown below. Only clicking **Yes** will the "unmatched data" be deleted. You can click **Apply to all** to confirm deleting all the "unmatched data" at a time.

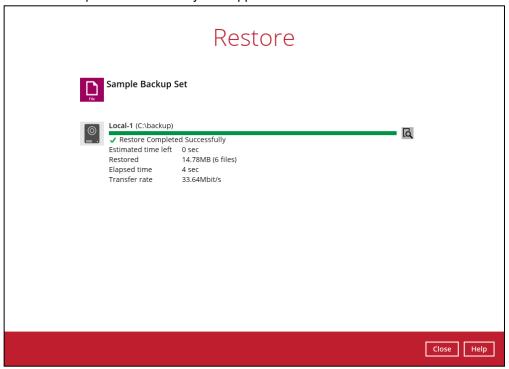
### Verify checksum of in-file delta files during restore

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.

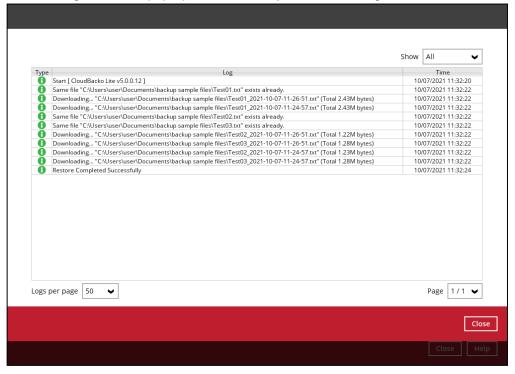
8. Click **Restore** to start the restore. The status will be shown.



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 to close the Restore window.
- 12. To exit CloudBacko Lite, click  $\times$  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 Lite again, you will then have to launch it again.



### 12.1.2 OpenDirect Restore

This restore method applies to backup sets created with OpenDirect restore enabled only.

#### **IMPORTANT**

Before you proceed with the OpenDirect Restore, make sure the following dependencies are fulfilled. Failure to do so may cause the restore to fail.

- Microsoft Visual C++ 2015 Redistributable (x86) / (x64) https://www.microsoft.com/en-us/download/details.aspx?id=48145
- Update for Universal C Runtime in Windows <a href="https://support.microsoft.com/en-us/help/2999226/update-for-universal-c-runtime-in-windows">https://support.microsoft.com/en-us/help/2999226/update-for-universal-c-runtime-in-windows</a>
- Microsoft Security Advisory 3033929 for Windows 7 https://www.microsoft.com/en-sg/download/details.aspx?id=46078
- 1. Log in to the CloudBacko Lite application according to the instructions in section <a href="Chapter 7">Chapter 7 Start</a> CloudBacko Lite.
- 2. Click the **Restore** icon on the CloudBacko Lite main interface.

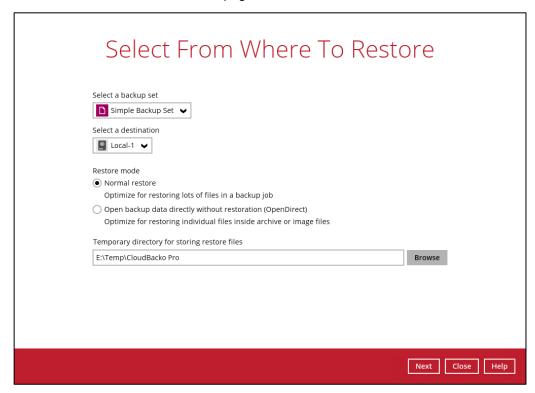


3. In the next page, you will have several options to select. On this page, you may select the **Backup**Set to restore, as well as the **Destination** to which the data will be restored to.

For "Restore mode", select the second option <u>Open backup data directly without restoration (Open Direct)</u>.



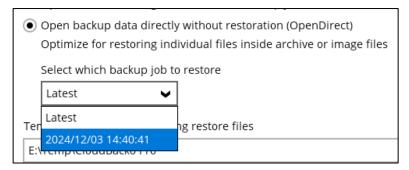
You may also choose the temporary directory for restoring files by selecting a location using the **Browse** button at the bottom of the page.



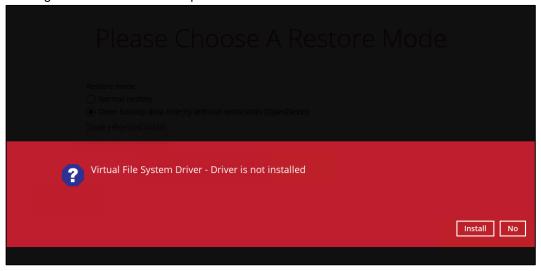
4. Select Open backup data directly without restoration (OpenDirect).



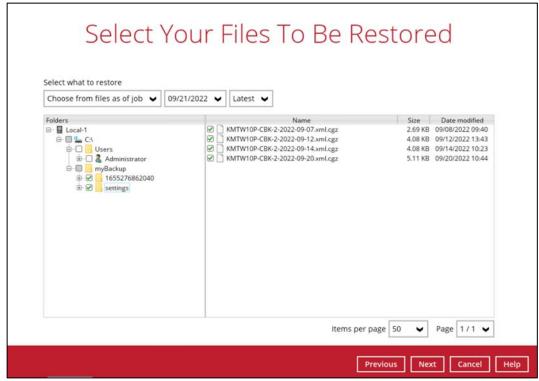
5. When you select the second option under **Restore mode**, you will be able to select which specific backup job to restore. By default, this setting is set to **Latest**.



The following screen shows when you perform OpenDirect restore for this backup set on this
machine for the first time only. Make sure you click **Install** to confirm installation of the driver.
Clicking **No** will exit the restore process.



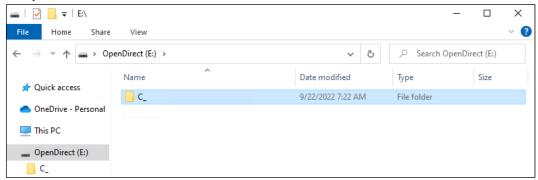
7. Select to restore files from a specific backup job, or from all files available, then select the files or folders that you would like to restore.



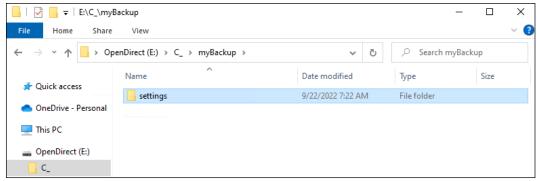
8. Click **Next** to start the restore. You will be prompted to select drive letter where you wish the mounted files to be mapped on your machine, click **OK** when you have finished the selection.



9. The selected drive letter will be mapped and prompted in the Windows Files Explorer with the files you wish to restore shown.

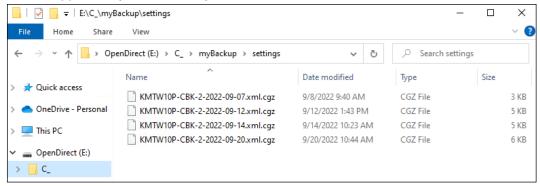


10. You can now click on the files to view them directly from here, which will be in read-only mode.



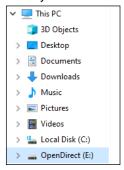


If it is a zipped file, you can directly click on it to see all the individual files inside.

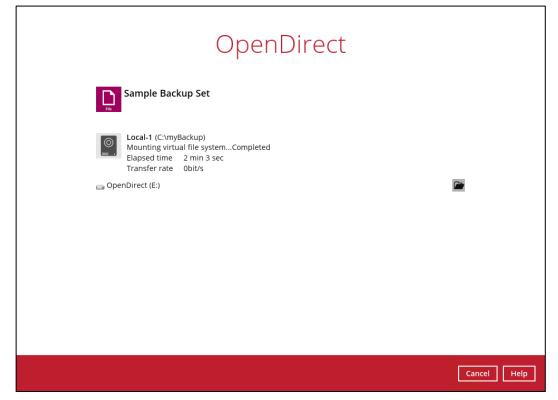


You may also copy individual file(s) you wish to restore to your local machine.

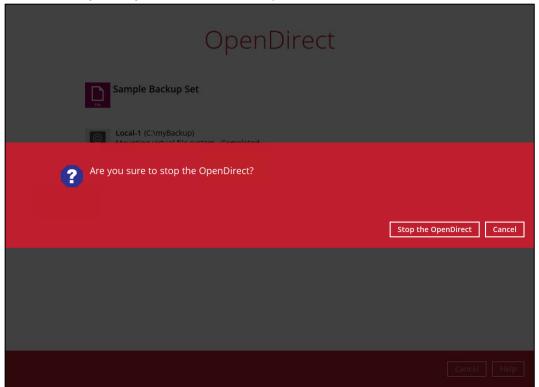
11. The mounted drive letter cannot be ejected from the Windows File Explorer, it will only be closed when you exit CloudBacko Lite.



12. When you have finished restoring the necessary files, you can go back to CloudBacko Lite and click **Cancel**.



Then click Stop the OpenDirect to exit the OpenDirect Restore.



### **IMPORTANT**

- As a result of the limitation of the virtual file system library, the mapped drive will only be unmounted from your machine when you exit CloudBacko Lite. In other words, each OpenDirect restore session on CloudBacko Lite can only mount and unmount once.
- 2. OpenDirect restore of file backup sets will not generate restore log on CloudBacko Lite.

### 12.2 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 **<u>starting</u>** 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.

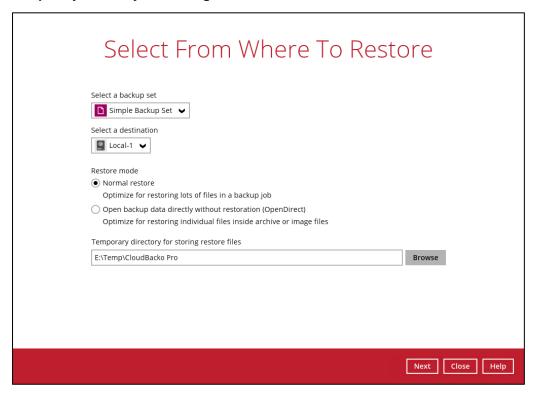
For more detailed examples using the restore filter on CloudBacko Lite, refer to <u>Appendix B: Example Scenarios for Restore Filter</u>.

- 1. Log in to the CloudBacko Lite application according to the instructions in section <a href="Chapter 7">Chapter 7 Start</a> <a href="CloudBacko Lite">CloudBacko Lite</a>.
- 2. Click the **Restore** icon on the main interface of CloudBacko Lite.
- 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.

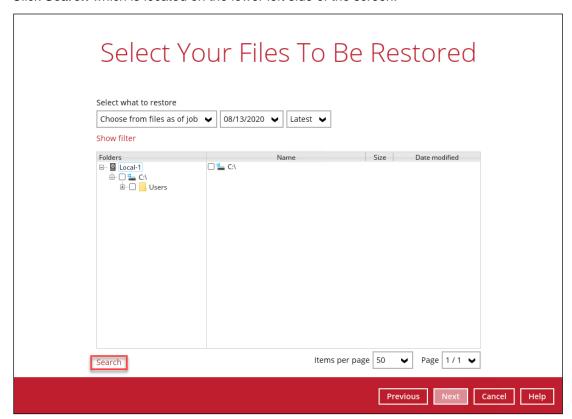
For "Restore mode", select Normal restore.



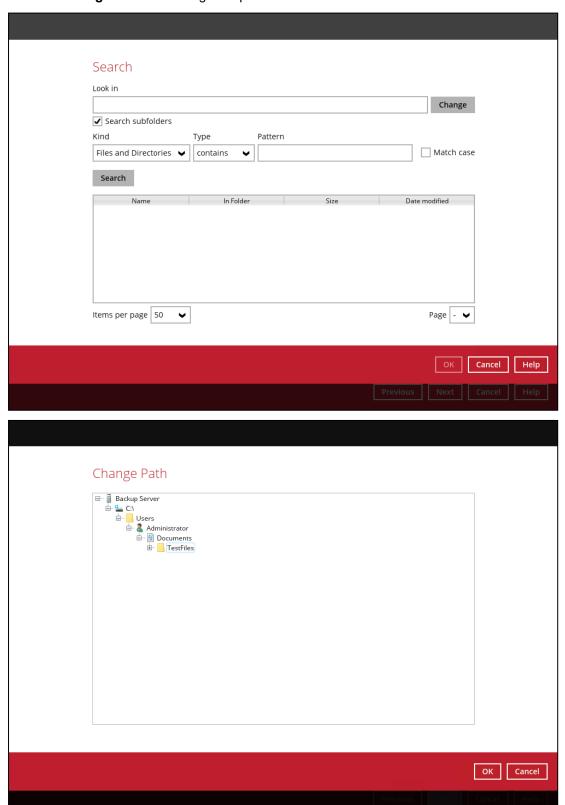
You may also choose the temporary directory for restoring files by selecting a destination beneath **Temporary directory for storing restore files**.

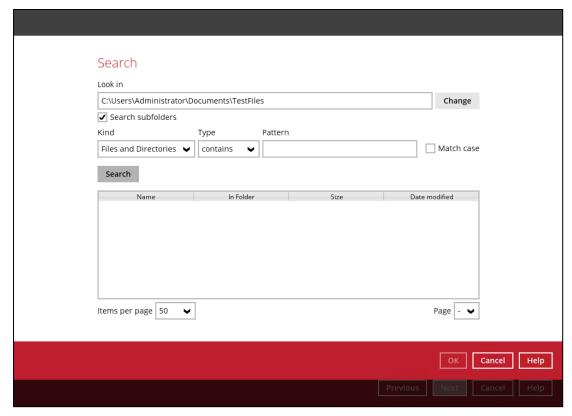


4. Click **Search** which is located on the lower left side of the screen.

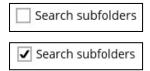


5. Click the **Change** button to change the path of the restore items from other location.

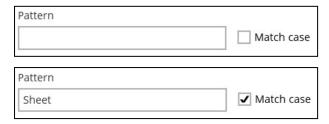




6. Tick the **Search subfolders** box to include available subfolders upon searching.



- 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.

## 13 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 Lite local destination. For more detailed information, refer to <u>CloudBacko App User Guide for Android and iOS</u>.
- Create a File backup set according to the instructions in <u>Chapter 9 Create a Backup Set</u> with the following setup:
  - The backup source should be the photos, videos, documents and/or 2FA account(s) backed up in the CloudBacko Lite 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 11 Run Backup Jobs">Chapter 11 Run Backup Jobs</a>.
- Restore data according to the instructions in <u>Chapter 12 Restore Data</u>. 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 Lite 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.

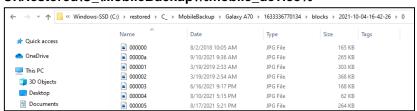
**NOTE:** Restore to alternate location is not supported on another CloudBacko Lite machine. Options 1 and 2 must be on the original machine where the backups were performed.

In case the original machine is no longer available, CloudBacko Lite 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 Lite.

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.

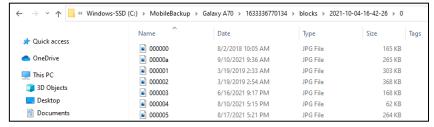
Example of the Alternate location:

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.

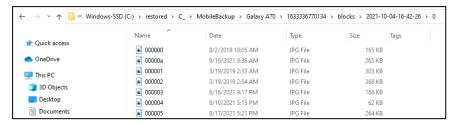
 Option 2: Copy the restored data from the alternate location to your Android or iOS mobile device.

#### Instructions:

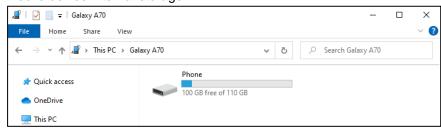
 For an Android device, you need to plug your cable and transfer the restored data from the alternate location to your mobile device storage.

Example of the Alternate location:

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



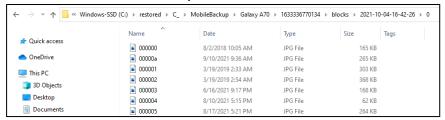
### Mobile device internal storage



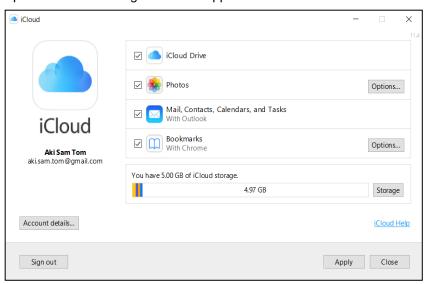
 For an iOS device, you need to transfer the restored data from the alternate location to iCloud.

Example of the Alternate location:

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



### Upload to iCloud using the iCloud app



# 14 Contact CloudBacko

### **Technical Assistance**

To contact CloudBacko support representatives for technical assistance, visit the Ticket Support:

https://www.cloudbacko.com/support

Also use the CloudBacko Wiki for resource such as Hardware Compatibility List, Software Compatibility List, and other product information:

http://wiki.cloudbacko.com/

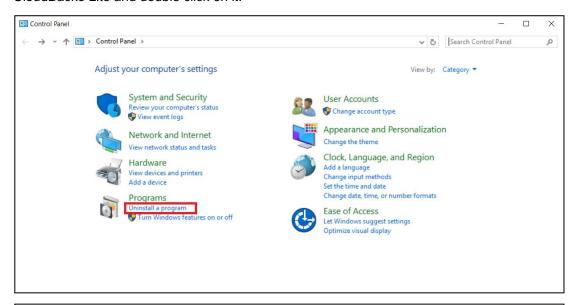
## **Appendix**

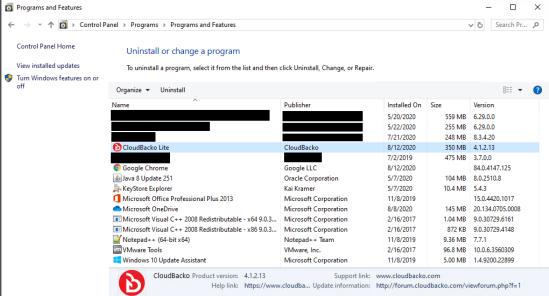
## Appendix A: Uninstall CloudBacko Lite

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

Otherwise, if you intend to re-install CloudBacko Lite 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 Lite and double click on it.

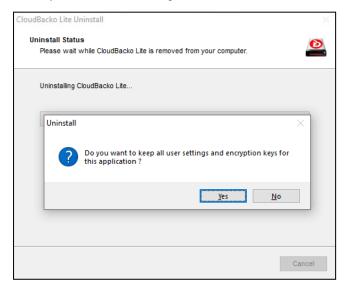




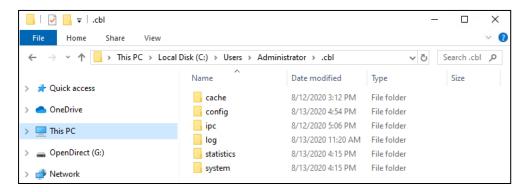
Click Yes to confirm and proceed with the uninstallation.



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 Lite 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\.cbl** by default. The screen capture below shows the folders remain in the machine after uninstallation.

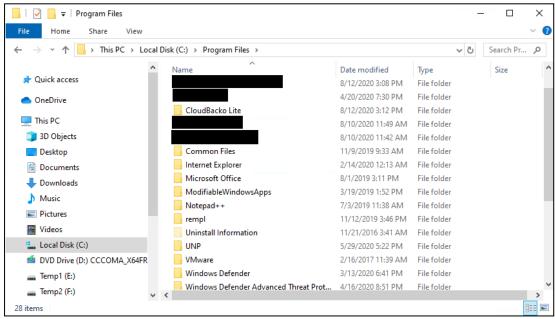


Choose No to delete all user settings and encryption keys with this uninstallation. Please be reminded that the encryption keys are not retrievable once they have been deleted unless the encryption keys have been uploaded to the destination and therefore it will no longer be possible for backup user 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 Lite-related files in your machine, please go to C:\Program Files and manually remove the CloudBacko Lite folder.



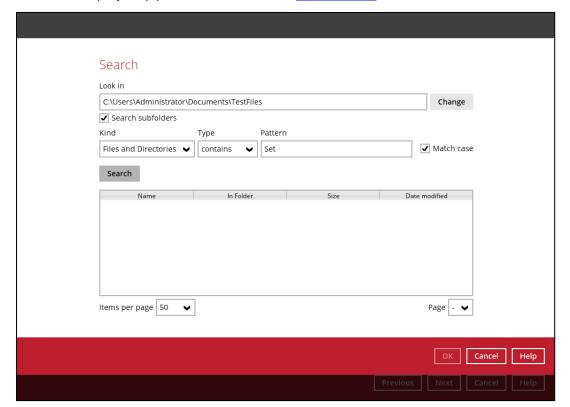


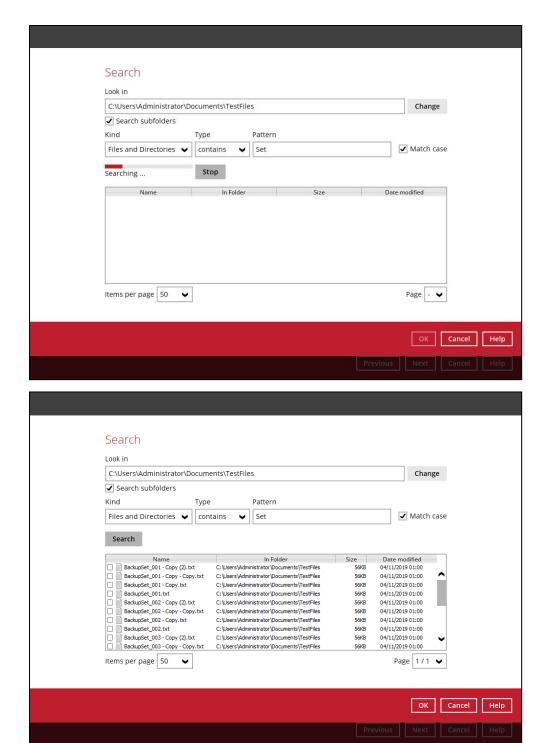
## **Appendix B:** Example Scenarios for Restore Filter

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  $\underline{C:\Users\land Administrator\land Documents\land TestFiles}$  that has the pattern that contains with 'Set' with match case set to true will be included upon performing search.

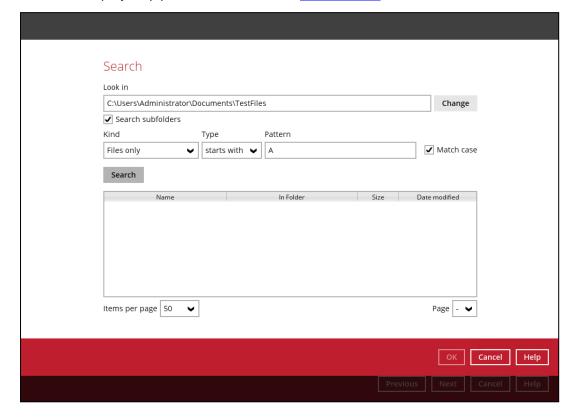
As you can see on the screen shot above, the result panel contains the Name of the file or directory, Directory which are indicated In-Folder column, Size, and Date Modified.

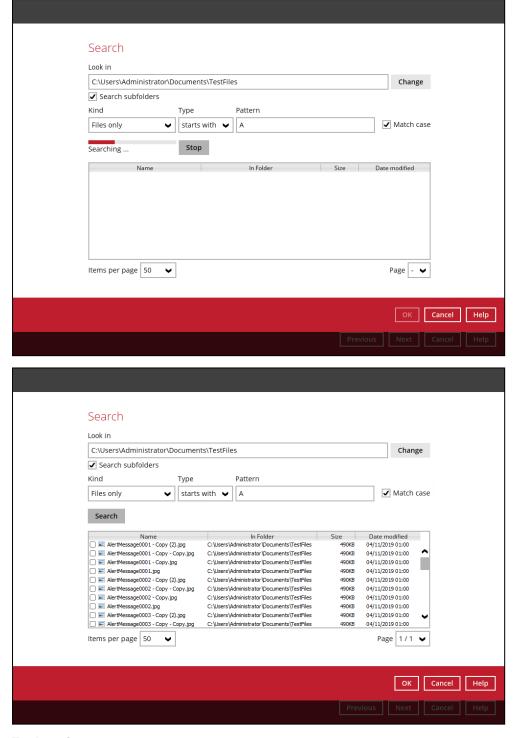
The restore filter setting includes the Search subfolder and Match case set to true. This means that the filter will include all available subfolders in \TestFiles upon searching. And it will strictly search only the specified pattern and case which starts with 'Set'.

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 <u>C:\Users\Administrator\Documents\TestFiles</u> that has the pattern that starts with 'A' with match case set to true will be included upon performing search.

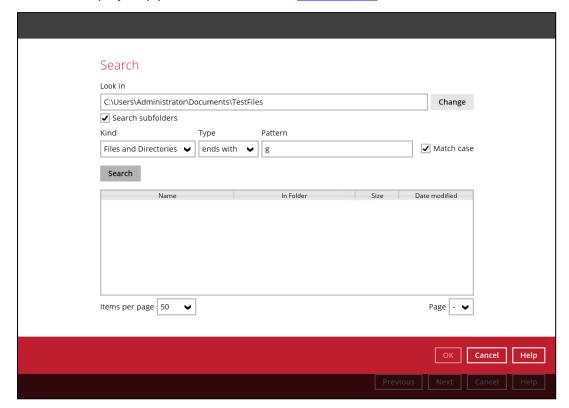
As you can see on the screen shot above, the result panel contains the Name of the file, Directory which are indicated In-Folder column, Size, and Date Modified.

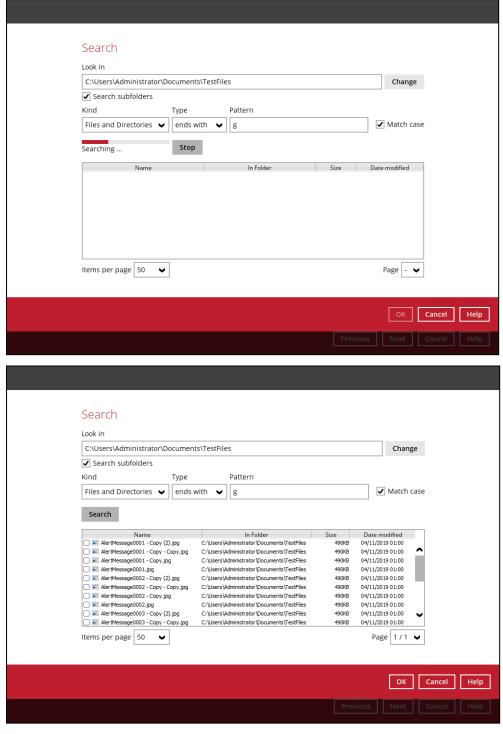
The restore filter setting includes the Search subfolder and Match case set to true. This means that the filter will include all available subfolders in \TestFiles upon searching. And it will strictly search only the specified pattern and case which starts with 'A'.

 $\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.

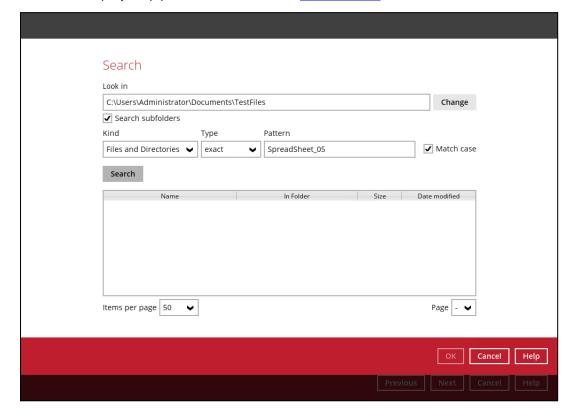
As you can see on the screen shot above, the result panel contains the Name of the files and directories, Directory which are indicated In-Folder column, Size, and Date Modified.

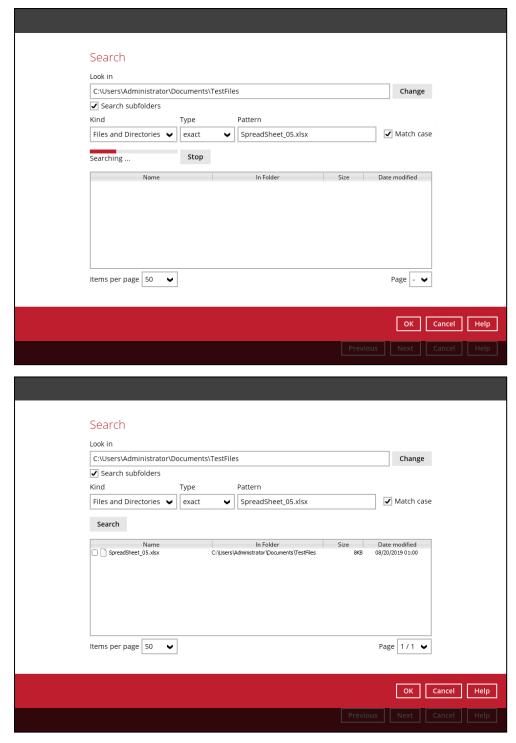
The restore filter setting includes the Search subfolder and Match case set to true. This means that the filter will include all available subfolders in \TestFiles upon searching. And it will strictly search only the specified pattern and case which starts with 'g'.

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 Lite.

- RunCB.bat
- ListBackupSet.bat
- RunBackupSet.bat
- <u>ListBackupJob.bat</u>
- Restore.bat
- Decrypt.bat
- RunDataIntegrityCheck.bat



#### RunCB.bat

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

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

```
C:\Program Files\CloudBacko Lite\bin>notepad RunCB.bat
C:\Program Files\CloudBacko Lite\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\.cbl"
```

 DEBUG\_MODE – this parameter is used to enable or disable the debug mode when opening the CloudBacko Lite 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\.cbl" when not set.
                                                  -
REM | e.g. SET SETTING_HOME="C:\Users\John\.cbl"
                                                  REM -----
SET SETTING HOME=""
REM ----- DEBUG MODE -----
REM | Enable/Disable debug mode
                                                  1
REM | e.g. SET DEBUG MODE="--debug"
                                                  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
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 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 Lite\bin>RunCB.bat
APP HOME=..
SETTING HOME="C:\Users\Administrator\.cbl"
JAVA HOME=..\jvm
{\it JAVA\_EXE=...} \ {\it 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\W
bem; C: \WINDOWS \System 32 \Windows Power Shell \v1.0 \c); C: \WINDOWS \System 32 \Open SSH \c); C: \c)
\Users\Administrator\AppData\Local\Microsoft\WindowsApps
CLASSPATH=..\bin;..\bin\cb.jar
C:\Program Files\CloudBacko Lite\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\.cbl"
Press any key to continue . . .
```



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

```
C:\Program Files\CloudBacko Lite\bin>RunCB.bat
APP HOME=..
SETTING HOME="C:\Users\Administrator\.cbl"
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;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 Lite\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\.cbl"
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\asm-3.1.jar to
classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\b2-core-sdk-
2.0.0.jar to classpath ... OK
2.0.0.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\bcmail-jdk15on-
1.51.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\bcmail-jdk15to18-
164. jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\bcpkix-jdk15on-
1.51. jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\bcpkix-jdk15to18-
164. jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\bcprov-jdk15on-
151.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\bcprov-jdk15to18-
164. jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\cab-parser-2.9.jar
to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\cab-parser-dorkbox-
util-1.1.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\cabinet-maker-
1.0.0.1. jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\commons-codec-
1.6. jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\commons-codec-
1.9.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\commons-io-2.5.jar
to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\commons-logging-
1.1.3.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\commons-logging-
1.2.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\commons-net-3.3.jar
to classpath ... OK
```

```
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\dom4j-1.6.1.jar to
classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\dropbox-core-sdk-
1.7.5. jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\dropbox-core-sdk-
3.0.3.1.jar to classpath ... OK
3.0.3.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\fluent-hc-4.3.5.jar
to classpath ... OK
classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\google-api-client-
1.19.1.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\google-api-client-
jackson2-1.19.1.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\google-api-
services-drive-v2-rev158-1.19.1.jar to classpath ... OK
1.19.0.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\google-http-client-
jackson2-1.19.0.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\google-oauth-
client-1.19.0.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\httpclient-
4.3.5.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\httpclient-
4.5.3.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\httpclient-cache-
4.3.5.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\httpclient-cache-
4.5.3.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\httpcore-4.3.2.jar
to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\httpcore-4.4.6.jar
to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\httpmime-4.3.5.jar
to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\httpmime-4.5.3.jar
to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\jackson-
annotations-2.2.3.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\jackson-
annotations-2.7.4.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\jackson-core-
2.2.3.jar to classpath ... OK
Adding \ file: \C: \Program \& 20 Files \Cloud Backo \& 20 Lite \bin \. . \bin \jackson-core-line \Cloud Backo \& 20 Lite \bin \cdot \Cloud Backo \& 20 Lite \cdot \Cloud Backo \Cloud \Cloud Backo \& 20 Lite \cdot \Cloud \
2.7.4.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\jackson-core-asl-
1.9.13.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\jackson-databind-
2.2.3.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\jackson-databind-
2.7.4. jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\jackson-jaxrs-
1.9.2.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\jackson-mapper-asl-
1.9.13.jar to classpath ... OK
```

```
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\jackson-xc-
1.9.2. jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\java-xmlbuilder-
0.4. jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\javax.mail.jar to
classpath ... OK
Adding \ file: \C: \Program \& 20 Files \Cloud Backo \& 20 Lite \bin \... \bin \jcifs - 1.3.18. jar \ to \end{to}
classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\jdokan-20170627.jar
to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\jdom-1.1.3.jar to
classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\jersey-apache-
client4-1.18.1.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\jersey-bundle-
1.18.1.jar to classpath ... OK
1.18.1.jar to classpath ... OK
Adding \ file: \C: \Program \& 20 Files \Cloud Backo \& 20 Lite \bin \... \bin \jettis on -1.1. jar \ to \cite{Adding file} \ci
classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\jsch-0.1.50.jar to
classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\jsch-0.1.54.1.jar
to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\json simple-1.1.jar
to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\jsr305-1.3.9.jar to
classpath ... OK
Adding \ file: \C: \Program \& 20Files \CloudBacko \& 20Lite \bin \. . \bin \log 4j-1.2.17. jar \ to \end{to}
classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\microsoft-
windowsazure-api-0.4.6.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\microsoft-
\label{lem:windows} \textit{windows} \textit{azure-storage-sdk-1.0.0.jar} \ \textit{to} \ \textit{classpath} \ \dots \ \textit{OK}
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\microsoft-
windowsazure-storage-sdk-6.0.0.1.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\microsoft-
windowsazure-storage-sdk-6.0.0.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\mysql-connector-
java-5.0.8-bin.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\mysql-connector-
java-5.1.46-bin.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\ojdbc6.jar to
classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\org.json-
20150730.jar to classpath ... OK
classpath ... OK
Adding \ file: \C: \Program \& 20 Files \Cloud Backo \& 20 Lite \bin \... \bin \sinet factory. jar \ to \cite{Adding file} \cit
classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\snappy-java-
1.1.7.3. jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\sqlite-jdbc-
3.27.2.1. jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\bin\..\bin\yavijava.jar to
classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\jvm\lib\charsets.jar to
classpath ... OK
```

```
Adding file:\C:\Program%20Files\CloudBacko%20Lite\jvm\lib\jce.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\jvm\lib\jfxswt.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\jvm\lib\jsse.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\jvm\lib\management-agent.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\jvm\lib\resources.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\jvm\lib\resources.jar to classpath ... OK
Adding file:\C:\Program%20Files\CloudBacko%20Lite\jvm\lib\rt.jar to classpath ... OK
```

#### Eventually, the CloudBacko Lite 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 Lite\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;C:\Program Files (x86)\Common
Files\Oracle\Java\javapath;C:\WINDOWS\system32;C:\WINDOWS;C:\WINDOWS\System32\Wb
sers \setminus Administrator \setminus AppData \setminus Local \setminus Microsoft \setminus Windows Apps
CLASSPATH=..\bin;..\bin\cb.jar
Listing all backup sets under this backup account ...
C:\Program Files\CloudBacko Lite\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, ID= 1597312150097
C:\Program Files\CloudBacko Lite\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 Lite\bin>notepad RunBackupSet.bat
C:\Program Files\CloudBacko Lite\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\.cbl" by default.

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

- 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"
    or SET BACKUP DESTS="ALL"
REM | You can specify multiple destinations in comma-separated format,
REM | or use "ALL" to run backup for all destinations.
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 |
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\.cbl" when not set.
REM | e.g. SET SETTING HOME="C:\Users\John\.cbl"
REM -----
SET SETTING HOME=""
REM ----- DELTA MODE -----
REM | Set In-File Delta mode.
REM | Options available: Incremental/Differential/Full (I/D/F)
REM | e.g. SET DELTA MODE="I" 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
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"
REM ----- DEBUG_MODE -----
REM | Set Debug mode.
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 -
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 Running Backup Set - '%BACKUP SET%' ...
@ECHO ON
```

```
%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 Lite\bin>RunBackupSet.bat
APP HOME=..
SETTING_HOME=""
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 Lite\bin\..\bin\X64;...\jvm\bin;C:\Program Files
(x86) \setminus 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 \land Administrator \land AppData \land Local \land Microsoft \land Windows Apps
CLASSPATH=..\bin;..\bin\cb.jar
Running Backup Set - '""' ...
C:\Program Files\CloudBacko Lite\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 .. "" "ALL" "FILE" "" ""
"DISABLE-CLEANUP" "DISABLE-DEBUG"
[2020/08/14 15:57:00] [info] [-] Start [ CloudBacko Lite v4.1.2.14 ]
[2020/08/14 15:57:06] [info] [1597312182825] Start Backup ... [In-File Delta:
Incremental]
[2020/08/14 15:57:06] [info] [1597312182825] Using Temporary Directory
F:\Temp\CloudBacko Lite\1597312150097\Local@1597312182825
[2020/08/14 15:57:11] [info] [1597312182825] Downloading server file list...
[2020/08/14 15:57:13] [info] [1597312182825] Download valid index files from
backup job "Current" to "F:\Temp\CloudBacko
Lite\1597312150097\Local@1597312182825\index".
[2020/08/14 15:57:13] [info] [1597312182825] Downloading server file list...
Completed
[2020/08/14 15:57:16] [info] [-] Start creating Shadow Copy Set...
[2020/08/14 15:57:34] [info] [-] Shadow Copy Set successfully created
[2020/08/14 15:57:34] [info] [1597312182825] Reading backup source from hard
disk ...
[2020/08/14 15:57:39] [info] [1597312182825] Getting all files which have been
[2020/08/14 15:57:39] [info] [1597312182825] Getting all files which have been
moved... Completed
[2020/08/14 15:57:39] [info] [1597312182825] Reading backup source from hard
disk... Completed
```

```
[2020/08/14 15:57:40] [info] [1597312182825] Start validating the presence and
size of backup data in destination "Local-1"...
[2020/08/14 15:57:40] [info] [1597312182825] Finished validating the presence
and size of backup data in destination "Local-1"
[2020/08/14\ 15:57:40] [info] [1597312182825] Total New Files = 0
[2020/08/14\ 15:57:40] [info] [1597312182825] Total New Directories = 0
[2020/08/14\ 15:57:40] [info] [1597312182825] Total New Links = 0
[2020/08/14\ 15:57:40] [info] [1597312182825] Total Updated Files = 0
[2020/08/14 15:57:40] [info] [1597312182825] Total Attributes Changed Files = 0
[2020/08/14 \ 15:57:40] [info] [1597312182825] Total Deleted Files = 0
[2020/08/14\ 15:57:40] [info] [1597312182825] Total Deleted Directories = 0
[2020/08/14 15:57:40] [info] [1597312182825] Total Deleted Links = 0
[2020/08/14\ 15:57:40] [info] [1597312182825] Total Moved Files = 0
[2020/08/14 15:57:40] [info] [-] Deleting Shadow Copy snapshot for volume
"\\?\Volume{9795d85d-0000-0000-100000000000}\"
[2020/08/14 15:57:40] [info] [-] Deleting Shadow Copy snapshot for volume "C:\"
[2020/08/14 15:57:40] [info] [-] Deleting Shadow Copy snapshot for volume
"\\?\Volume{9795d85d-0000-0000-0000-d0cc09000000}\"
[2020/08/14\ 15:57:40] [info] [-] Deleting Shadow Copy snapshot for volume "E:\"
[2020/08/14 15:57:40] [info] [-] Deleting Shadow Copy snapshot for volume "F:\"
[2020/08/14 15:57:40] [info] [1597312182825] Saving encrypted backup file index
to 1597312150097/blocks at destination Local-1...
[2020/08/14 15:57:42] [info] [1597312182825] Saving encrypted backup file index
to 1597312150097/blocks/2020-08-14-15-57-00 at destination Local-1...
[2020/08/14 15:57:45] [info] [1597312182825] Deleting temporary file
F:\Temp\CloudBacko Lite\1597312150097\Local@1597312182825
[2020/08/14 15:57:45] [info] [1597312182825] 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 Lite\bin>notepad ListBackupJob.bat
C:\Program Files\CloudBacko Lite\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 ############## ListBackupJob.bat
REM # You can use this batch to list all backup jobs which ran under this
REM # backup set.
REM
REM ################ Start: User Defined Section
##########################
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 |
REM | You can leave this parameter blank if you have only 1 destination.
SET BACKUP DEST=""
REM ################# END: User Defined Section
#############################
REM
REM #
              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 Lite\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
=trije
JAVA LIB PATH=-Djava.library.path=..\bin
PATH=..\jvm\bin;C:\Windows\system32;C:\Windows;C:\Windows\System32\Wbem;C:\Windows\system32\label{eq:path}
ows\System32\WindowsPowerShell\v1.0\CLASSPATH=..\bin;..\bin\cb.jar
Listing all backup jobs for Backup Set - '"Sample Backup Set"' ...
C:\Program Files\CloudBacko Lite\bin>..\jvm\bin\bJW.exe -
Djava.library.path=..\bi
n -cp ..\bin;..\bin\cb.jar -Xms128m -Xmx768m -Dsun.java2d.noddraw -
Dsun.nio.Page
AlignDirectMemory=true ListBackupJob --app-home=.. --backup-set="Sample Backup
et" --backup-dest="" --setting-home=
Sample Backup Set [1596781705469]
2020-08-07-15-23-00
C:\Program Files\CloudBacko Lite\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 Lite\bin>notepad Restore.bat
C:\Program Files\CloudBacko Lite\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 ############################## Restore.bat ##################################
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 | You can leave this parameter blank if you have only 1 backup set.
                                                          - 1
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 |
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
                                                          - 1
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"
REM -----
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"
```



```
REM ----- SKIP INVALID KEY -----
REM | set to "Y" 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
                                                             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\.cbl" when not set.
                                                             REM | e.g. SET SETTING HOME="C:\Users\John\.cbl"
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|
REM |
REM |
            startWith | startWithMatchCase | endWith | endWithMatchCase]
REM |
        zzz is the filter target, which can be one of the following:
           [toFile | toFileDir | toDir]
REM |
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 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"
SET TEMP DIR=""
REM ----- VERIFY CHKSUM -----
REM | set to "Y" if you want to verify in-file delta file checksum during
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
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% 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 Lite\bin>Restore.bat
APP HOME=..
SETTING HOME=""
JAVA HOME=..\ivm
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 Lite\bin\..\bin\X64;..\jvm\bin;C:\Program
Files \\ \ CloudBacko\ Lite\\ \ bin\\ \ ...\\ \ bin\\ \ X64;...\\ \ jvm\\ \ bin; C:\\ \ Program\ Files\ (x86)\\ \ Common\ Files\ (x86
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 Lite\bin>..\jvm\bin\bJW.exe -
Djava.library.path=..\bin -cp ..\bin;..\bin\cb.jar -Xms128m -Xmx2048m -
XX:MaxDirectMemorySize=1024m -Dsun.java2d.noddraw -
Dsun.nio.PaqeAlignDirectMemory=true Restore --to="C:\Temp" --from="C:\Data" --
backup-set="" --backup-dest="" "--all" --date="Current" --set-permission="N" --
skip-invalid-key="N" --sync="N" --filter="" --temp-dir="" --verify-delta-file-
chksum="N" --app-home=.. --setting-home=""
Filter Pattern not set, filter would not apply to restore
Temporary directory not set, use the temporary directory in the backup set
[2020-08-14 16:08:18] Start [ CloudBacko Lite v4.1.2.14 ]
[2020-08-14 16:08:21] 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: 14.3MB (Current) / 1.8GB (Maximum);
Physical Memory: 1.8GB (Free) / 4GB (Total)
[2020-08-14 16:08:21] start, Start [ CloudBacko Lite v4.1.2.14 ], 0, 0, 0, 0, 0, 0
[2020-08-14 16:08:21] Selected job: 2020-08-14-16-08-13
[2020-08-14 16:08:21] Selected source: [C:\Data]
[2020-08-14 16:08:21] Info: [followLink=true marshalTargetPath=false
deleteForSync=false skipFaultKey=false verifyDeltaFileChecksum=false
restorePermission=false [RestoreLocation] type=RAW path=[C:\Temp]]
[2020-08-14 16:08:22] Initializing decrypt action...
[2020-08-14 16:08:22] Initializing decrypt action... Completed
[2020-08-14 16:08:23] Restore Completed Successfully
[2020-08-14 16:08:23] 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 Lit\bin>notepad Decrypt.bat
C:\Program Files\CloudBacko Lite\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\.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 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"

```
BECHO 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 [<br/>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="RU5DUllQVF9LRVk="
REM |
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"
         ----- 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"
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
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
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. Log files will be located inside.
REM | Default to "C:\Users\USER\.cbl" when not set.
REM | e.g. SET SETTING HOME="C:\Users\John\.cbl"
REM -----
SET SETTING HOME=""
REM OPTION:
REM ----- FILTER ------
REM | Filter out what files you want to decrypt
REM | -Pattern=xxx-Type=yyy-Target=zzz
REM | where xxx is the filter pattern,
REM \mid yyy is the filter type, whice can be one of the following:
        [exact | exactMatchCase | contains | containsMatchCase|
REM |
REM |
             startWith | startWithMatchCase | endWith | endWithMatchCase]
REM |
        zzz is the filter target, which can be one of the following:
REM |
          [toFile | toFileDir | toDir]
REM |
REM | e.g. SET FILTER="-Pattern=.txt-Type=exact-Target=toFile"
REM -----
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.PaqeAlignDirectMemory=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 Lite\bin>Decrypt.bat
APP HOME=..
SETTING HOME="C:\Users\Administrator\.cbl"
JAVA HOME=..\jvm
{\it JAVA\_EXE=...}\ {\it 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 Lite\bin\..\bin\X64;..\jvm\bin;C:\Program
Lite\bin\..\bin\X64;..\jvm\bin;C:\Program Files\CloudBacko
Lite\bin\..\bin\X64;..\jvm\bin;C:\Program Files\CloudBacko
Lite\bin\..\bin\X64;..\jvm\bin;C:\Program Files\CloudBacko
Lite\bin\..\bin\X64;..\jvm\bin;C:\Program Files\CloudBacko
Lite\bin\..\bin\X64;..\jvm\bin;C:\Program Files (x86)\Common
Files\Oracle\Java\javapath;C:\WINDOWS\system32;C:\WINDOWS;C:\WINDOWS\System32\Wb
\verb|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 Lite\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\1597312150097\blocks" --key="" "--
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\.cbl"
Filter Pattern not set, filter would not apply to decrypt
Cannot decrypt backup file. Decrypting key is incorrect.
(C:\Users\Administrator\Documents\1597312150097\blocks\index.db.18000.173ebc2862
Please input the Encrypting Key.
Want to input encrypting key?
```

```
1.YES 2.CANCEL >>1
[2020-08-14 16:30:48] Start [ CloudBacko Lite v4.1.2.14 ]
[2020-08-14 16:30:51] OS: Windows 10 (w10-pro); CPU Model: VMware-Intel(R)
Xeon(R) CPU
                                                         E5520 @ 2.27GHz, Intel(R) Xeon(R) CPU
                                                                                                                                                                                                  E5520 @
2.27GHz; Number of Processors: 4; Heap Size: 14.9MB (Current) / 1.8GB (Maximum);
Physical Memory: 1.6GB (Free) / 4GB (Total)
[2020-08-14 16:30:51] start, Start [ CloudBacko Lite v4.1.2.14 ], 0, 0, 0, 0, 0, 0
[2020-08-14 16:30:51] Selected job: 2020-08-14-16-30-34
[2020-08-14 16:30:51] Selected source: [C:\Data]
[2020-08-14 16:30:51] Info: [followLink=true marshalTargetPath=false
delete For Sync= false \ skip Fault Key= false \ verify {\tt DeltaFileCheck sum} = false \ to the control of th
restorePermission=false [RestoreLocation] type=RAW path=[C:\Temp]]
[2020-08-14 16:30:52] Initializing decrypt action...
[2020-08-14 16:30:52] Initializing decrypt action... Completed
[2020-08-14 16:30:53] Restore Completed Successfully
[2020-08-14 16:30:53] end, RESTORE_STOP_SUCCESS, 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 Lite\bin>notepad RunDataIntegrityCheck.bat
```

C:\Program Files\CloudBacko Lite\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\.cbl" by default

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

• **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 ----- SETTING HOME (Optional) -----
REM | Directory to your setting home. Default to
REM | "C:\Users\USER\.cbl" when not set.
                                                            REM | e.g. SET SETTING HOME="C:\Users\John\.cbl"
                                                            REM -----
SET SETTING HOME=""
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 |
REM | You can leave this parameter blank if you have only 1 backup set.
REM -----
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 |
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"
REM -----
SET CRC MODE="DISABLE-CRC"
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
```

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

```
C:\Program Files\CloudBacko Lite\bin>RunDataIntegrityCheck.bat
APP HOME=..
SETTING HOME="C:\Users\Administrator\.cbl"
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 Lite\bin\..\bin\X64;..\jvm\bin;C:\Program
Files \\ \ CloudBacko \ Lite\\ \ bin\\ \ \\ \ . \\ \ bin\\ \ \\ \ X64; . . \\ \ jvm\\ \ bin; C:\\ \ Program \ Files\\ \ CloudBacko \ Lite\\ \ bin\\ \ \\ \ A64; . . \\ \ bin\\ \ A64; . \\ \ bin\\ \ A64; . . \\ \ bin\\ \ A64; 
Lite\bin\..\bin\X64;..\jvm\bin;C:\Program Files\CloudBacko
Lite\bin\..\bin\X64;..\jvm\bin;C:\Program Files\CloudBacko
Lite\bin\..\bin\X64;..\jvm\bin;C:\Program Files\CloudBacko
Lite\bin\..\bin\X64;..\jvm\bin;C:\Program Files\CloudBacko
Lite\bin\..\bin\X64;..\jvm\bin;C:\Program Files\CloudBacko
Lite\bin\..\bin\X64;..\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 Lite\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 RunDataIntegrityCheck ..
"C:\Users\Administrator\.cbl" "ALL" "DISABLE-CRC"
[doInfo] Start [ CloudBacko Lite v4.1.2.14 ]
[doStart] Start data integrity check on backup set "Sample Backup
Set(1597312150097)" all destination, crc disabled
[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 Lite\1597312150097\Local@1597312182825\index".
[doInfo] Download valid index files from backup job "Current" to
"F:\Temp\CloudBacko Lite\1597312150097\Local@1597312182825\index".
[doLogProgress] Browsing "1597312150097\blocks\2020-08-14-15-41-44"
[doLogProgress] Browsing "1597312150097\blocks\2020-08-14-15-57-00"
[doLogProgress] Processing Job "2020-08-14-15-41-44", ""
[doLogProgress] Processing Job "2020-08-14-15-57-00", ""
[doLogProgress] Processing Job "Current", ""
[doLogProgress] Processing Job "Current", "C:"
[doLogProgress] Processing Job "Current", "C:\Users"
[doLogProgress] Processing Job "Current", "C:\Users\Administrator"
[doLogProgress] Processing Job "Current", "C:\Users\Administrator\Documents"
[doLogProgress] Processing Job "Current",
"C:\Users\Administrator\Documents\TestFiles"
[doLogProgress] Processing Job "Current",
"C:\Users\Administrator\...\Documents\TestFiles"
[doLogProgress] Processing Job "Current",
"C:\Users\Administrator\...\Documents\TestFiles"
[doLogProgress] Processing Job "Current",
"C:\Users\Administrator\...\TestFiles\1597137720243"
[doLogProgress] Processing Job "Current",
[doLogProgress] Processing Job "Current", "C:\User\Administrator...\blocks\2020-
08-11-18-24-20"
[doLogProgress] Processing Job "Current",
[doLogProgress] Processing Job "Current",
"C:\Users\Administrator\...\1597137720243\logs"
[doLogProgress] Processing Job "Current",
"C:\Users\Administrator\...\Documents\TestFiles"
[doInfo] Checking dangling backup file index entries...
[doLogProgress] Checking dangling backup file index entries...
[doLogProgress] Saving encrypted backup file index to 1597312150097\blocks at
destination Local-1...
[doInfo] Saving encrypted backup file index to 1597312150097\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
[doEnd][INFO] Finished data integrity check on backup set "Sample Backup
Set(1597312150097)" all destination, crc disabled
[doInfo] Completed data integrity check on backup set "Sample Backup
Set(1597312150097)" all destination, crc disabled
Press any key to continue . . .
```



# 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.

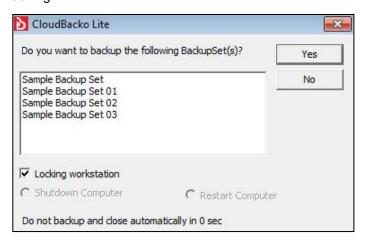
1. Turn on the Reminder setting, then click the **Save** button.



2. Perform Windows logoff.



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





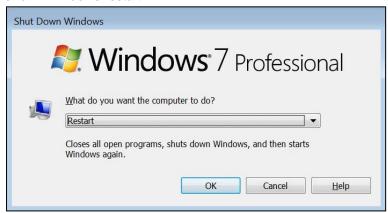
#### **Windows Restart**

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

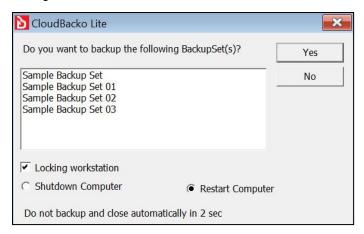
1. Turn on the Reminder setting, then click the **Save** button.



2. Perform Windows restart.



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





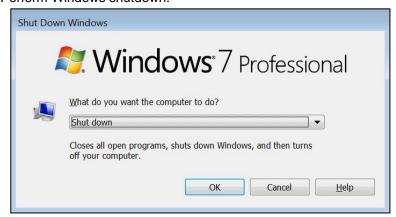
#### **Windows Shutdown**

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

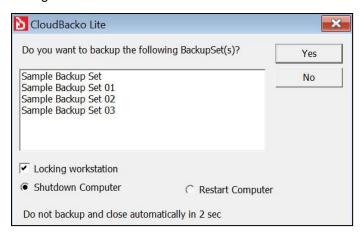
1. Turn on the Reminder setting, then click the **Save** button.



2. Perform Windows shutdown.



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

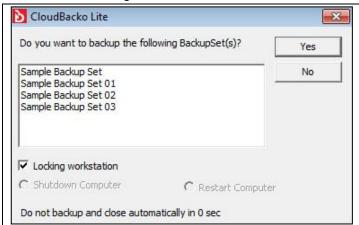




Below is the list of example scenarios with complex settings:

## Scenario 1 (Windows Log Off + Enabled Locking Workstation)

The following scenario shows when the user performs Windows logoff with the Reminder setting turned on, and Locking Workstation enabled.



Yes – If Yes is selected, then the Windows will be locked, and the displayed backup sets will start backing up in the background. Once all the backup jobs are completed, the machine will log off automatically even if Windows is still on lock.

**No** – If No is selected, then no backup job will run, and the machine will proceed to log off.

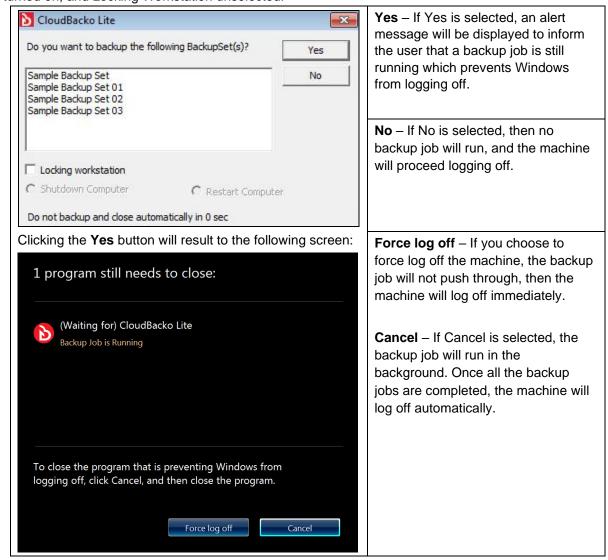
#### NOTE

The machine will log off after four (4) seconds if no action is selected.



## Scenario 2 (Windows Log Off + Unselected Locking Workstation)

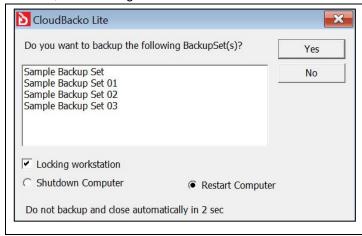
The following scenario shows when the user performs Windows logoff with the Reminder setting turned on, and Locking Workstation unselected.





## Scenario 3 (Windows Restart + Enabled Locking Workstation)

The following scenario shows when the user performs Windows restart with the Reminder setting turned on, and Locking Workstation enabled.



Yes – If Yes is selected, then the Windows will be locked, and the displayed backup sets will start backing up in the background. Once all the backup jobs are completed, the machine will restart automatically even if the Windows is still on lock.

**No** – If No is selected, then no backup job will run, and the machine will restart immediately.

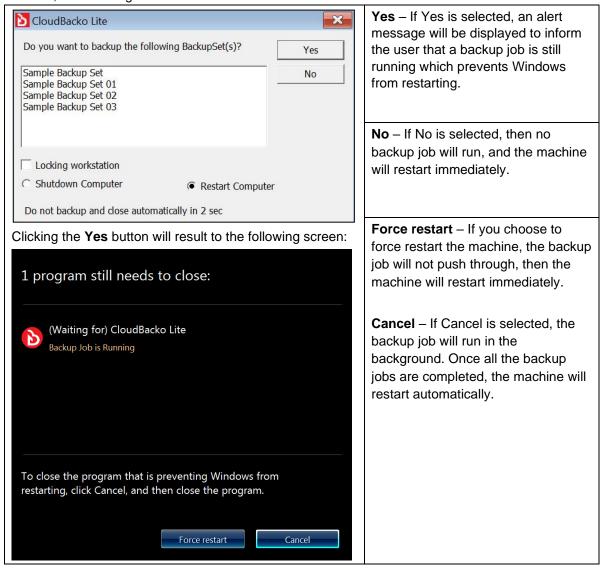
#### **NOTE**

- 1. You can select the 'Shutdown Computer' from the options in the dialog box, but the machine will still follow the action that you perform from the Windows, which is 'restart'. The machine will reboot once all the backup jobs are completed.
- 2. The machine will restart after four (4) seconds if no action is selected.



## Scenario 4 (Windows Restart + Unselected Locking Workstation)

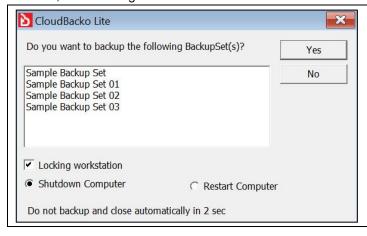
The following scenario shows when the user performs Windows restart with the Reminder setting turned on, and Locking Workstation unselected.





## Scenario 5 (Windows Shutdown + Enabled Locking Workstation)

The following scenario shows when the user performs Windows shutdown with the Reminder setting turned on, and Locking Workstation enabled.



Yes – If Yes is selected, then the Windows will be locked, and the displayed backup sets will start backing up in the background. Once all the backup jobs are completed, the machine will shut down automatically even if the Windows is still on lock.

**No** – If No is selected, then no backup job will run, and the machine will shut down immediately.

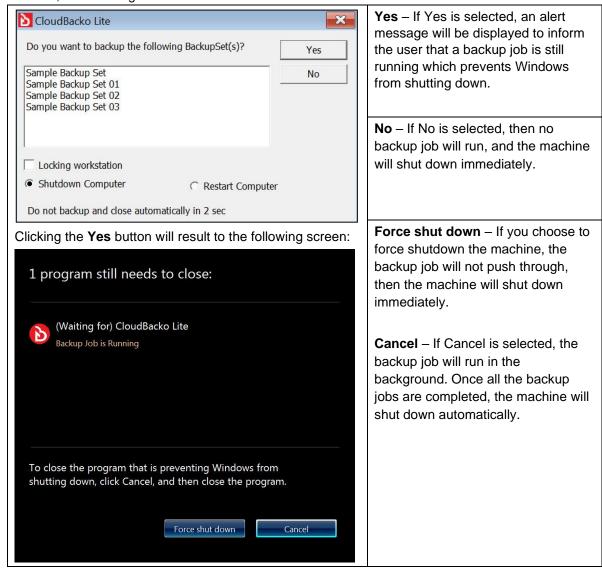
#### **NOTE**

- You can select the 'Restart Computer' from the options in the dialog box, but the machine will still follow
  the action that you perform from the Windows, which is 'shutdown'. The machine will shut down once all
  the backup jobs are completed.
- 2. The machine will shut down after four (4) seconds if no action is selected.



## Scenario 6 (Windows Shutdown + Unselected Locking Workstation)

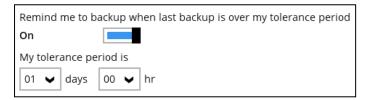
The following scenario shows when the user performs Windows shut down with the Reminder setting turned on, and Locking Workstation unselected.



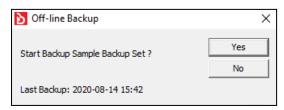


# Appendix E: Example Scenarios for the Reminder for completed Tolerance Period

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

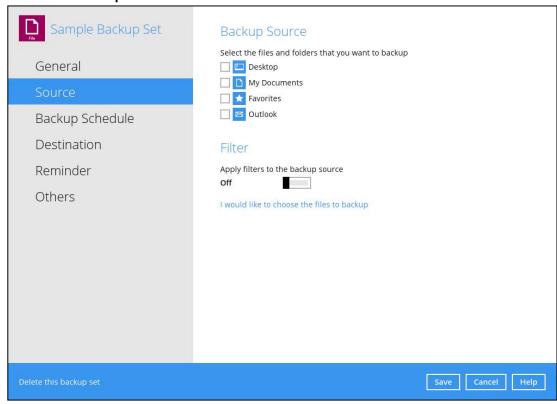
Users have several options in managing network drives that are not set up on Windows, which are the following:

- 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:

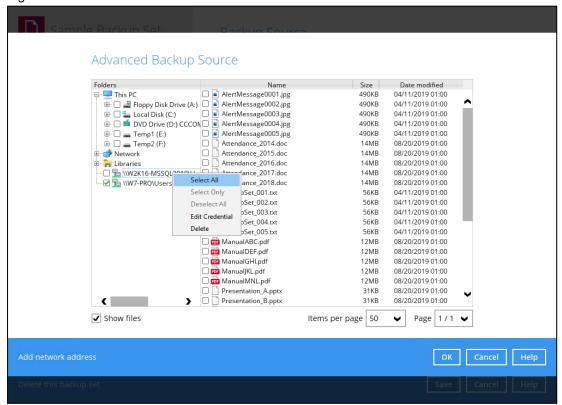
#### Select All

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

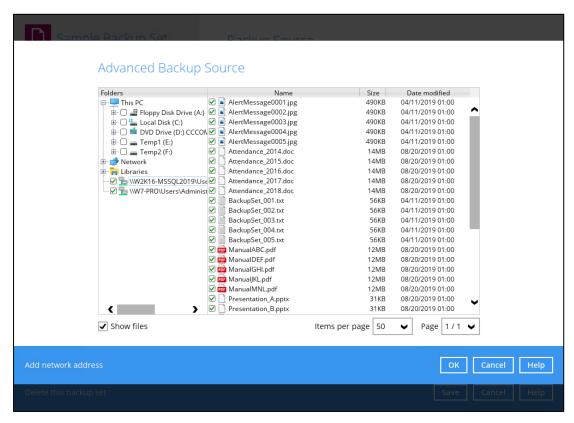




2. Right-click on the network drive and select All.



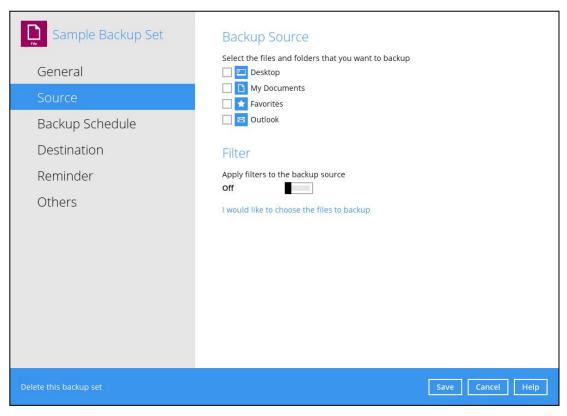
3. All the files and folders in the network drive will now be selected.



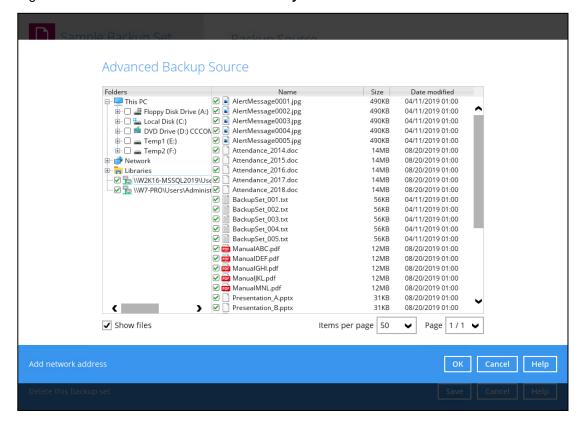


#### **Select Only**

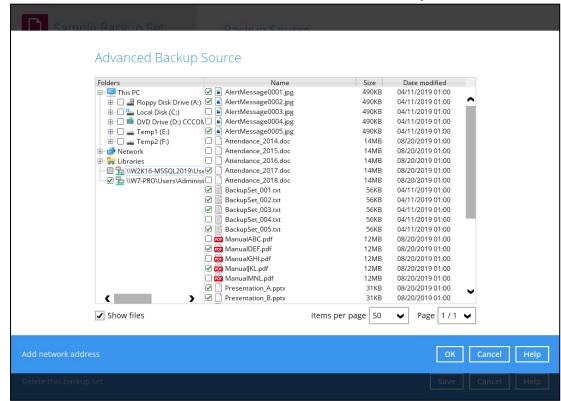
1. Go to Backup Sets, select the backup set. Select Source and click I would like to choose the files to backup.



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



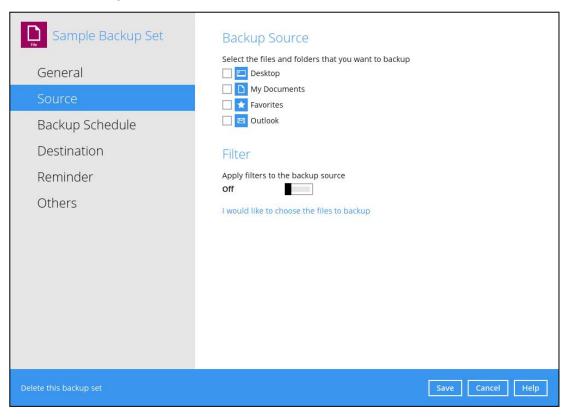
3. The network drive will now be deselected but there will be no change in the file selection.



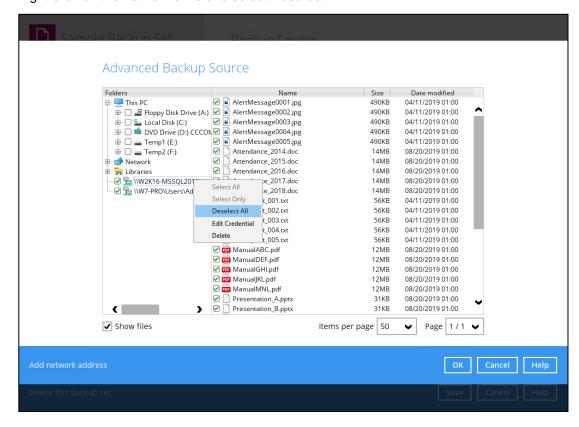


#### **Deselect All**

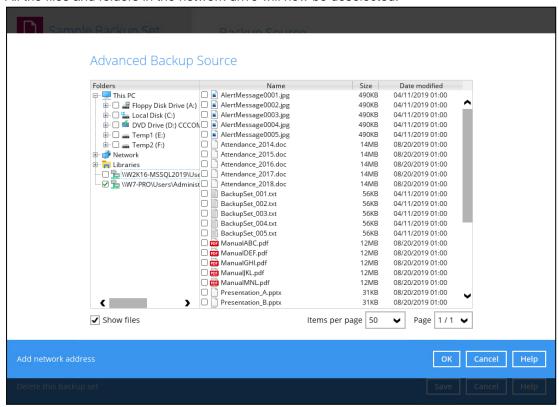
1. Go to Backup Sets, select the backup set. Select Source and click I would like to choose the files to backup.



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



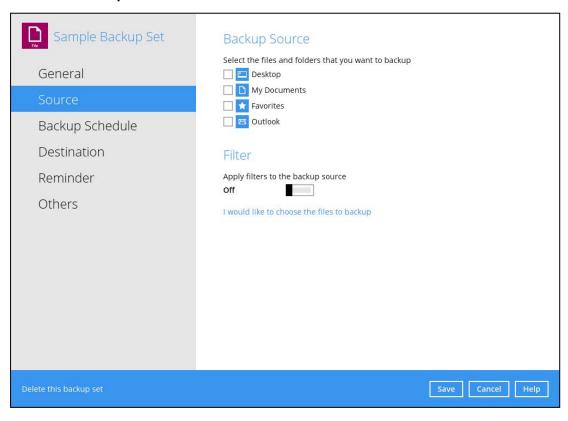
3. All the files and folders in the network drive will now be deselected.



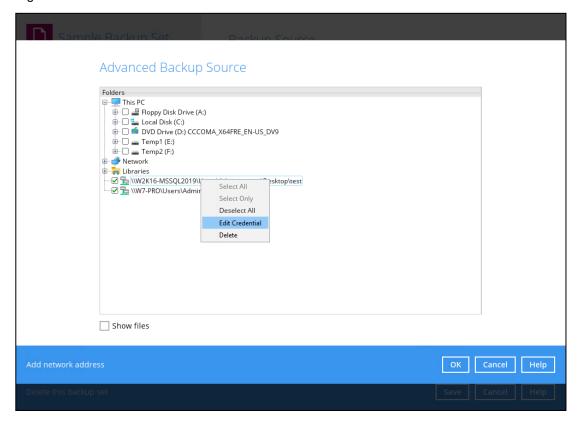


#### **Edit Credential**

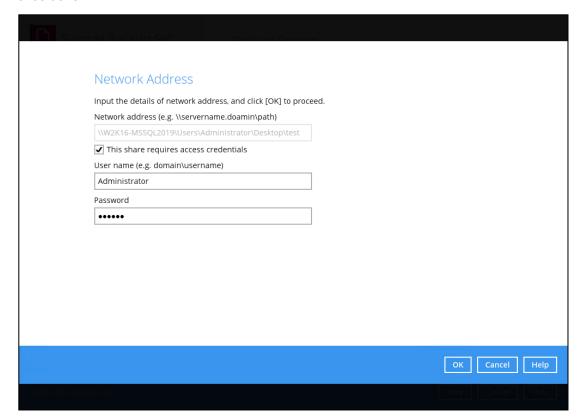
1. Go to Backup Sets, select the backup set. Select Source and click I would like to choose the files to backup.



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



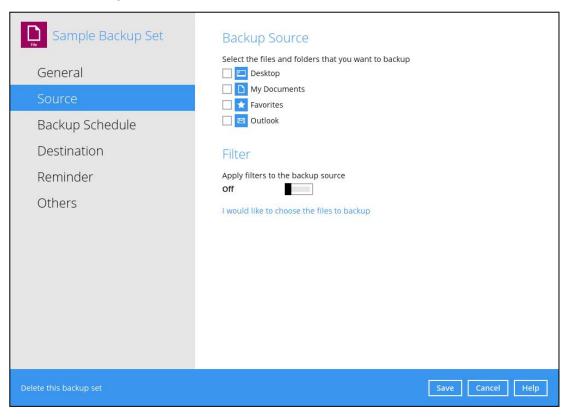
3. The Network Address window will appear, update the Username and/or Password. Click **OK** once done.



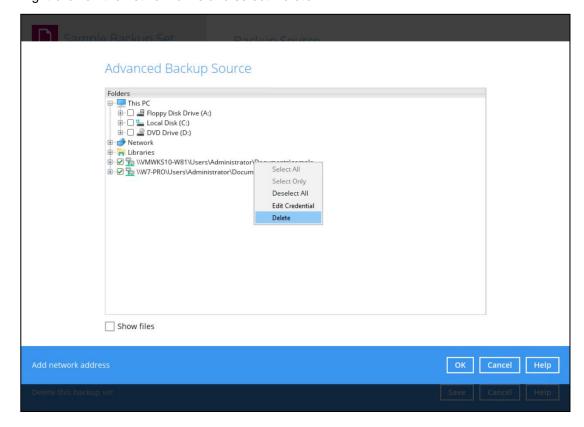


#### **Delete**

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

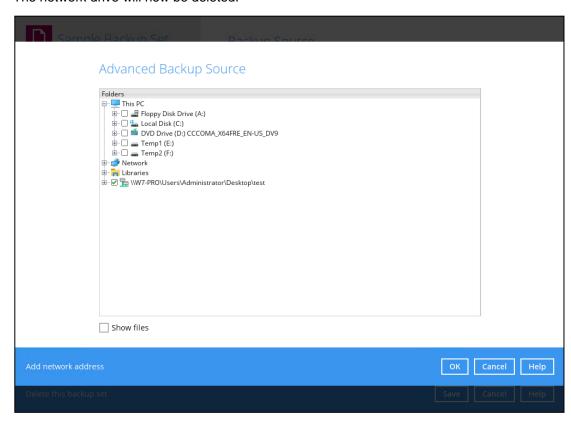


2. Right-click on the network drive and select Delete.





3. The network drive will now be deleted.





# Appendix G: Example Registration of Time-base One-time Password (TOTP) Authenticator app in CloudBacko app

The following are examples of how to register a TOTP authenticator app in the CloudBacko app

## **Microsoft Authenticator app**

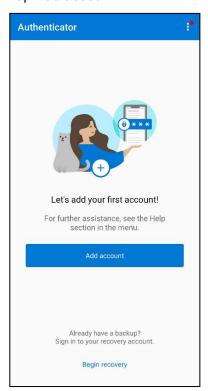
1. Download and install the Microsoft Authenticator from the Play Store for android devices or the App Store for iOS devices.



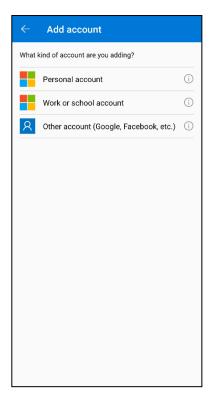
2. Launch the Microsoft Authenticator app.



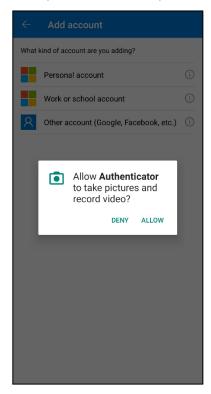
3. Tap Add account.



4. Select Other account (Google, Facebook, etc.).



5. Allow permission to take pictures and record video.



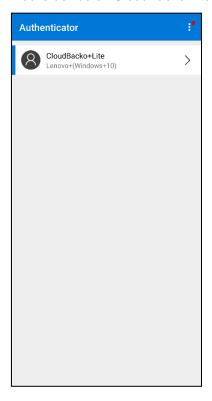
6. Setup the account. Select from the following methods: Scan the QR code or Enter a setup key.

#### Method 1: Scan the QR code

i. Scan the QR code on CloudBacko Lite.



ii. Account is successfully added to Microsoft Authenticator and registered the mobile device on CloudBacko Lite.



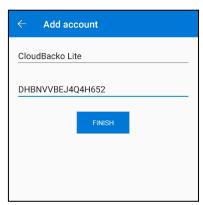


## Method 2: Enter Code Manually

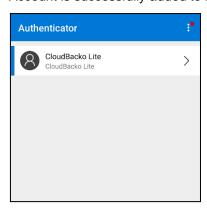
i. Tap OR ENTER CODE MANUALLY.



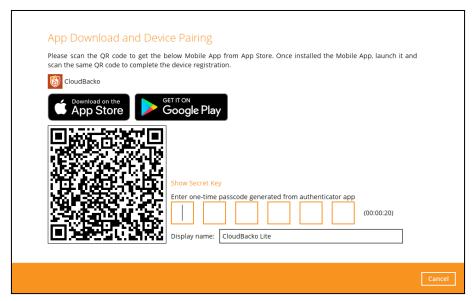
ii. Enter the account name and the key which is the Secret Key that is provided by CloudBacko Lite then tap **FINISH**.



iii. Account is successfully added to Microsoft Authenticator.



iv. In CloudBacko Lite, enter the display name and one-time password generated by the Microsoft Authenticator app. Click Next to proceed.

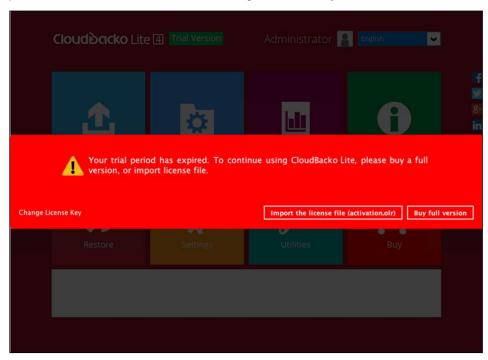


v. Mobile device is successfully registered on CloudBacko Lite.

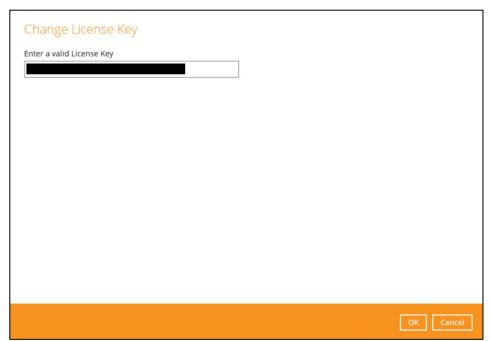


# Appendix H: How to apply a license key to a CloudBacko Lite installation with an expired trial license?

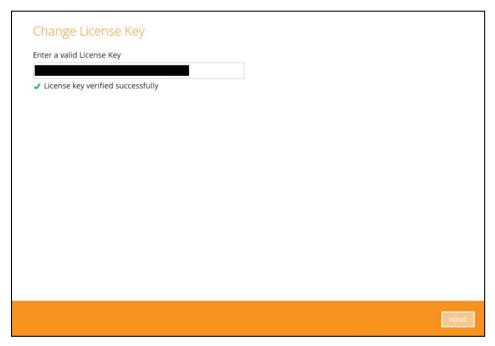
1. Open CloudBacko Lite and click on "Change License Key"



2. Enter your new license key and press **OK** to continue.

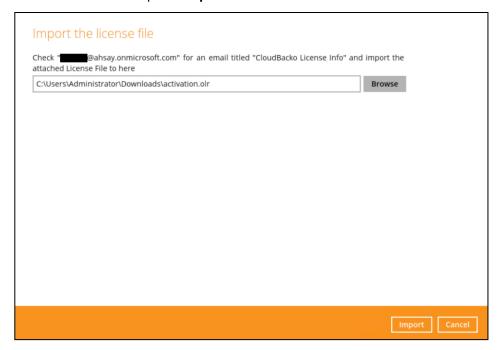


3. Once the new license key has been verified, press Next to continue.

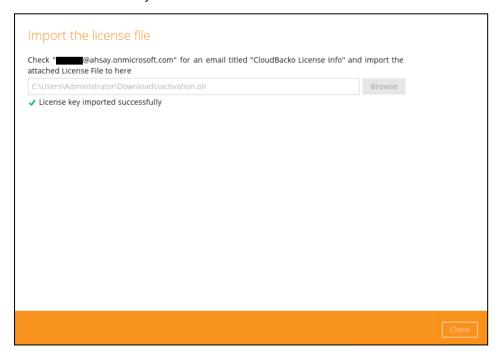


An activation file will be sent to the email address registered during the license purchase immediately containing the license activation file.

4. Copy the "activation.olr" file to the CloudBacko machine. Using "Browse" to locate "activation.olr" file and press **Import** to continue.



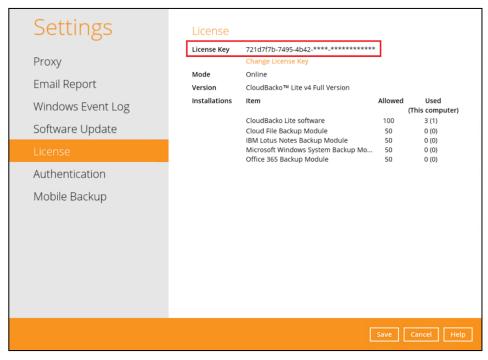
5. Your new license key has now been successfully imported to your CloudBacko Lite installation and is ready to use.



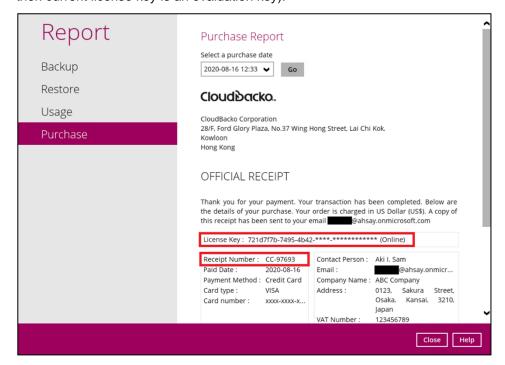


# Appendix I: Where to find the CloudBacko Lite purchase license key?

1. Your CloudBacko Lite purchase license key is shown in the **Settings > License** page. For security reasons the CloudBacko Lite license key is only partially displayed on the application.

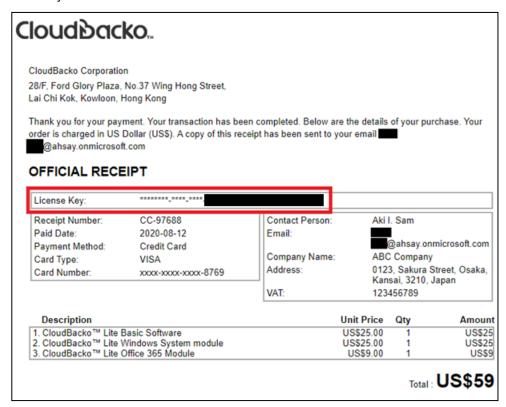


You can verify the license key displayed is our purchase key by comparing it with the details
of the license key and receipt no. in CloudBacko Lite under the Report > Purchase page. It is
recommended to print a copy of the receipt for your records (If there is no purchase record
then current license key is an evaluation key).



3. The remaining part of the license key is email to you along with your official receipt at the time of purchase.

Please print a copy of the receipt and keep it in a safe place along with a copy of the invoice. In case you have to re-install CloudBacko Lite on another machine.

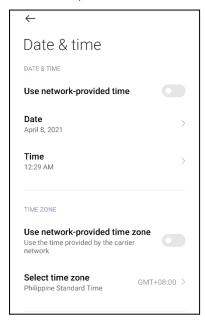




# Appendix J: Different Date, Time, and Time zone with CloudBacko Lite machine and mobile device

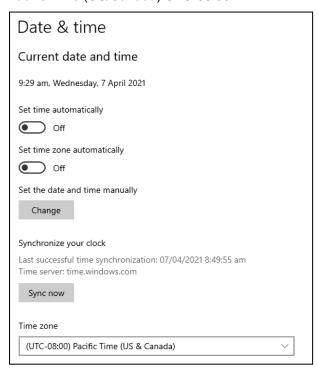
1. Check the date, time, and time zone in mobile device.

Example: Time zone settings of a mobile device used in the Philippines (time zone GMT+08:00).



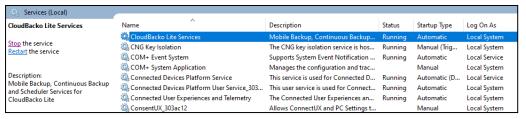
2. Check the date, time, and time zone in CloudBacko Lite machine.

Example: Time zone settings of a Windows machine used in the Philippines (time zone UTC+08:00). However, the set time zone in the CloudBacko Lite machine is set incorrectly in Pacific Time (US/Canada) UTC-08:00.

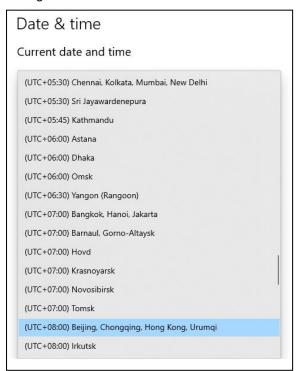




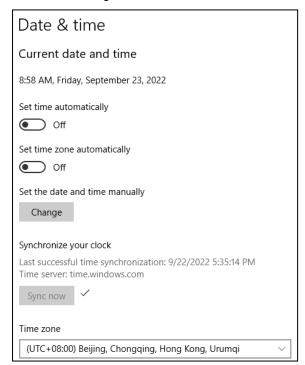
Stop the scheduler service.



4. Change the time zone in CloudBacko Lite machine.



5. Check the changed time zone in CloudBacko Lite machine.



## 6. Start the scheduler service.

Services (Local)	_				
CloudBacko Lite Services	Name	Description	Status	Startup Type	Log On As
Start the service  Description: Mobile Backup, Continuous Backup and Scheduler Services for CloudBacko Lite	CloudBacko Lite Services	Mobile Backup, Continuous Backup		Automatic	Local System
	CNG Key Isolation	The CNG key isolation service is hos	Running	Manual (Trig	Local System
	COM+ Event System	Supports System Event Notification	Running	Automatic	Local Service
	COM+ System Application	Manages the configuration and trac		Manual	Local System
	Connected Devices Platform Service	This service is used for Connected D	Running	Automatic (D	Local Service
	Connected Devices Platform User Service_303	This user service is used for Connect	Running	Automatic	Local System
	Connected User Experiences and Telemetry	The Connected User Experiences an	Running	Automatic	Local System
	ConsentUX_303ac12	Allows ConnectUX and PC Settings t		Manual	Local System