

# **ⓑ** CloudBacko Pro

# Quick Start Guide for Mac

CloudBacko Corporation 6 January 2025

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# **Revision History**

Date	Descriptions	Version
23 May 2024	<ul> <li>Added Tibero Trademark</li> <li>Updated images</li> <li>Ch. 7.8.1 – updated Data Integrity Check instructions</li> </ul>	5.9.14.0
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6 January 2025	<ul> <li>Ch. 7.4.1.9 – Removed Open Direct, updated screenshots</li> <li>Ch. 7.6.3 – updated module list, added PostgreSQL Backup module</li> <li>Ch. 8 – Removed OpenDirect</li> <li>Ch. 11 – Updated Restore steps</li> <li>Ch. 11.2 – Updated Restore Filter instructions</li> </ul>	5.13

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#### 1 Overview

#### 1.1 What is this software?

CloudBacko brings you specialized client backup software, namely CloudBacko Pro, to provide a comprehensive backup solution for protecting the following applications:

- File
- Cloud File
- MySQL
- Microsoft 365 Exchange Online Mailbox
- VMware

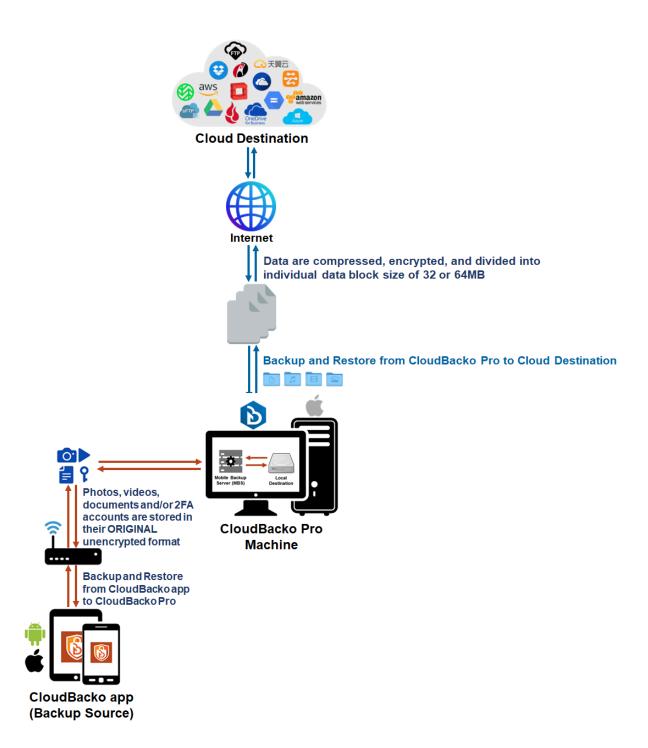
It also supports a wide variety of backup destinations, which are the following:

- Local hard drive / USB drive / Network share
- 1&1 IONOS
- Alibaba Cloud (Aliyun)
- Amazon S3
- S3-Compatible Cloud Storage
- BackBlaze B2
- CenturyLink
- CTYun
- DreamHost's DreamObjects
- Dropbox
- IBM Cloud Object Storage
- Google Cloud Storage

- Google Drive
- Microsoft Azure
- Microsoft OneDrive
- Microsoft OneDrive for Business
- OpenStack
- Rackspace Cloud File
- S3ForMe
- Scality
- Wasabi
- Zadara
- FTP
- SFTP

#### 1.2 System Architecture

Below is the system architecture diagram illustrating the major elements involved in the backup process among the backup machine CloudBacko Pro and CloudBacko app (mobile client).



#### 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 Pro, which is located in the "mbs" folder inside the CloudBacko Pro 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 Pro. Afterwards, it will be automatically restarted whenever the CloudBacko pro services is restarted or when the CloudBacko Pro 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 Pro services is restarted.

The MBS will use the following port ranges for the request of CloudBacko app:

• TCP Port: 50000 to 50099

UDP Port: 50200 to 50299

Protocol: Http

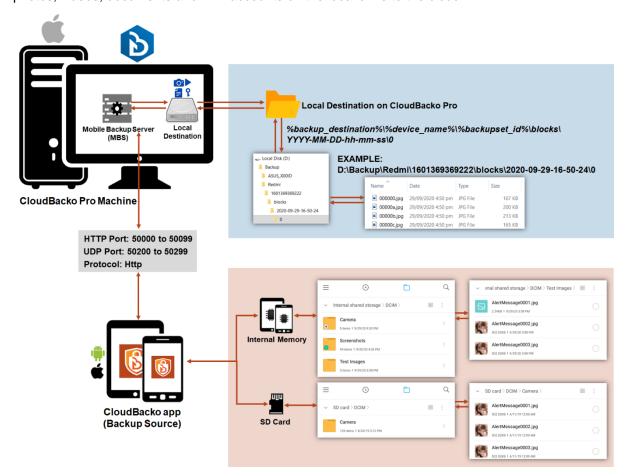
The default TCP and UDP ports are **50000** and **50200**, if these ports are already in use by other applications or services, then the MBS will automatically acquire another port.

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



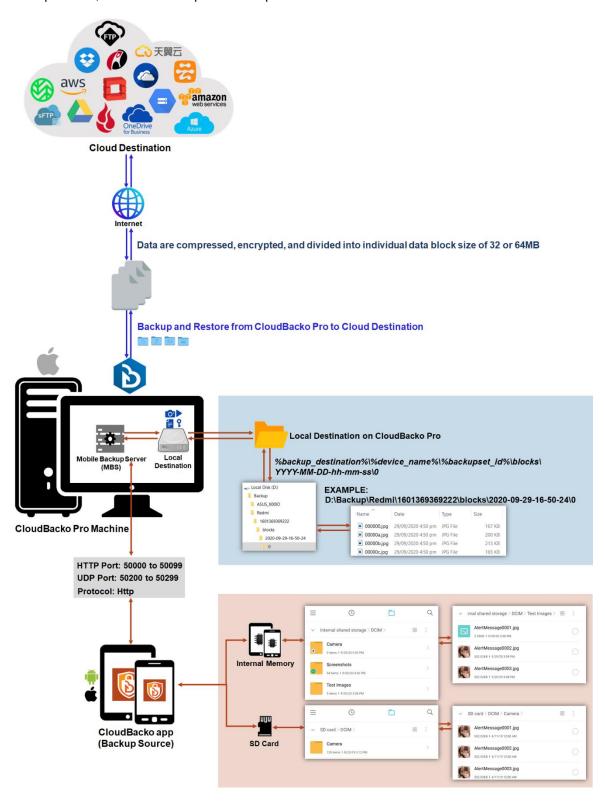
Photos, videos, documents and 2FA accounts are either from mobile device's internal memory or SD Card. These are selected as backup source using the CloudBacko app and are backed up to the local destination on the CloudBacko Pro machine, that can be a Hard Drive, Flash Drive, and/or Network Drive in their ORIGINAL format unencrypted. For Android, photos and videos will retain all EXIF. While for iOS, 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 Pro to perform a secondary backup and restore of the photos, videos, documents and 2FA accounts on the local drive to the cloud.



To backup and restore photos, videos, documents and/or 2FA accounts from CloudBacko app to CloudBacko Pro and Cloud Destinations, is a two-step process.

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

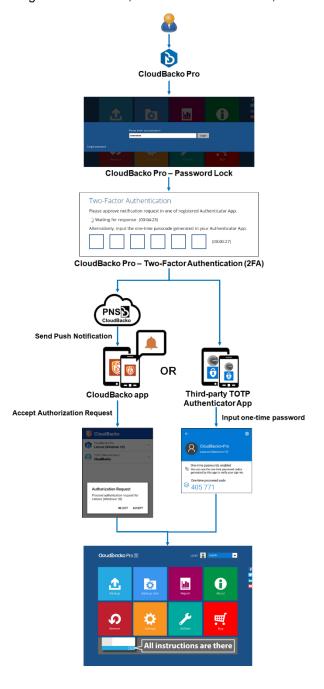


#### 1.4 Two-Factor Authentication

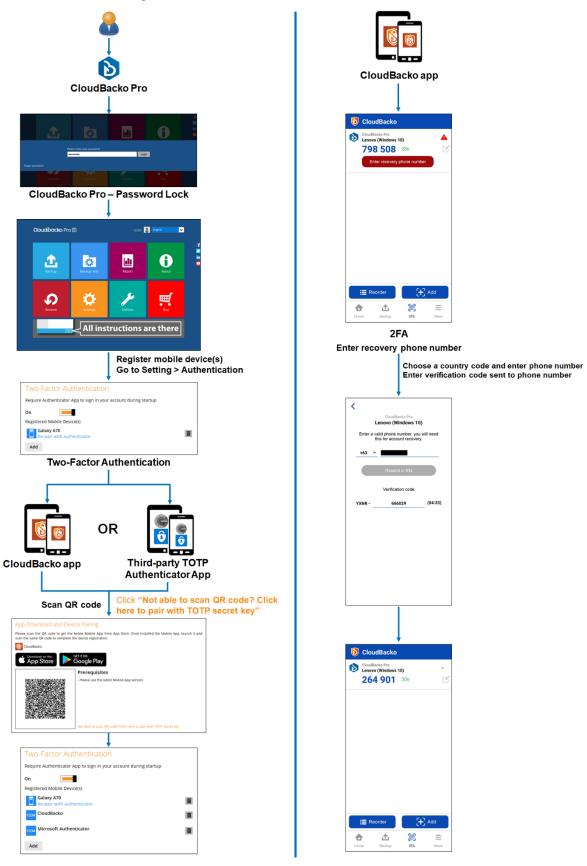
The two-factor authentication implemented on CloudBacko Pro include support for TOTP (Time-based One-time Password) and Push notification authentication using the CloudBacko app to provide additional security for the user login process.

Upon initial login, you will have an option to setup your two-factor authentication. You may skip the setup and do it later. If you continue the setup of two-factor authentication, it will be automatically enabled for your account. Several mobile devices may be added for authentication.

For log ins with two-factor authentication enabled, the 2FA method will depend 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 app 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 Pro.
- 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 Pro. Failure to do so will prevent the CloudBacko app from performing backup/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 Pro on macOS

#### 3.1 Hardware Requirements

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

CloudBacko Pro: Hardware Requirement

#### 3.2 Supported Platforms

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

CloudBacko Pro: Supported Operating Systems

#### 3.3 Internet Connection

CloudBacko machine must have a fixed internet connection

#### 3.4 SMTP Server

- CloudBacko Pro supports TLS v1.2
- CloudBacko Pro supports SMTP server with or without authentication.

#### 3.5 Firewall Settings

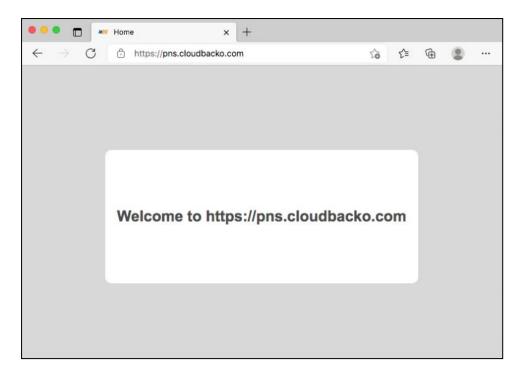
Make sure that your firewall settings allow network traffic through the following domain and/or ports:

- For CloudBacko Pro 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: 50000 and UDP port: 50200.

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, firewall settings 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.



#### 3.6 Full Disk Access Permission

macOS 10.15 or higher "Full Disk Access" permission needs to be granted in, System Preferences>Security & Privacy>Privacy tab to CloudBacko Pro.

Due to an upgrade in security on macOS 10.15 or higher, additional security settings are required to allow applications to access the machine. CloudBacko Pro requires "Full Disk Access" permission to be able to access your files for selection and backup. Also, without "Full Disk Access" permission, CloudBacko Pro will not be able to restore files to the machine.



For more details on how to setup the Full Disk Access permission, please refer to <u>Appendix C:</u> <u>Setting up Full Disk Access Permission</u>.

### 3.7 Supported Applications

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

CloudBacko Pro: Supported Applications

#### 3.8 Supported Microsoft 365 Services and Items

Refer to the link below for the details of the supported Microsoft 365 Services and Items for CloudBacko Pro.

CloudBacko Pro: Supported Microsoft 365 Services and Items Microsoft 365 Backup

#### 3.9 Java Heap Size

The default maximum Java heap size setting is 2048M. This value is usually sufficient for most type of 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 Pro.

CloudBacko Pro: 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

Please 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.

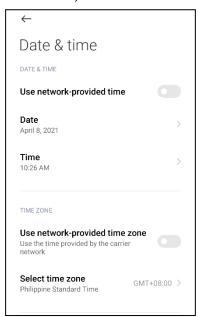
#### 3.12 Date, Time, and Time Zone for 2FA (TOTP only)

Make sure to check the date, time, and time zone are synced between the CloudBacko Pro 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 H: Different Date">Appendix H: Different Date</a>, Time, and Time zone with CloudBacko Pro machine and mobile device.

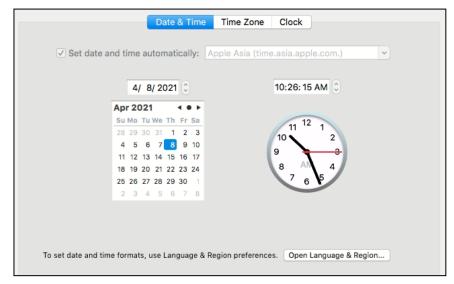
# Same Date, Time, and Time Zone with CloudBacko Pro machine and mobile device

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 Pro machine.

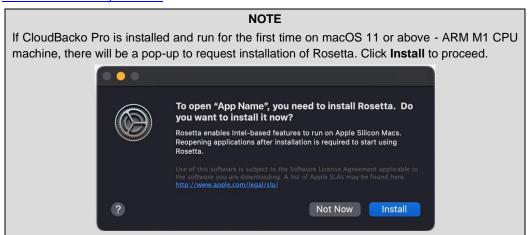
Example: Time zone setting of a macOS machine used in the Philippines (time zone Asia).





#### 3.13 Supported macOS Big Sur on Intel and ARM (M1) CPU

Supports macOS Big Sur on both Intel and ARM (M1) CPU. For macOS on ARM (M1) CPU, Rosetta 2 must be installed. Refer to the link for more details: <u>Apple Support: If you need to install Rosetta on your Mac</u>



#### 3.14 Limitations

#### 3.14.1 Case-Insensitive File System

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

#### 3.14.2 Continuous Backup

Continuous Backup is only supported on Windows platform.

#### 3.14.3 File Permissions

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

#### 3.14.4 Installation on Root Drive

CloudBacko Pro must be installed on the root drive of a volume (e.g. /Applications/...).

#### 3.14.5 Resource Fork Files

Resource fork files cannot be restored with CloudBacko installation on macOS 10.8 above.

#### 3.14.6 Software Update

Automatic software updates are not supported on macOS.

To upgrade CloudBacko Pro, please download the latest version from the CloudBacko website.

Refer to "Method 2: Upgrade with new CloudBacko installer" in the article for more details: How to upgrade to CloudBacko backup software

#### 4 Get Started with CloudBacko Pro

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

#### **Download and Install**

Download and install CloudBacko Pro on your Mac

### **Launch the App**

Launch CloudBacko Pro

### Setup 2FA and/or Mobile Backup

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

### **Create a Backup Set**

Create a backup set according to your preferences

### **Run Backup Jobs**

Run backup jobs to back up data

#### **Restore Data**

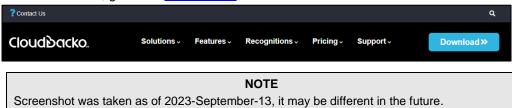
Restore backed up data to your system



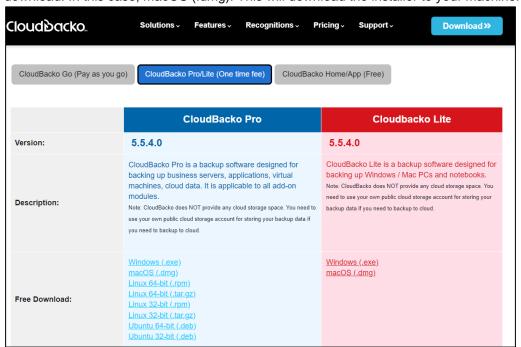
#### 5 Download and Install CloudBacko Pro

#### 5.1 Download CloudBacko Pro

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



Click the CloudBacko Pro/Lite (One time fee). In the Free Download section, you
may choose the installer by operating system and click on their link to start the
download. In this case, macOS (.dmg). This will download the installer to your machine.



#### 5.2 Install CloudBacko Pro

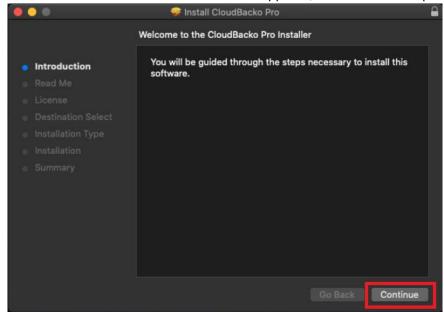
1. Double-click the icon of the downloaded .tar file. You will see then see a .dmg file. Double-click this file.



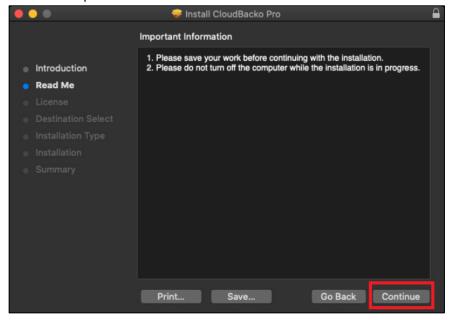
2. The CloudBacko Pro window will appear. You will see another file named cbp.pkg.



3. When the CloudBacko Pro Installer wizard appears, click Continue to proceed.



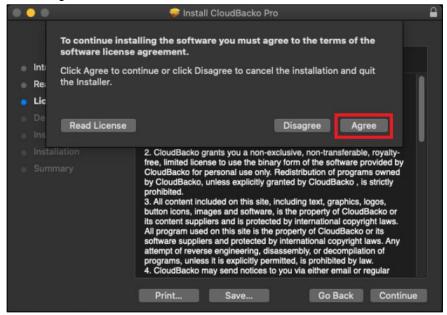
4. When the Important Information screen appears, read the information and then click **Continue** to proceed.



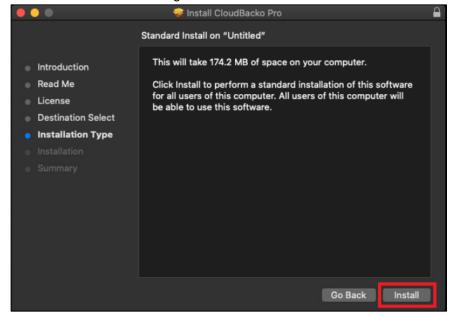
5. When the Software License Agreement appears, the agreement content will be displayed in English by default. If you prefer to read it in a different language, click the dropdown menu to change the language. After reading the agreement carefully, click **Continue** to proceed.



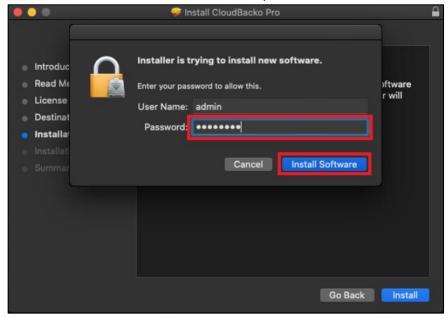
6. The following message will appear in a pop-up window. Click **Agree** to accept the software license agreement.



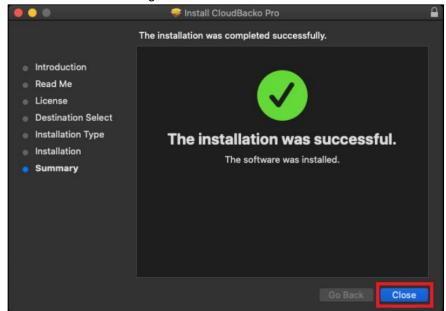
7. Click Install to start installing CloudBacko Pro to the default location.



8. The following message will appear in a pop-up window. Enter your macOS login credentials. Then, click **Install Software** to proceed with the installation.



9. You will see the following screen when the installation of CloudBacko Pro is completed.



#### 5.3 CloudBacko Pro Services

The CloudBacko Pro 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 Pro.
	The MBS will be activated when a mobile device is registered for mobile backup on CloudBacko Pro.
	The MBS will be deactivated when all mobile devices have been deregistered from the mobile backup settings and the CloudBacko Pro services is restarted.

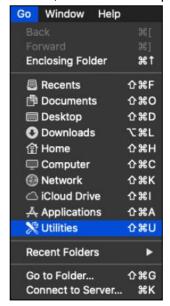
Therefore, it is very important to ensure the CloudBacko Pro Services is running after,

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

Otherwise, all of the functions above will stop working.

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

1. To start, click **Go** at the top menu bar and select **Utilities**.



2. Open the **Terminal** application.



3. Use the command highlighted in red to enter the CloudBacko Pro folder.

[admins-Mac:bin admin\$ cd /Applications/CloudBacko\ Pro.app/bin [admins-Mac:bin admin\$

4. To check if the CloudBacko Pro Services is running, use the [admins-Mac:~ admin\$ ps -ef|grep java command. You will see that the CloudBacko Pro Services is running, highlighted in red.

admins-Mac:~ admin\$ ps -ef|grep java

0 5735 1 0 9:05PM ttys000 0:02.07 /Applications/ CloudBacko\
Pro.app /jvm/bin/ java -Xms128m -Xmx2048m -Djava.library.path=.
-cp .:./cbs.jar cbs /Applications / CloudBacko\ Pro.app

501 5741 5705 0 9:05PM ttys000 0:00.00 grep java

There are two (2) options to **stop** and **start** the CloudBacko Pro Services.

#### Option 1

#### Stop CloudBacko Pro Services

To **stop** the CloudBacko Pro Services, use the command highlighted in red. If you run this command for the first time, you will need to enter the login password of your local machine.

To check if the CloudBacko Pro Services has stopped running, use the [admins-Mac:~ admin\$ ps -ef|grep java command.

```
admins-Mac:~ admin$ sudo /Applications/CloudBacko\
Pro.app/bin/StopScheduler.sh

Password:
admins-Mac:~ admin$ ps -ef|grep java

501 5721 5705 0 9:02PM ttys000 0:00.00 grep java
```

#### Start CloudBacko Pro Services

Use the command highlighted in red to **start** the CloudBacko Pro Services then use the [admins-Mac:~ admin\$ ps -ef|grep java command. You will see that the CloudBacko Pro Services is running, highlighted in red.

```
admins-Mac:~ admin$ sudo /Applications/CloudBacko\ Pro.app
/bin/Scheduler.sh
admins-Mac:~ admin$ ps -ef|grep java
0 5735 1 0 9:05PM ttys000 0:02.07 /Applications/ CloudBacko Pro.app
/jvm/bin/java -Xms128m -Xmx768m -Djava.library.path=. -
cp .:./cbs.jar cbs
/Applications/CloudBacko Pro.app
501 5741 5705 0 9:05PM ttys000 0:00.00 grep java
```

#### Option 2

#### Stop CloudBacko Pro Services

To **stop** the CloudBacko Pro Services, use the command highlighted in red. Use the [admins-Mac:~ admin\$ ps -ef|grep java command to check if the CloudBacko Pro Services has stopped running.

```
admins-Mac:~ admin$ sudo launchctl unload -F
/Applications/CloudBacko\ Pro.app/bin/com.cb.scheduler.plist
Password:
admins-Mac:~ admin$ ps -ef|grep java
0 5735 1 0 9:05PM ttys000 0:02.07 /Applications/CloudBacko Pro.app
/jvm/bin/java -Xms128m -Xmx768m -Djava.library.path=. -
cp .:./cbs.jar cbs
/Applications/CloudBacko Pro.app
501 5741 5705 0 9:05PM ttys000 0:00.00 grep java
```

#### Start CloudBacko Pro Services

Use the command highlighted in red to start the CloudBacko Pro Services then use the [admins-Mac:~ admin\$ ps -ef|grep java command.

You will see that the CloudBacko Pro Services is running, highlighted in red.

```
admins-Mac:~ admin$ sudo launchctl load -F /Applications/CloudBacko\
Pro.app/bin/com.cb.scheduler.plist

Password:
admins-Mac:~ admin$ ps -ef|grep java
0 5805 1 0 9:21PM ?? 0:01.92 /Applications/CloudBacko
Pro.app/jvm/bin/java -

Xms128m -Xmx768m - Djava.class.path=/Applications/CloudBacko Pro.app
/bin:/Applications/CloudBacko Pro.app/bin/cbs.jar -
Djava.library.path=/Appli
cations/CloudBacko Pro.app/bin cbs /Applications/CloudBacko Pro.app
501 5811 5793 0 9:21PM ttys000 0:00.00 grep java
```

#### 5.4 RunLevel Symlink Check

During installation, the following symlinks to the CloudBacko Pro Services startup script /Applications/CloudBacko Pro.app/bin/com.cb.scheduler.plist will be created that allows the CloudBacko Pro Services to start automatically each time the machine is rebooted or restarted.

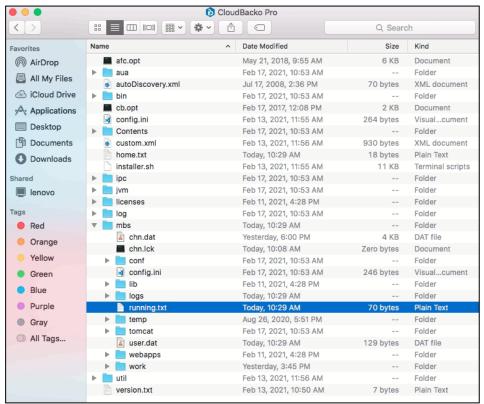
To verify if the symlinks have been created correctly, use the [admins-Mac-5:~ admin\$ 1s -1a /Library/LaunchDaemons/ command. You will see the symlink, highlighted in red.

```
admins-Mac:~ admin$ 1s -la /Library/LaunchDaemons/
total 128
drwxr-xr-x+ 8 root wheel 272 Dec 1 14:34 .
lrwxr-xr-x 1 root wheel 59 Dec 1 11:21 com.CloudBacko Pro.scheduler.plist
-> /Applications/CloudBacko Pro.app/bin/com.cb.scheduler.plist
admins-Mac:~ admin$
```

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

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

1. Check IP address, HTTP port, and UDP port in the "running.txt" file. Go to /Applications/CloudBacko Pro/mbs.



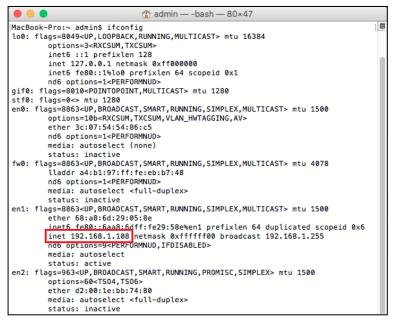
#### NOTE

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

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

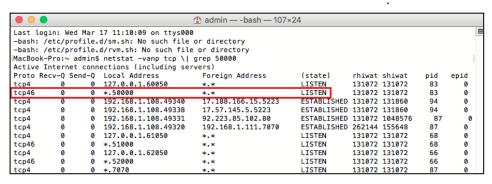
```
running.txt — Locked \
{"http-port":"50000","http-addr": "192.168.1.108","udp-Port":"50200"}
```

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 Pro is installed.



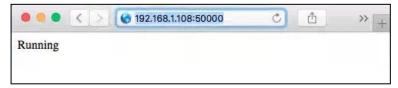
3. To verify the actual HTTP port used by MBS, type the command:

[MacBook-Pro:~ admin\$ netstat -vanp tcp \| grep 50000



- 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 Promachine and type the IP address, followed by TCP port.

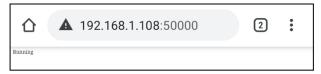
**For example**: If the HTTP port used is 50000, http://192.168.108:50000 you should get the following result that shows the "Running" status, which mean the MBS is running. In the CloudBacko Pro machine



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 50000, http://192.168.108:50000 you should get the following result, which shows "Running" status. Which means the CloudBacko app can successfully connect to the MBS and both backup and restore can proceed on the mobile device.

In the mobile device



#### 6 Start CloudBacko Pro

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

- <u>Launch CloudBacko Pro without 2FA</u>
- Launch CloudBacko Pro with 2FA

#### 6.1 Launch CloudBacko Pro without 2FA

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

- Initial launch skipping two-factor authentication and mobile backup features setup
- Subsequent logins without 2FA but with password lock
- Subsequent logins without 2FA and password lock

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

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

1. A shortcut icon of CloudBacko Pro 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 Pro main screen will appear.



#### 6.1.2 Subsequent logins without 2FA but with password lock

For succeeding logins to CloudBacko Pro with password lock and no two-factor authentication, please follow the steps below:

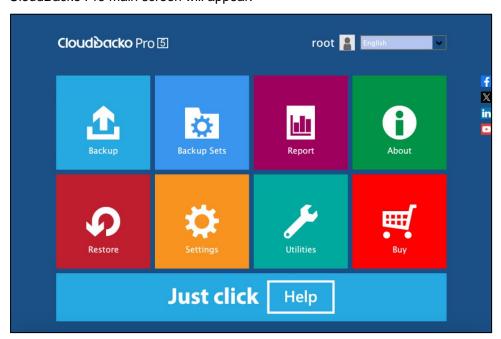
1. A shortcut icon of CloudBacko Pro will be available on your desktop after installation. Double click the icon to launch the application.



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



3. CloudBacko Pro main screen will appear.



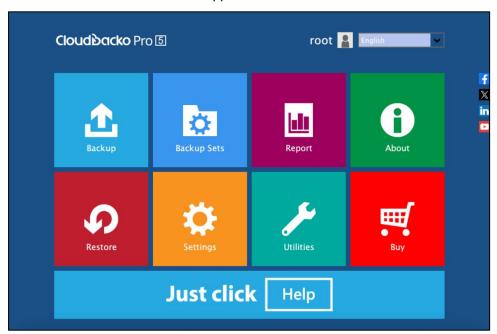
#### 6.1.3 Subsequent logins without 2FA and password lock

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

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



2. CloudBacko Pro main screen will appear.



# 6.2 Launch CloudBacko Pro with 2FA using Android or iOS mobile device

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

#### CloudBacko app Authenticator

- Supports two types of authentication:
  - Push Notification
  - o TOTP
- Can be configured to support two 2FA modes:
  - o Push Notification and TOTP (default mode) or,
  - TOTP only

#### Third-party TOTP Authenticator

(e.g. Auth, Duo, Google)

To launch to CloudBacko Pro 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

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

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

1. A shortcut icon of CloudBacko Pro 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.

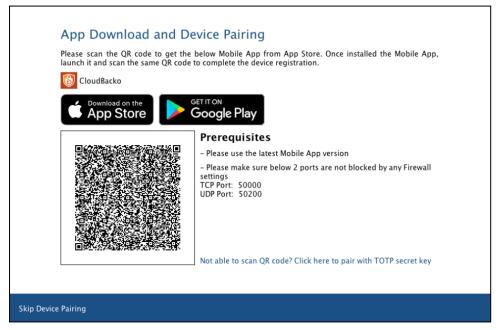




If you do not want to set up the mobile feature, click the **Skip Feature Setup** link. Click **Yes** in the pop-up message that will be displayed. Otherwise, click **No** to continue with the set-up of mobile feature.



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



- 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

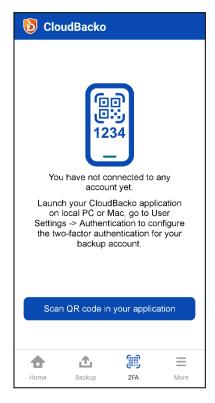


#### Push Notification and TOTP (default mode)

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

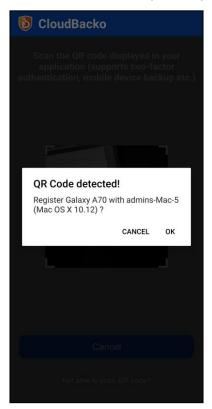


ii. In the CloudBacko app, go to **2FA**. Tap the Scan QR code in your application link to scan the QR Code on the CloudBacko Pro.

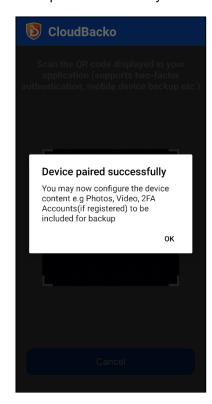


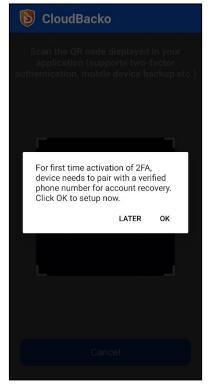


iii. QR Code is detected, tap **OK** to proceed.

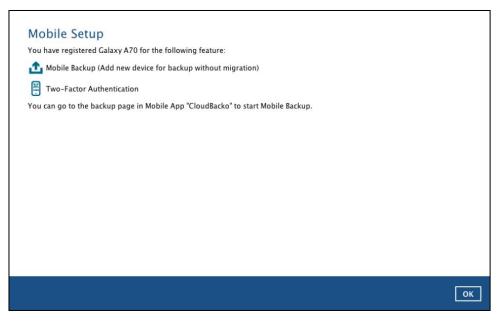


Device paired successfully.

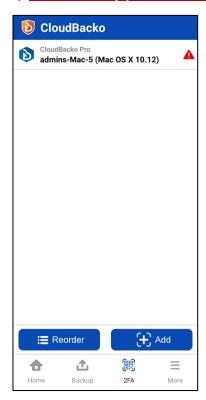




iv. Once the registration is successful, the following screen will be displayed. You have now registered your device for two-factor authentication then click **OK**.



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

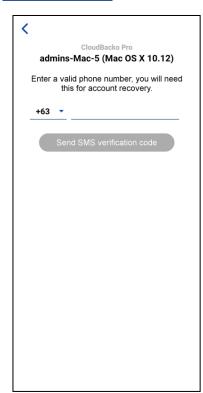




#### NOTE

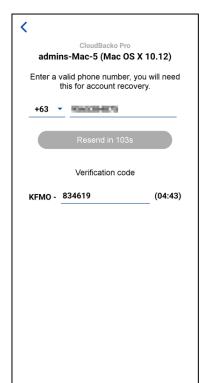
Although push notification and TOTP will still work if the recovery phone number registration is not completed, it is still strongly recommended to complete step v as you will not be able to access the CloudBacko Pro if you lose your mobile device which also means loss of access to backup data.

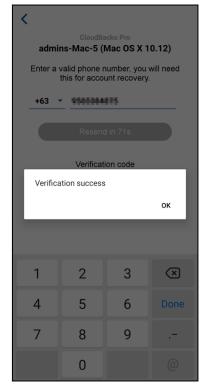
Select your country code and enter your phone number then click **Send SMS verification code.** 





Enter the verification code sent to your mobile device.

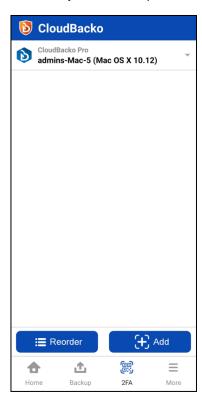


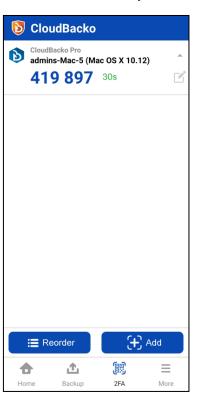


Sample verification code.



Successfully verified the phone number for account recovery.



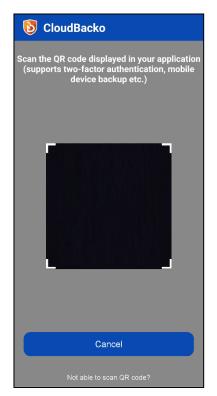


#### **TOTP** only

 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.

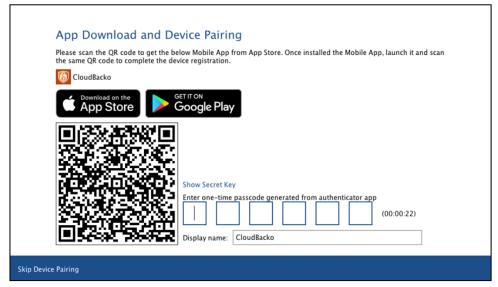


ii. In the CloudBacko app, go to 2FA. Tap the Not able to scan QR code? link.

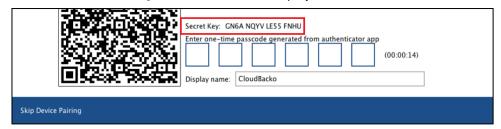




To see the secret key, click the **Show Secret Key** link to display the 16-digit secret key. And enter the display name.



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



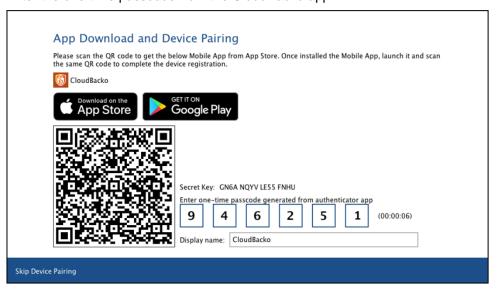
iii. Enter the Username and Secret Key from CloudBacko Pro then tap **Connect** then **OK**.



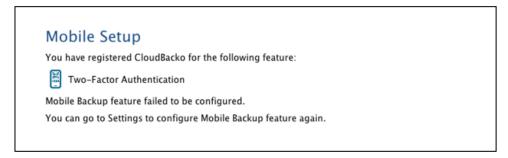




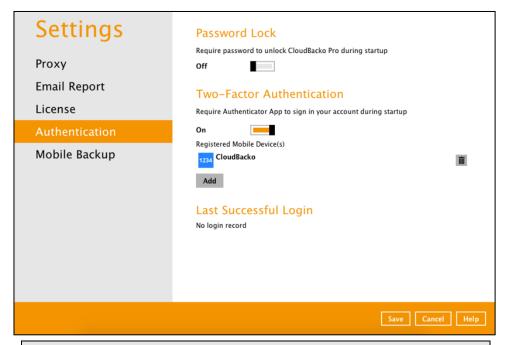
Enter the one-time passcode from the CloudBacko app.



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



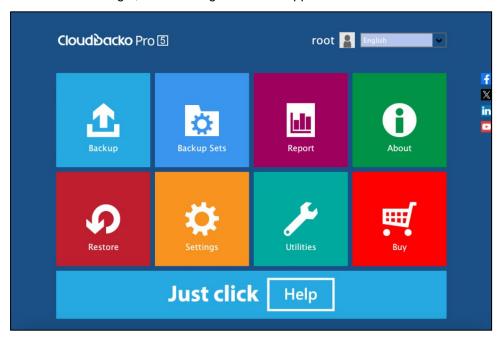
The device will now be available under **Settings** > **Authentication** > **Two-Factor Authentication**.



#### NOTE

In case device pairing takes a while, session timeout message will be displayed. Just click **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 Pro with Two-Factor Authentication with CloudBacko app.

For instructions on how to register a device using third-party TOTP authenticator please refer to  $\underline{\mathsf{Appendix}\;\mathsf{E}}$ 

#### 6.2.2 Subsequent logins with 2FA

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

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

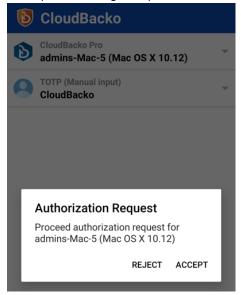


- 2. One of the two authentication methods will be displayed to continue with the login:
  - Push Notification and TOTP when using CloudBacko app or,
  - TOTP only
  - If CloudBacko app was configured to use Push Notification and TOTP then there are two 2FA modes that can be used:
    - Push Notification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

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

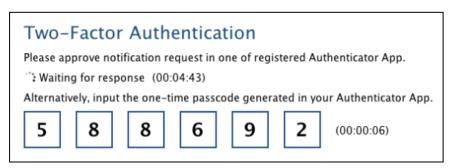


Example of the login request sent to CloudBacko app.



#### 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.

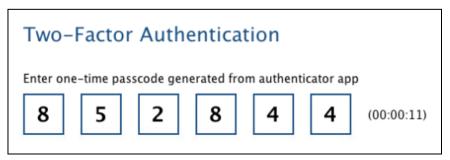


Example of the one-time password generated from CloudBacko app to complete the login.



#### TOTP only

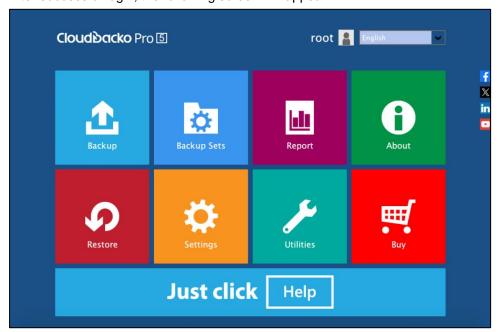
Enter the one-time password that is generated by the Authenticator App to proceed with login.



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 Pro with Two-Factor Authentication with CloudBacko app.

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

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

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



2. Enter password.



3. Follow the instructions in Chapter 6.2.2 to finish logging in with 2FA.

#### 6.3 Trial Mode

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

#### Trial Mode



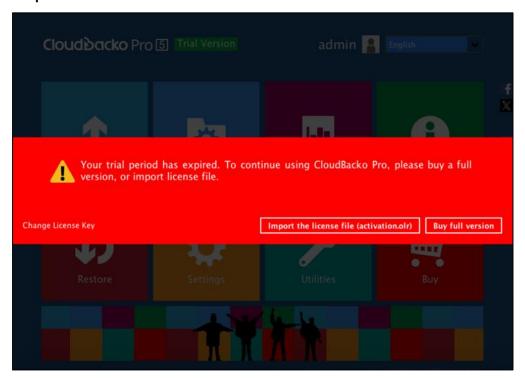
CloudBacko Pro will start in trial mode. Trial mode will expire after 30 days.

If you want to purchase a license key, please see these chapters:

- 1. Ch. 7.9 Buy
- 2. Ch. 7.9.1 Credit Card
- 3. Ch. 7.9.2 TT (Telegraphic Transfer)

An existing license key may be applied even if CloudBacko Pro is still in trial. Please see this chapter, <u>Ch. 7.7.3 License</u>.

#### Expired Trial Mode

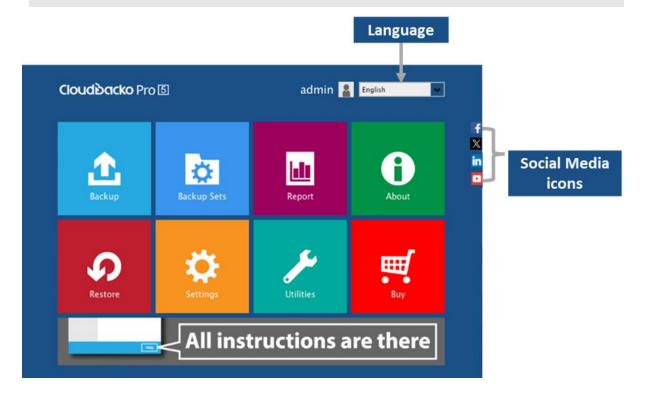


If you want to apply license key after Trial mode has expired, please check Appendix F: How to apply a license key to a CloudBacko Pro installation with an expired trial license?

#### CloudBacko License Key

If you want to find your purchased CloudBacko Pro license key, please check Appendix G: Where to find the CloudBacko Pro purchase license key?

### 7 CloudBacko Pro Overview

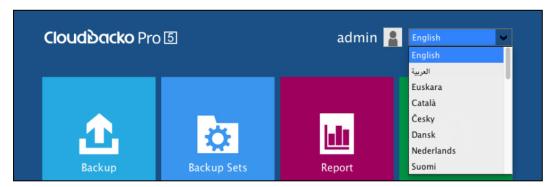


CloudBacko Pro main interface has ten (10) icons that can be accessed by the user, namely:

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

### 7.1 Language

This option is used to change the language of the CloudBacko Pro interface. The list of the available languages depends on the backup service provider.

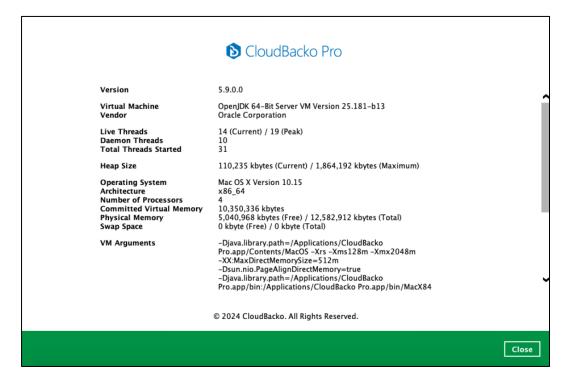


Once the language is set, it will reflect on the CloudBacko Pro interface right away.

#### 7.2 About

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



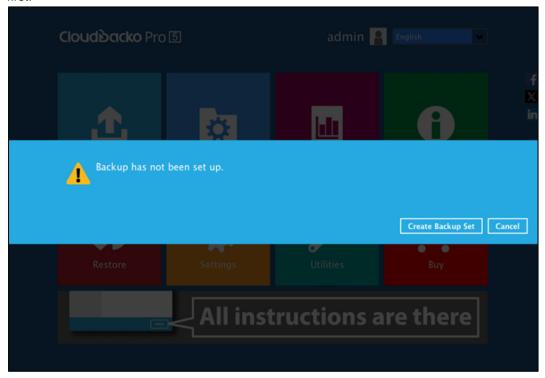


### 7.3 Backup

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



When using CloudBacko Pro for the first time, you will be asked to create a new backup set first.



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

### 7.4 Backup Sets

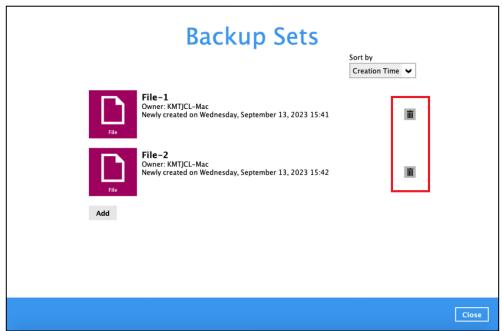
A backup set is a place for files and/or folders of your backed-up data. This feature allows user to select files individually or entirely in a selected folder to back up.



For instructions on how to create a backup set, refer to <a href="Chapter 8 Create a Backup Set">Chapter 8 Create a Backup Set</a>.

To delete a Backup Set, follow the instructions below:

1. In the Backup Sets page, click on the delete icon on the right side of the backup set you wish to delete.

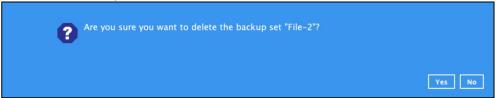




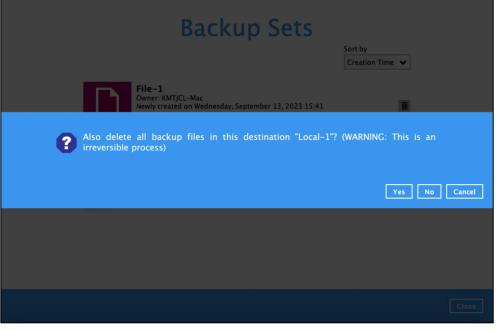
If you have 2FA active, you will be required to submit a One-Time Password as shown on your device.

Т	wo-Fac	tor Autl	henticati	on			
En	nter one-time	: passcode ge	enerated from	authenticator	(00:00:08)		

2. Upon clicking on the icon, you will be presented with a warning message. Click on **Yes** to delete the Backup Set.

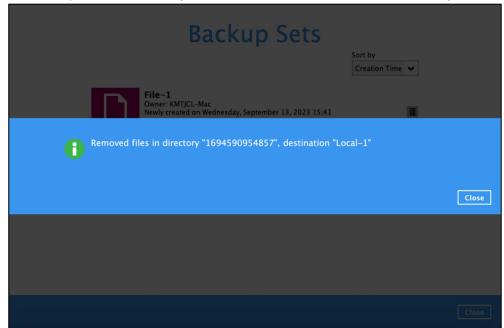


3. If Yes is selected, it will also display another alert message confirming the deletion of all backup files in the destination. Click the **Yes** button to proceed. Otherwise, click the **No** button to abort the deletion.



WARNING!
This is an irreversible process

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



#### 7.4.1 Backup Set Settings

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

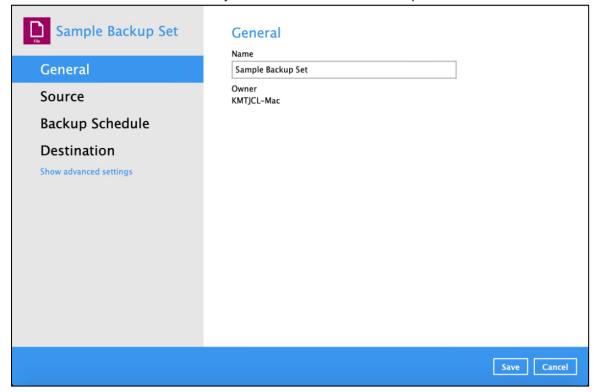
- General
- Source
- Backup Schedule
- Destination

Show advanced settings

- Deduplication
- Retention Policy
- Command Line Tool
- Bandwidth Control
- Others

#### 7.4.1.1 **General**

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



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

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

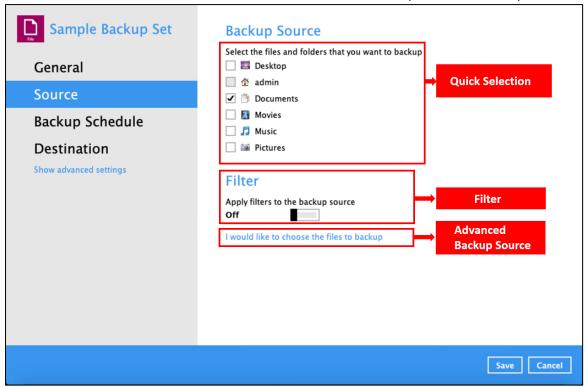
General	
Name	
Owner	
MacBook-Pro	

2. Click the **Save** button to save the updated backup set name.

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

#### 7.4.1.2 Source

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

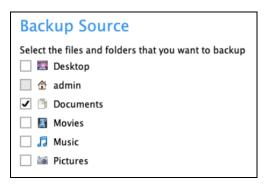


There are three (3) ways to select files and/or folders to back up:

Option	Description
Quick Selection	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 Selection**

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 admin.



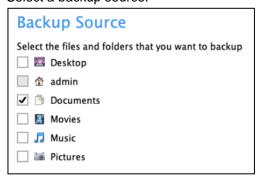
To know the locations of the folder(s) that will be backed up for each selected backup source, refer to the following table:

Backup Source		Description		
Desktop	3000	If Desktop is selected, all files and/or folders in the following location will be backed up:  **WUserProfile**/Desktop**  Example: If the account name is admin, the location is  */Users/admin/Desktop**		
		If home for admin is selected, all files and/or folders located in the following location /Users/admin/ will be backed up this includes: /Users/admin/Desktop		
		/Users/admin/ Documents		
		/Users/admin/ Downloads		
		/Users/admin/Movies		
		/Users/admin/Music		
		/Users/admin/Pictures		
		/Users/admin/Public		
Admin		This selection also includes some macOS system level folders and CloudBacko system folders which are hidden. It is recommended these folders are excluded from the backup source using the <a href="Exclude Filter">Exclude Filter</a> .  //Users/admin/Library		
		/Users/admin/,Trash		
		/Users/admin/.bash_sessions		
		/Users/admin/.cbp		
		<b>Note</b> : If you select admin during the creation of backup set, the entire Backup Source in the Quick or Shortcut option will also be selected (e.g. Desktop, Documents, Movies, Music, and Pictures) but you may choose to unselect any of each.		

Documents		If Documents is selected, all files and/or folders located in the following location will be backed up:  **UserProfile**/Documents*  Example: If the account name is admin, the location is  /*Users/admin/Documents*
Movies		If Movies is selected, all files and/or folders located in the following location will be backed up:  **WuserProfile**/Movies**  Example: If the account name is admin, the location is  /*Users/admin/Movies**
Music	J	If Music is selected, all files and/or folders located in the following location will be backed up:  **UserProfile**/Music**  Example: If the account name is admin, the location is /*Users/admin/Music**
Pictures	Î	If Pictures is selected, all files and/or folders located in the following location will be backed up:  **WeserProfile**/Pictures*  Example: If the account name is admin, the location is  */Users/admin/Pictures*

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

1. Select a backup source.



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

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

This option allows the user to manually select files and/or folders in the selected location(s) to back up.



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

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



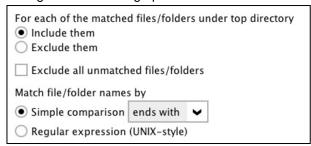
2. Click the **Add** button to create a filter.



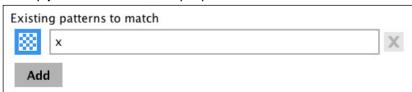
3. Assign a desired name to the backup filter.



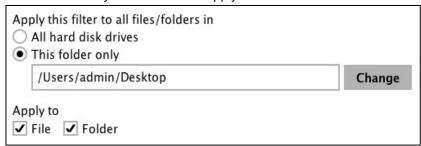
4. Configure the following options.



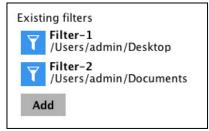
5. In this example, all files and/or folders that end with the letter 'X' will be included to the backup job. You can add multiple patterns here.



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 specify the folder where you would like to apply the filter to.



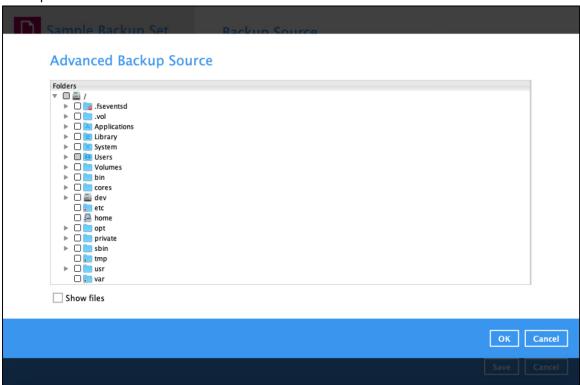
- 7. Click the **OK** button to save the created filter, then click the **Save** button to store the settings. Once you run a backup, all files and/or folders that match the applied filter will be backed up.
- 8. Multiple backup filters can be created by clicking the **Add** button.





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

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

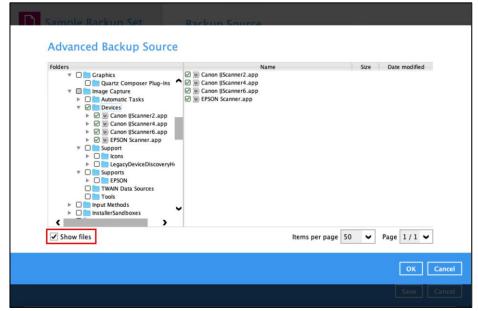


To select files and/or folders using the Advanced Backup Source, follow the steps below:

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

I would like to choose the files to backup

2. Select 'Show files' to display the files inside each folder, then select the files and/or folders that you would like to back up.

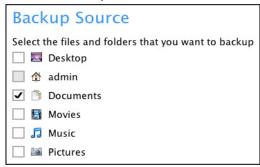


3. Click the **OK** button to save the selection, then click the **Save** button to store the settings. In selecting files and/or folders to back up, the three (3) options can be used simultaneously. For more details, please refer to the example scenarios below:

#### Scenario 1 (Quick Selection + Filter)

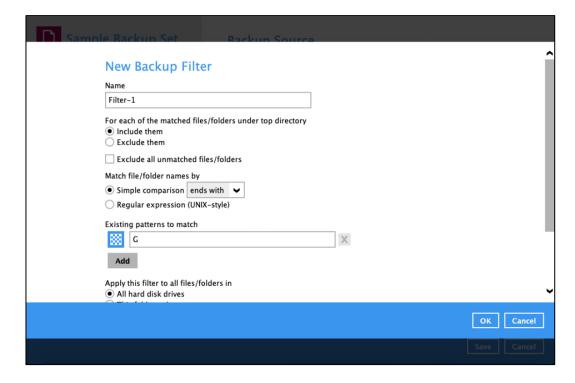
You can use the quick selection option and apply filter to the selected backup source at the same time. To use this type of combination, follow the steps below:

1. Choose a backup source.



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





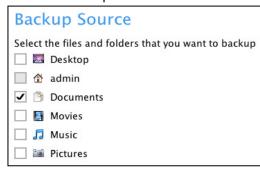
Click the **OK** button to save the created filter, then click the **Save** button to save the settings.



#### Scenario 2 (Quick Selection + Advanced Backup Source)

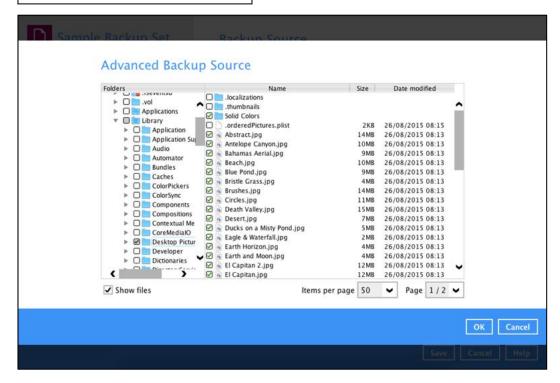
You can use the quick selection option and select files and/or folders in the advanced backup source at the same time. To use this type of combination, follow the steps below:

1. Choose a backup source.



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

I would like to choose the files to backup



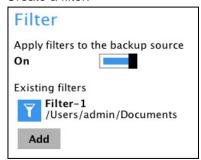
3. Click the **OK** button to save the selection, then click the **Save** button to store settings.



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

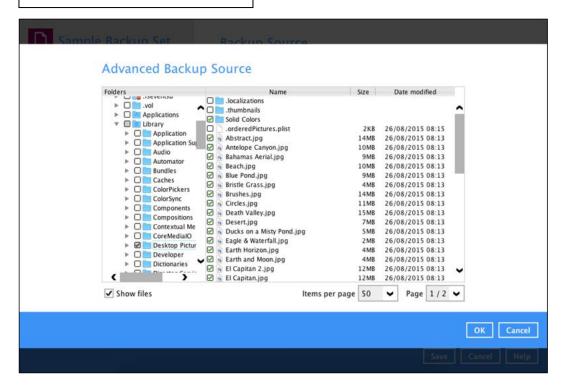
You can use the filter backup source and select files and/or folders in the advanced backup source at the same time. To use this type of combination, follow the steps below:

1. Create a filter.



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

I would like to choose the files to backup

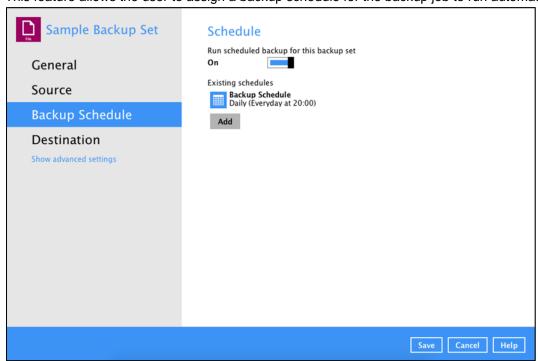


3. Click the **OK** button to save the selection, then click the **Save** button to store settings.



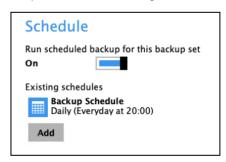
### 7.4.1.3 Backup Schedule

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:

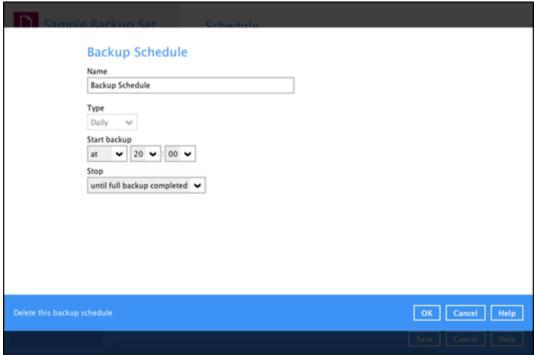
1. Swipe the lever to the right to turn on the backup schedule setting.



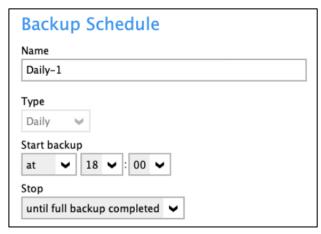
2. Select an existing backup schedule to modify or click the **Add** button to create a new one.



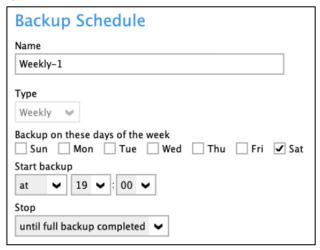




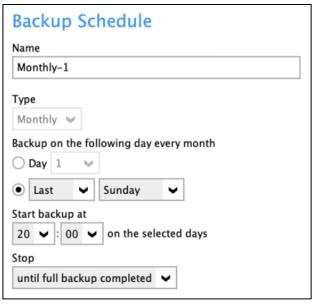
- Name the name of the backup schedule.
- Type the type of backup schedule. There are four (4) different types of backup schedule: Daily, Weekly, Monthly and Custom.
  - Daily the time of the day when the backup job will run.



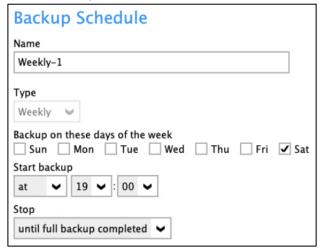
 Weekly – the day of the week and the time of the day when the backup job will run.



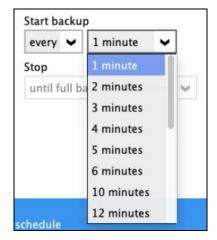
 Monthly – the day of the month and the time of the day when the backup job will run.

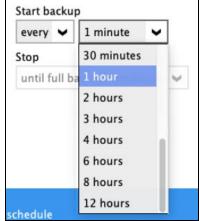


• Custom – a specific date and the time when the backup job will run.

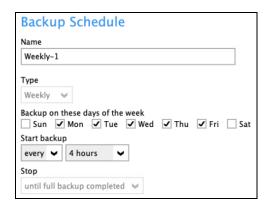


- Start backup the start time of the backup job.
  - at this option will start a backup job at a specific time.
  - every this option will start a backup job in intervals of minutes or hours.





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



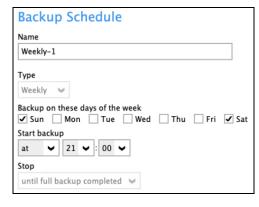


Figure 1.1

Figure 1.2 Figure 1.1 – Periodic schedule every 4 hours Monday - Friday during

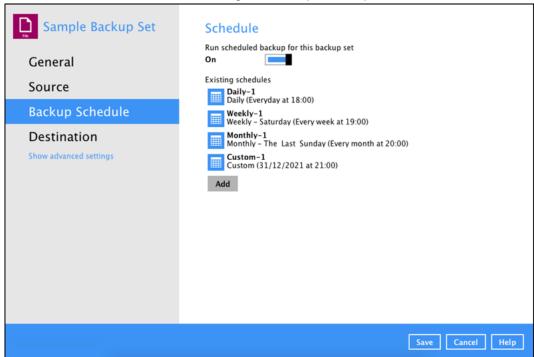
business hours

- Figure 1.2 Normal schedule run at 21:00 or 9:00 PM 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.

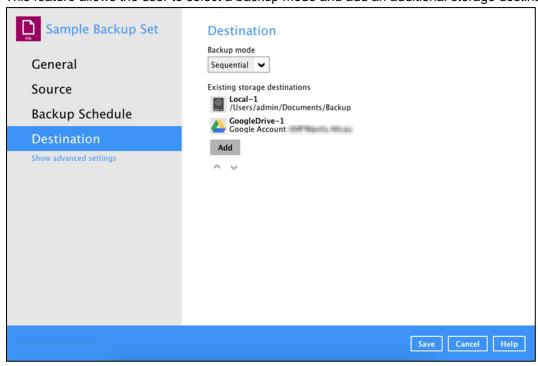
- 4. Click the **OK** button to save the configured backup schedule settings.
- 5. Click the **Save** button to save the settings and multiple backup schedules can be created.



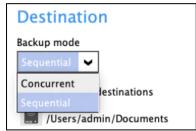


#### 7.4.1.4 Destination

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,
	Maximum number of concurrent backup destinations can be configured.	bandwidth, etc.) to complete a backup job.

### 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 destination.



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

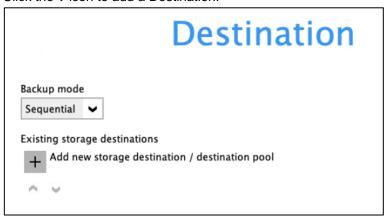
An "Immutable" checkbox is provided to be able to create an immutable storage destination.

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

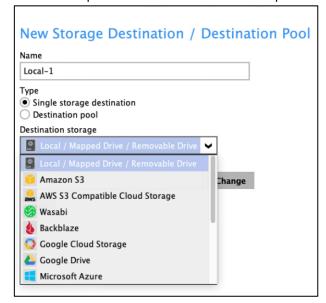
- The user account must have a device registered for 2FA.
- The user account of the storage destination must not be setup with delete permission.

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

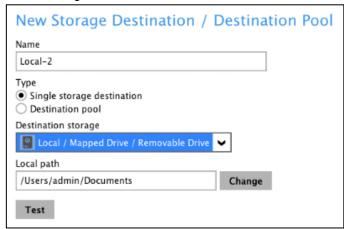
1. Click the + icon to add a Destination.



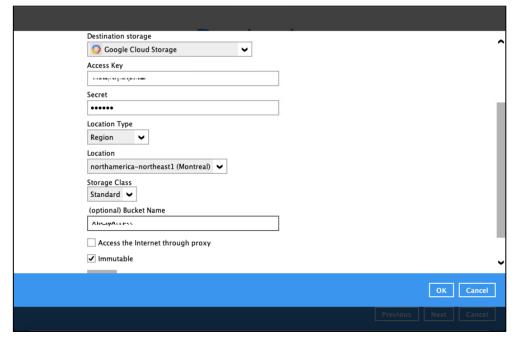
2. Click the drop-down button to select a backup destination.



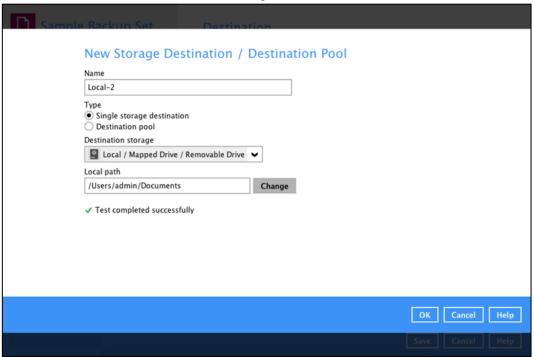
3. If the **Local / Mapped Drive / Removable Drive** is selected, click the **Change** button to select a new storage destination, then click the **Test** button to validate access to it.



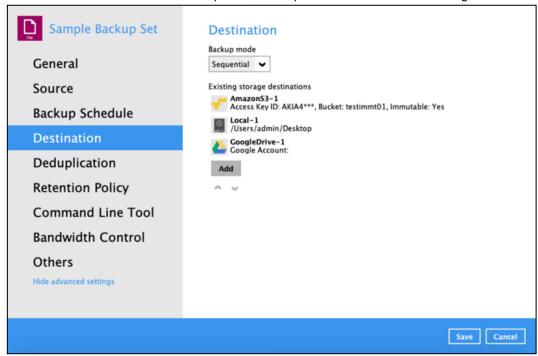
If you want to create an immutable destination, select one of the supported destinations; then, provide the needed information. Check 'Immutable', then click the **Test** button to validate access to it.



4. Click the **OK** button to save the added storage destination.



5. Click the **Save** button to store the updated backup mode and the added storage destination.



#### NOTE

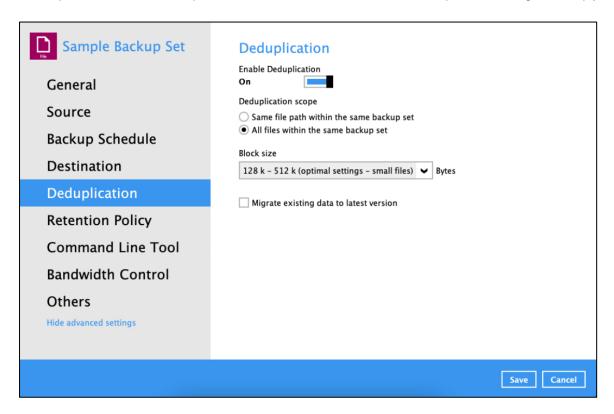
The immutable status of a destination is included in the details, it indicates whether Yes or No if the particular destination is set up as an immutable storage destination.

### 7.4.1.5 Deduplication

Starting with CloudBacko Pro v5.0.0.0 or above, the In-File Delta feature (i.e., Incremental, Differential and Full) will be replaced with Deduplication. This feature is **On (enabled)** by default.

When this feature is **On (enabled)** for the backup set, a checksum verification of each backup file which was split into several blocks of varying size will be performed to compare its content and identify which block is duplicated, thus will perform deduplication of data.

When this feature is **Off (disabled)** for the backup set, a checksum verification of each backup file will not be performed, thus the duplicated data will NOT be removed or deduplicated during a backup job.

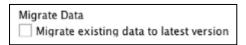


There are two (2) types of Deduplication scope:

Deduplication	Description
Same file path within the same backup set	This type of Deduplication will deduplicate data under the same path during a backup job.
All files within the same backup set	This type of Deduplication will deduplicate data under the same backup set during a backup job. This option is only applicable for Meter Licenseand will be charged per storage size used.

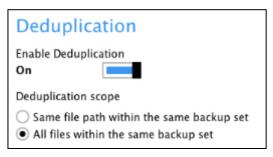
#### Migrate Data

When this option is enabled, the existing data will be migrated to the latest version during a backup job. This option is disabled by default.



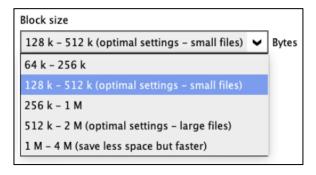
To configure the Deduplication settings, follow the steps below:

1. Select the Deduplication scope.



Click the drop-down button to select the block size that will be used for the deduplication data block.

The **optimal settings** is good for frequently changed source data, as this is the smallest block deduplication will use to compare and determine if the data is new and should be uploaded or discarded as duplicate. The larger the deduplication block size, the less efficient it would be but faster as there are less blocks of data to create. Frequent changes to this setting is not advisable since all data may need to be reuploaded because the previous block size and new block size are now different.



2. Tick the checkbox if you want the existing data to be migrated to the latest version during a backup job.



3. Click the **Save** button to store the modified Deduplication settings.

#### **NOTE**

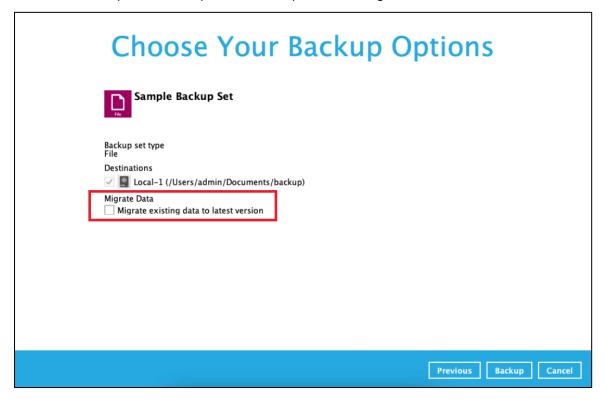
In case the Deduplication setting is disabled for the backup set, the Migrate Data option will not be displayed.



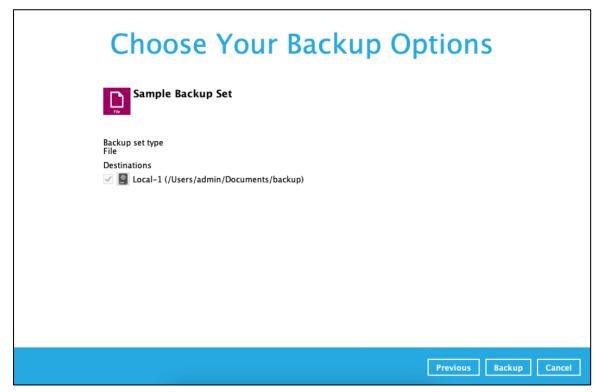
#### Run Backup Job

When the Deduplication feature is enabled for the backup set, a **Migrate Data** option will be available in the *advanced backup options* which can be configured before starting a backup job.

Below is an example of a backup set with Deduplication setting enabled.



Below is an example of a backup set with Deduplication setting **disabled**, the **Migrate Data** option will not be displayed.



### 7.4.1.6 Retention Policy

When the CloudBacko Pro 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.

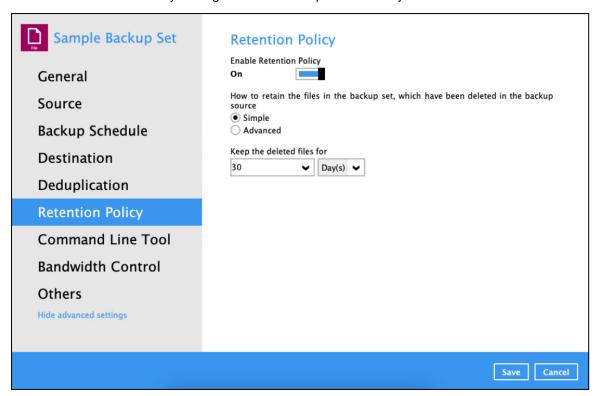
Data Area is the place where backed up files and/or folders are stored.

While the **Retention Area** is the 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. 7.7.2 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.

There are two (2) types of Retention Policy:

Туре	Description
Simple	A simple Retention Policy is a basic policy where the retained files (in the Retention Area) are removed automatically after the user specifies the number of days or backup jobs.
Advanced	An advanced Retention Policy defines a more advanced and flexible policy where the retained files (in the Retention Area) are removed automatically after a combination of user defined policy.

### **Comparison between Simple and Advanced Retention Policy**

Туре	Simple	Advanced
Backup Jobs	Can keep the deleted files for specified number of backup job(s)	Not applicable
Days	Can keep the deleted files for specified number of day(s)	Can keep the deleted files for specified number of day(s)
Туре	Not applicable	<ul><li>Daily</li><li>Weekly</li><li>Monthly</li><li>Quarterly</li><li>Yearly</li><li>Custom</li></ul>
User-defined name	Not applicable	Applicable

### WARNING

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

To configure a **Simple Retention Policy**, follow the steps below:

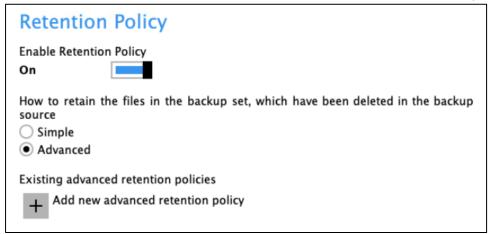
- 1. Go to Backup Sets, then select a backup set.
- 2. Click the Retention Policy tab in the Backup Set Settings.
- 3. Slide the switch to the right to turn on **Enable Retention Policy**.
- 4. Select **Simple** from the options, then click the drop-down button to define the number of day(s) or job(s) how long the deleted files will be retained. This is configured as thirty (30) days by default.



5. Click the **Save** button to save the configured Retention Policy settings.

To configure an Advanced Retention Policy, follow the steps below:

- 1. Go to Backup Sets, then select a backup set
- 2. Click the Retention Policy tab in the Backup Set Settings.
- 3. Slide the switch to the right to turn on **Enable Retention Policy**.
- 4. Select "Advanced" from how to retain the files, then click "+" to add a retention policy.



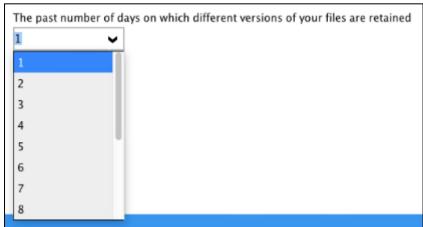
Enter a name for the Retention Policy.



Click the drop-down button to choose a Retention Type (e.g., Daily, Weekly. Monthly, Quarterly, Yearly, Custom).



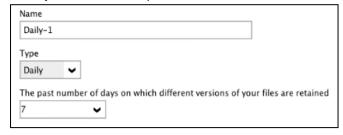
7. Select the number of days the deleted files will be kept in retention.



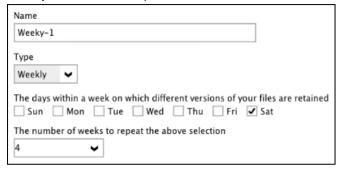
8. Click **OK** to save the advanced Retention Policy, then click **Save** to store the settings.

For further details about how to configure an advanced Retention Policy for each type (i.e., Daily, Weekly, Monthly, Quarterly, Yearly), refer to the examples below:

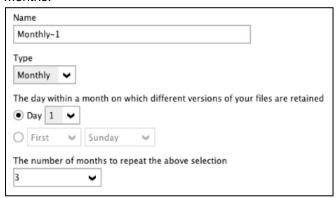
• **Example no. 1**: To keep the retention files for the last seven (7) days:



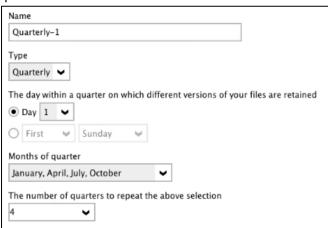
• **Example no. 2**: To keep the retention files for the last four (4) Saturdays:



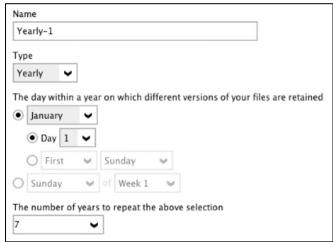
• **Example no. 3**: To keep the retention files for the 1<sup>st</sup> day of each month for the last three (3) months:



• **Example no. 4**: To keep the retention files for the 1<sup>st</sup> day of each quarter for the last four (4) quarters:



• **Example no. 5**: To keep the retention files for the 1<sup>st</sup> day of each year for the last seven (7) years:



Multiple Advanced Retention Policy can be created.

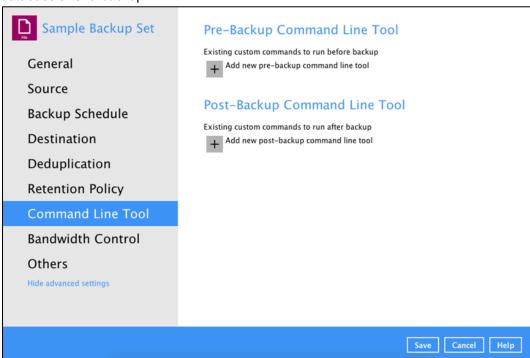
Retention Policy
How to retain the files in the backup set, which have been deleted in the backup source  Simple  Advanced
Existing advanced retention policies
Daily-1 Daily
Weekly Weekly
Monthly-1 Monthly
Quarterly Quarterly
Yearly Yearly
Add



#### 7.4.1.7 Command Line Tool

This feature allows the user to configure a pre-backup or post backup command which can be; an operating system level command, a script or batch file, or third-party utilities to run before and/or after a backup job.

e.g. Connecting to a network drive and disconnecting a network drive, stopping a third-party database (not officially supported by CloudBacko Pro) to perform a cold backup, and restarting a third-party database after a backup.



### **Requirements and Best Practices**

### Error and Exception Handling

Each pre-backup command or batch file should have an error and exception handling. If a pre-backup command contains an error, although an unhandled error may not hinder the backup job process, and the backup job is successful, it will result to a status indicating completed backup with warning(s).

For more details about backup report status, please refer to <u>Backup Reports</u> in **Chapter 7.5** CloudBacko Pro Overview.

#### Command or Batch File Compatibility

Make sure that each command (pre-backup and post-backup) are tested thoroughly before including them to the backup job.

#### Scheduled Backup

If the scheduled backup job is set to stop after x no. of hours, make sure that the duration of the running backup job will not be affected. You may need to adjust the number of hours in the backup schedule configuration. Please refer to <a href="Backup Schedule">Backup Schedule</a> for more details.



#### Pre-backup Command Limitation

A reboot or shutdown must not be used in the pre-backup command. Otherwise, the machine will shut down immediately that will result to a status indicating "Backup not yet finished".

#### Post-backup Command Recommendation

It is recommended to include a timeout for a post-backup command to shut down the machine. This is to ensure that the CloudBacko Pro has enough time to complete the backup process.

There are three (3) fields in the command line tool:

Field	Description
Name	The user-defined name of the pre-backup or post-backup command.
Working Directory	The location in the local machine which the pre-backup or post- backup command will run at, or the location of the command or created batch file.
Command	The <b>pre-backup</b> or <b>post-backup</b> command which can be defined as a native command or batch file.

### **Pre-backup Command Line Tool**

A pre-backup command is used to execute an action or process before the start of a backup job. To create a pre-backup command, follow the steps below:

1. Click the add + button to add a new pre-backup command line too.



#### 2. Complete the following details:

#### Name

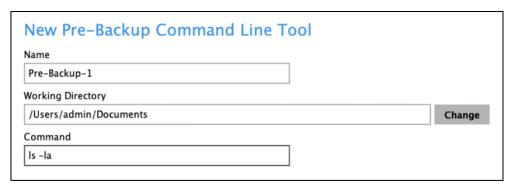
Assign a desired name to the pre-backup command.

### • Working Directory

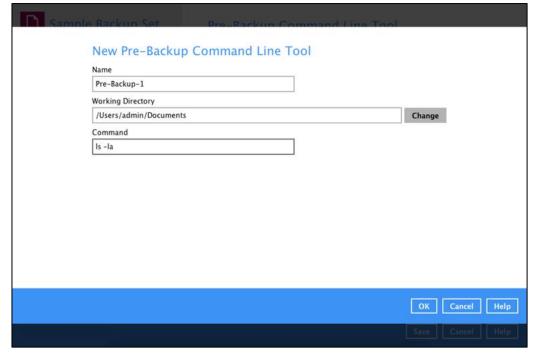
Click the **Change** button to locate the working directory of the command.

#### Command

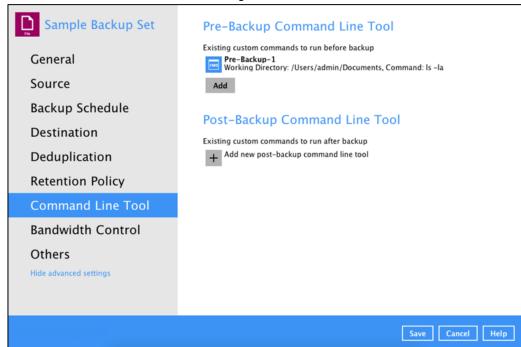
Input a command to be run before a backup job. In this example, the pre-backup command will display the list of the directories.



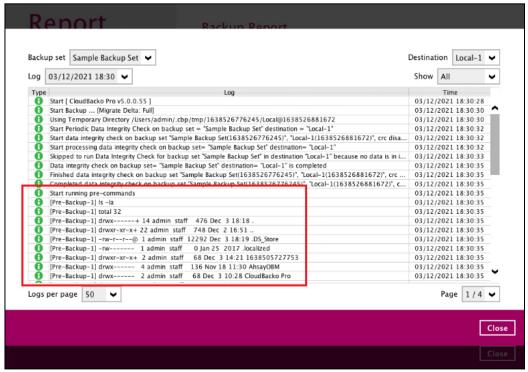
3. Click the **OK** button to save the created pre-backup command.



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



5. Once a backup job is complete, click the button to display the backup report log where you can check if the pre-backup command is successful.



### **Post-backup Command Line Tool**

A post-backup command is used to execute an action or process after a backup job. To create a post-backup command, follow the steps below:

1. Click the add [+] button to add a new post-backup command line too.



- 2. Complete the following details:
  - Name

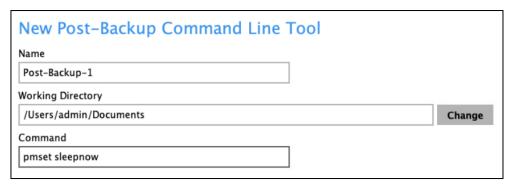
Assign a desired name to the post-backup command.

Working Directory

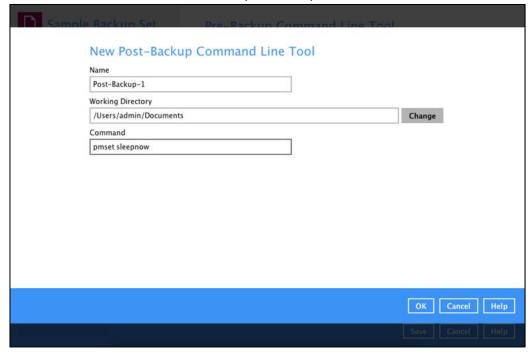
Click the **Change** button to locate the working directory of the command.

Command

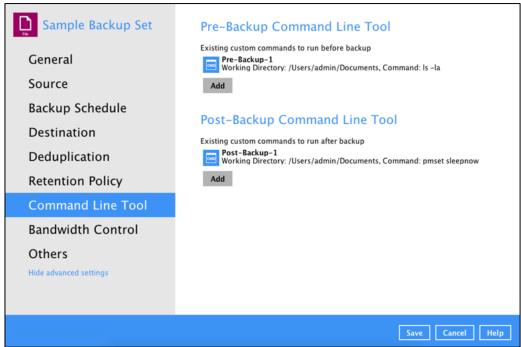
Input a command to be run after a backup job. In this example, the post-backup command will display the list of the directories.



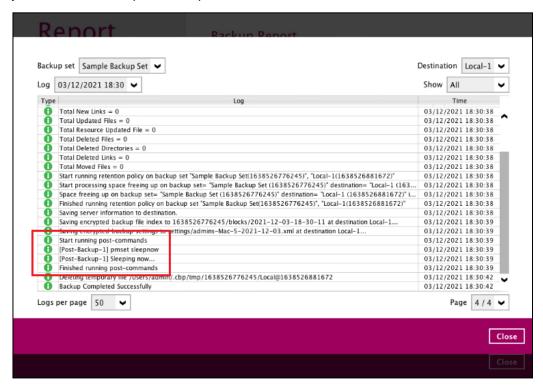
3. Click the **OK** button to save the created post-backup command.



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



5. Once the backup job is complete, click the button to display the backup report log where you can check if the post-backup command is successful.



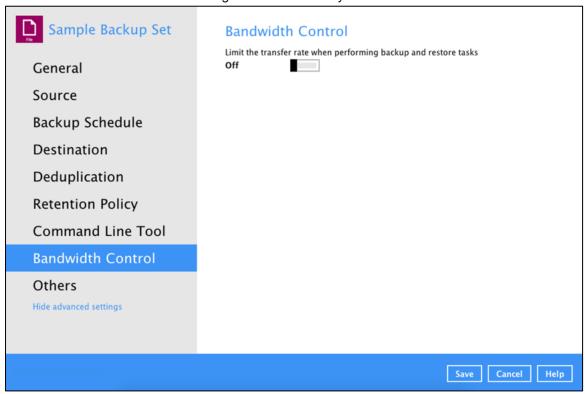
#### **NOTE**

- Multiple Pre-backup and Post-backup commands can be created in the Command Line Tool.
- Firors from Pre-backup and Post-backup commands will only be flagged as a warning and will not cause an error. The warning may be viewed in the logs.
- To trigger a job warning, Pre-backup and Post-backup commands must output a message to stderror. It is not possible to cause a job "Error" message to be logged.



#### 7.4.1.8 Bandwidth Control

This feature allows the user to limit the amount of bandwidth used by backup traffic between specified times. This bandwidth control is configured as disabled by default.



There are two (2) types of bandwidth control:

Bandwidth Control Type	Description
Independent	Each backup and restore has its assigned bandwidth.
Share	All backup and restore operations are sharing the same assigned bandwidth.

NOTE

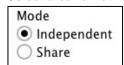
Share mode does not support performing backup job on multiple destinations concurrently.

To enable the bandwidth control setting, follow the steps below:

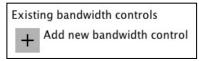
1. Slide the lever to the right to turn on the bandwidth control.



2. Select a bandwidth control mode.

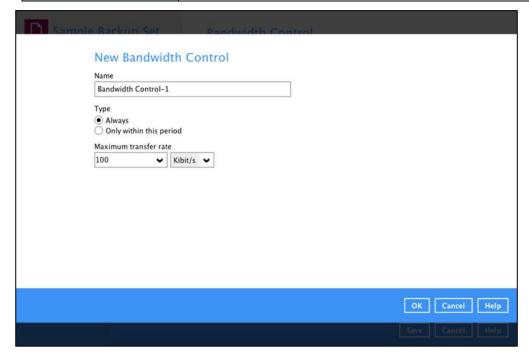


3. Click the **Add** button to create a modified bandwidth control.

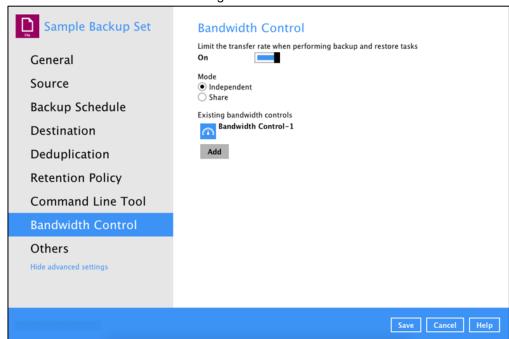


- 4. Complete the following fields then click the **OK** button to save the new bandwidth control.
  - Name
  - Type
  - Maximum transfer rate

Field	Description
Name	The name of the bandwidth control set.
Туре	The type of enforced bandwidth control period.
Maximum transfer rate	The maximum bandwidth used.



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



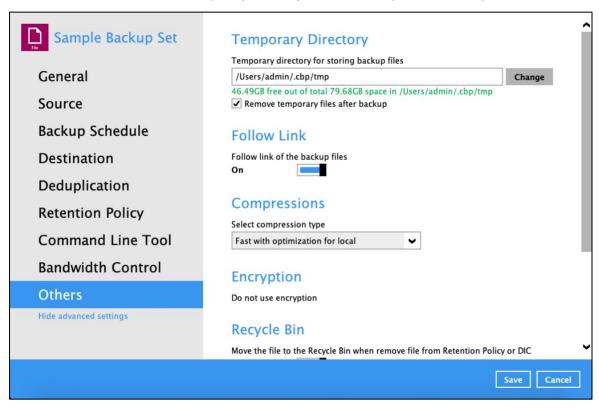
#### 7.4.1.9 Others

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

- Temporary Directory
- Follow Link
- Compression
- Encryption
- Recycle Bin
- Restore Drill

### **Temporary Directory**

The CloudBacko Pro 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. 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 Mac 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.

The message below will be displayed if the path to the temporary directory is inaccessible. Click OK then proceed to correct the temporary directory path.



To change the temporary directory, follow the steps below:

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



Click the Save button to store settings.

#### **Follow Link**

This feature allows the user to enable or disable the follow link which defines the NTFS junction or symbolic link during a backup job. This feature is configured as enabled by default.



#### NOTE

The Follow Link feature is only applicable for File Backup Sets.

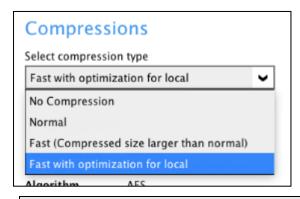
### **Compressions**

This feature is used to enable compression of data during a backup job. When the compression is enabled, the CloudBacko Pro will compress all the files before it is backed up to the backup destination(s). Newly create backup sets are configured to use **Fast with optimization for local**.

These are the four (4) compression types:

- No Compression No compression of file will be made
- Normal Compressed file size is the smallest but with high CPU usage

- Fast Compressed file size is larger than Normal Compression but with lower CPU usage
- Fast with optimization for local Compressed file size is larger than Fast Compression but with the lowest CPU usage

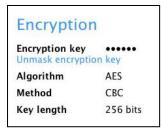


#### **NOTE**

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

### **Encryption**

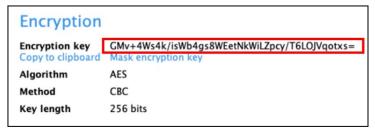
This feature allows the user to view the encryption settings.



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

- 1. Go to Backup Sets, then select a backup set.
- 2. Click the **Others** tab in the backup set settings.
- Click Unmask encryption key to display the encryption key of the backup set.





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

### Encryption

Encryption key GMv+4Ws4k/isWb4g
Copy to clipboard Mask encryption key GMv + 4Ws4k/isWb4gs8WEetNkWiLZpcy/T6LOJVqotxs =

Algorithm **AES** Method CBC 256 bits Key length

### NOTE

The encryption setting can only be configured during the creation of backup set. For more details about encryption settings, please refer to step no. 14 in Chapter 8 Create a Backup Set.

### Recycle Bin

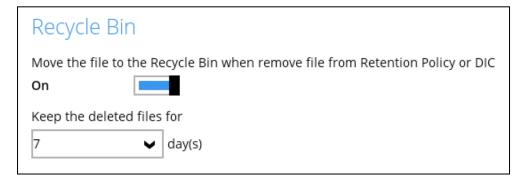
This feature is for protection of the BAK (block) files stored in the Backup Set's destination, allows the user to set the number of days BAK files that were deleted due to Retention Policy or Data Integrity Check, will be held under Recycle Bin as added protection.

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 the xxxxxx.bak files and the 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, if there are already deleted files 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</u>: <u>How to un-delete backup data moved to Retention, or
  revert indexes to a healthy state from an earlier successful backup.</u>



This is enabled by default set with 7 days.



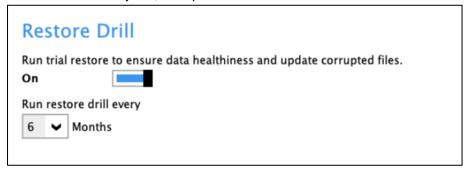
To set the number of days, follow the steps below:

- 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**

The Restore Drill feature is used to run a trial restore to detect any corrupted data with backed up data. It ensures that backup data is always in a restorable state, alerting users regarding any corrupted data in the backup. For backup data that has been corrupted, a new backup job either via schedule or manually run, is required to fix the issue.



To configure Restore Drill, follow the steps below:

- 1. Go to **Backup Sets**, then select a Backup Set.
- 2. Click the Others tab, then search for Restore Drill.
- 3. After turning it on, select the desired frequency you wish Restore Drill jobs should run. The options for these are:
  - a. 6 months
  - b. 12 months
  - c. 24 months
- 4. 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. 7.7.2">Ch. 7.7.2</a>
<a href="Email Report">Email Report</a>. The report received will depend on this setting.

Here is a sample of the restore drill report.

```
from: Improblemental According to the control of th
```

#### NOTE

If there are several restore drill jobs that are run, it will all be displayed in this email. If the email report setting was changed, all the previous restore drill job reports that were not sent will be sent according to the new email report setting.

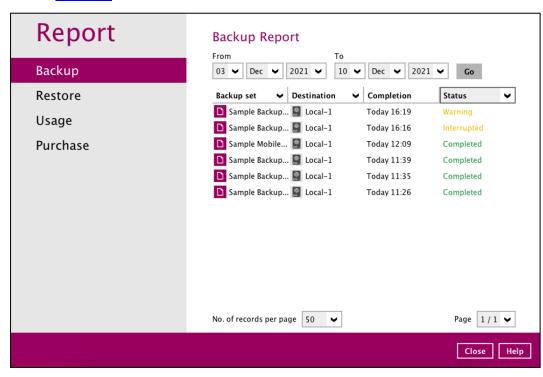
### Report

This feature allows user to view backup and restore reports as well as the usage and purchase record.



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

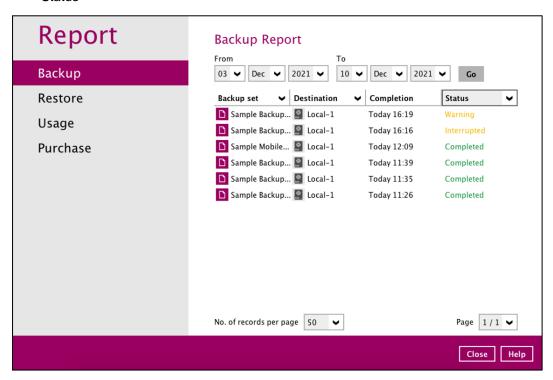
- Backup
- Restore
- Usage
- Purchase



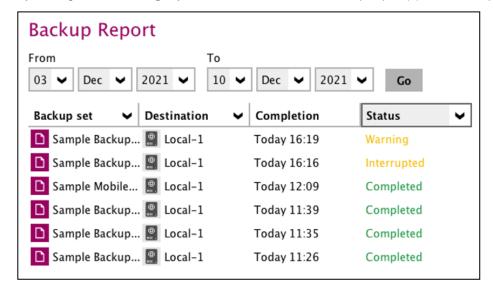
### 7.4.2 Backup

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

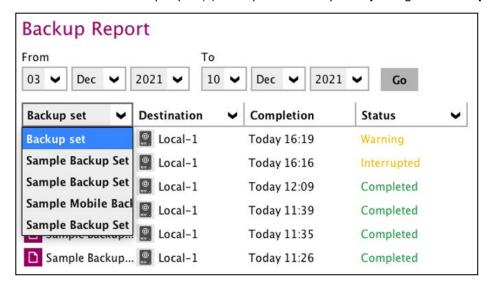
- Date range
- Backup set
- Destination
- Status



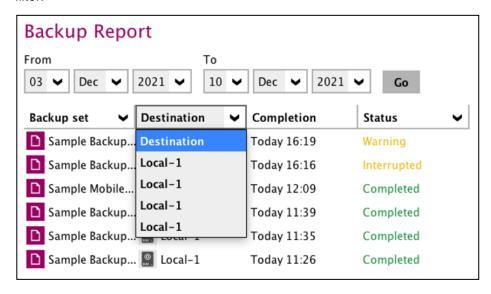
By setting the Date range, you will see the list of all backup report(s) within that period.



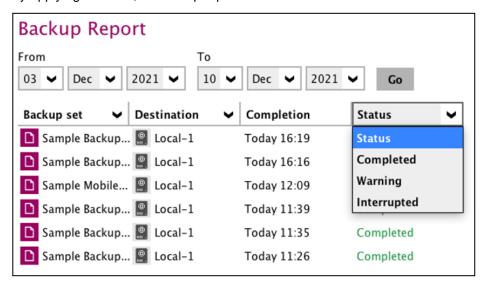
You can view the backup report(s) of a specific backup set by using the Backup set filter.



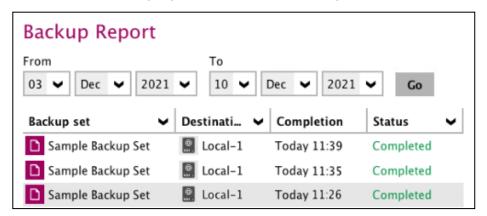
If you want to see the backup report(s) in your selected storage location, use the **Destination** filter.



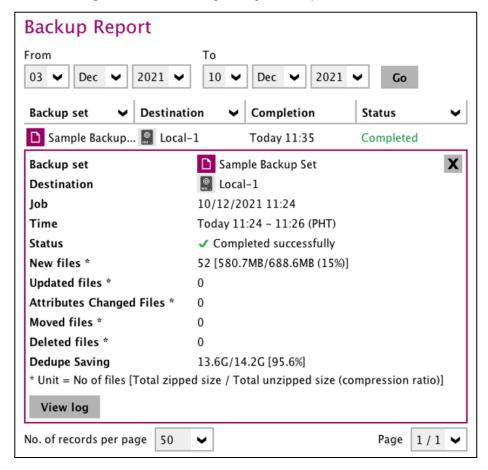
By applying this filter, all backup reports with the same **Status** will be shown.



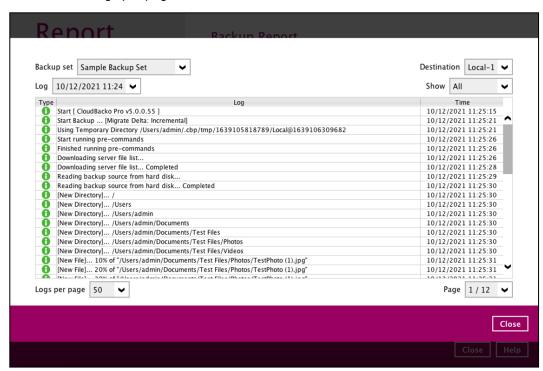
In order to see a backup report in detail, select a backup set.



Click View log to see the event log during a backup.

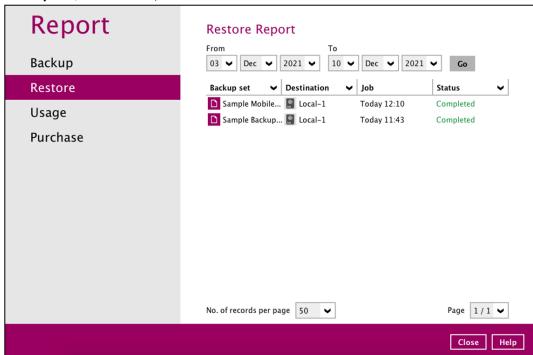


**Backup set**, **time**, **destination**, and **status** can be filtered here. You can also choose to view the number of logs per page.



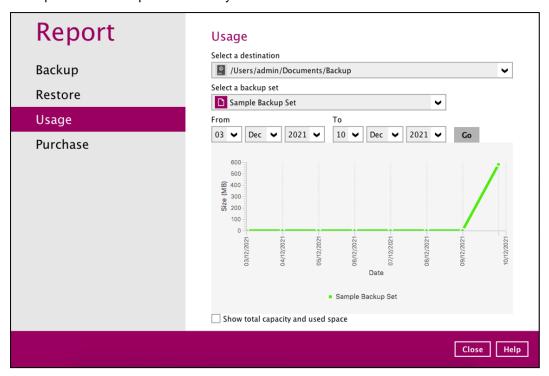
## 7.4.3 Restore

This feature is used for viewing restore report(s). You can also apply filter on **Date range**, **Backup set**, **Destination**, and **Status** here.



## 7.4.4 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.



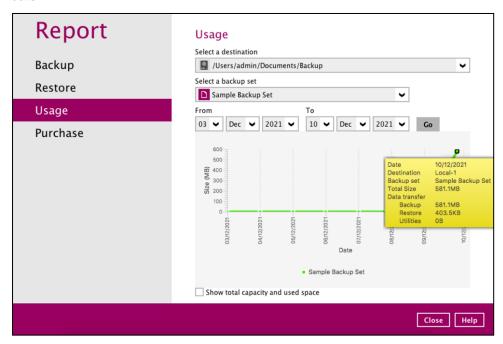
### Storage Statistics

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

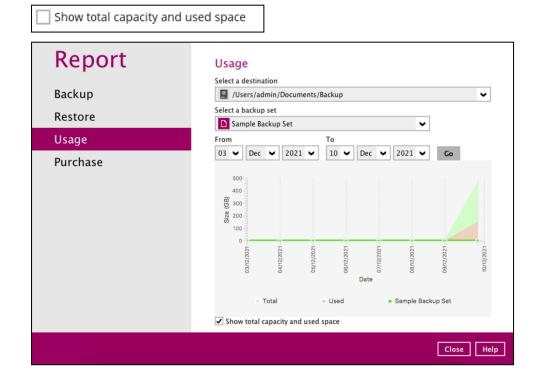
**Example:** The data transfer statistics will pop up when mouse pointer moves over a specific date.



#### 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.



### 7.4.5 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 Pro.

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

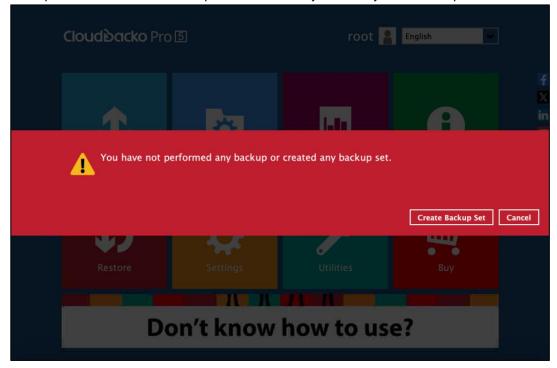


### 7.5 Restore

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



If using CloudBacko Pro for the first time, you will be asked to create a backup set and run a backup first. A restore cannot be performed unless you already run a backup.



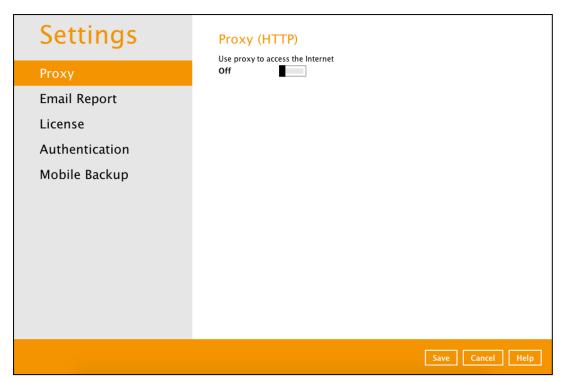
For instructions on how to do a restore, refer to Chapter 11 Restore Data.

## 7.6 Settings

Settings consist of five (5) sub modules:

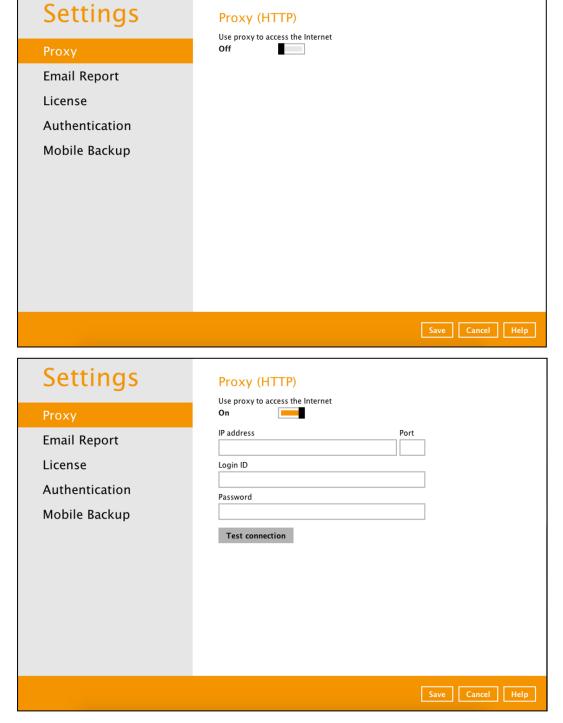
- Proxy
- Email Report
- License
- Authentication
- Mobile Backup





## 7.6.1 Proxy

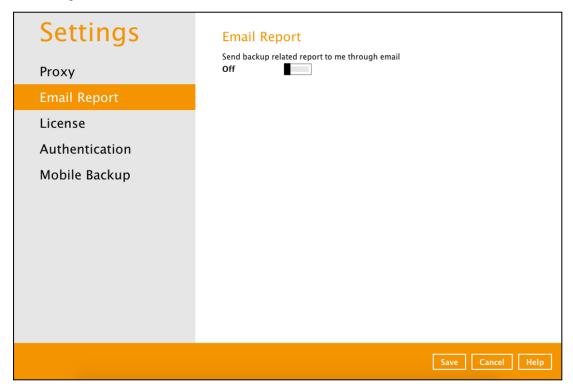
To enable the Proxy Settings, follow the instructions below.



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

## 7.6.2 Email Report

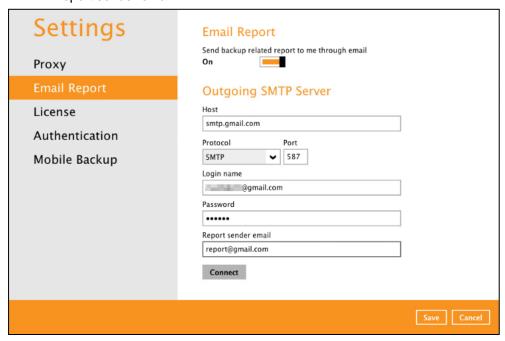
The email report will send notifications for backup errors or warnings, missed backup reports, and storage alert.



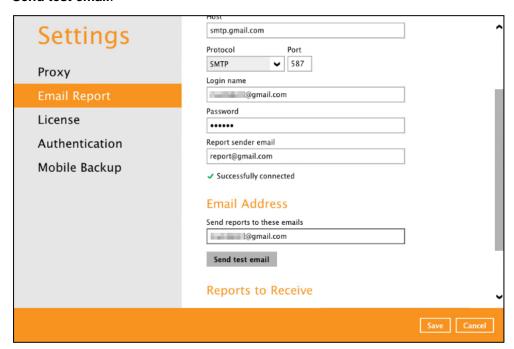


To enable the Email Report feature, follow the instructions below:

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



If successfully connected, the email address where the reporst 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**.

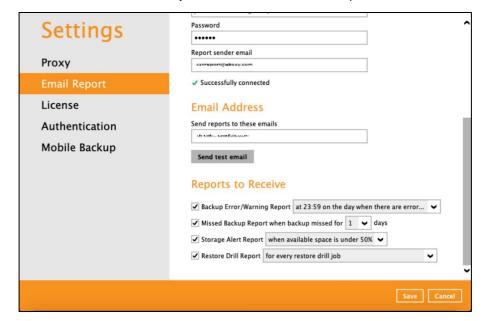




Below is the sample screenshot of the test email.



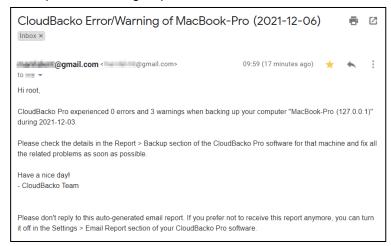
- Select the reports you want to receive by ticking the checkboxes then click the Save button to store the settings.
  - Backup Error/Warning Report
    - at 23.59 on the day when there are error or warning
    - at 23:59 everyday, when there are no error or warning
  - Missed Backup Report when backup 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



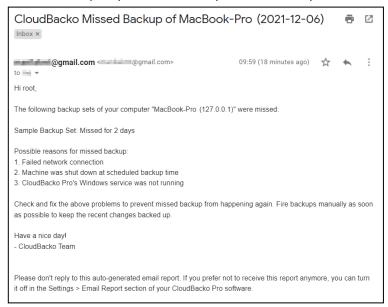


#### These are sample reports:

Backup Error/Warning Report



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



Storage Alert Report



### Restore Drill Report

#### 7.6.3 License

The License module shows the current license key applied along with the licenses and module usage. Also, it allows the customer to apply full license key to a trial version of CloudBacko Pro.

### 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 Pro.

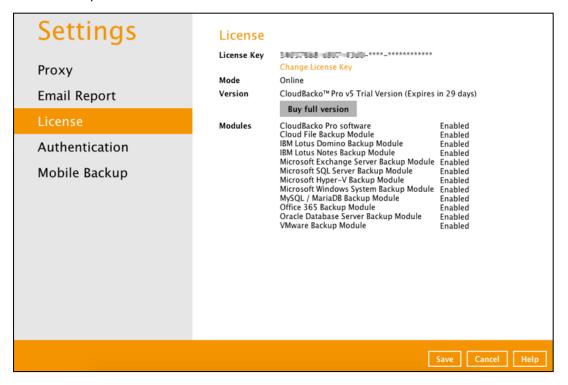
Modules (Displays in trial version only)

This are the following modules enabled for CloudBacko Pro.

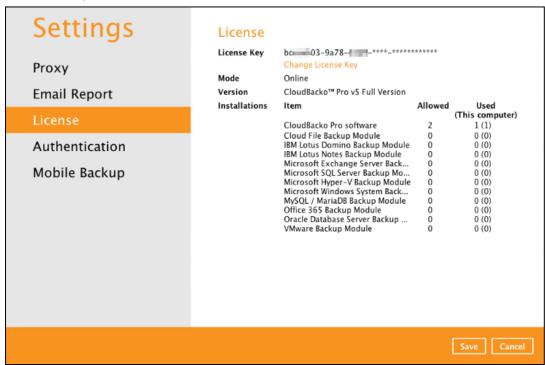
- CloudBacko Pro software
- MySQL Backup Module
- Cloud File Backup Module
- Microsoft 365 Backup Module
- Installations (Displays in full version only)
  - Item these are the software and modules allowed for CloudBacko Pro.
    - CloudBacko Pro software
- MySQL Backup Module
- Cloud File Backup Module
- Microsoft 365 Backup Module
- MariaDB Backup Module
- VMware Backup Module
- PostgreSQL Backup Module
- Allowed displays the allowed number for each module for CloudBacko Pro.
- 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 Pro.



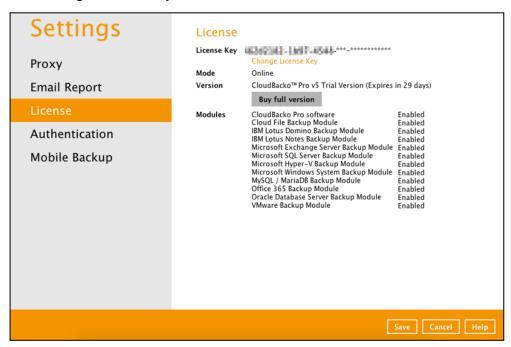
This is a sample screenshot for a full version of CloudBacko Pro.



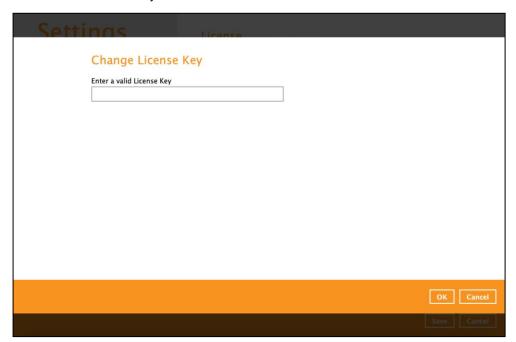


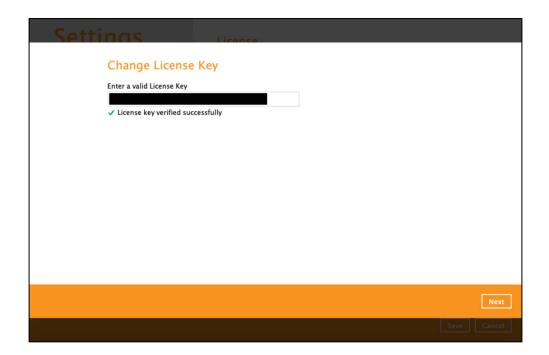
To apply a license key, follow the instructions below:

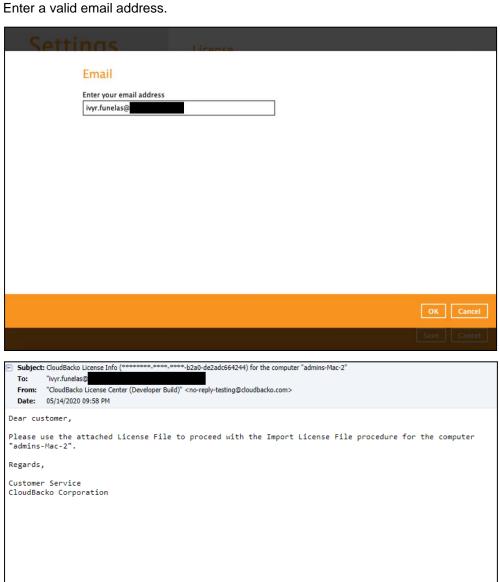
1. Click Change License Key.



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







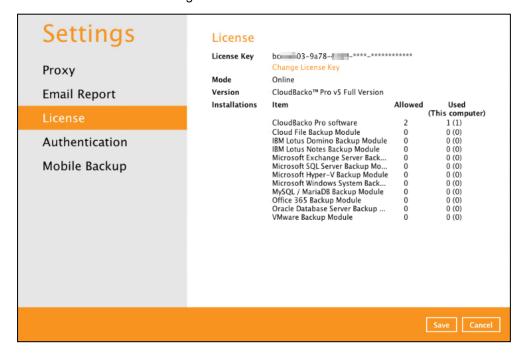
± 1 Attachments

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



Close

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



#### 7.6.4 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 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.

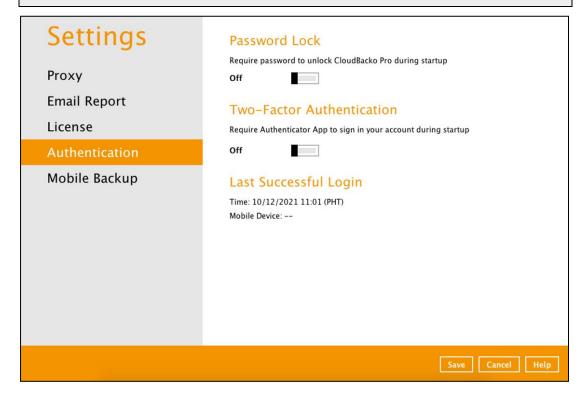
Re-pair with authenticator.

This is used once migration is completed to re-pair with authenticator to enable the signin 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).

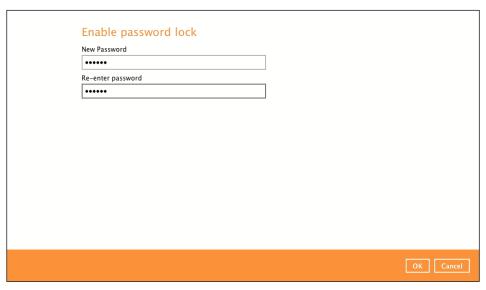




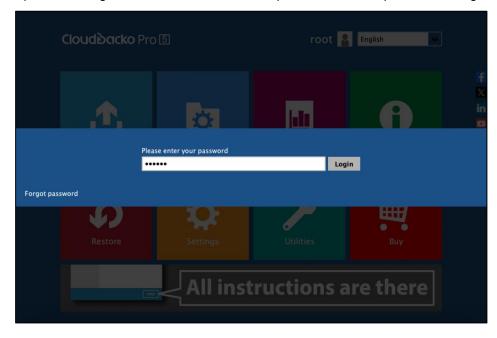
### **Password Lock**

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.



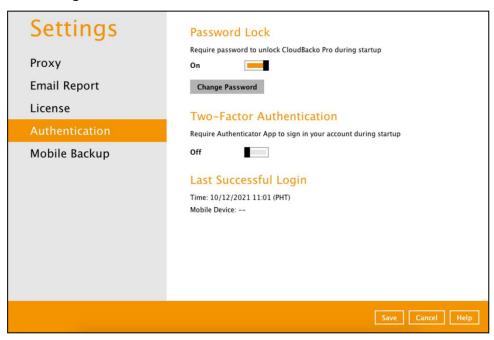
- 3. Click **OK** then click **Save** button to store the settings.
- 4. Upon launching the CloudBacko Pro, it is required to enter the password to login.



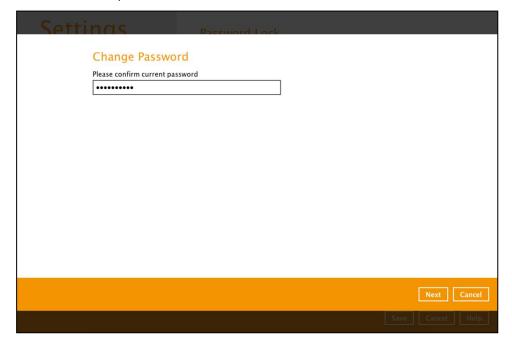


To change the password, follow the instructions below:

1. Click Change Password.

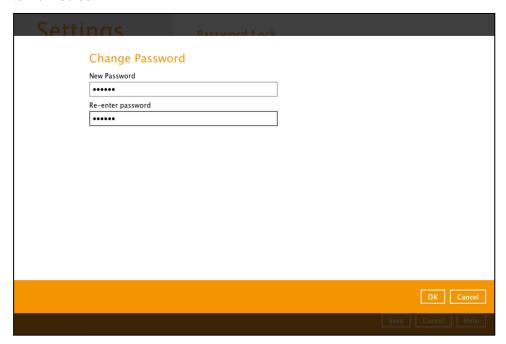


2. Enter the current password.

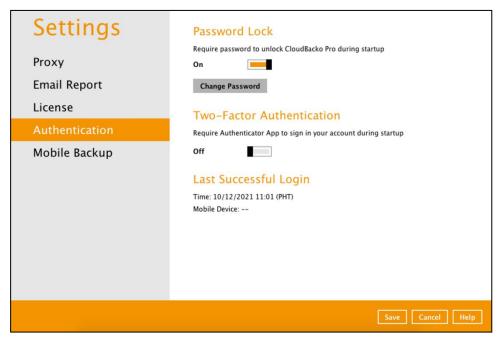




3. Enter the new password and re-enter it for authentication purposes. Click **OK** to return to main screen.



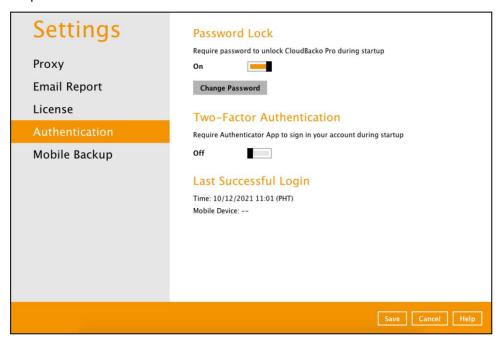
4. Click **Save** to store the settings.



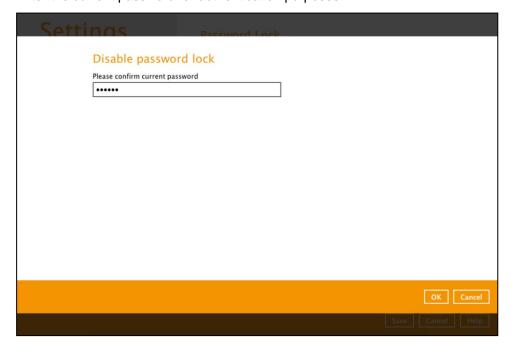


To disable the Password Lock feature, follow the instructions below:

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



2. Enter the current password for authentication purposes.



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



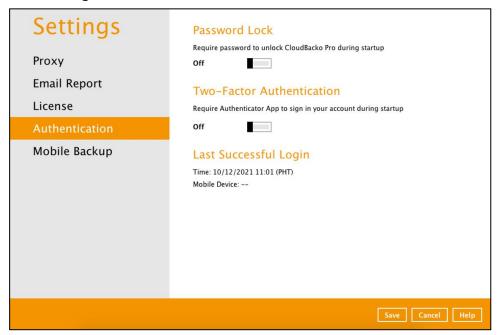
### **Two-Factor Authentication**

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

#### NOTE

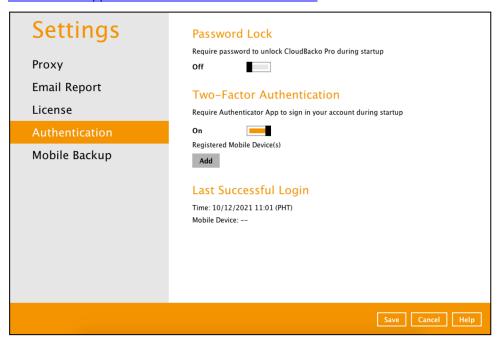
The CloudBacko app or a third-party **TOTP Authenticator** is needed for 2FA.

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



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

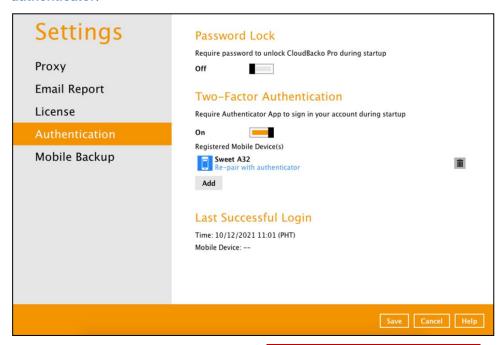
For the detailed step-by-step procedure on how to add a mobile device, please refer to CloudBacko App v1 User Guide for Android and iOS.



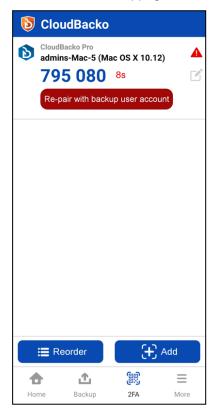


To re-pair the authenticator, follow the instructions below:

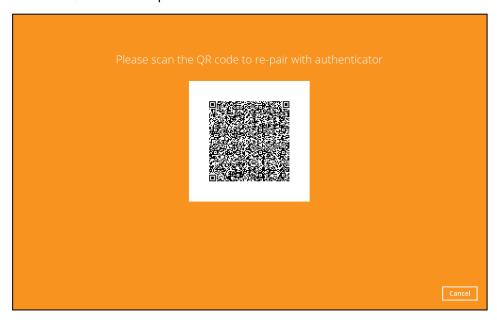
1. Go to Settings > Authentication > Two-Factor Authentication. Click Re-pair with authenticator.



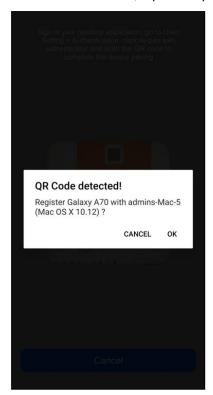
2. In the CloudBacko app, go to 2FA then tap Re-pair with backup user account.



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



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

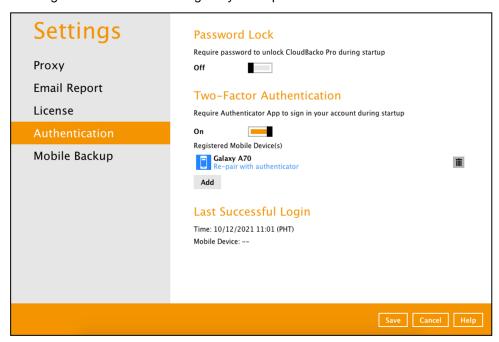


5. The migrated 2FA account has been successfully re-paired.



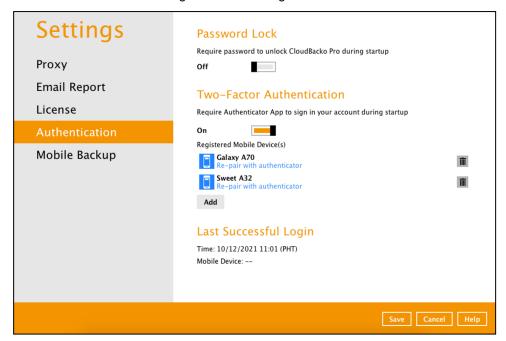


6. The original device will be changed by the replacement device.



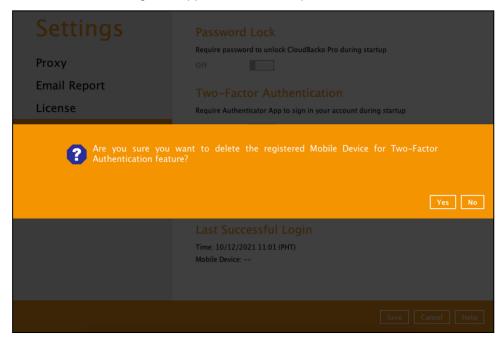
To remove a mobile device, follow the instructions below:

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

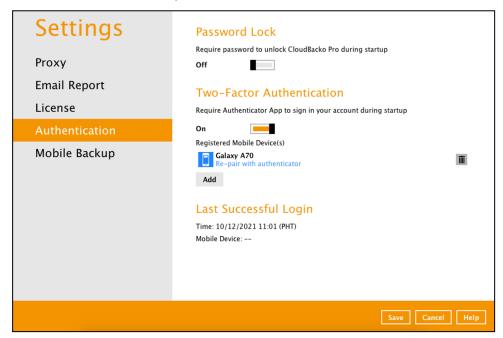




2. A confirmation message will appear, click Yes to proceed. Otherwise, click No.



3. Mobile device is successfully removed.



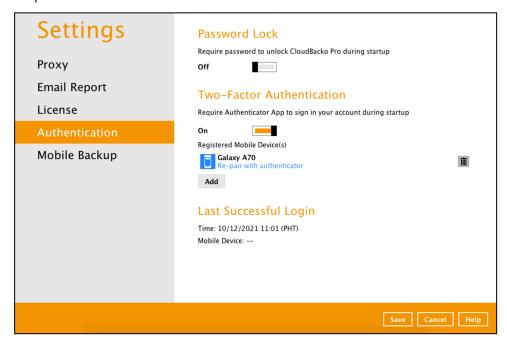
To disable the two-factor authentication feature, follow the instructions below:

#### NOTE

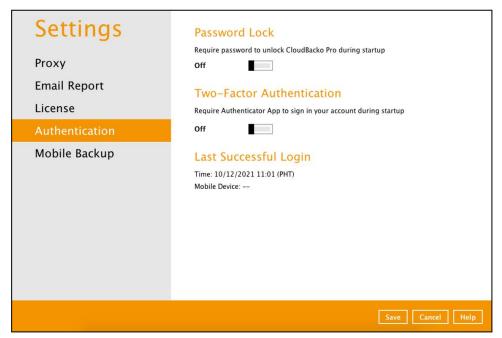
Sliding the switch to right hand side will only turn off the two-factor authentication but it will not automatically delete the registered mobile device(s) for Two-Factor Authentication. If you need to delete the registered mobile device(s), this must be done manually first before disabling Two-Factor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



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



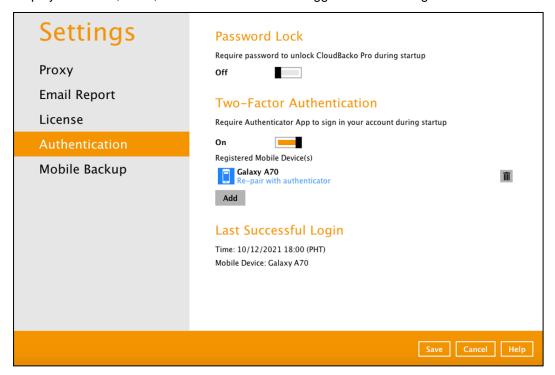
2. Click Save to save the settings.



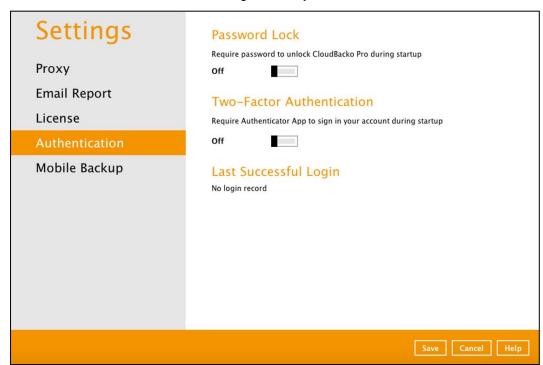


### **Last Successful Login**

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.



## 7.6.5 Mobile Backup

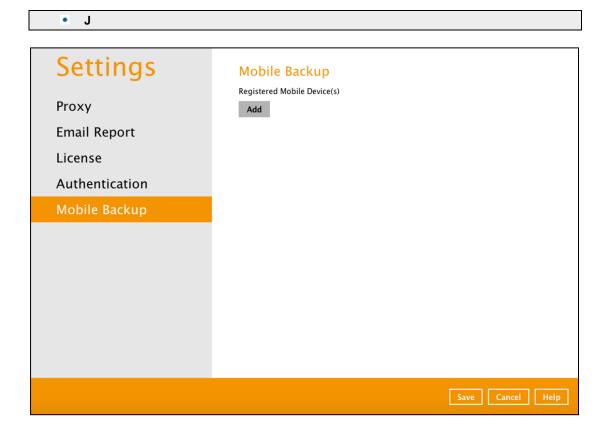
You can use the Mobile backup function to:

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:
  - o new location in the same local machine
  - o new machine
- Remove one or more device(s) registered for Mobile Backup.

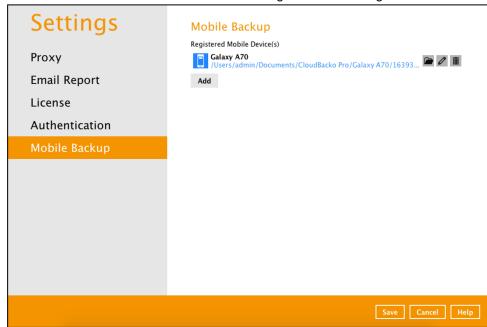




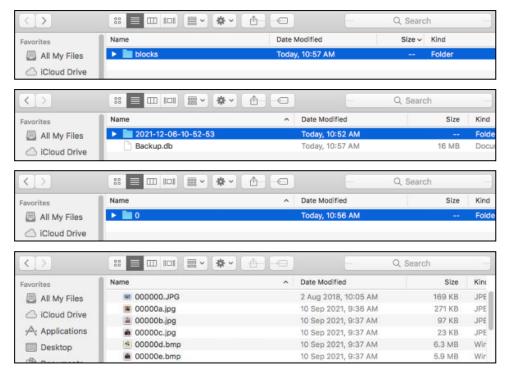
### View backed up photos and videos saved in the mobile backup destination

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

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



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



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



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

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

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

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

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

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

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

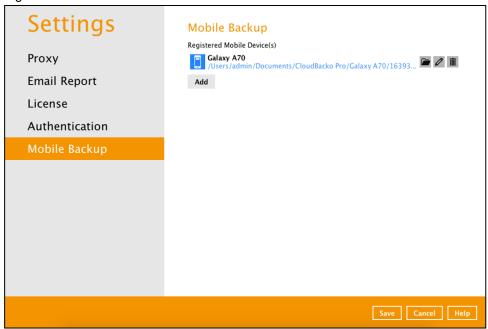
To change the mobile backup destination to another drive or folder on the CloudBacko machine, follow the instructions below:

- 1. 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 Pro.



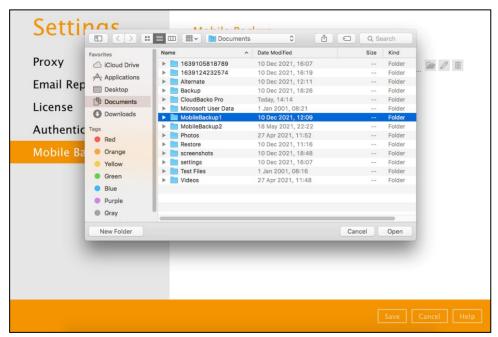


3. Go to **Settings** > **Mobile Backup**. Click the **Edit** icon on the right side of the registered mobile device.



4. Select a new mobile backup destination then click Open.

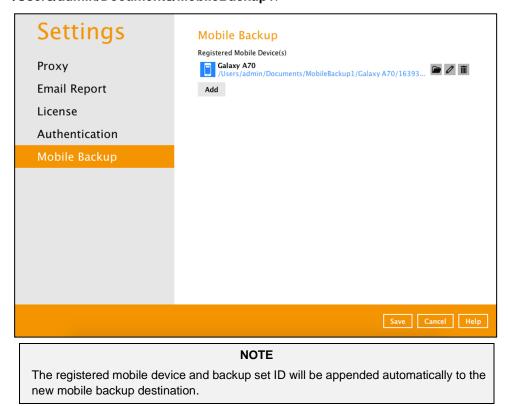
In this example, the new mobile backup destination will be /Users/admin/Documents/MobileBackup1.





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

Mobile backup destination is successfully changed to /Users/admin/Documents/MobileBackup1.



Copy the previously backed-up photos, videos, documents and 2FA accounts from the original location in 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.

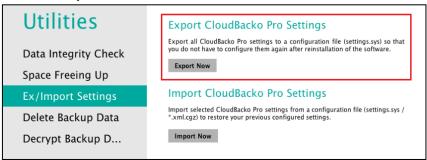
If the machine needs upgrading, the previously backed-up photos, videos, documents and 2FA accounts are still available. Also note that if Free up space is enabled on the CloudBacko Mobile app, it is required to copy the previously backed-up photos, video, documents s and 2FA accounts to the new machine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

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

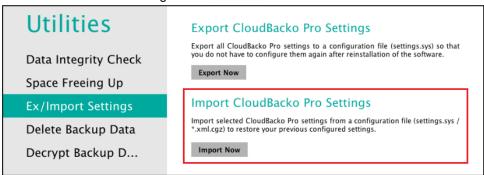
To change the mobile backup destination to a new machine, follow the instructions below:

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

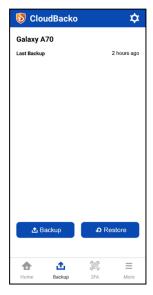
 save a copy of the configuration file by going to Utilities > Ex/Import Setting then click Export Now. Select the destination where the file will be saved.



- 2. On the new machine, install CloudBacko Pro.
- 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 and 2FA accounts from the old machine to the new mobile destination.
- Restart the CloudBacko Pro Services on the newly installed CloudBacko Pro to restart the MBS.
- 8. Start backup of photos, videos, documents and 2FA accounts.

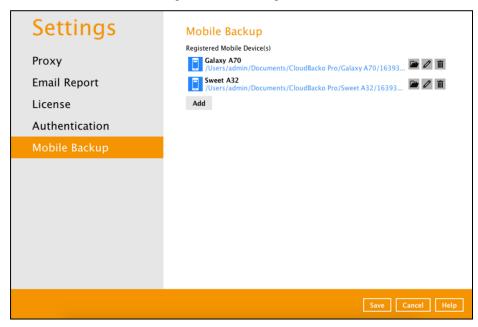




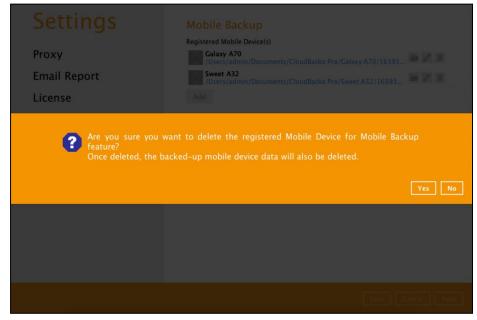
### Remove one or more device(s) registered for Mobile Backup

To remove a mobile device, follow the instructions below:

1. Click **Delete** icon 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 along with any photos, videos, documents and 2FA accounts backed up in the mobile backup destination.



## 7.7 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.



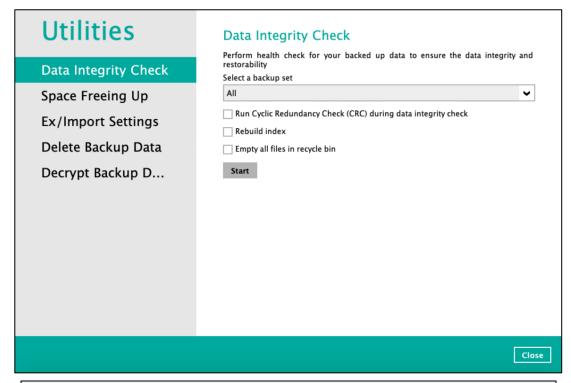
There are five (5) options available for this feature:

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

### 7.7.1 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 Pro 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.
- 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.</u> 7.5.3.

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

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

### Option 1

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

### Option 2

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

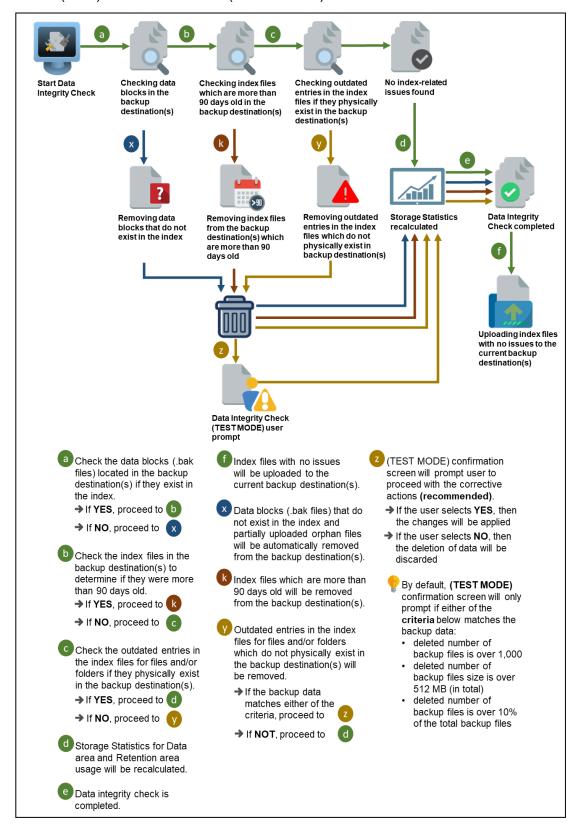
### Option 3

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

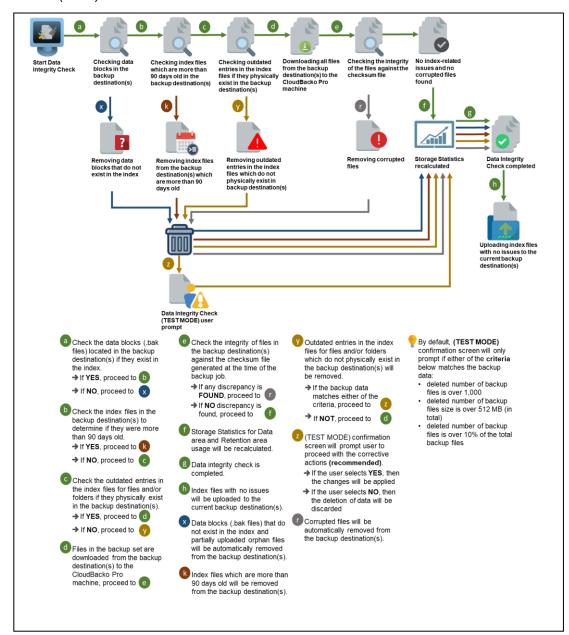
### Option 4

Enabled Run Cyclic Redundancy Check (CRC) and Rebuild index

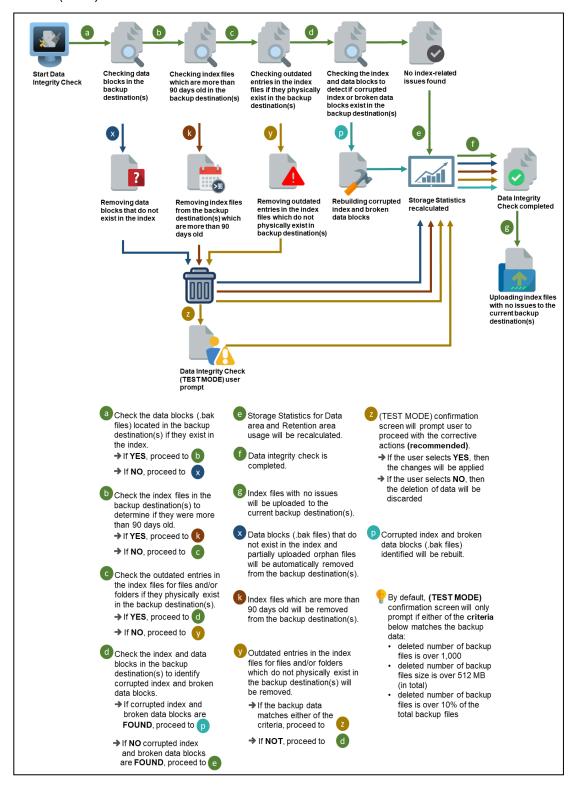
**Option 1**: Disabled Data Integrity Check (DIC) Process with Run Cyclic Redundancy Check (CRC) and Rebuild Index (Default mode)



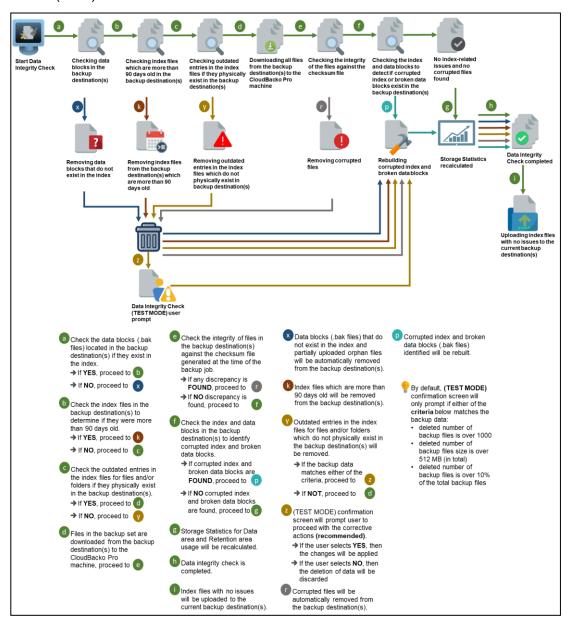
**Option 2**: Enabled Data Integrity Check (DIC) Process with Run Cyclic Redundancy Check (CRC) and Disabled Rebuild Index



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



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

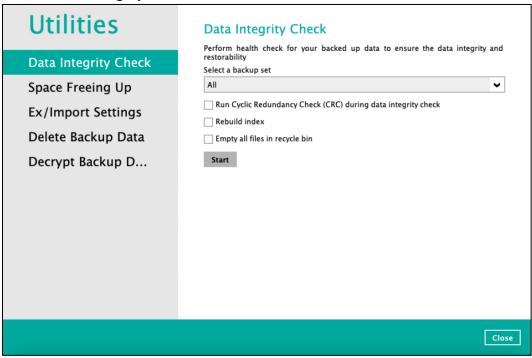




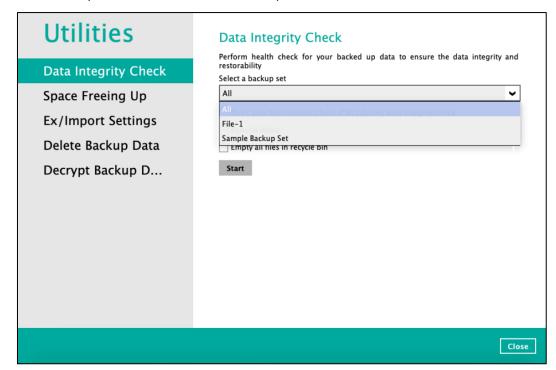
### **Perform a Data Integrity Check**

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

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

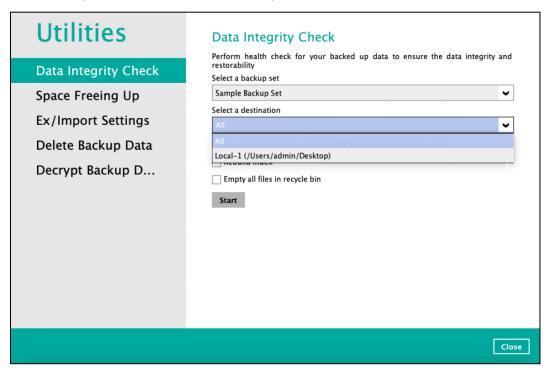


2. Click the drop-down button to select a backup set.

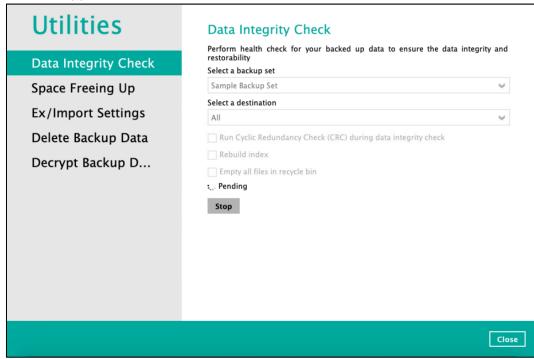




3. Click the drop-down button to select a backup destination.

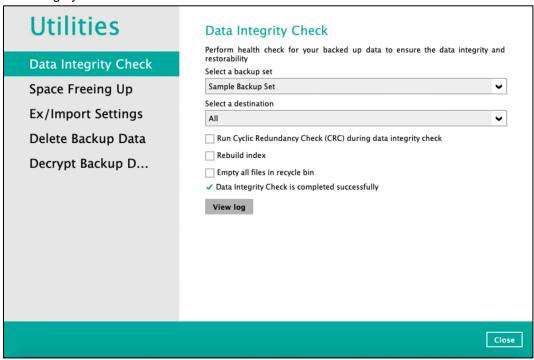


- 4. Click the Start button to begin the Data Integrity Check.
- 5. Data Integrity Check will start running on the selected backup set(s) and backup destination(s).

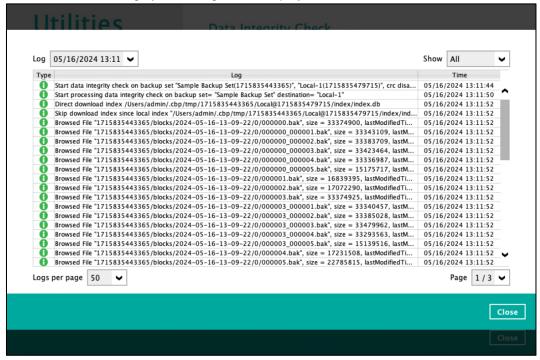




Once the DIC is complete, click the View log button to check the detailed process of the data integrity check.

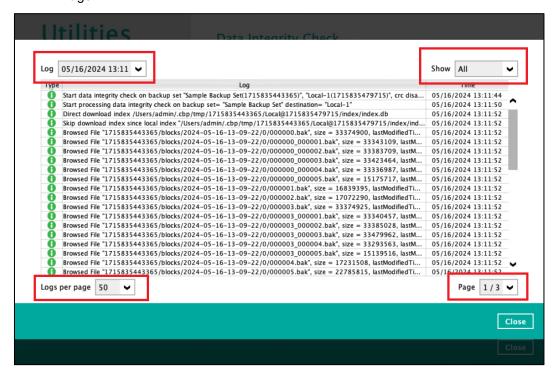


7. The detailed data integrity check log will be displayed.



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

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

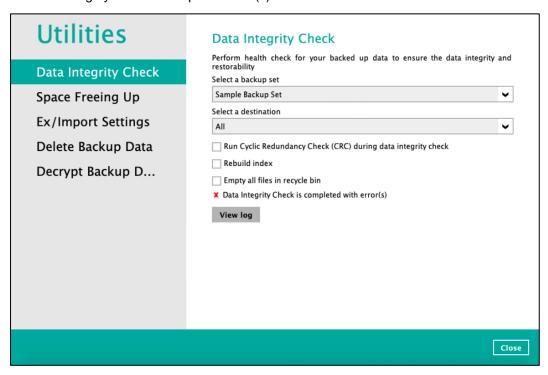


Control	Screenshot	Description
Log filter	Log 05/16/2024 13:16 V  Type 05/16/2024 13:00 05/16/2024 13:11 05/16/2024 13:14 05/16/2024 13:16	This option can be used to display logs of the previous data integrity check jobs.
Show filter	Show All    05/16/   05/16/   05/16/   05/16/   05/16/   Error	This 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 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).

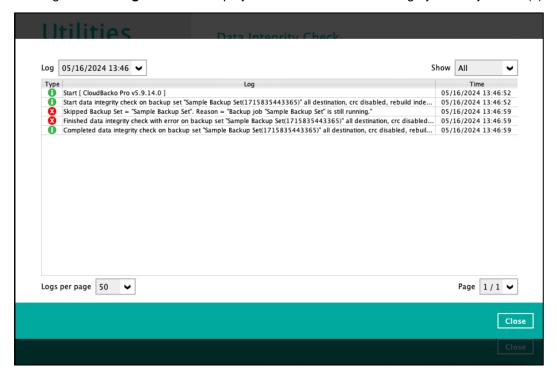


### 8.8.1.1 Data Integrity Check Completed with Errors

9. 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).



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



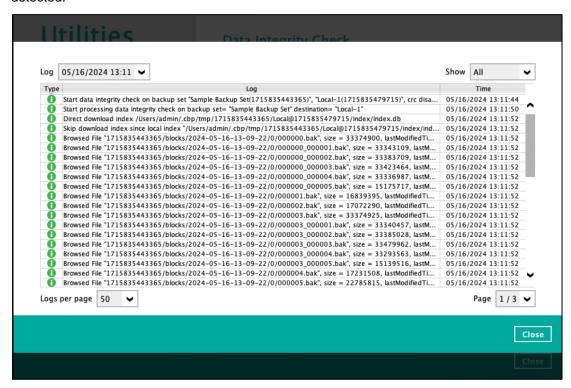


### 7.8.1.2 Data Integrity Check Result

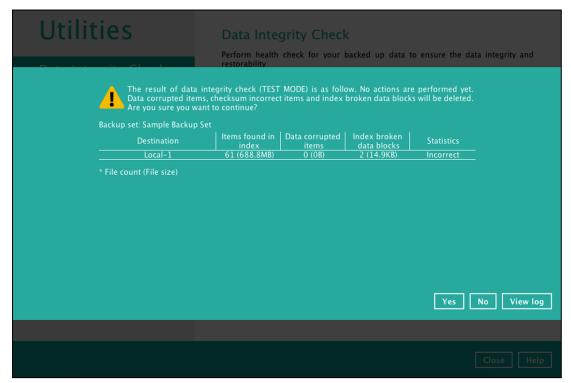
There are two possible outcomes after the completion of a data integrity check:

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

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



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



This is to inform the user of the following details:

Backup set that contains an error

**Backup Destination** 

Items found in index

Data corrupted items

Index broken data blocks

Statistics (i.e. Correct or Incorrect)

### 7.8.1.3 Test Mode Confirmation

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

deleted number of backup files is over 1,000

deleted number of backup file size is over 512 MB (in total)

deleted number of backup files is over 10% of total backup files

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

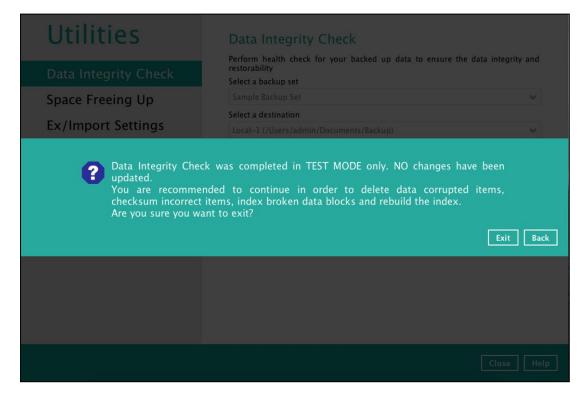
There are three options on the (TEST MODE) confirmation prompt:

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

Clicking No will display the following screen:

If the Exit button is clicked, the data integrity check result will be discarded.

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

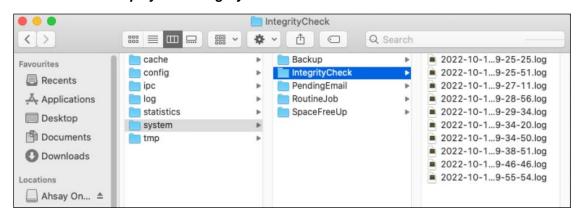


#### **NOTES**

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

Besides viewing the Data Integrity Check logs directly on the CloudBacko Pro hidden folders in macOS, they can be viewed on the file system of the CloudBacko Pro machine. For CloudBacko Pro Mac, the DIC logs are located in:

### %UserProfile%/.cbp/system/IntegrityCheck



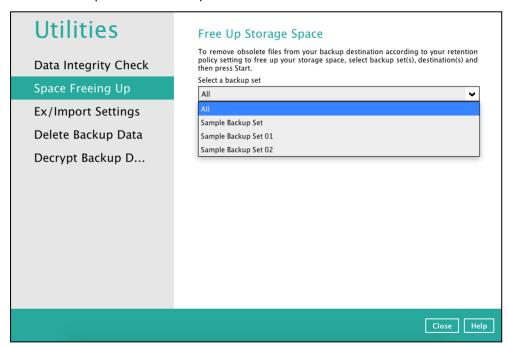


### 7.7.2 Space Freeing Up

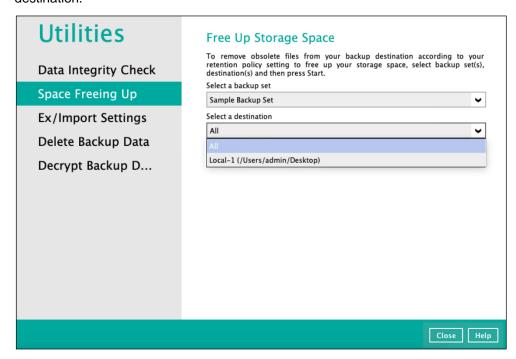
This feature is used to remove obsolete file(s) from your selected backup set and destination (manually start retention policy). After the Space Freeing Up job is completed, the storage statistics of the backup set(s) are updated.

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

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

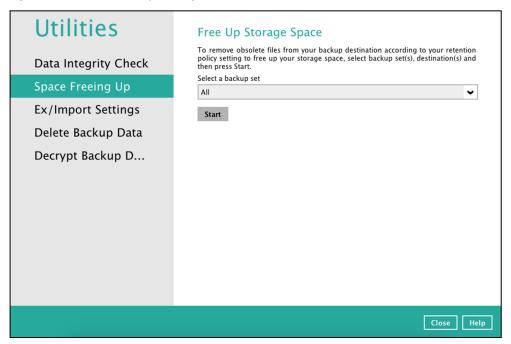


If you select a specific backup set, you will also have to choose a specific or ALL destination.

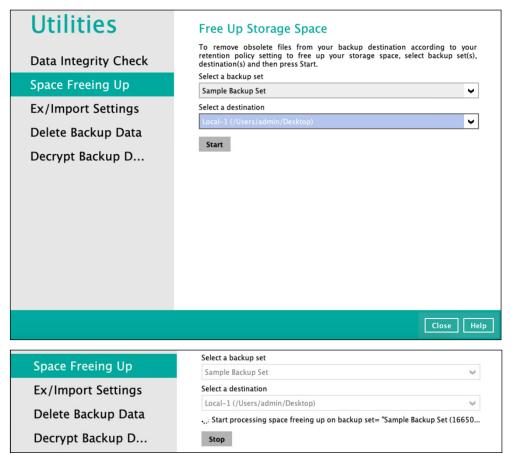




If you select **ALL** backup sets, you will not have to choose a destination.

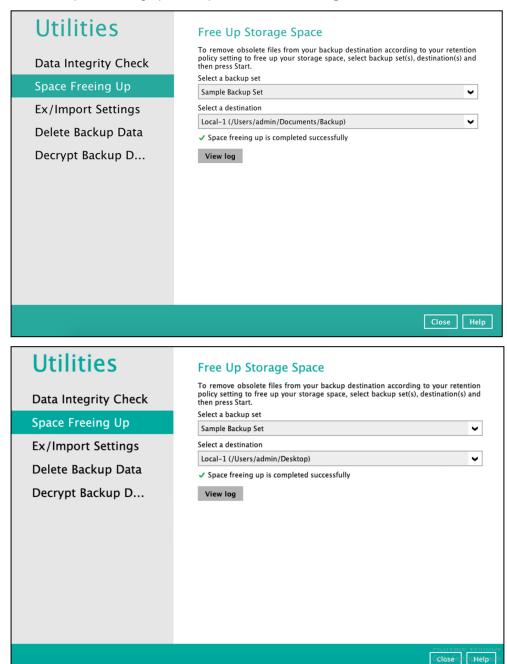


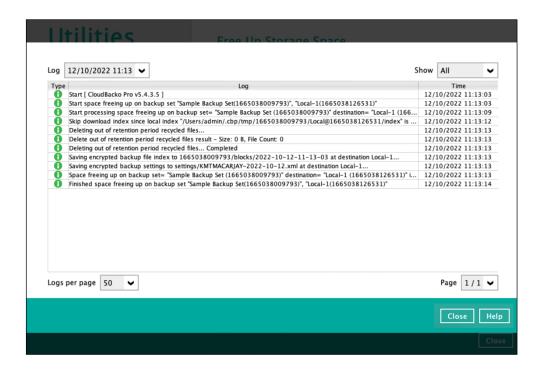
2. Once a backup set and destination have been selected, click **Start** to perform space free up.





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





### 7.7.3 Ex/Import Settings

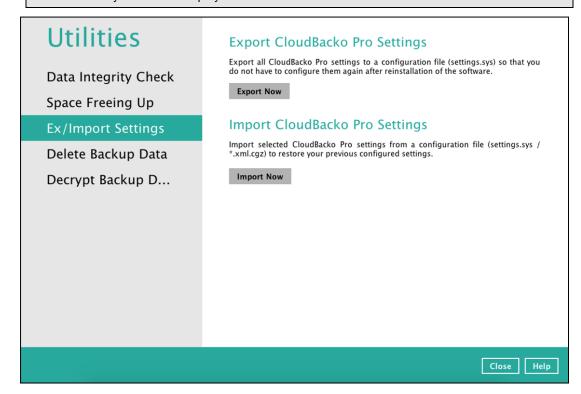
This feature is used to export and import CloudBacko Pro Settings to the **settings.sys** file, this includes information on:

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

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

#### **WARNING!**

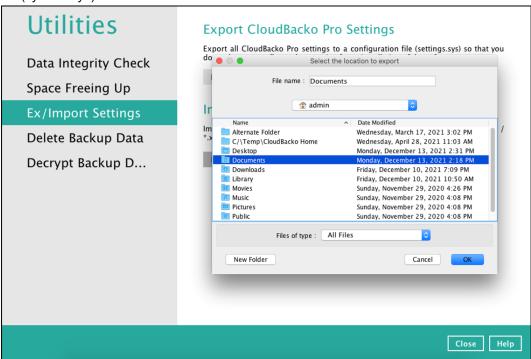
A separate copy of the settings.sys file should be saved in another location for safe keeping. Otherwise, If the machine where the CloudBacko Pro is installed on suffers a disk or hardware failure or is stolen and a copy of the settings.sys file is not available, it will not be possible to access and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



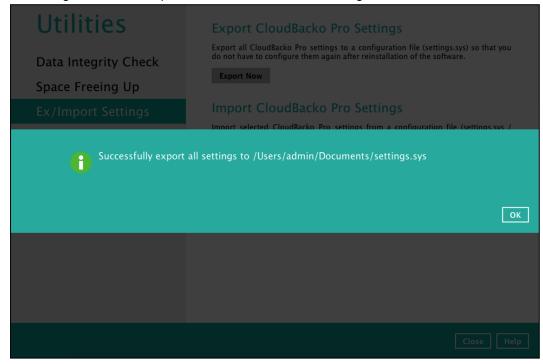


## **Export CloudBacko Pro Settings**

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



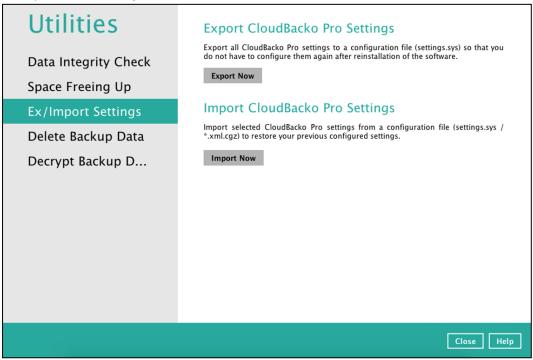
If the system.sys file is successfully exported to the preferred path, it will display a message containing the status and path of the CloudBacko Pro configuration file.



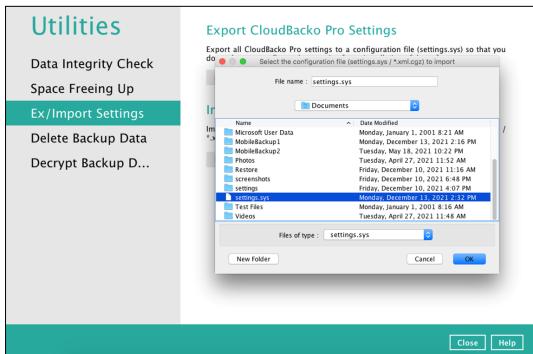


## Import CloudBacko Pro Settings

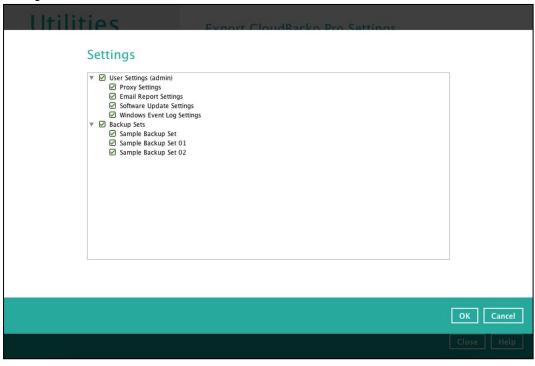
To import, click the **Import Now** button.

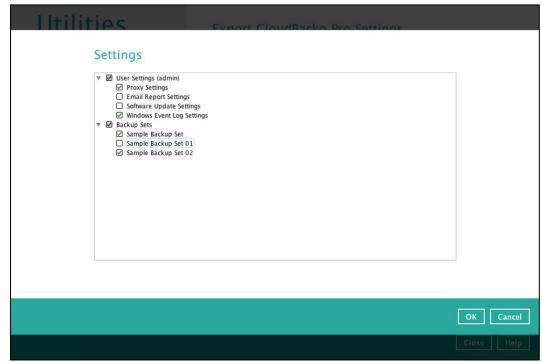


Select the path where the CloudBacko Pro configuration file (system.sys / .xml, .cgz) is stored then click **OK**.



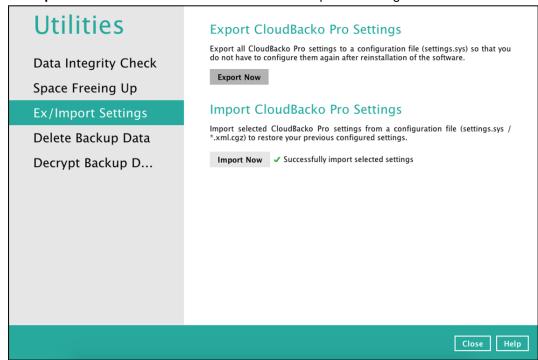
It will show the following Settings: User Settings and Backup Sets. By default, all settings are included, however, there is an option to uncheck the checkboxes and choose the preferred settings.







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.



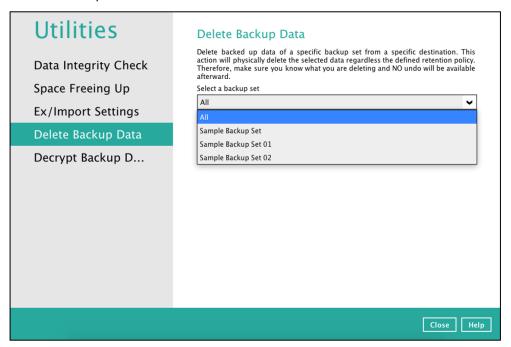


### 7.7.4 Delete Backup Data

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:

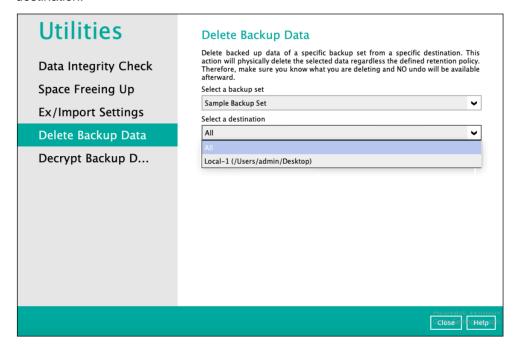
1. Select a backup set to delete from.



#### NOTE

This will only delete the backed up files in a backup set(s) and destination(s), but the backup set and destination will remain.

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





**Ex/Import Settings** 

Delete Backup Data

Decrypt Backup D...

Delete Backup Data

Delete Backup Data

Delete backed up data of a specific backup set from a specific destination. This action will physically delete the selected data regardless the defined retention policy. Therefore, make sure you know what you are deleting and NO undo will be available afterward.

Space Freeing Up

Delete Backup Data

Delete Backup Data

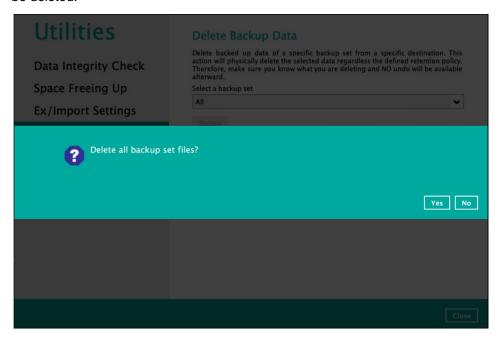
Select a backup set from a specific destination. This action will physically delete the selected data regardless the defined retention policy. Therefore, make sure you know what you are deleting and NO undo will be available afterward.

Select a backup set

Delete

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

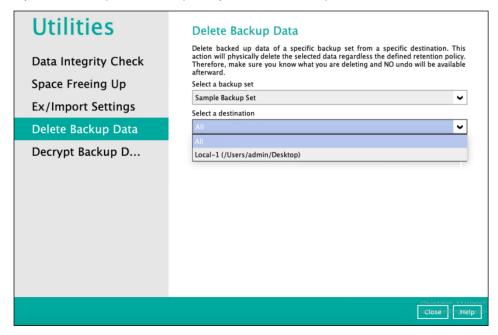
2. If you choose to delete **All** backup set(s), the following message will be displayed. By clicking **Yes**, all backed up files from the selected backup set(s) and destination(s) will be deleted.



Close Help



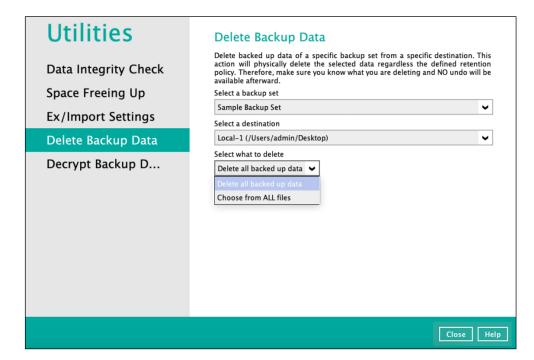
If you select a specific backup set, you will have an option to choose a destination.



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 backed-up data

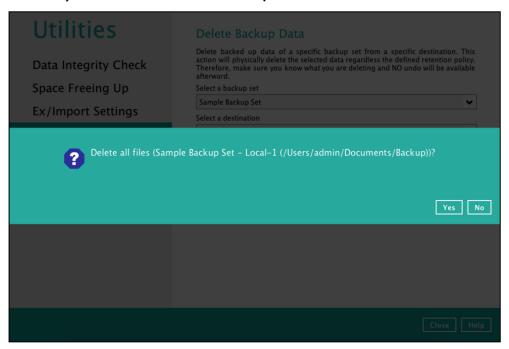
Choose from ALL files





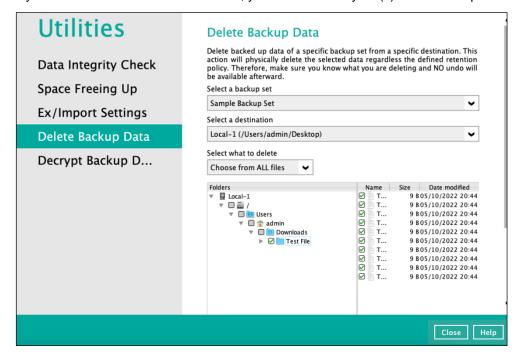
#### Delete all backed up data

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.



#### **Choose from ALL files**

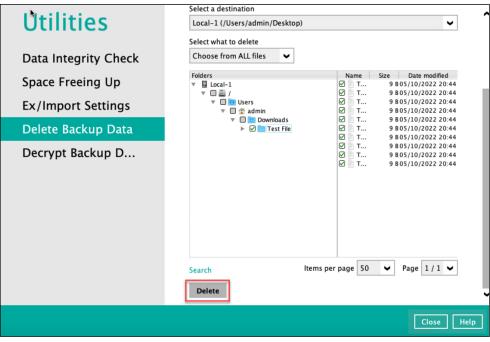
If you select "Choose from ALL files", you can select any file(s) in the backup set.

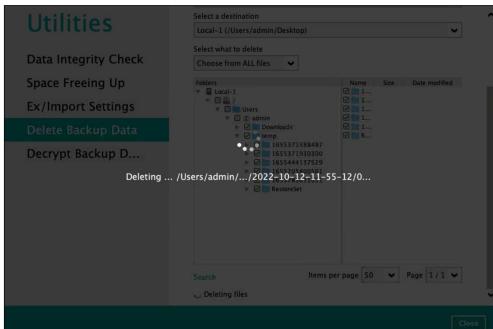


You also have the option to click the **Search** link to do an advance search.

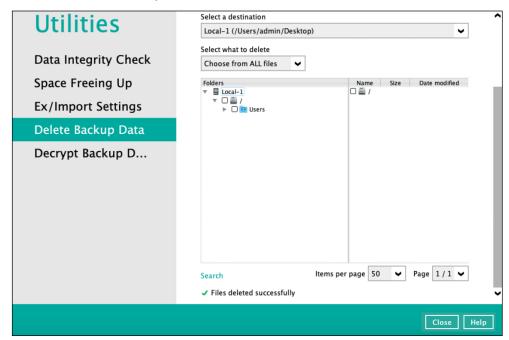


3. Click **Delete** to start the deletion of file(s).





4. Files deleted successfully.



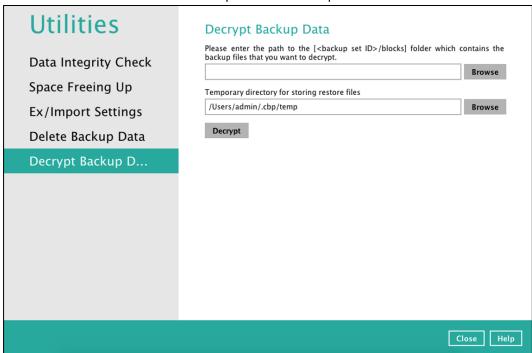


#### 7.7.5 Decrypt Backup Data

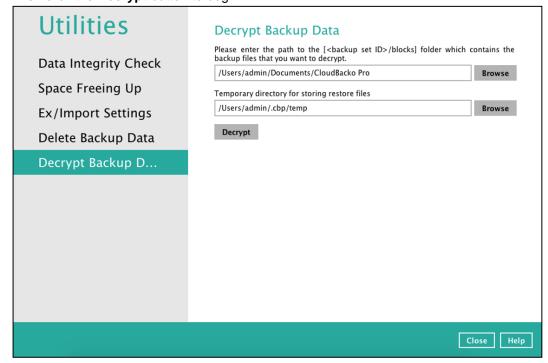
This feature is used to restore raw data by using the **data encryption key** that was set for the backup set.

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

1. Click the **Browse** button to locate the path of the backup set ID / blocks folder.



2. Click the **Browse** button to re-select the temporary folder for the decrypt process. Then click the **Decrypt** button to begin.



#### 7.8 **Buy**

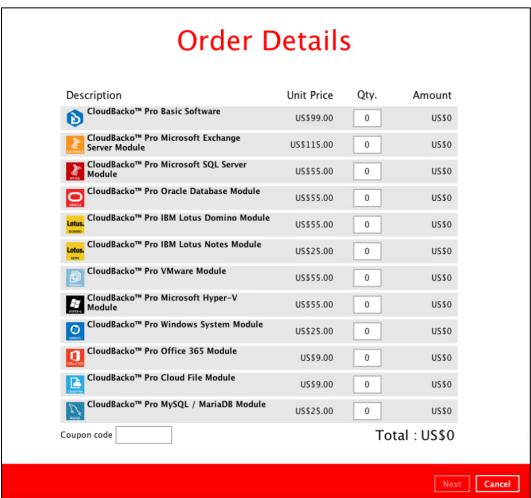
This feature allows customer to buy additional software license and or modules.

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 forum article for the details on the license purchase instructions: How to Buy CloudBacko Pro



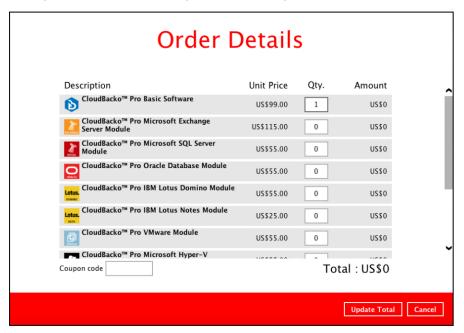




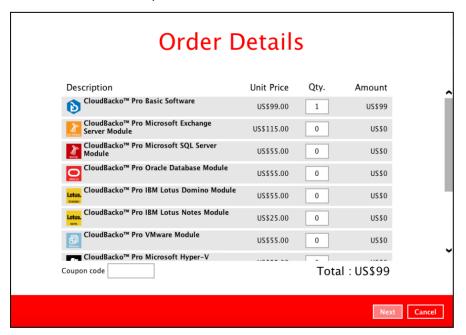
To purchase additional software license and/or modules, follow the instructions below:

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.

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



Click the Next button to proceed.



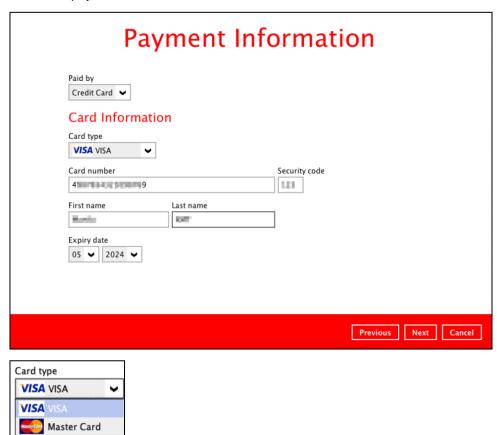
2. The Payment Information screen will be displayed. Select the payment mode, Credit Card or TT (Telegraphic Transfer), by clicking the dropdown **Paid by**.



#### 7.8.1 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

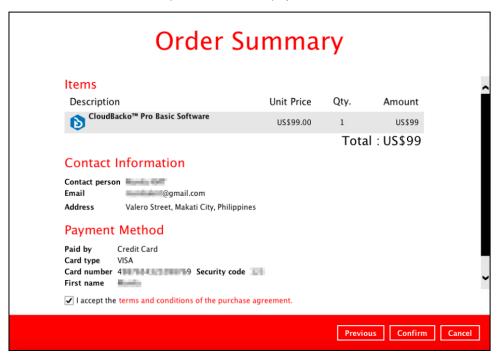


- Complete the following fields for the Contact Information then click the Next button to proceed.
  - Contact person
  - Email for receiving receipt
  - Company name (optional)
  - VAT number (optional)
  - Street line 1
  - Street line 2 (optional)
  - City
  - State / Province / Territory (optional)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

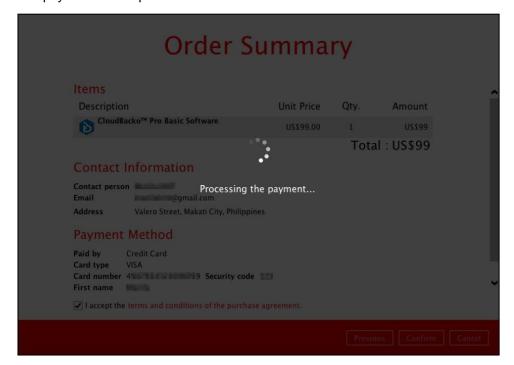


3. In the Order Summary screen, order Items, Contact Information, and Payment Method are displayed.

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.

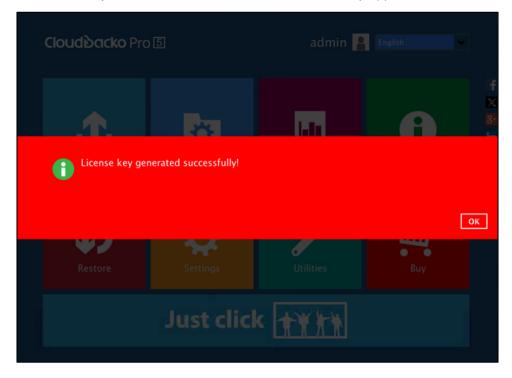




If the payment is successful, an official receipt will be displayed.

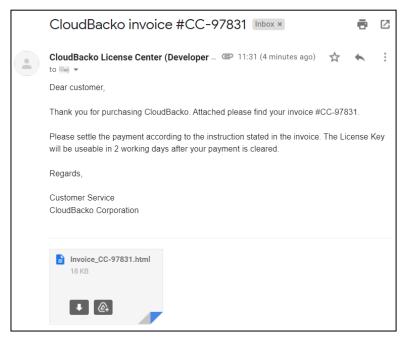


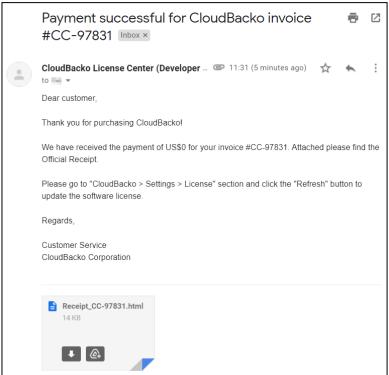
The license key on the CloudBacko Pro is now successfully applied.





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 Pro. Both parts of the license key is required if you need to reinstall CloudBacko Pro or apply the license to another installation.

Please check this article for more information:

Where can I find my CloudBacko Pro/Lite purchase 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

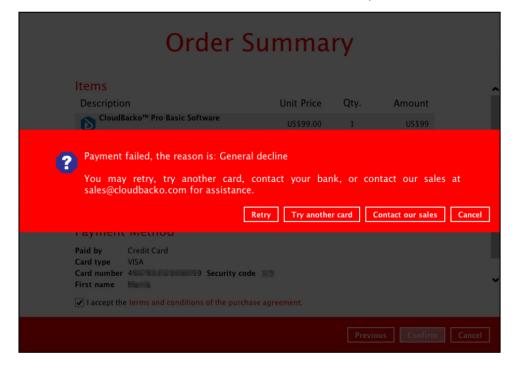
This will redirect you to the Credit Card Information and input another Credit Card details.

Contact our sales

This will redirect you to the CloudBacko website.

Cancel

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



#### 7.8.2 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.



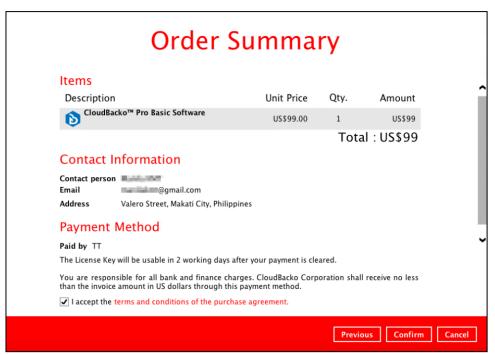
- Complete the following fields for the Contact Information then click the [Next] button to proceed.
  - Contact person
  - Email for receiving receipt
  - Company name (optional)
  - VAT number (optional)
  - Street line 1
  - Street line 2 (optional)
  - City
  - State / Province / Territory (optional)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



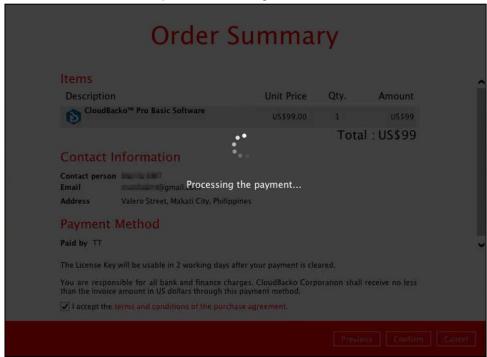


In the Order Summary screen, order Items, Contact Information, and Payment Method are displayed.

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



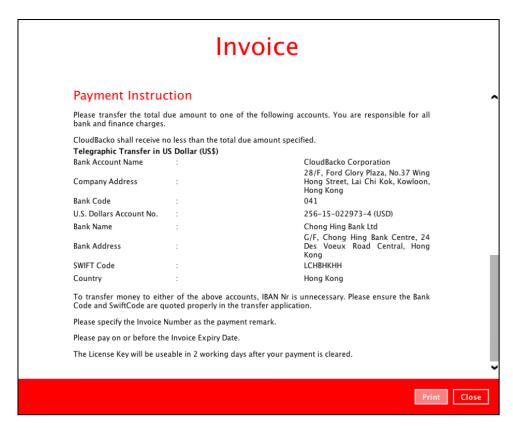
The invoice for the license purchase will be generated.



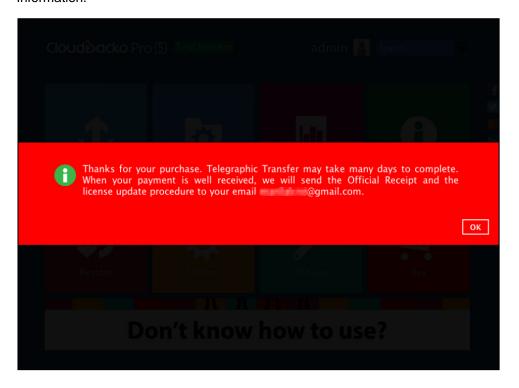
The Invoice will be displayed. Click the **Print** button to print out the invoice and bring it to your bank to arrange TT payment.





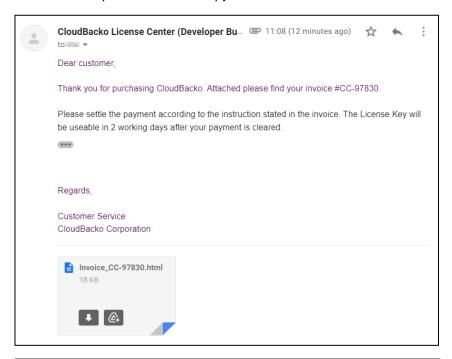


This prompt message will appear to inform customer that if the payment through telegraphic transfer is successful, the official receipt, software license, and license update procedure will be sent to the email address indicated in the Contact Information.





These are sample email for the copy of Invoice.





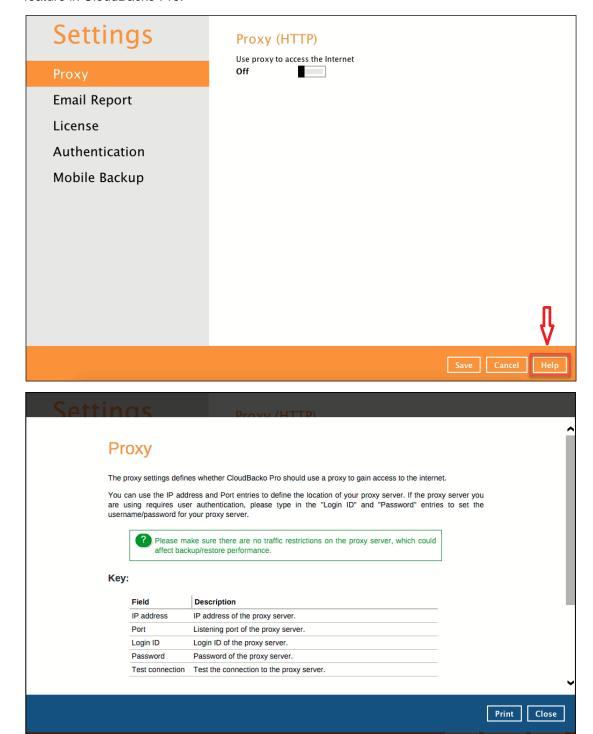
#### 7.9 Social Media Icons

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



#### 7.10 Online Help

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





# 8 Create a Backup Set

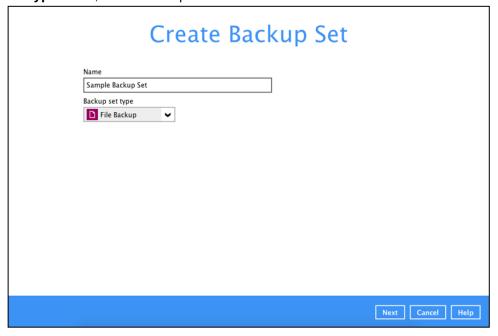
1. Click the **Backup Sets** icon on the main interface of CloudBacko Pro.



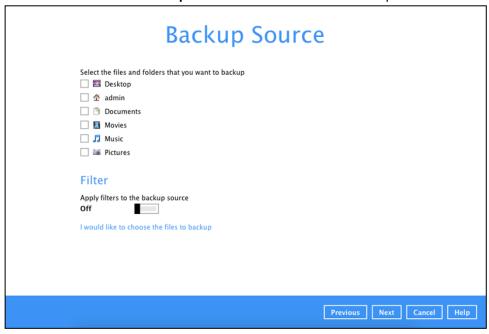
2. Create a new backup set by clicking + next to **Add new backup set**.



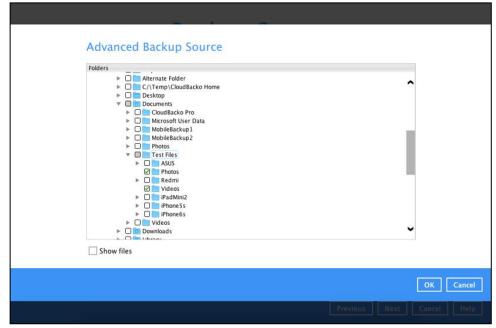
3. When the Create Backup Set window appears, name your new backup set, and select the **Backup** set type. Then, click **Next** to proceed.



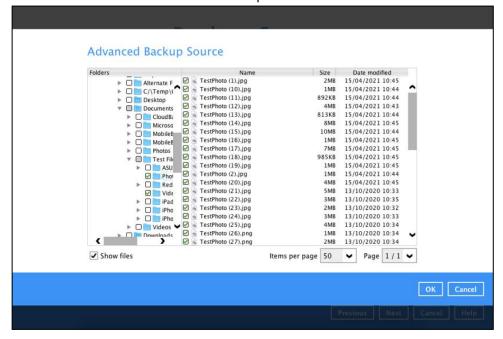
4. In the Backup Source window, select the source files and folders for backup. Click **I would like** to choose the files to backup to select individual files for backup.



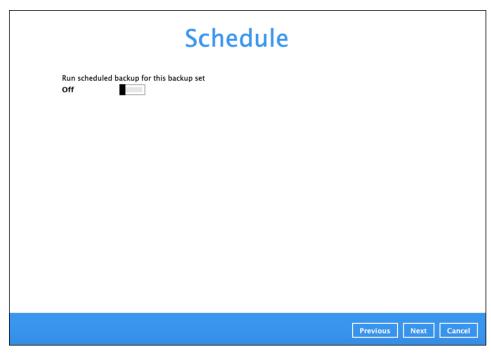
5. In the **Advanced Backup Source** window, select folder(s) to back up all files in the folder(s).



6. 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.

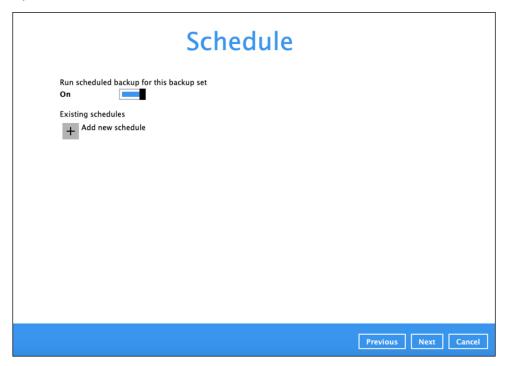


- 7. In the Backup Source window, click Next to proceed.
- 8. When the **Schedule** window appears, you can configure a backup schedule to automatically run a backup job at your specified time interval. In the Schedule window, the Run scheduled backup for this backup set is **Off** by default.

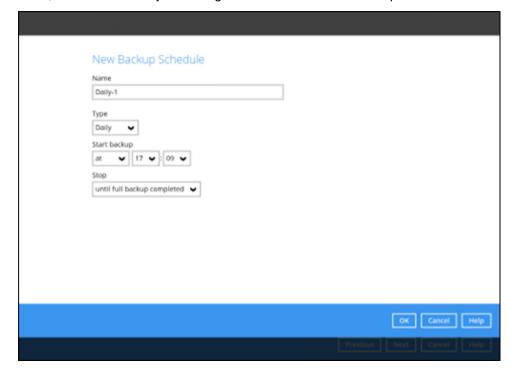




If you want to add another schedule, click the Add button.

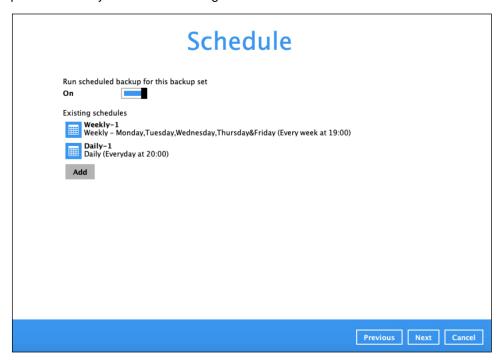


When the New Backup Schedule window appears, specify your backup schedule.
 Then, click **OK** to save your changes and close the New Backup Schedule window.

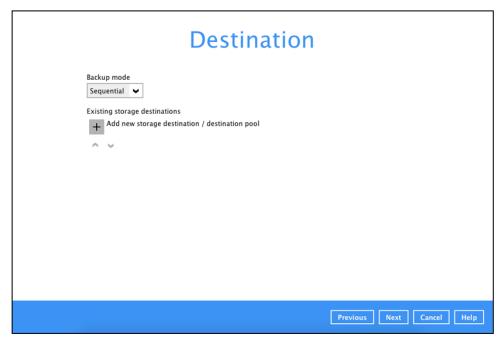




9. In case you have added a schedule, it will be shown in the Schedule window. Click **Next** to proceed when you are done setting.



10. The **Destination** window will appear.

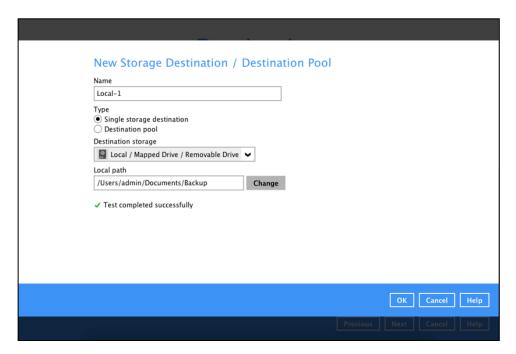


Select the appropriate option from the **Backup mode** dropdown menu.

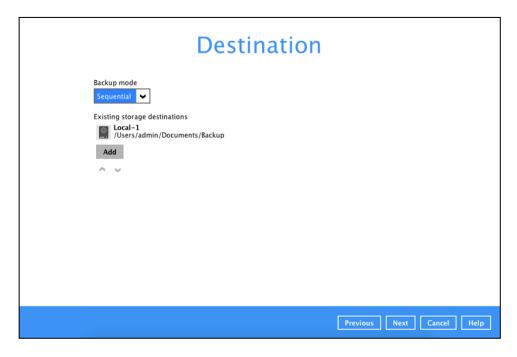
- Sequential (default value) run backup jobs to each backup destination one by one
- Concurrent run backup jobs to all backup destinations at the same time

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

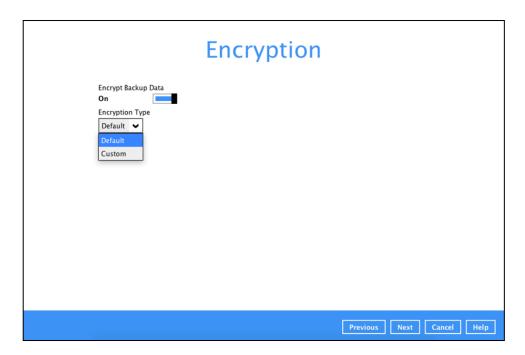
11. In the New Storage Destination / Destination Pool window, select the destination type and destination storage. Then, click **OK** to confirm your selection.



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



13. 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.



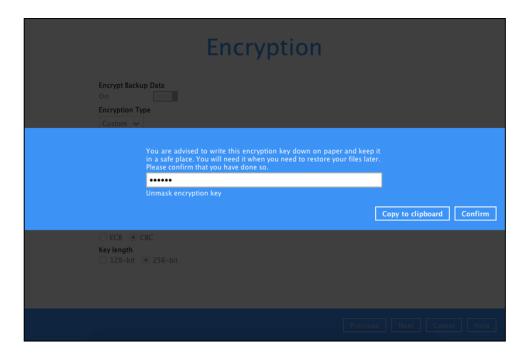
You can choose from one of the following two Encryption Type options:

- ➤ **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.

14. 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.

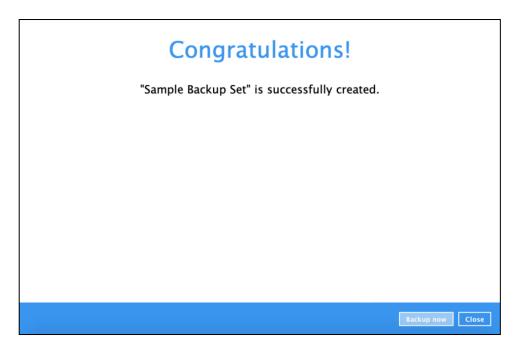


The pop-up window has the following three options to choose from:

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

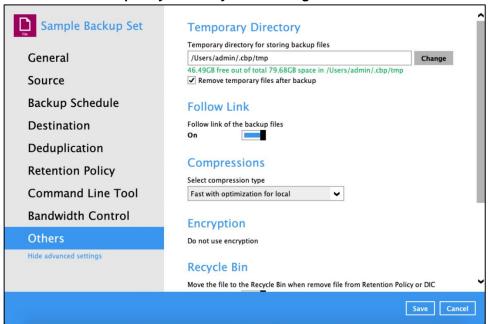


- Copy to clipboard Click to copy the encryption key, then you can paste it in another location of your choice.
- Confirm Click to exit this pop-up window and proceed to the next step.
- 15. Upon successful creation of the backup set, the following screen will appear. You can click **Backup now** to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



16. It is highly recommended to change the <u>Temporary Directory</u>. Select another location with sufficient free disk space other than **/Users/admin/.cbp/tmp**.

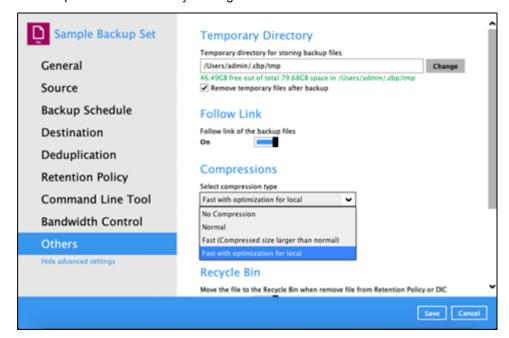
Go to Others > Temporary Directory. Click Change to browse for another location.



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

Go to Others > Compressions. Select from the following:

- 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.



## 9 Overview on Backup Process

The following steps are performed during a backup job. For an overview of the detailed process for Steps **2**, **3**, **8**, and **10**, 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 10)

Data Validation Check Process (Step 8)

#### Start backup job

Data are compressed, encrypted and divided Connection from the backup client to the into individual data block size of 32 or 64 MB. destination is established. Establishing and then uploaded to the backup destination. 1 Physical .bak files (data blocks) that do not exist The number of 32 or 64 MB data blocks and the in the index are removed from the backup individual block size in the backup destination is Data validation destination, then the statistic of both data area identical to the blocks transferred. and retention area will be recalculated. check 8 Latest index.db file and checksum files are Retention policy job is running (if enabled). downloaded from the backup destination to the Downloading files retentic temporary folder. 9 3 Latest index files on the client computer are Local file list is compiled according to the backup saved to the backup destination and client logs Saving files source setting. are saved to the backup server. 10 Temporary files are removed from the Local and remote file lists are compared to temporary storage location specified in the identify new, updated, moved or deleted files backup set (if enabled). and/or folders since the last backup job. 5 A checksum verification of each backup file which was split into several blocks of varying Backup job completed size will be performed to compare its content Data and remove duplicated data (if enabled).

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

The PDIC will run on the first backup job that falls on the corresponding day of the week from **Monday to Friday**.

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

PDIC schedule = %BackupSetID% modulo 5
or
%BackupSetID% mod 5

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

0	Monday
1	Tuesday
2	Wednesday
3	Thursday
4	Friday

#### **NOTE**

The PDIC schedule cannot be changed.

#### **Example:**

Backup set ID: 1594627447932

Calculation:  $1594627447932 \mod 5 = 2$ 

2 Wednesday

In this example:

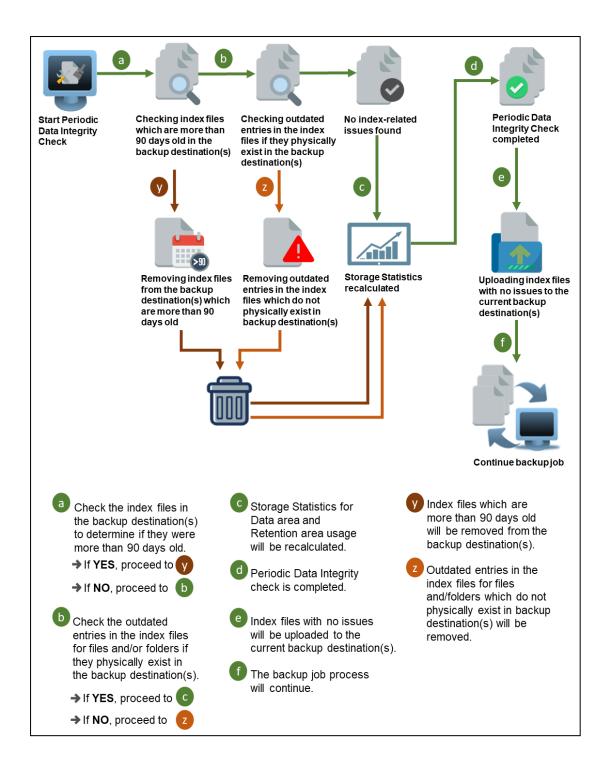
- the PDIC will run on the first backup job that falls on Wednesday; or
- if there is no active backup job(s) running from Monday to Friday, then the PDIC will run on the next available backup job.

#### **NOTE**

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

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

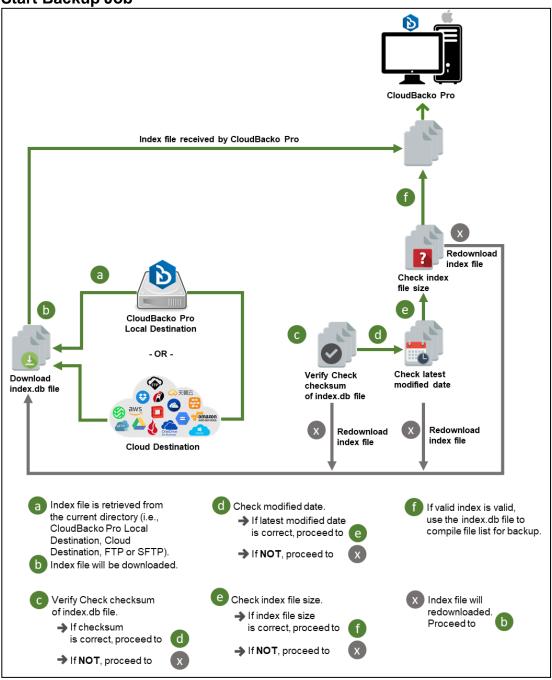
- If backup jobs for a backup set are not run on a regular daily backup schedule (for example: on a weekly
  or monthly schedule), then the PDIC job will run if it detects that the previous PDIC job was run more
  than 7 days ago.
- 2. Every time a data integrity check (DIC) is run, the latest PDIC run date is reset, the next PDIC job will run after 7 days.
- 3. The PDIC job will not run if there are no files in both the data and retention areas. For example: a newly created backup set with no backup job history or a backup set where all the data has been deleted using the <a href="Delete Backup Data">Delete Backup Data</a> feature.



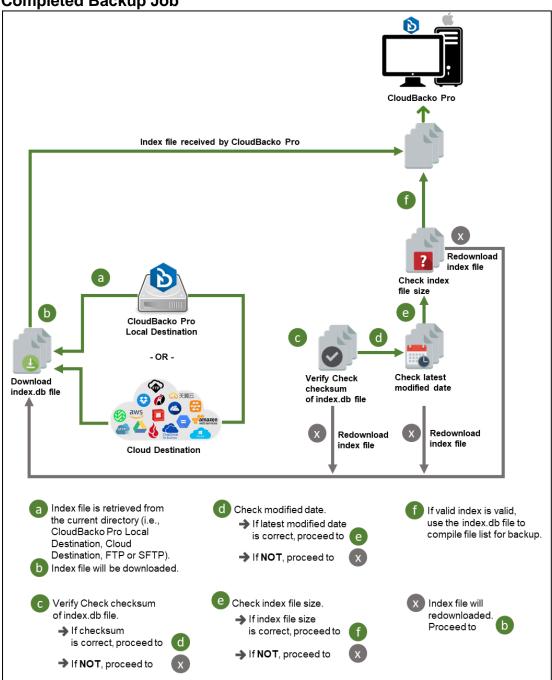
#### 9.2 Backup Set Index Handling Process

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

9.2.1 Start Backup Job

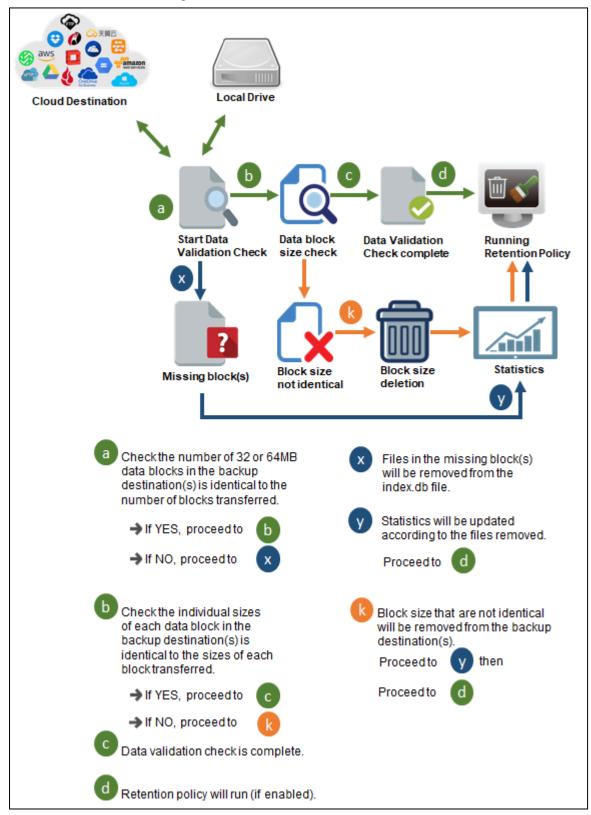


9.2.2 Completed Backup Job



#### 9.3 Data Validation Check Process

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



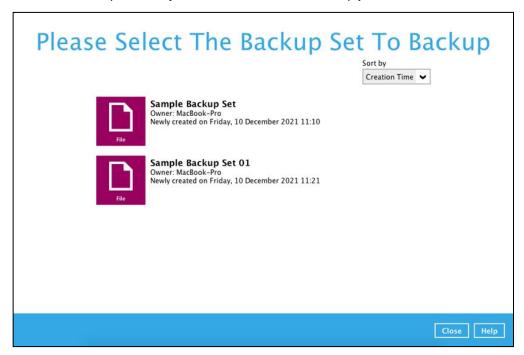


# 10 Run Backup Jobs

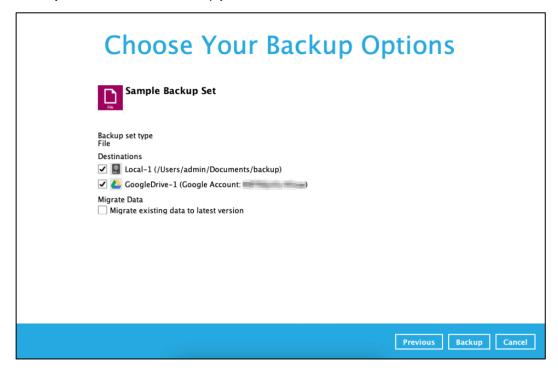
1. Click **Backup** on the main interface of CloudBacko Pro.



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



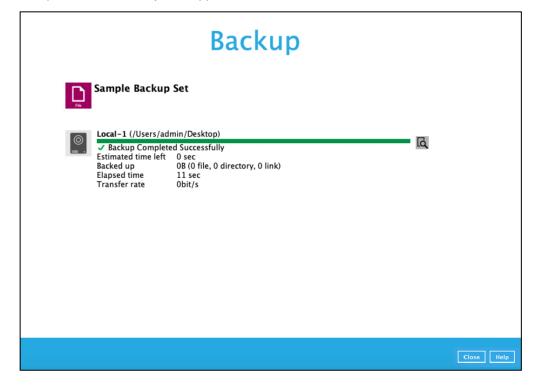
3. You can modify the Destinations and Migrate Data options. Once done with the settings, click the **Backup** button to start the backup job.



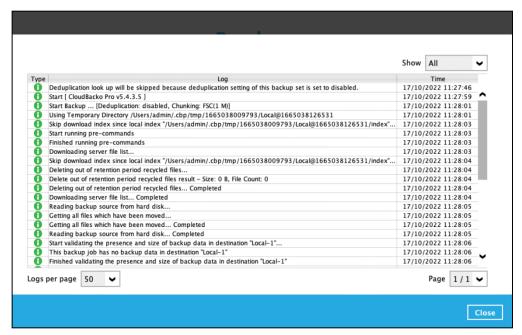
#### NOTE

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.

4. When the backup is completed, the progress bar will be green in color and the message "Backup Completed Successfully" will appear.



5. 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 Restore Data

#### 11.1 Restore Method

- Log in to the CloudBacko Pro application according to the instructions in section <u>Chapter 6 Start</u> <u>CloudBacko Pro</u>.
- 2. Click the **Restore** icon on the main interface of CloudBacko Pro.

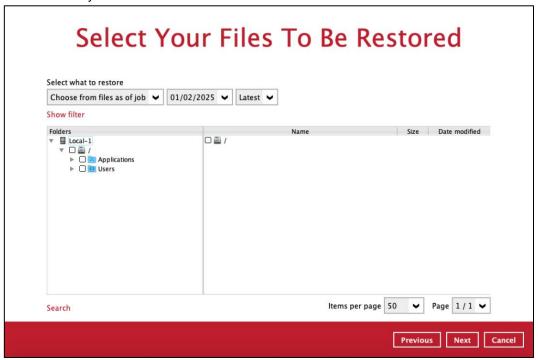


3. In the next page, you will have several options to select. On this page, you may select the **Backup**Set to restore, as well as the **Destination** to which the data will be restored to.

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

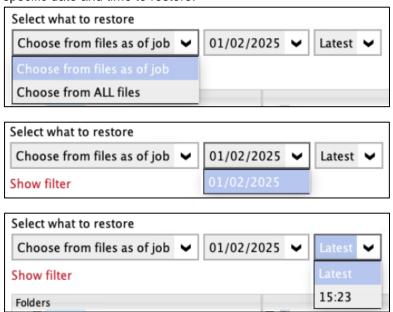


4. Select to restore files from a specific backup job, or from all files available. Then, select the files or folders that you would like to restore.

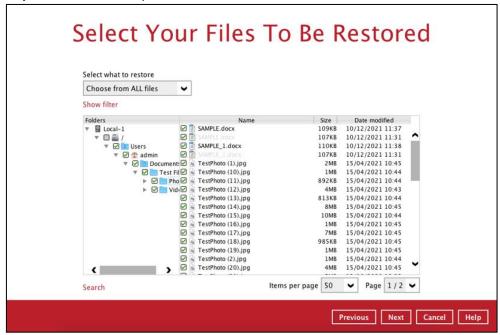


There are two options from the **Select what to restore** dropdown menu:

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

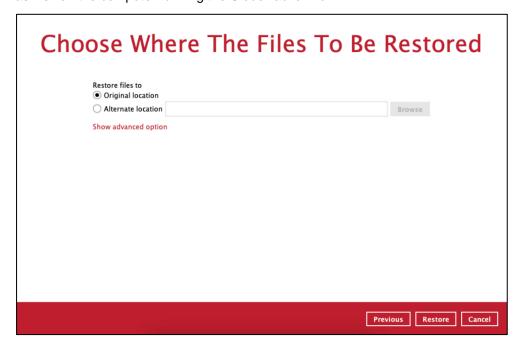


 Choose from ALL files – This option allows you to restore all the available backup versions for this backup set. Among all the available backup versions, you can even select only some of the backup versions of a file to restore.



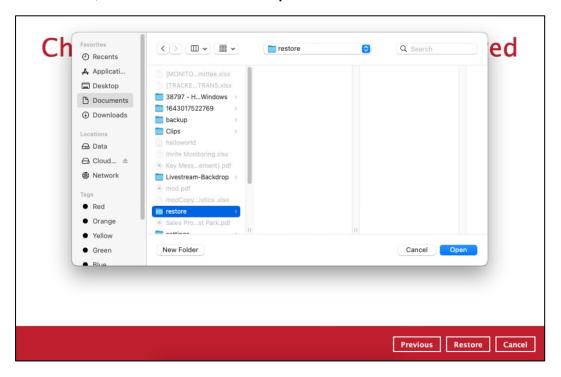
- Click Next to proceed when you are done with the selections.
- Select to restore the files to their Original location, or to an Alternate location. Then, click Next to proceed.
  - Original location the backed-up data will be restored to the computer running the CloudBacko Pro under the same directory 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 Pro.

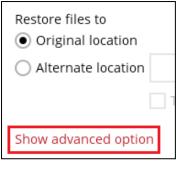


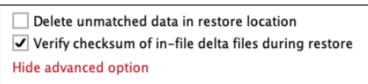
 Alternate location – you can choose to restore the data to a location of your choice on the computer where CloudBacko Pro is running.

Click Browse, select the location and click Open.



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





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.

Verify checksum of in-file delta files during restore

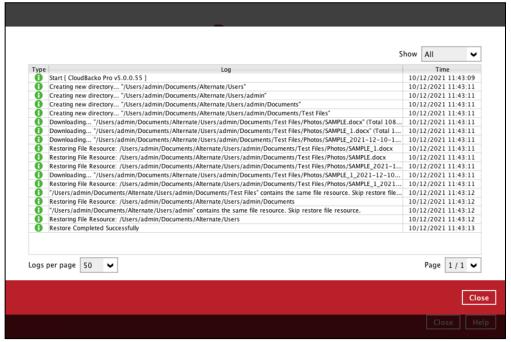
Verify checksum of in-file delta files during restore is disabled by default. You can enable the feature by ticking the checkbox so that the checksum of in-file delta files will be verified. As the feature will make the restore process time longer, it is recommended to enable the feature only if you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

Click **Restore** to start the restore job.

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



9. 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.



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

#### 11.2 Restore Filter

This search feature allows you to search directories, files, and folders.

To make it more flexible, the search feature offers filtering. You can add additional pattern upon searching. Pattern includes the following criteria:

#### Contains

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

#### Exact

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

#### Start With

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

#### Ends With

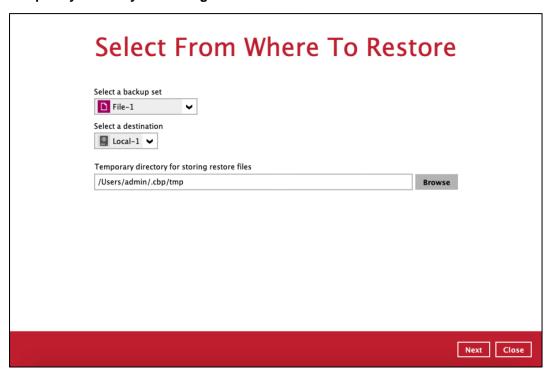
These are Directories, Files, and Folders with the name **ending** with a specific letter or word.

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

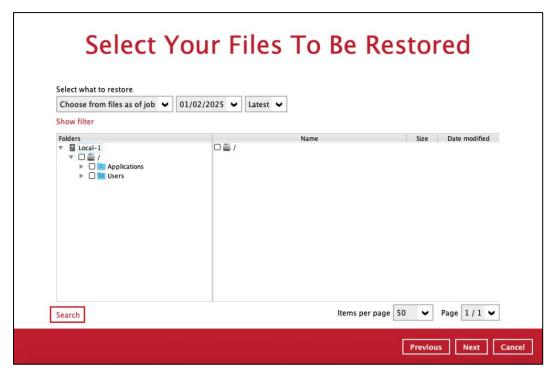
For more detailed examples using the restore filter on CloudBacko Pro, refer to <u>Appendix B: Example Scenarios for Restore Filter</u>.

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

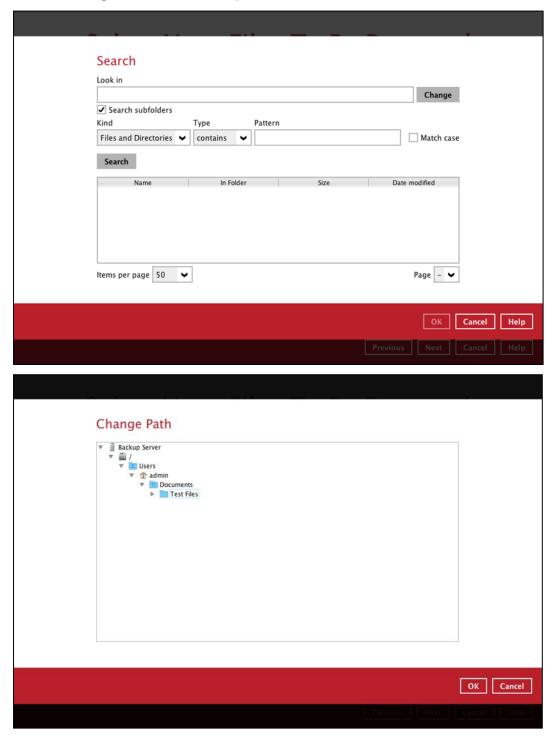
You may also choose the temporary directory for restoring files by selecting the directory under **Temporary directory for storing restore files**.

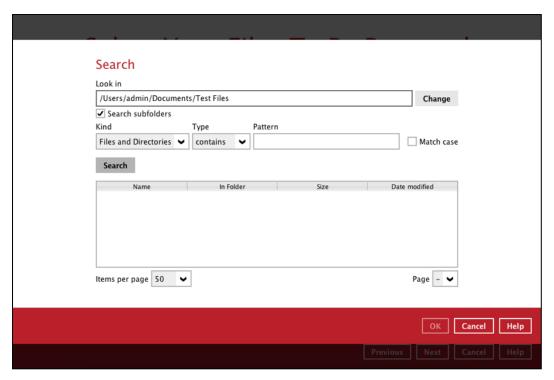


4. Click **Search** located on the lower left side of the screen.

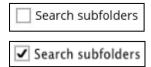


5. Click the **Change** button to select the path where to look for items to be restored.





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



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



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



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

### 12 Mobile Backup and Restore to Cloud

To do a mobile backup and restore to Cloud, follow these steps:

- Backup photos, videos, documents and 2FA accounts from CloudBacko app to CloudBacko Pro local destination. For more detailed information, check the <u>CloudBacko</u> <u>app quide</u>.
- Create a File Backup Set on CloudBacko Pro and follow these steps:
  - Backup source should be photos, videos, documents and 2FA accounts backed up in CloudBacko Pro local destination.
  - Backup destination should be a Cloud destination. Examples: Google Drive, OneDrive, Wasabi, etc.
- Run a Backup Job on CloudBacko Pro.
- Restore Data on CloudBacko Pro. This can be from Original or Alternate location.

#### 12.1 Create a File Backup Set

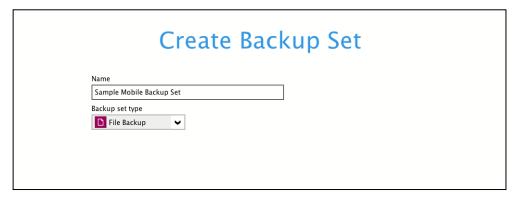
1. Click the Backup Sets icon on the main interface of CloudBacko Pro.



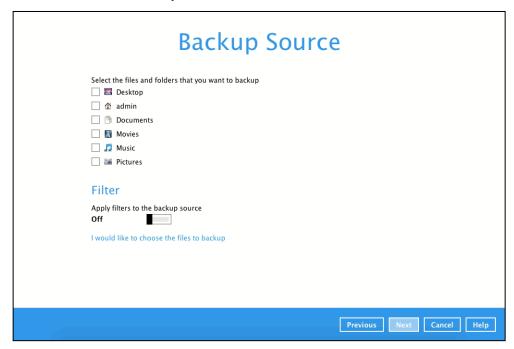
2. Create a new backup set by clicking + next to **Add new backup set**.



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

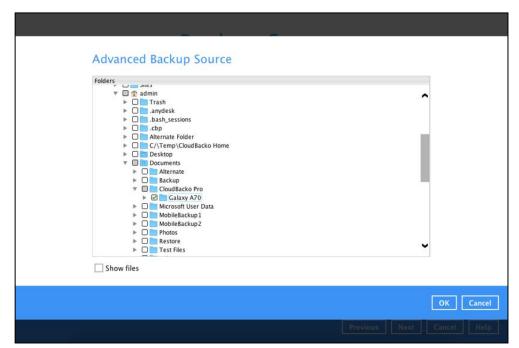


4. In the Backup Source window, select the mobile backup source for backup. Click I would like to choose the files to backup.



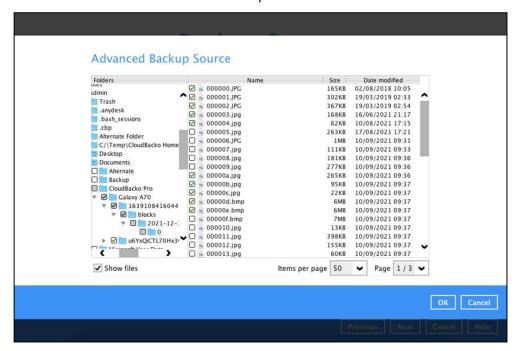
In the Advanced Backup Source window, select the mobile backup source.

In this example, Redmi folder is selected. The mobile backup source is in /Users/admin/Documents/CloudBacko Pro.





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.



In the Backup Source window, click Next to proceed.

5. Follow steps 8 - 17 discussed in Chapter 8 to finish creating the backup set.

### 12.2 Run a Backup Job

To backup your mobile data to the cloud please refer to the instructions in <u>Chapter 10</u> and select the backup set that you created in Chapter 12.1.

#### 12.3 Restore Data

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 restored on an alternate location which can be setup anywhere in the CloudBacko Pro 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:
  - 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.
  - Option 2: Copy the restored data from the alternate location to your Android or iOS mobile device.

#### Examples:

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

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

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

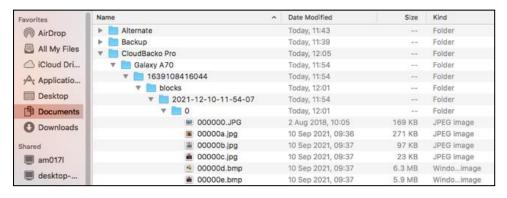
In case the original machine is no longer available, CloudBacko Pro will be able to restore the photos, videos, documents and 2FA accounts from the Cloud destination to the mobile backup destination folder. However, as the mobile devices were not originally paired with the new installation or machine,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

#### 12.3.1 Original Location

To restore data from the Cloud storage to the mobile device using Original location, please refer to instructions in <a href="#">Chapter 11.1</a>.

Then you can restore the restored data from the original location to your mobile device by using the CloudBacko app.

Example: Original location is in /Users/admin/Documents/CloudBacko Pro



#### Android device









#### 12.3.2 Alternate Location

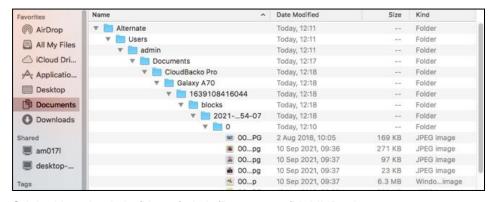
To restore data from the Cloud storage to the mobile device using Alternate location, please refer to instructions in <a href="Chapter 11.1">Chapter 11.1</a>.

Then follow these steps to restore the restored data from the alternate location to your mobile device. To do this there are two (2) options:

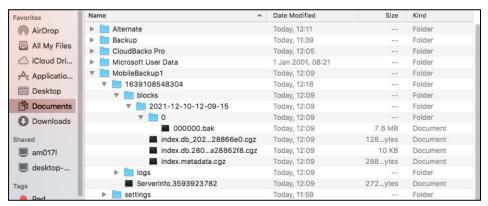
Option 1: Copy the restored data from alternate location to original location which is the backup destination for your mobile device.

#### Example:

Alternate location is in /Users/admin/Documents/Alternate



Original location is in /Users/admin/Documents/MobileBackup1



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

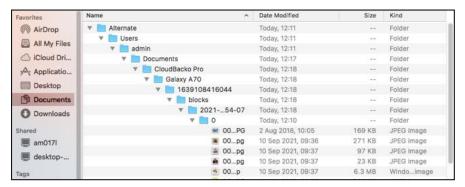


Option 2: Copy the restored data from the alternate location to your Android or iOS mobile device.

#### Examples:

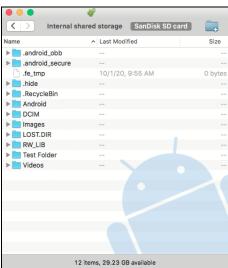
• For an Android device, you need to plug your cable and transfer the restored data from the alternate location to your mobile device storage.

Alternate location is in /Users/admin/Documents/Alternate



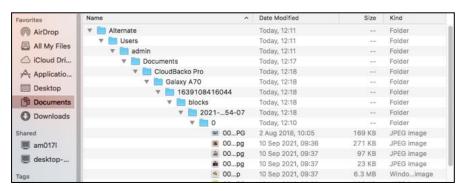
Mobile device storage: Internal shared storage and SD Card





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

Alternate location is in /Users/admin/Document/Alternate



Upload to iCloud.



## 13 Contact CloudBacko

#### **Technical Assistance**

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

https://www.cloudbacko.com/support

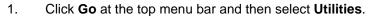
Use the CloudBacko Wiki for resource such as Hardware Compatibility List, Software Compatibility List, and other product information. To also check available documentations and hotfix please visit the <a href="Support page">Support page</a>.

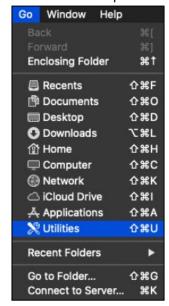
### **Appendix**

### Appendix A: Uninstall CloudBacko Pro

Before you uninstall CloudBacko Pro, 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 Pro either on the same machine or a new machine, you will lose your current settings and access to any backed-up data.





2. Double-click the Terminal.app icon.



3. Use the command highlighted in red to enter the Applications folder.

```
#cd /Applications
#[user]-Mac-mini:Applications [user]$
```

4. Use the command highlighted in red to enter the CloudBacko Pro folder.

```
#[user]-Mac-mini:Applications [user]$ cd CloudBacko\ Pro.app/bin
#[user]-Mac-mini:bin [user]$
```

5. Use the command highlighted in red to execute the uninstallation. Enter the password for logging in to your Mac when prompted.

```
#[user]-Mac-mini:bin [user]$sudo sh uninstall.sh
#Password:
```

#### 6. The following scripts show when the uninstallation is completed.

```
#Shutdown Scheduler for CloudBacko Pro

#Wait 5 seconds before Scheduler exits

#Kill Process by Image Name:/Applications/CloudBacko
Pro.app/jvm/bin/bJW

#Ignore Process by Image Name:

#Kill Process by Image Name: /Applications/ CloudBacko Pro.app
/jvm/bin/bschJW

#Ignore Process by Image Name:

#Kill Process by Image Name:

#Kill Process by Image Name: /Applications/ CloudBacko Pro.app
/jvm/bin/java

#Ignore Process by Image Name:

#Remove LaunchDaemons for com.CloudBackoPro.scheduler from
service

#Remove CloudBacko Pro from Your Mac OS X

#[user]-Mac-mini:bin [user]$
```

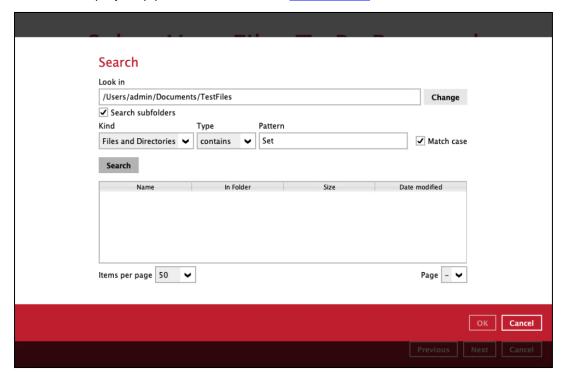


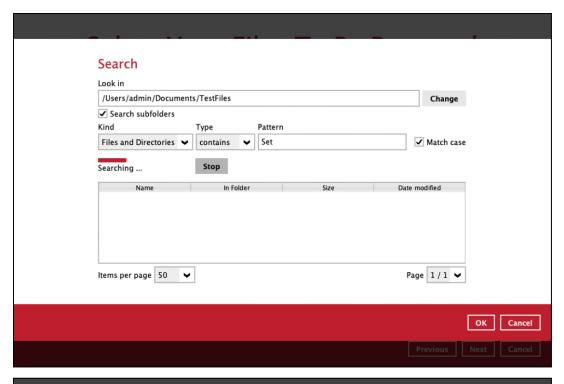
### **Appendix B:** Example Scenarios for Restore Filter

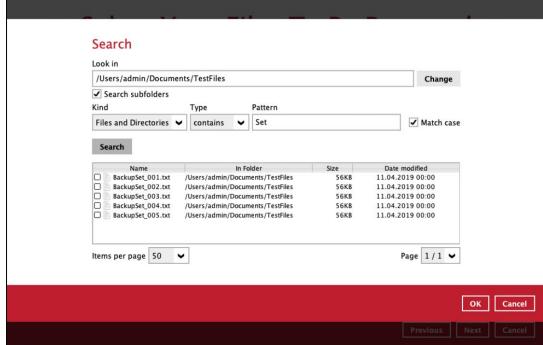
Example No.1: Restore filter setting from /Users/admin/Documents/TestFiles with filter type Contains

Location:	/Users/admin/Documents/TestFiles
Search subfolders:	True
Kind:	Files and Directories
Type:	Contains
Pattern:	Set
Match Case:	True

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







#### **Explanation:**

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

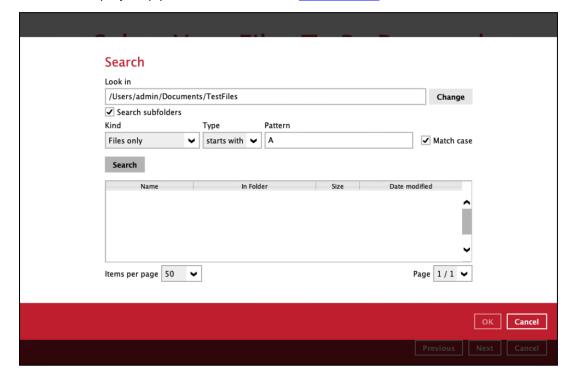
As you can see on the screen shot above, the result panel contains the Name of the file or directory, Directory which are indicated In-Folder column, Size, and Date Modified.

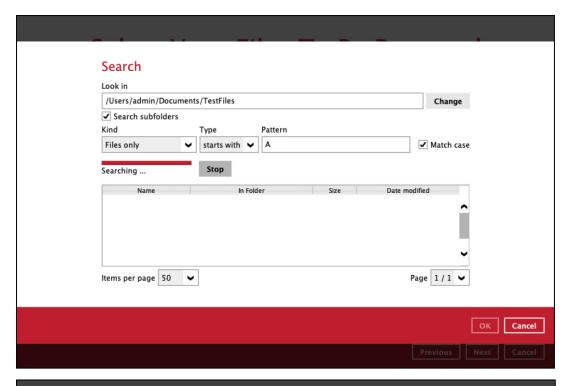
The restore filter setting includes the Search subfolder and Match case set to true. Meaning, the filter will include all available subfolders in \TestFiles upon searching. And it will strictly search only the specified pattern and case which starts with 'Set'.

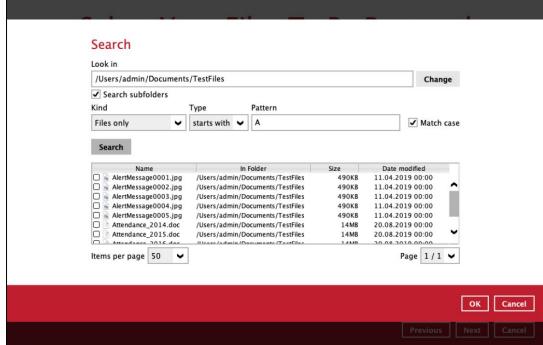
Example No.2: Restore filter setting from /Users/admin/Documents/TestFiles with filter type Starts With

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

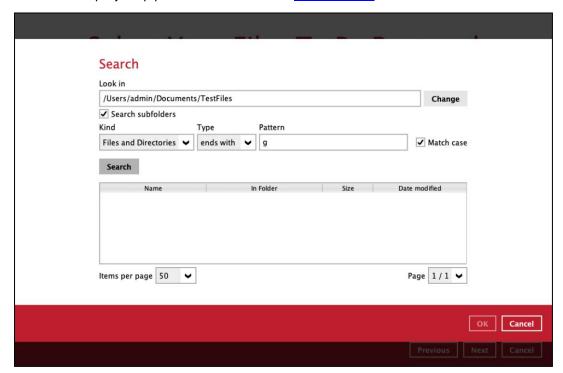
As you can see on the screen shot above, the result panel contains the Name of the file, Directory which are indicated In-Folder column, Size, and Date Modified.

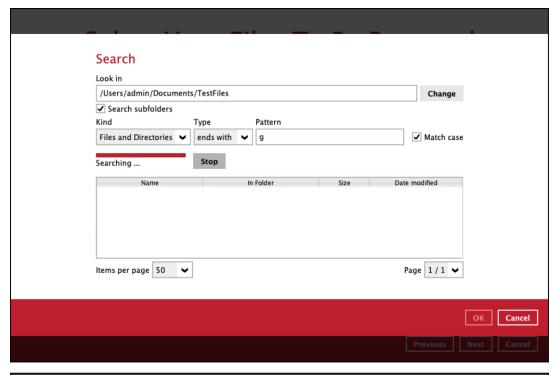
The restore filter setting includes the Search subfolder and Match case set to true. Meaning, the filter will include all available subfolders in \TestFiles upon searching. And it will strictly search only the specified pattern and case which starts with 'A'.

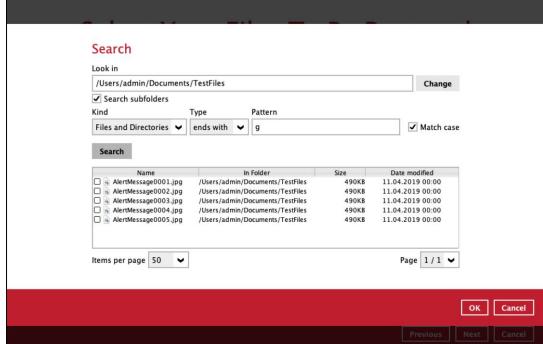
Example No.3: Restore filter setting from /Users/admin/Documents/TestFiles with filter type Ends With

Location:	/Users/admin/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 <u>/Users/admin/Documents/TestFiles</u> that has the pattern that ends with 'g' with match case set to true will be included upon performing search.

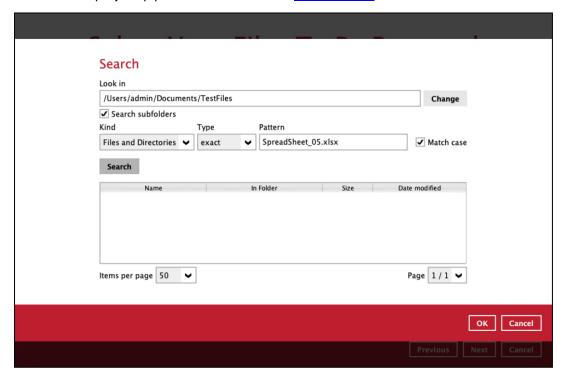
As you can see on the screen shot above, the result panel contains the Name of the files and directories, Directory which are indicated In-Folder column, Size, and Date Modified.

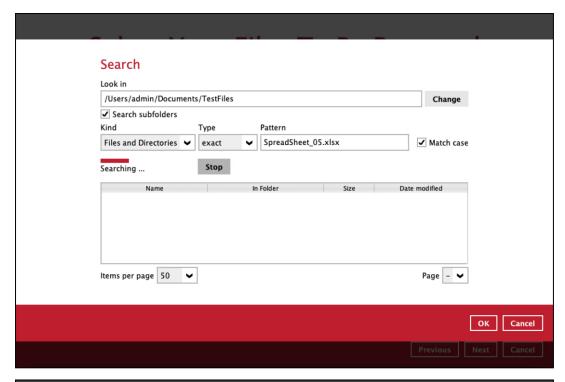
The restore filter setting includes the Search subfolder and Match case set to true. Meaning, the filter will include all available subfolders in \TestFiles upon searching. And it will strictly search only the specified pattern and case which starts with 'g'.

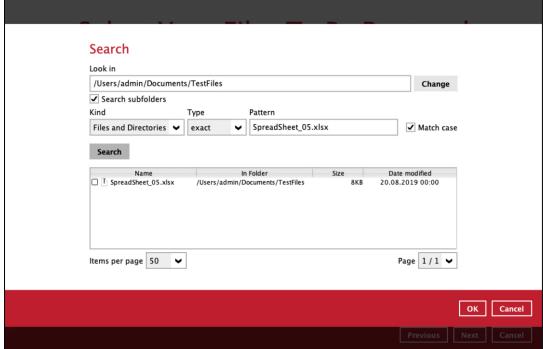
Example No.4: Restore filter setting from /Users/admin/Documents/TestFiles with filter type Exact

Location:	/Users/admin/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>/Users/admin/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.

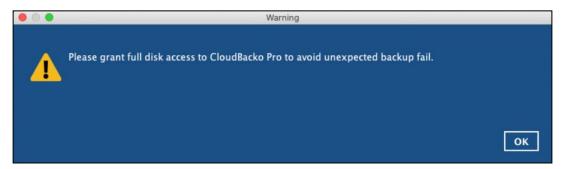
As you can see on the screen shot above, the result panel contains the Name of the files and directories, Directory which are indicated In-Folder column, Size, and Date Modified.

The restore filter setting includes the Search subfolder and Match case set to true. Meaning, 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: Setting up Full Disk Access Permission

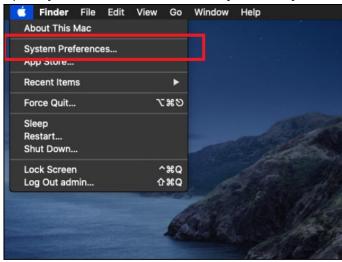
What is Full Disk Access? Full Disk Access is a new security feature in macOS 10.15 or higher that requires some applications to be given full permission to access your protected files and have certain administrative settings available.

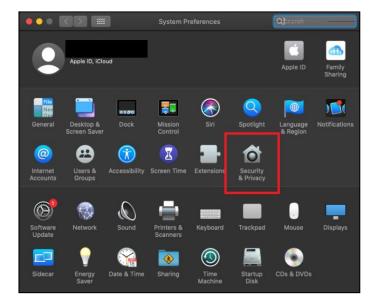
If CloudBacko Pro was launched without granting a full disk access, this warning message will appear. It is advisable to setup the permission before launching the CloudBacko Pro to avoid any unexpected backup and restore failure.



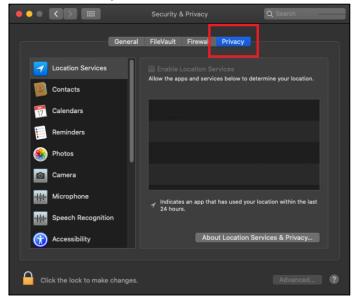
Here are the steps on how to setup and grant CloudBacko Pro a Full Disk Access:

1. Open System Preferences > Security & Privacy.

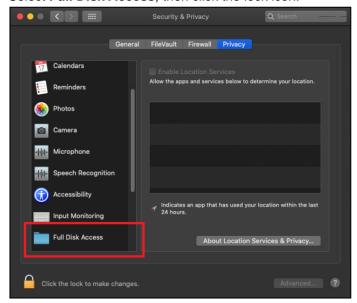


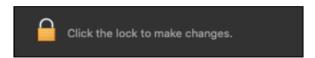


2. Select the **Privacy** tab.

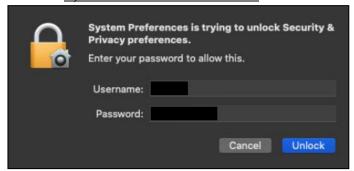


3. Select Full Disk Access, then click the lock icon.





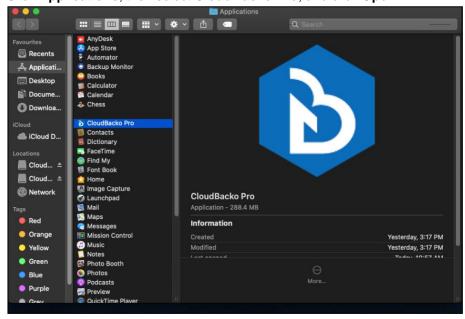
4. Enter the System Administrator credentials and click **Unlock**.



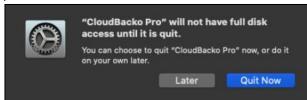
5. Click the plus icon.



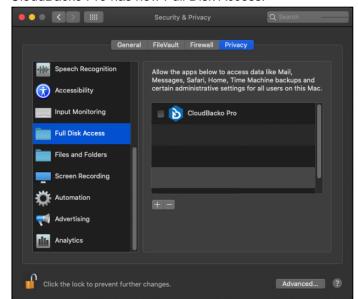
6. Click Applications, then select CloudBacko Pro, and click Open.



This message will appear if you have the CloudBacko Pro open. Click **Quit Now** to proceed.



7. CloudBacko Pro has now Full Disk Access.





### Appendix D: Exclude Filter System Files

If home for admin is selected, all files and/or folders located in /Users/admin/ is recommended to include these folders to exclude from the backup source using the Exclude Filter.

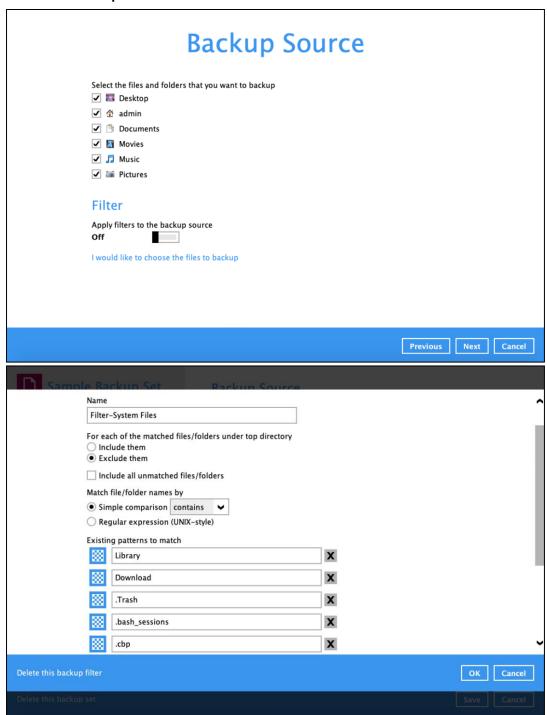
/Users/admin/Library

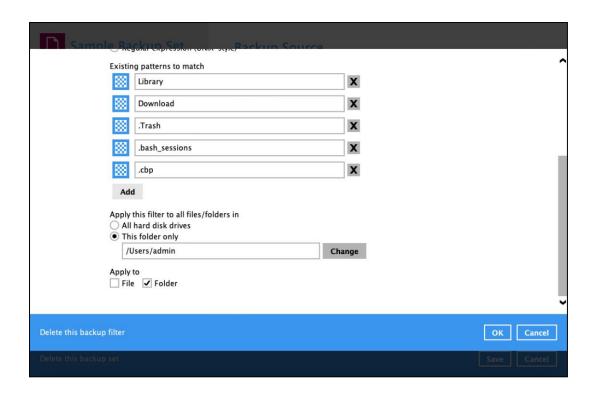
/Users/admin/Download

/Users/admin/.Trash

/Users/admin/.bash\_sessions

/Users/admin/.cbp





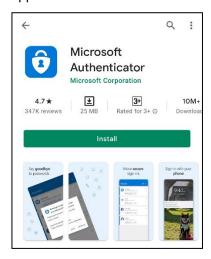
## **Appendix E:** Example Registration of Time-base One-time

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**

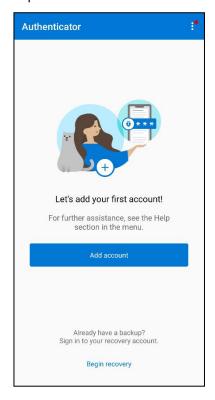
1. Download and install the Microsoft Authenticator from the Play Store for Android devices or the App Store for iOS devices.



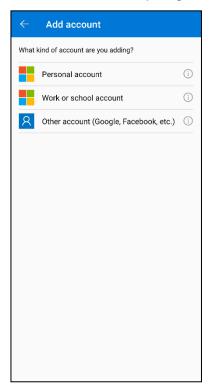
2. Launch the Microsoft Authenticator app.



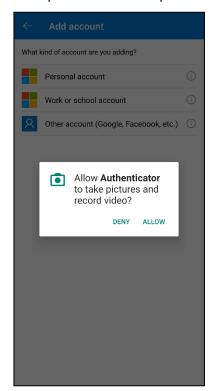
3. Tap Add account.



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



5. Allow permission to take pictures and record video.



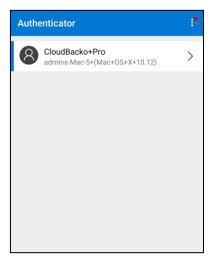
6. Setup the account. Select from the following methods: Scan the QR code or Enter a setup key.

#### Method 1: Scan the QR code

i. Scan the QR code on CloudBacko Pro.



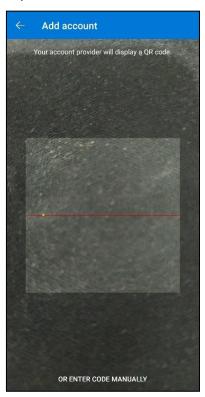
ii. Account is successfully added to Microsoft Authenticator and registered the mobile device on CloudBacko Pro.



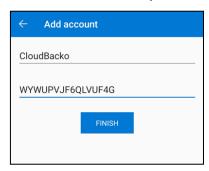


#### Method 2: Enter Code Manually

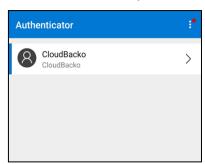
i. Tap OR ENTER CODE MANUALLY.



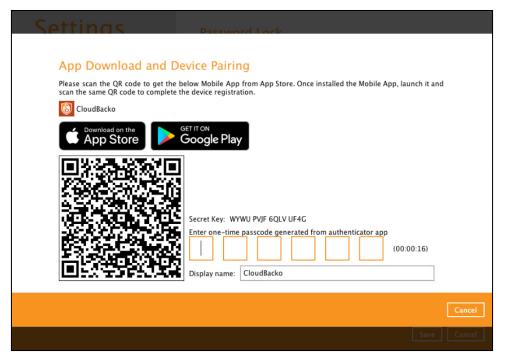
ii. Enter the account name and the key which is the Secret Key that is provided by CloudBacko Pro then tap **FINISH**.



iii. Account is successfully added to Microsoft Authenticator.



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

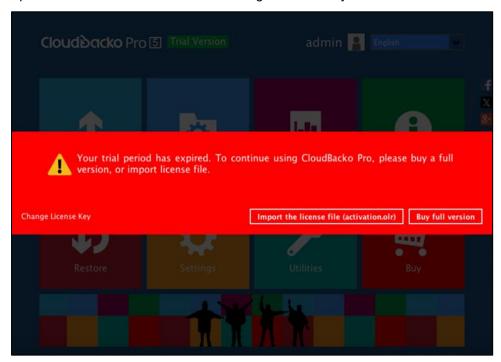


v. Mobile device is successfully registered on CloudBacko Pro.

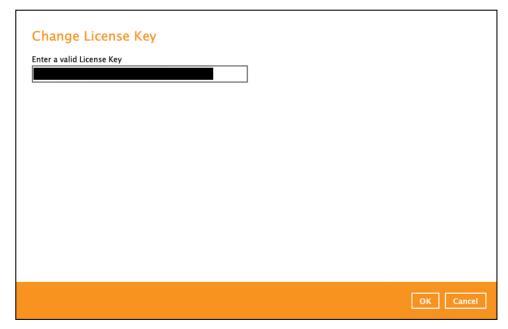


# Appendix F: How to apply a license key to a CloudBacko Pro installation with an expired trial license?

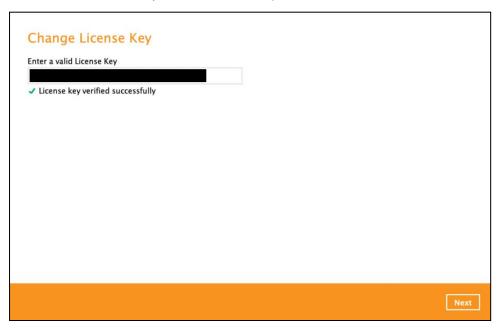
1. Open CloudBacko Pro and click on "Change License Key".



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

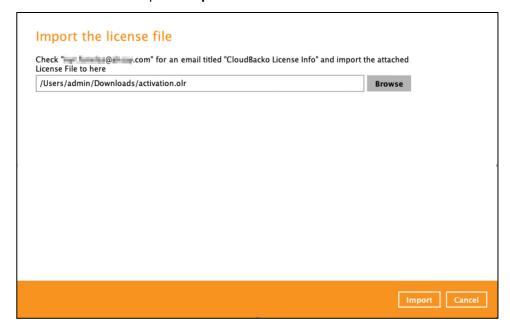


3. Once the new license key has been verified, press Next to continue.

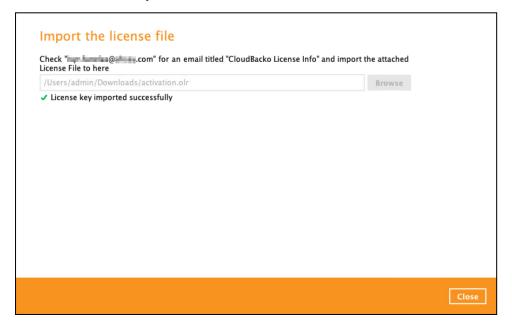


An activation file will be sent to the email address registered during the license purchase immediately containing the license activation file.

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

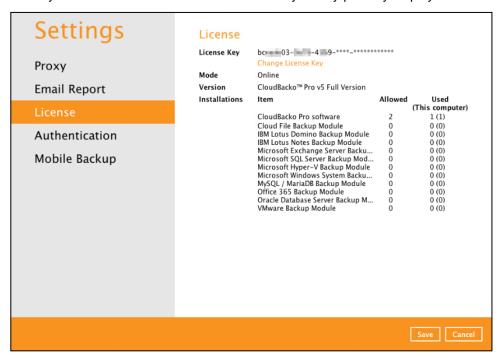


5. Your new license key has now been successfully imported to your CloudBacko Pro installation and is ready to use.

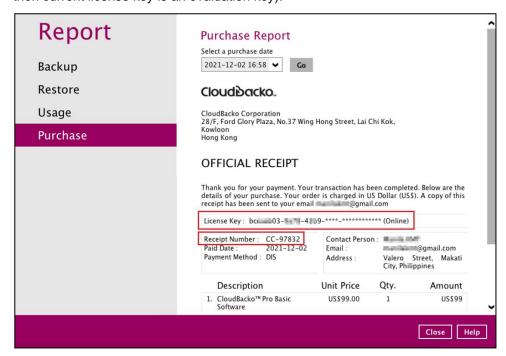


# Appendix G: Where to find the CloudBacko Pro purchase license key?

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

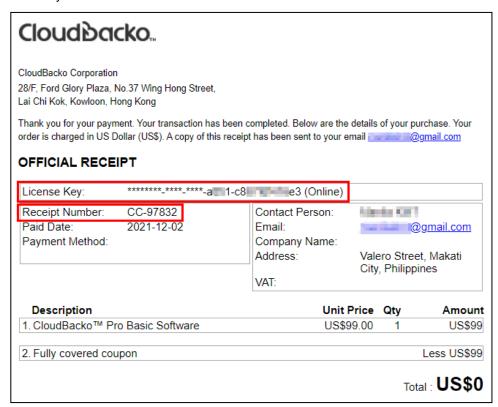


You can verify the license key displayed is our purchase key by comparing it with the details
of the license key and receipt no. in CloudBacko Pro under the Report > Purchase page. It is
recommended to print a copy of the receipt for your records (If there is no purchase record
then current license key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

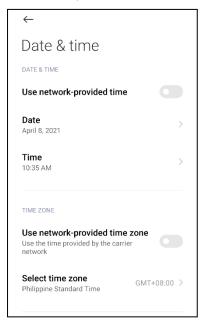
Please print a copy of the receipt and keep it in a safe place along with a copy of the invoice. In case you have to re-install CloudBacko Pro on another machine.



# Appendix H: Different Date, Time, and Time zone with CloudBacko Pro machine and mobile device

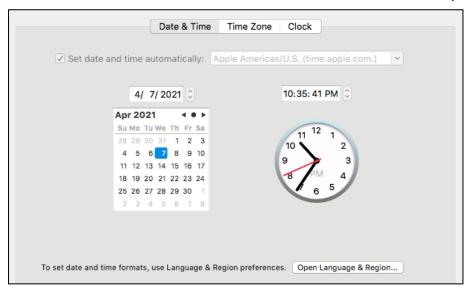
1. Check the date, time, and time zone in mobile device.

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 Pro machine.

Example: Time zone settings of a macOS machine used in the Philippines (time zone Asia). However, the set time zone in the CloudBacko Pro machine is set incorrectly in America/USA.



3. Stop the scheduler service.

```
MacBook-Pro:bin admin$ sudo sh StopScheduler.sh

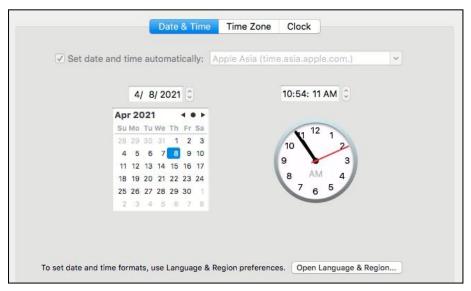
MacBook-Pro:bin admin$ ps -ef|grep java

504 2950 2938 0 10:44PM ttys000 0:00.01 grep java
```

4. Change the time zone in CloudBacko Pro machine. Follow the command in red.

```
[MacBook-Pro:~ admin$ sudo systemsetup -settimezone Asia/Manila
Set Timezone: Asia/Manila
```

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



6. Start the scheduler service.