24/7 Backup Standard Backup Manager (B247LITE) v9

Microsoft System Backup and Restore Guide

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Revision History

Date	Descriptions	Version
28 January 2022	▪ Ch. 6.1 – added Migrate Data	9.1.0.0

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1 Overview

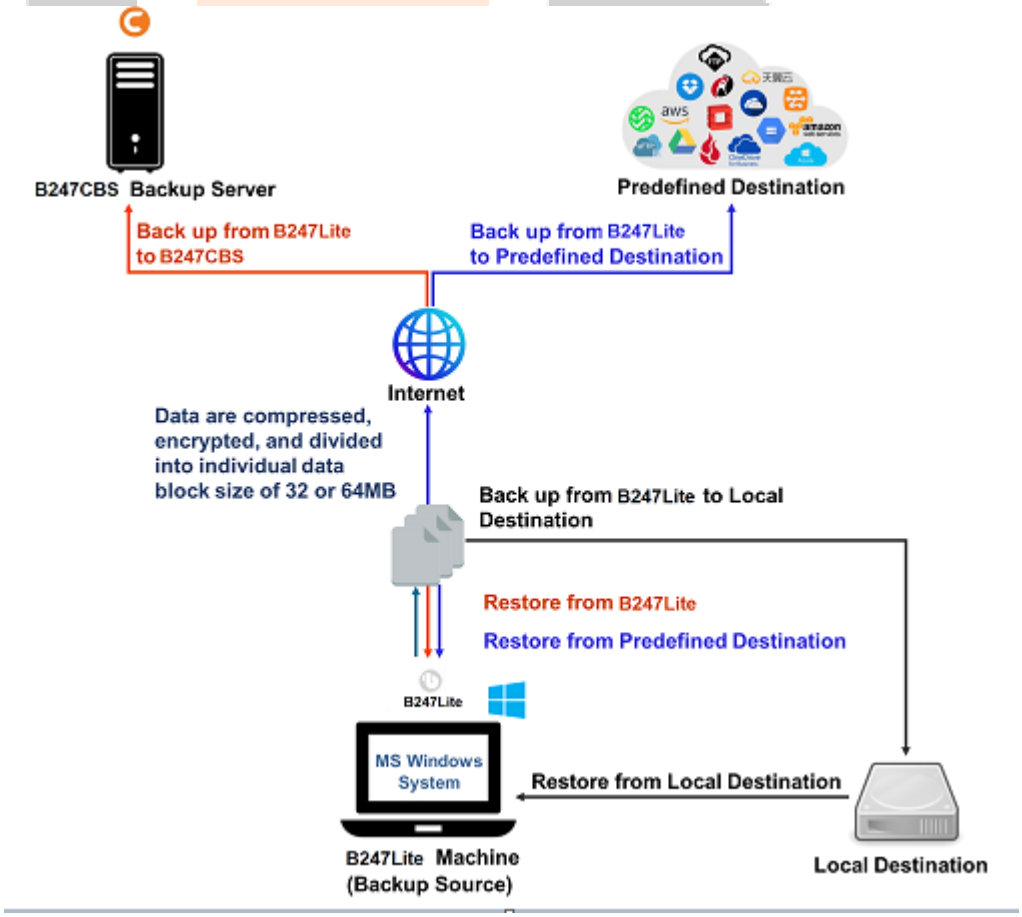
1.1 What is this software?

Backup247 brings you specialized client backup software, namely Backup247 Standard Backup Suite (B247LITE), to provide a comprehensive backup solution for your MS Windows System backup. The MS Windows System Backup module of Backup247 Standard Backup Suite (B247LITE) provides you with a set of tools to protect your personal computers on Windows operating system platforms. This includes an image-based / bare-metal backup feature, that leverages Microsoft's native WBAdmin command-line tool (http://go.microsoft.com/fwlink/?LinkId=140216), and recovery feature, to ensure that your computers are protected even if they are lost or destroyed entirely. The image can be recovered onto a new device if necessary.

1.2 System Architecture

The following high-level system architecture diagram illustrates the major elements involved in the backup process of a MS Windows System backup with Backup247 Standard Backup Suite (B247LITE) and B247CBS.

In this user guide, we will focus on the software installation, as well as the end-to-end backup and restore process using the Backup247 Standard Backup Suite (B247LITE) as a client backup software.



2 Requirements

2.1 Hardware Requirement

Refer to the following article for the list of hardware requirements for Backup247 Standard Backup Suite (B247LITE):
FAQ: Backup247 Hardware Requirement List (HRL) for version 9.1 or above

2.2 Software Requirement

Refer to the following article for the list of compatible Windows operating systems platforms: FAQ: Backup247 Software Compatibility List (SCL) for version 9.1 or above

2.3 Antivirus Exclusion Requirement

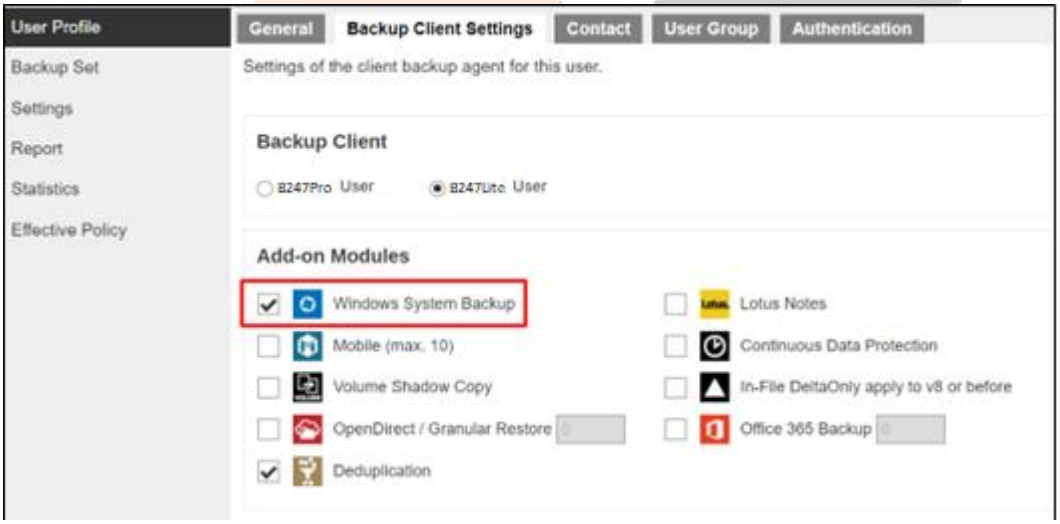
To optimize performance of Backup247 Standard Backup Suite (B247LITE) on Windows, and to avoid conflict with your antivirus software, refer to the following link for the list of processes and directory paths that should be added to all antivirus software white-list / exclusion list:
FAQ: Suggestion on antivirus exclusions to improve performance of Backup247 software on Windows

2.4 Backup247 Standard Backup Suite (B247LITE) Installation

Make sure that the latest version of Backup247 Standard Backup Suite (B247LITE) is installed on the computer to be backed up.

2.5 Backup247 Standard Backup Suite (B247LITE) Add-on Module Configuration

Make sure that the **Windows System Backup** add-on module is enabled for your Backup247 Standard Backup Suite (B247LITE) user account. Please contact your backup service provider for more details.



2.6 Backup Quota Requirement

Make sure that your Backup247 Standard Backup Suite (B247LITE) user account has sufficient backup storage quota assigned to accommodate the storage for the system backup. Contact your backup service provider for details.

2.7 Java Heap Size

The default maximum Java heap size on a 64bit Windows machine is 2048M. For better performance especially for in-file delta generation of large image files it may be advantageous to increase the maximum Java heap size.

For best performance, consider increasing the memory allocation setting for Backup247 Standard Backup Suite (B247LITE) (Java heap space)

Refer to this link for more details about the modification of the java heap size setting for Backup247 Standard Backup Suite (B247LITE):

FAQ: How to modify the Java heap size setting of Backup247 Advanced Client (B247PRO) / Backup247 Standard Backup Suite (B247LITE)?

2.8 License Requirement

Backup247 Standard Backup Suite (B247LITE) licenses are calculated on a per device basis:

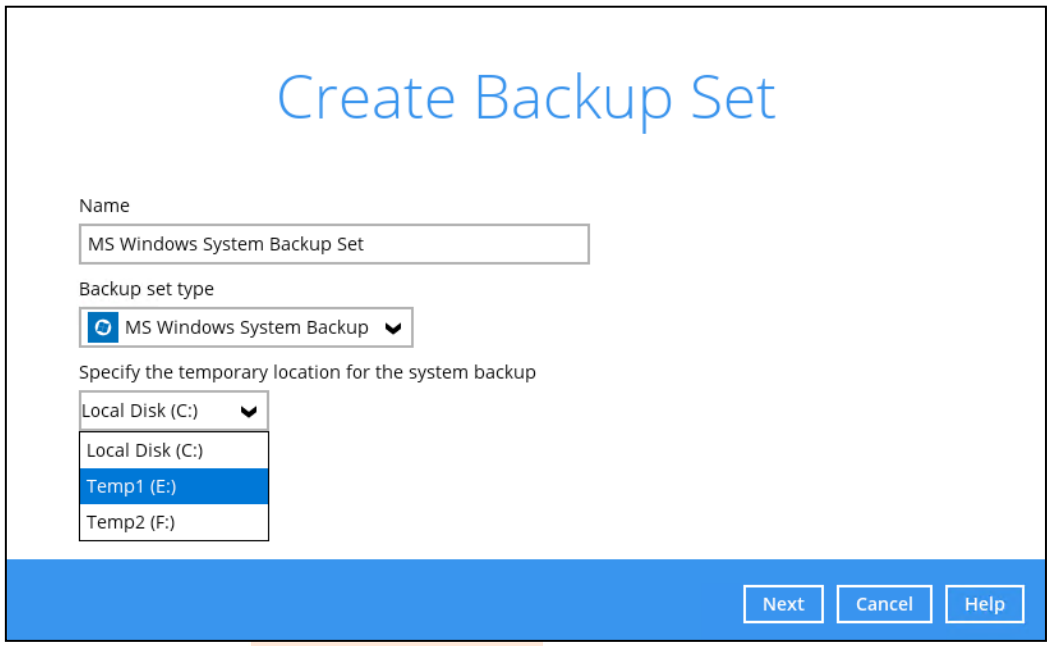
- To back up users with 1 backup client computer (e.g. 1 Backup247 Standard Backup Suite (B247LITE) installed), 1 Backup247 Standard Backup Suite (B247LITE) license is required.
- To back up users with multiple backup client computers, the number of Backup247 Standard Backup Suite (B247LITE) licenses required is equal to the number of devices. For example, if there are 10 users to be backed up with 3 backup client computers, then 3 Backup247 Standard Backup Suite (B247LITE) licenses are required. Please contact your backup service provider for more details.

2.9 Windows Requirement

Ensure that you have the latest service packs installed. Updates to the Windows operating system improve its performance and resolve known issues with Windows Server Backup.

2.10 Temporary Volume

Make sure that the storage location configured for the system image is set to a supported location.



The temporary storage location is required by the WBADMIN utility to temporarily store the image file during the backup job.

The machine requires an additional drive to accommodate the spooling of the System State image file. As you can see in our sample screenshot above, we have three (3) drives in total, Local Disk C:, Temp1 E:, and Temp2 F:

If the machine has only one (1) drive, then one of the following options will need to be implemented to create the temporary volume.

- A USB drive needs to be connected
- The existing C: drive will need to be repartitioned to create an additional drive, i.e., D:
- An extra physical drive will need to be installed
- Set up a network drive (the least preferred option as it will affect the backup performance)

For more details about the restrictions, please refer to the following link:

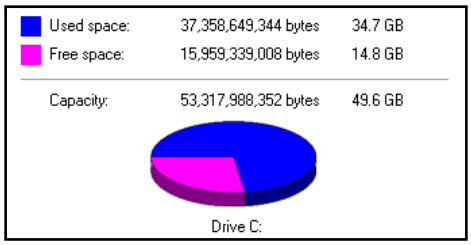
FAQ: Restrictions on the temporary storage location for the Windows System State and System backup image file

- **Disk Space Available in Temporary Storage Location**

  Make sure that there is sufficient disk space available in the storage location for the backup set.

  For a system backup, it will typically require disk space of the total used size of all volumes selected for backup.

  Note: *Used space, not free space of all volumes selected for backup.*



- **Maximum Supported Disk Size**

  For Windows Vista / 7, source volumes with size greater than 2 TB (e.g., 2040 GB - 2 MB = 2088958 MB) are not supported.

  This limitation is related to the .vhd file size limit.

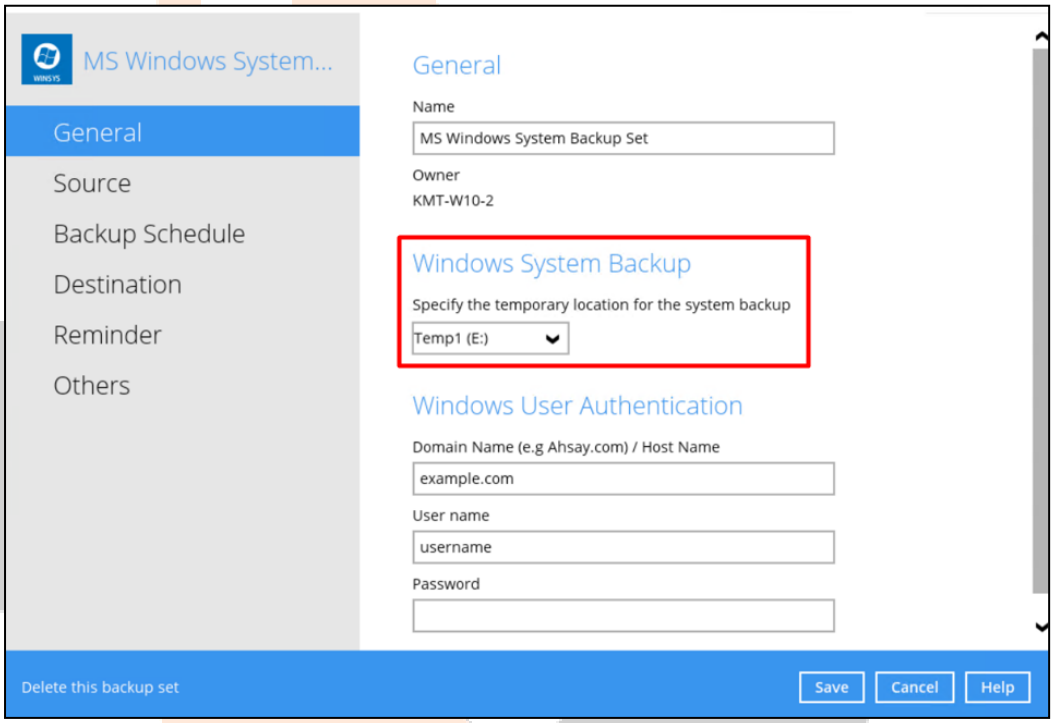
  Note: *This limitation does not apply to Windows 8 or newer releases of Windows platforms.*

3 Best Practices and Recommendations

The following are some best practices or recommendations that we strongly recommend, before you start any Microsoft System backup and restore:

- **Temporary Directory Folder Location**

  For best performance, it is recommended that the temporary storage location of a MS Windows System backup set is set to a supported local volume, and not to a network volume (e.g., to improve I/O performance). The temporary storage location is highly recommended to be set in a directory with sufficient free disk space and located in another location other than Drive C: (e.g. Drive E:).



- **Backup Destination**

  To provide maximum data protection and flexible restore options, it is recommended to configure:

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

- **Backup Frequency**

  MS Windows System backup should be performed at least once per week.

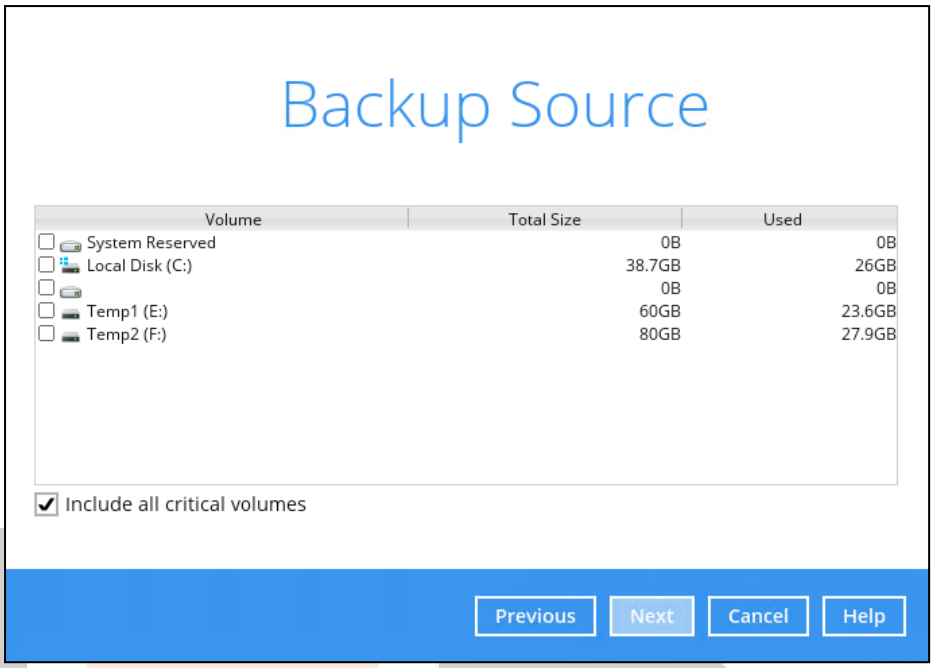
- **Performance Recommendations**

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

  - Enable schedule backup jobs when system activity is low to achieve the best possible performance.
  - Perform test restores periodically to ensure your backup is set up and performed properly. Performing recovery test can also help identify potential issues or gaps

in your recovery plan. It's important that you do not try to make the test easier, as the objective of a successful test is not to demonstrate that everything is flawless. There might be flaws identified in the plan throughout the test and it is important

- It is highly recommended to enable the **Include all critical volumes** option to select all critical volumes for backup automatically.



This will ensure that the backup image can be used for full-system / bare-metal recovery

- **Not a Replacement for File Backup**

An image-based / bare-metal backup should never be considered a replacement for a nightly data backup plan.

Firstly, image-based backups do not lend themselves easily to recovery of a single file. The nature of image-based backup requires a complete restore of the system image file, even if you only want to recover a single file.

- **System Recovery Plan**

Consider performing routine system recovery test to ensure your system backup is setup and performs properly. Performing system recovery test can also help identify potential issues or gaps in your system recovery plan.

For best result, it is recommended that you should keep the test as close as possible to a real situation. Often when a recovery test is to take place, administrators will plan for the test (e.g., reconfiguring the test environments, restoring certain data in advance). For real recovery situation, you will not get a chance to do that.

It's important that you do not try to make the test easier, as the objective of a successful test is not to demonstrate that everything is flawless. There might be flaws identified in the plan throughout the test and it is important to identify those flaws.

- **Restore to Alternate Computer**

  You can restore a system backup to the same physical computer from which the system backup was created, or to a different computer that has the same make, model, and configuration (identical hardware). Microsoft does not support restoring a system backup from one computer to a second computer of a different make, model, or hardware configuration.

  Please refer to the following article for more details:

  http://support.microsoft.com/kb/249694

- **Periodic Backup Schedule**

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

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

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

4 Restore Consideration

Please consider the following before performing a MS System restore:

- **Windows Account Permission**

  To perform a full-system recovery, the operating system account that you use, must be a member of the Backup Operators or Administrators group.

- **Disk Size**

  For recovery of operating system to a new hard disk, ensure that the disk that you restore to is at least the size of the disk that contained the volumes that were backed up, regardless of the size of those volumes within.

  For example, if there was only one volume of size 100 GB created on a 1 TB disk during backup, then you should use a disk that is at least 1 TB when recovering.

- **Caution on Recovery to Dissimilar Hardware**

  This recovery method requires the restore target system to have similar hardware and the exact same boot type as the source system from which the backup was taken. Disk adapters are especially sensitive. If dissimilar hardware is used, the restored system might not be able to boot.

  For example, if the system backup image was taken from a BIOS-based system, the recovery environment must be booted in BIOS mode.

- **BitLocker Drive**

  For computer with BitLocker Drive Encryption enabled, make sure to re-apply BitLocker Drive Encryption to the volume after a restore.

  This will not happen automatically; it must be enabled explicitly.

  For instructions, refer to the following: http://go.microsoft.com/fwlink/?LinkID=143722

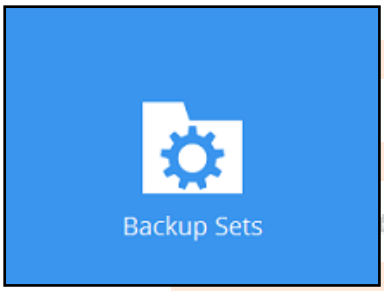
5 Configuring a MS Windows System Backup Set

Create a MS Windows System Backup Set

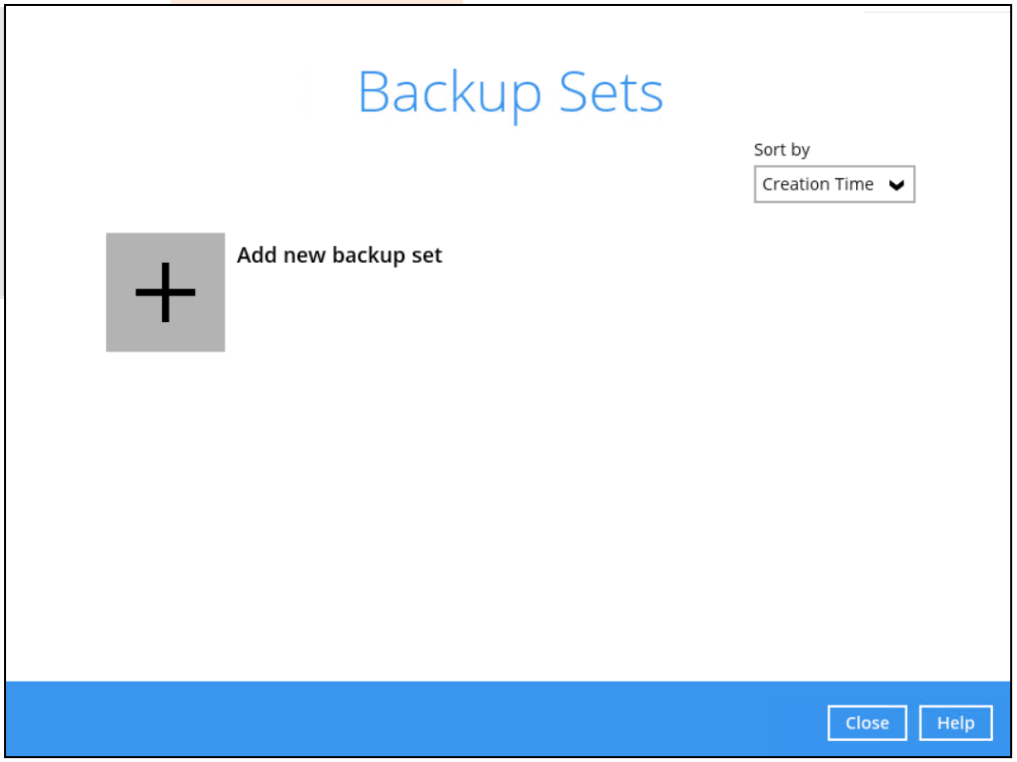
1. Log in to Backup247 Standard Backup Suite (B247LITE).

   For instructions on how to log in, please refer to Chapter 8 of the **Backup247 Standard Backup Suite (B247LITE) v9 Quick Start Guide for Windows**.

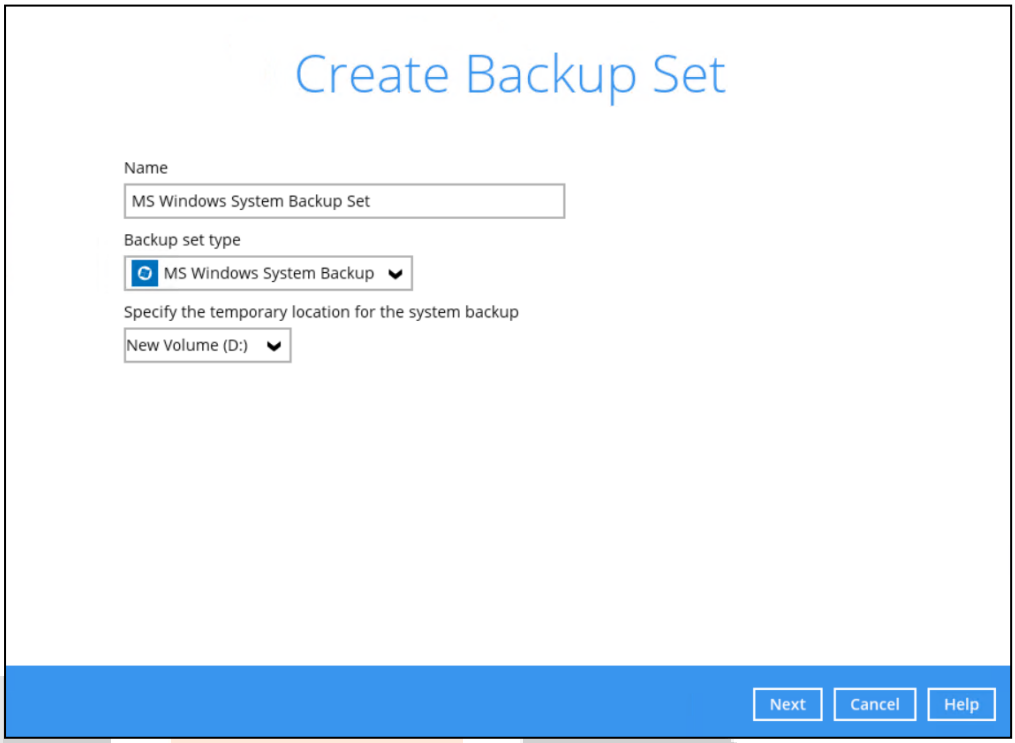
2. In the Backup247 Standard Backup Suite (B247LITE) main interface, click **Backup Sets**.



3. Create a MS Windows System backup set by clicking + next to **Add new backup set**.

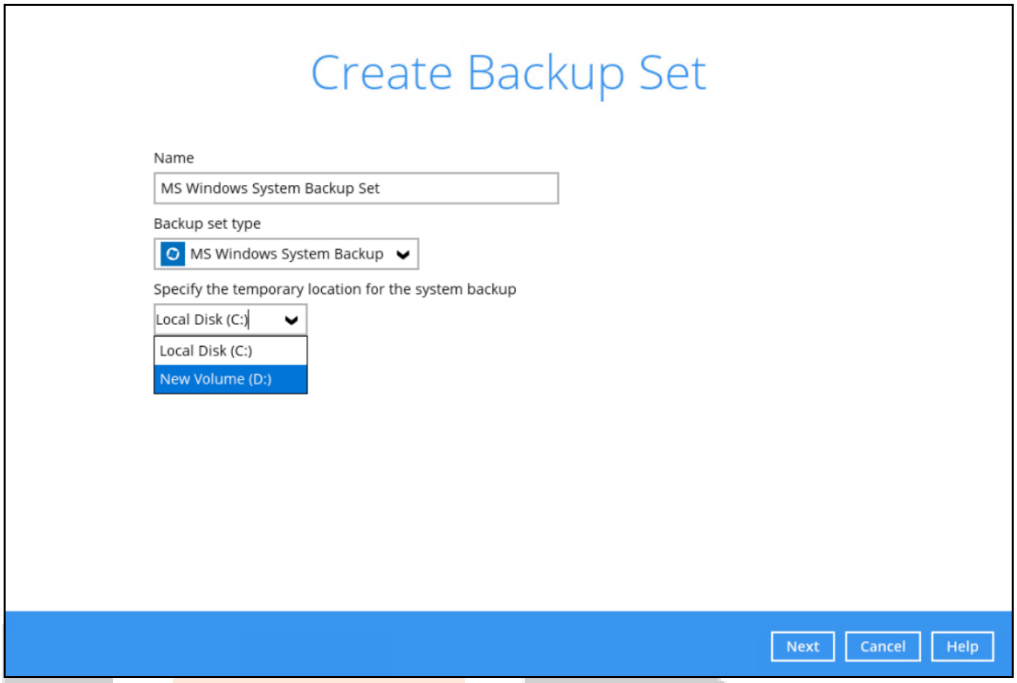


4. Select **MS Windows System Backup** as the **Backup set type**; then enter a **Name** for your backup set.



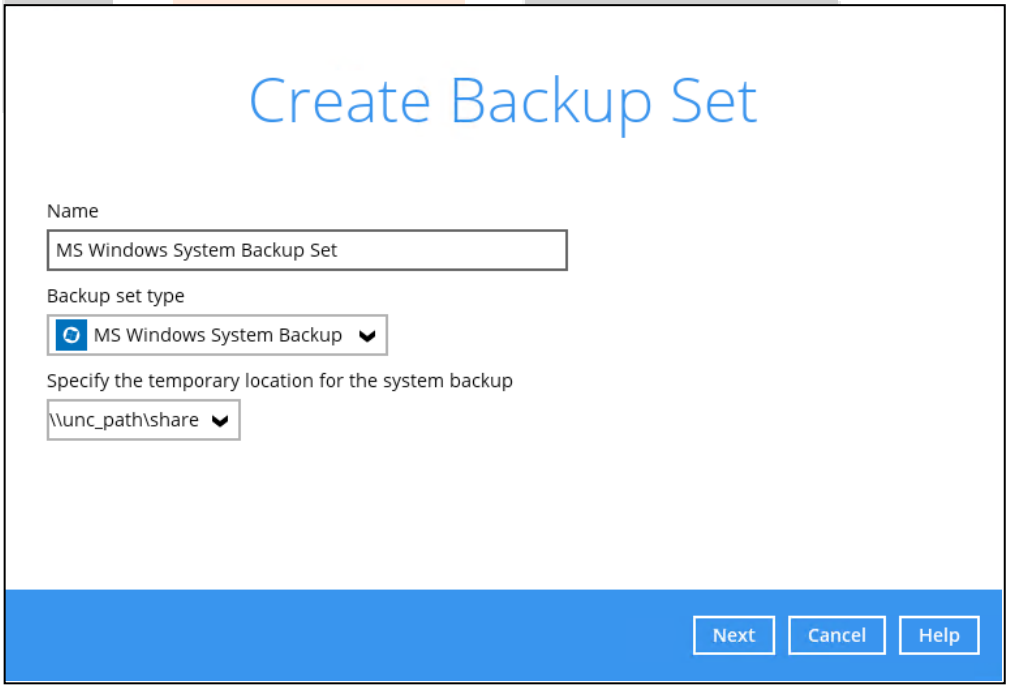
5. Select the location where you would like to store the system image before generating the backup data.

Select a local volume from the dropdown menu.



-OR-

Enter the UNC path to a network volume that is accessible to the client computer.

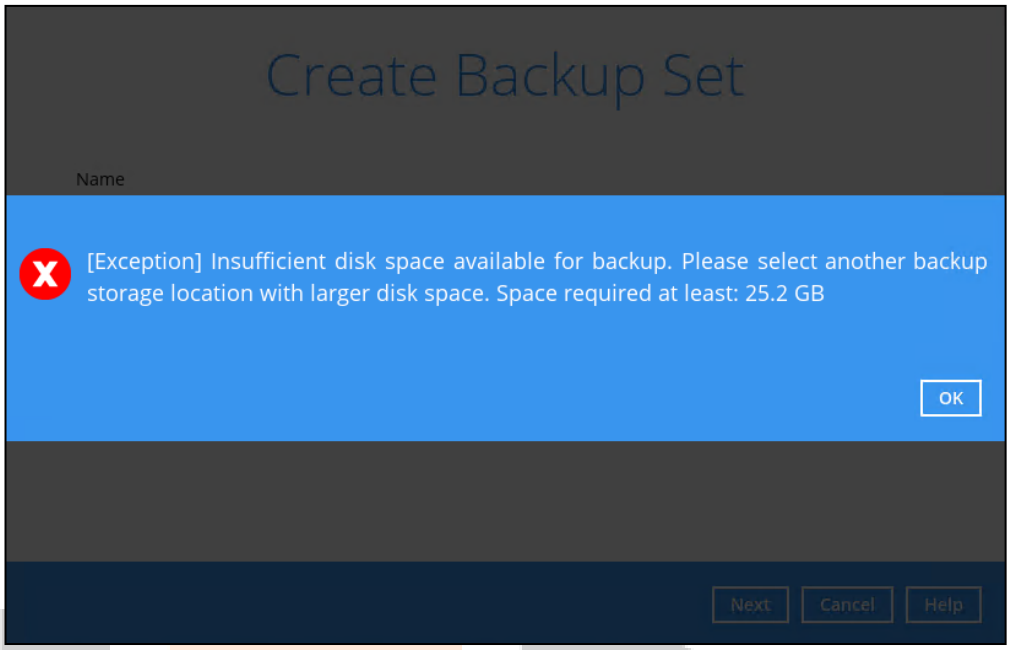


Note: *Make sure that the storage location configured for the system image is set to a supported location.*

Refer to the link to know the restrictions on the temporary storage location for Windows System State and System Backup Image File

FAQ: Restrictions on the temporary storage location for the Windows System State and System backup image file

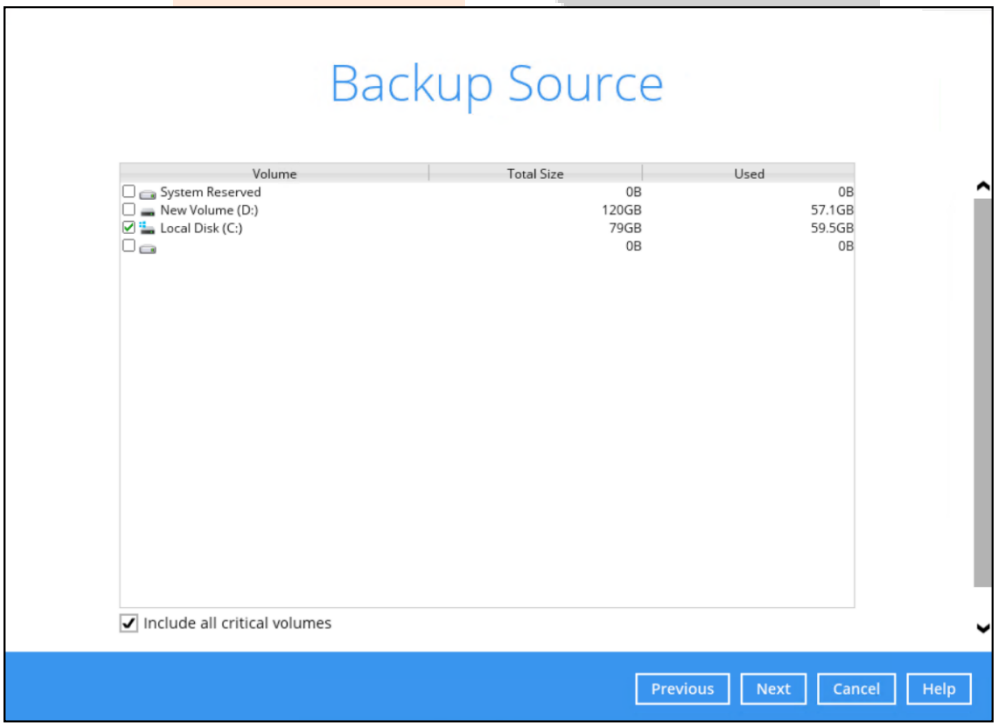
Click **Next** to proceed.



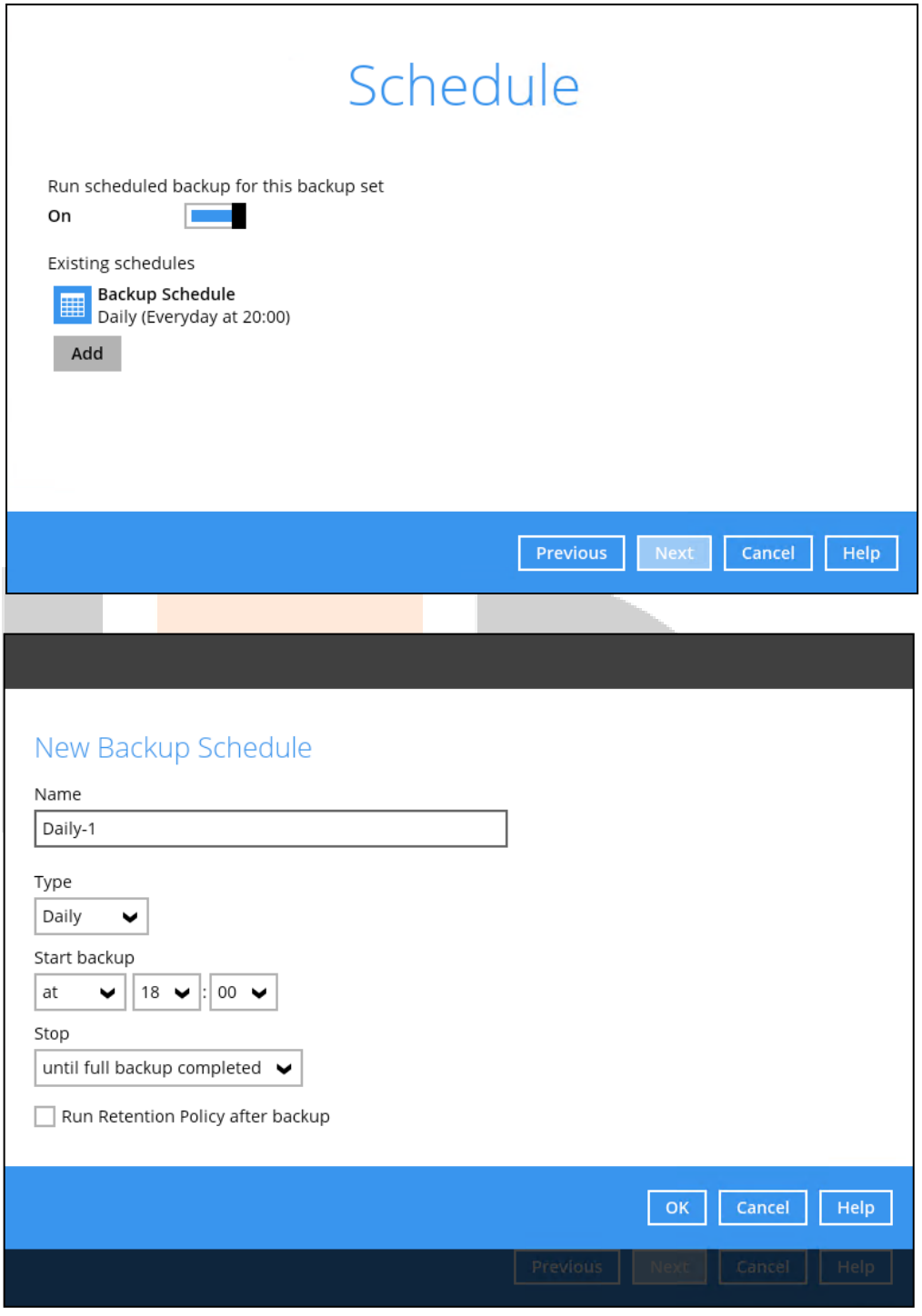
Note: *If the disk you selected has insufficient space then this alert message will be displayed.*

6. In the Backup Source menu, select the volume(s) which you would like to back up.

Enable the **Include all critical volumes** option to select all critical volumes for backup automatically. This will ensure that the backup image can be used for full-system / bare-metal recovery. Click **Next** to proceed.



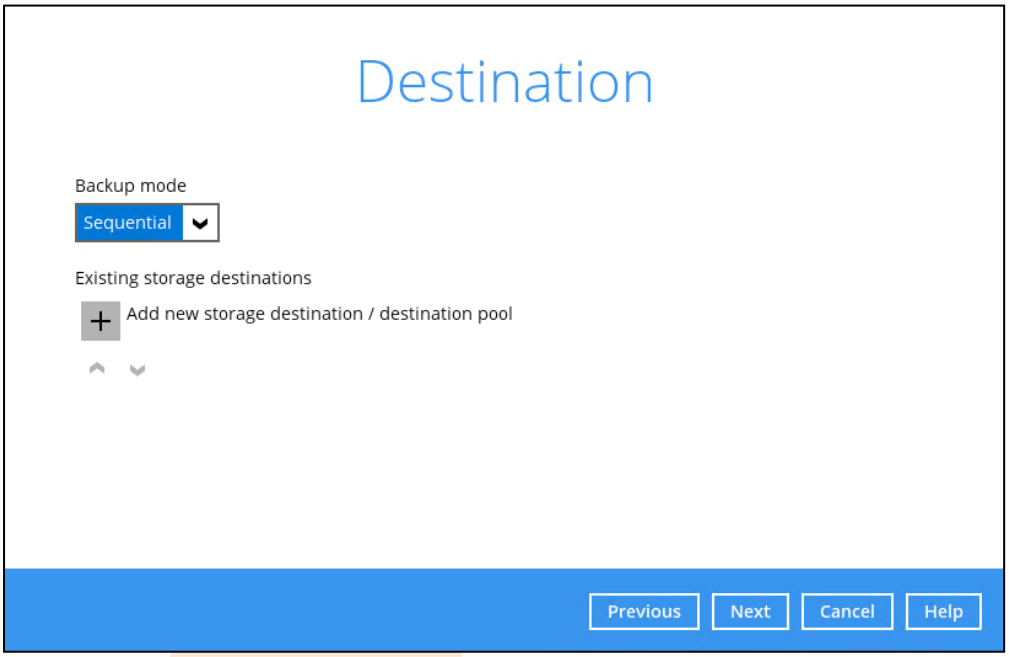
7. In the Schedule menu, configure a backup schedule for backup job to run automatically at your specified time interval. Click **Add** to add a new schedule, then click **Next** to proceed afterward.



NOTE

For more details on the different settings of the backup schedule, please refer to Ch. 6.2 Configure Backup Schedule for Automated Backup.

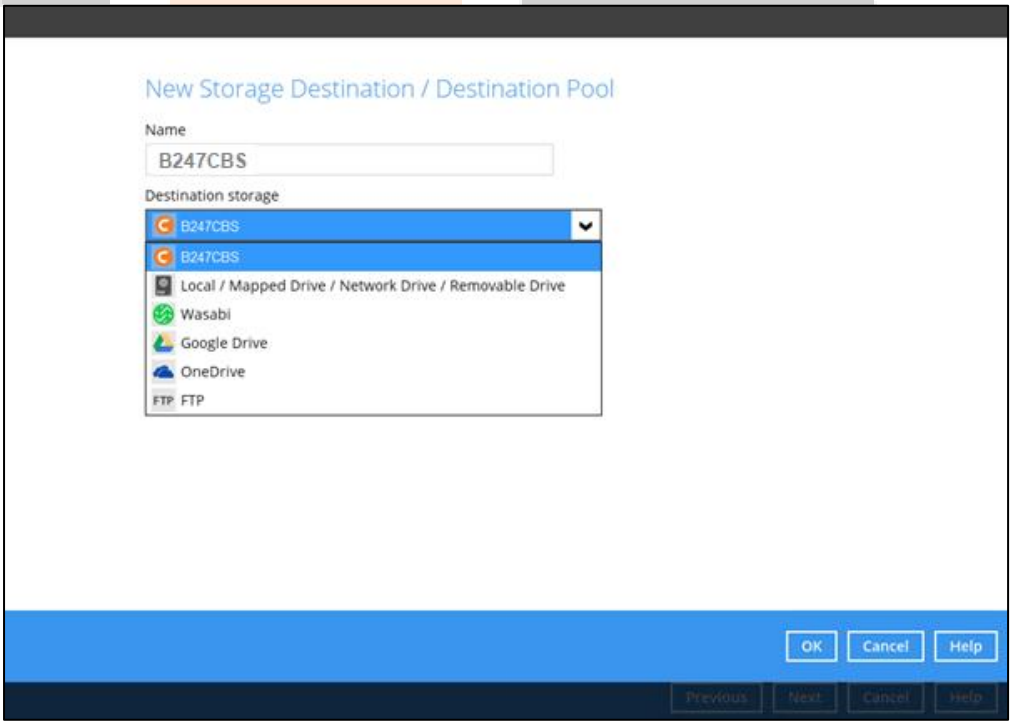
8. In the Destination menu, select a backup destination where the backup data will be stored. Click the “+” icon next to **Add new storage destination / destination pool**.



Note: For more details on the Backup Destination, refer to following link:
FAQ: Frequently Asked Questions on Backup Destination

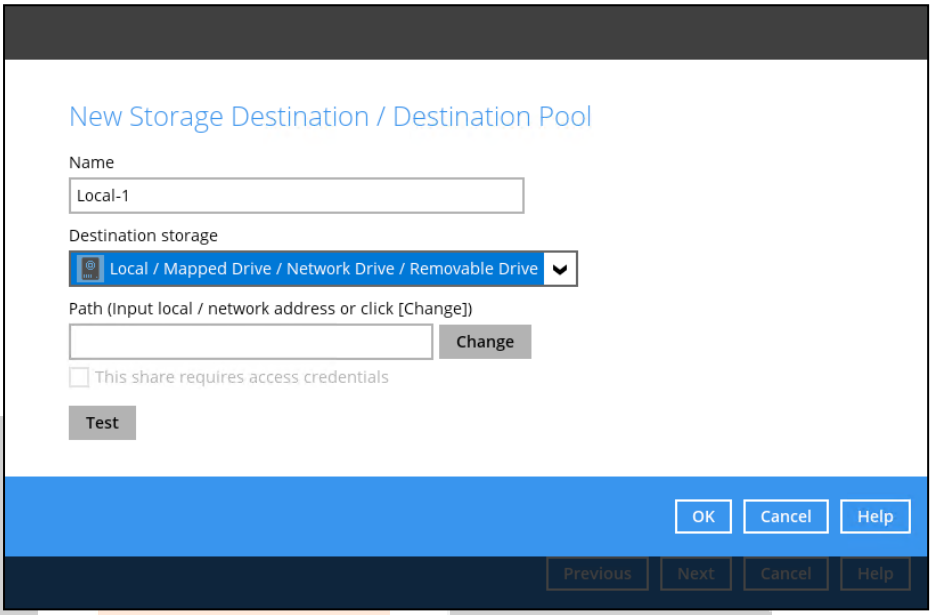
For more details on configuration of cloud storage as backup destination, refer to the Appendix A.

9. Select the Destination storage.

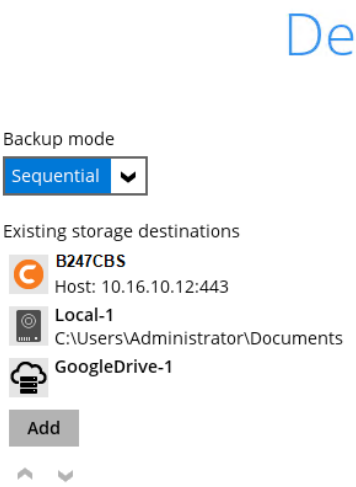


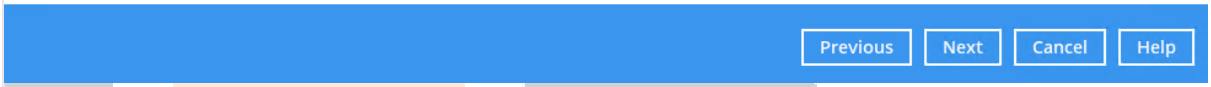
You can choose a storage combination of Local / Mapped Drive / Network Drive / Removable Drive, Cloud storage or FTP. Click **OK** to proceed when you are done with the settings.

- If you have chosen the Local / Mapped Drive / Network Drive / Removable Drive option, click **Change** to browse to a directory path where the backup data will be stored. Click "This share requires access credentials" if credentials are needed to access the storage. Click **Test** to validate the path. A message of **Test completed successfully** will show when the validation is done.

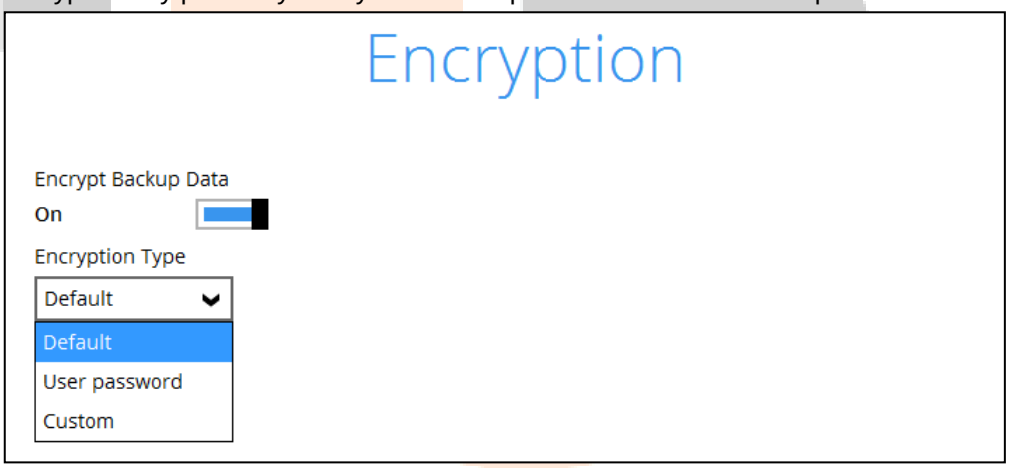


10. You can add multiple storage destinations. The backup data will be uploaded to all the destinations you have selected in the order you added them. Press the ^ v icon to alter the order. Click **Next** to proceed when you are done with the selection.





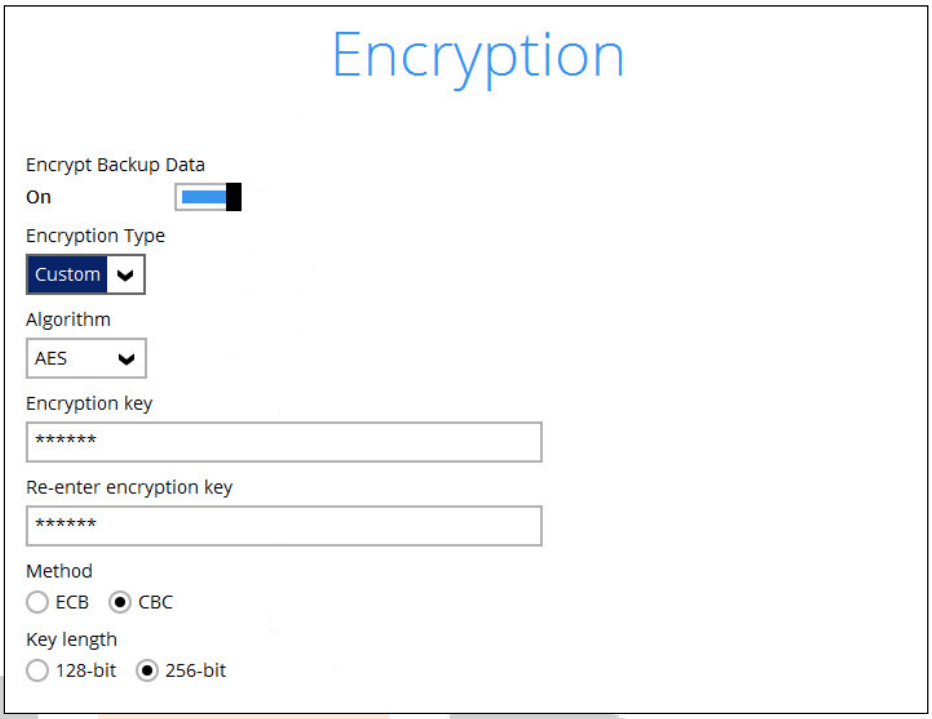
11. In the Encryption window, the default **Encrypt Backup Data** option is enabled with an encryption key preset by the system which provides the most secure protection.



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

- **Default** – an encryption key with 44 alphanumeric characters will be randomly generated by the system
- **User password** – the encryption key will be the same as the login password of your Backup247 Standard Backup Suite (B247LITE) at the time when this backup set is created. Please be reminded that if you change the Backup247 Standard Backup Suite (B247LITE) login password later, the encryption keys of the backup sets previously created with this encryption type will remain unchanged.

- **Custom** – you can customize your encryption key, where you can set your own algorithm, encryption key, method, and key length.

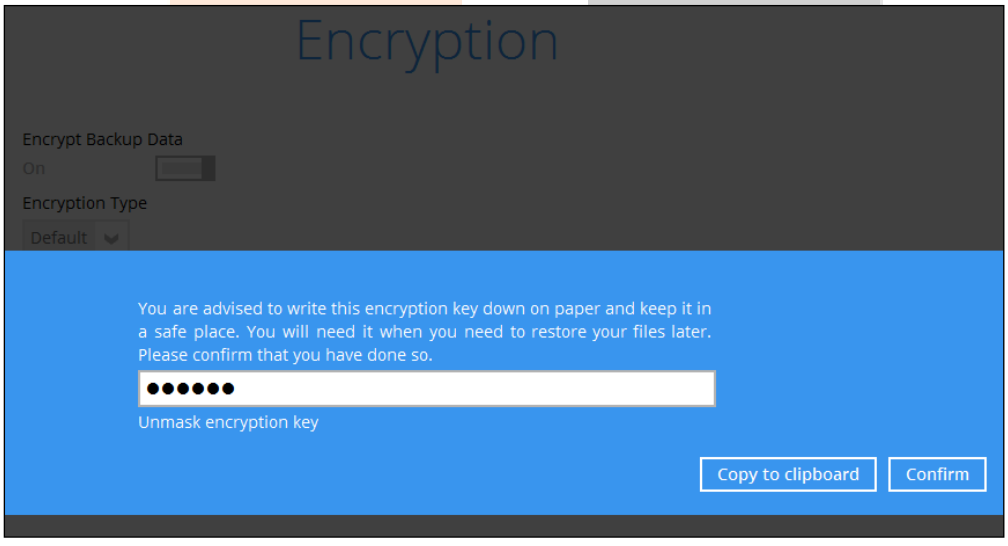


Note: *For best practice on managing your encryption key, refer to the following wiki article:*

FAQ: Best practices for managing encryption key for Backup247 Advanced Client (B247PRO) or Backup247 Standard Backup Suite (B247LITE)

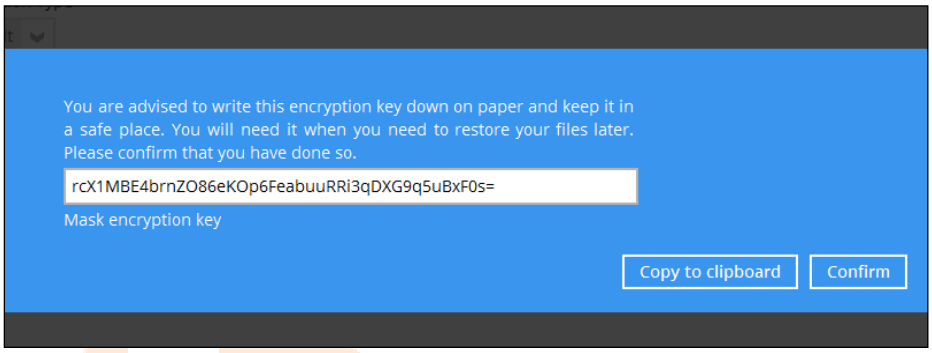
Click **Next** when you are done setting.

12. If you have enabled the Encryption Key feature in the previous step, the following pop-up window will show regardless of the selected encryption type.



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

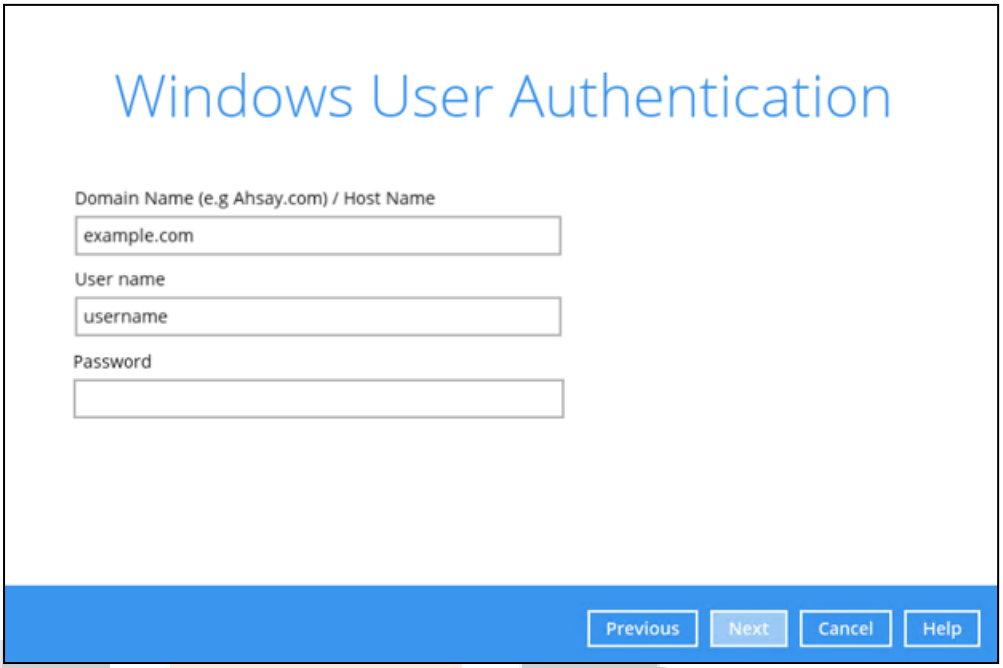
- **Unmask encryption key** – The encryption key is masked by default. Click this option to show the encryption key.



- **Copy to clipboard** – Click to copy the encryption key, then you can paste it in another location of your choice.

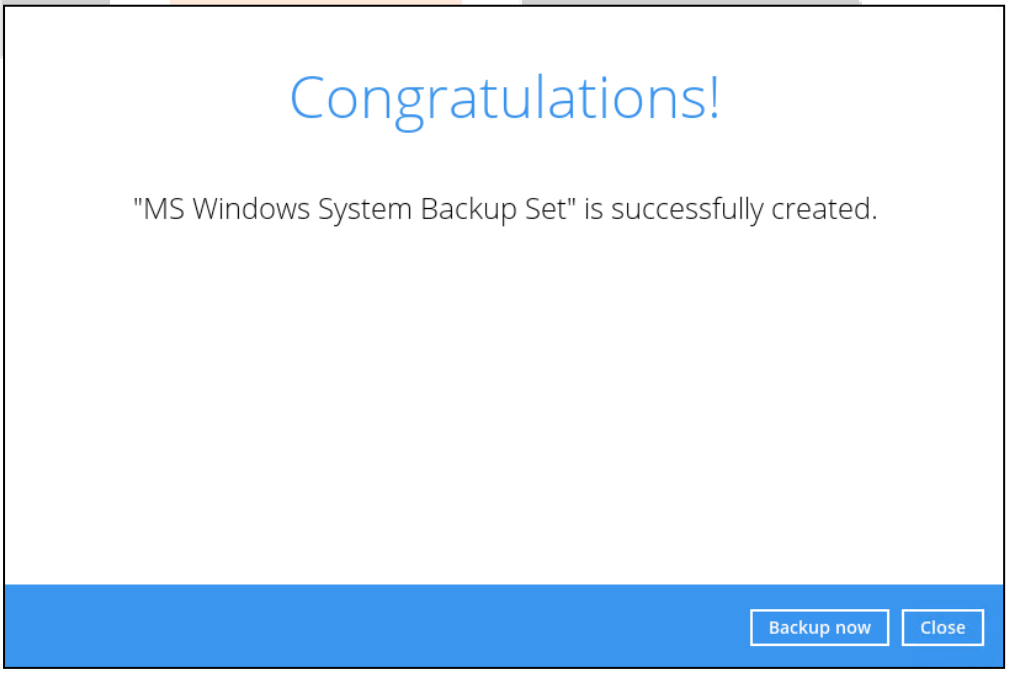
- **Confirm** – Click to exit this pop-up window and proceed to the next step.

13. Enter the **Domain Name / Host Name** of the computer, **User Name** and **Password** of the Windows account that will be running the backup. Click **Next** to create the backup set.

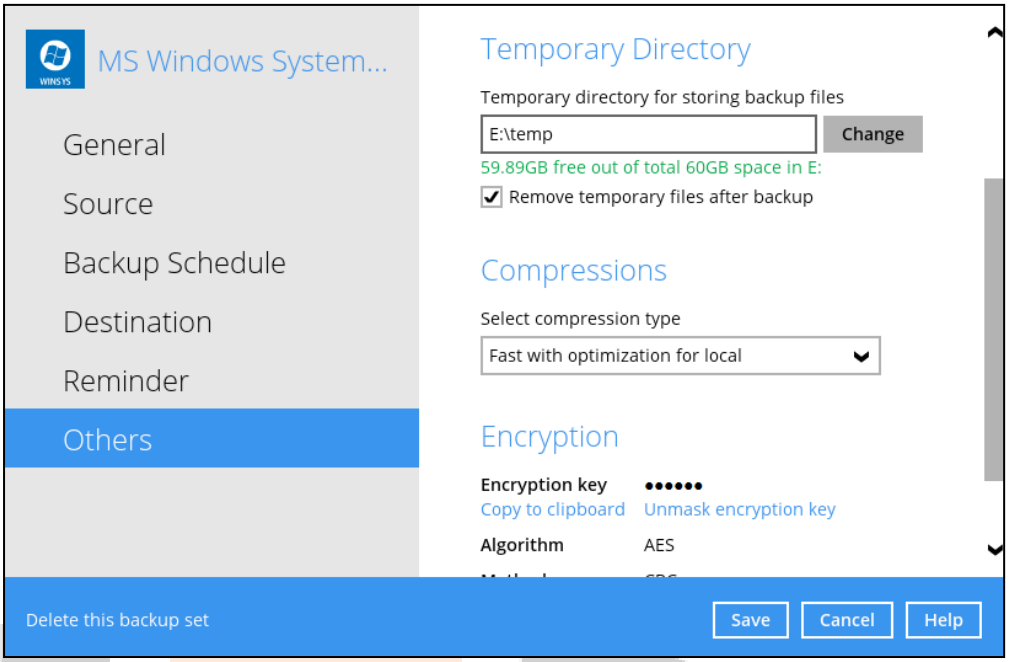


Note: *This menu will only be displayed if a backup schedule is configured in the previous step.*

14. The following screen is displayed when the new MS Windows System backup set is created successfully.



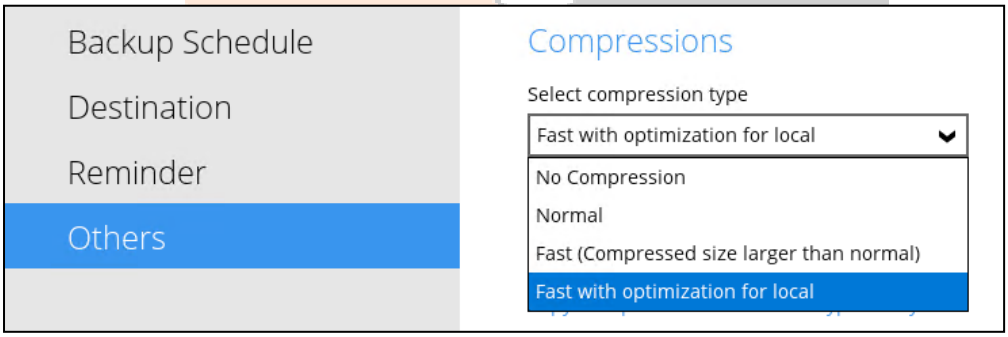
15. It is highly recommended to set the temporary directory to another location other than Drive C: (e.g., Drive E:). To do this, go to **Others > Temporary Directory** and click the **Change** button to browse for another location.



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

Go to **Others > Compressions**, then select from the following:

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

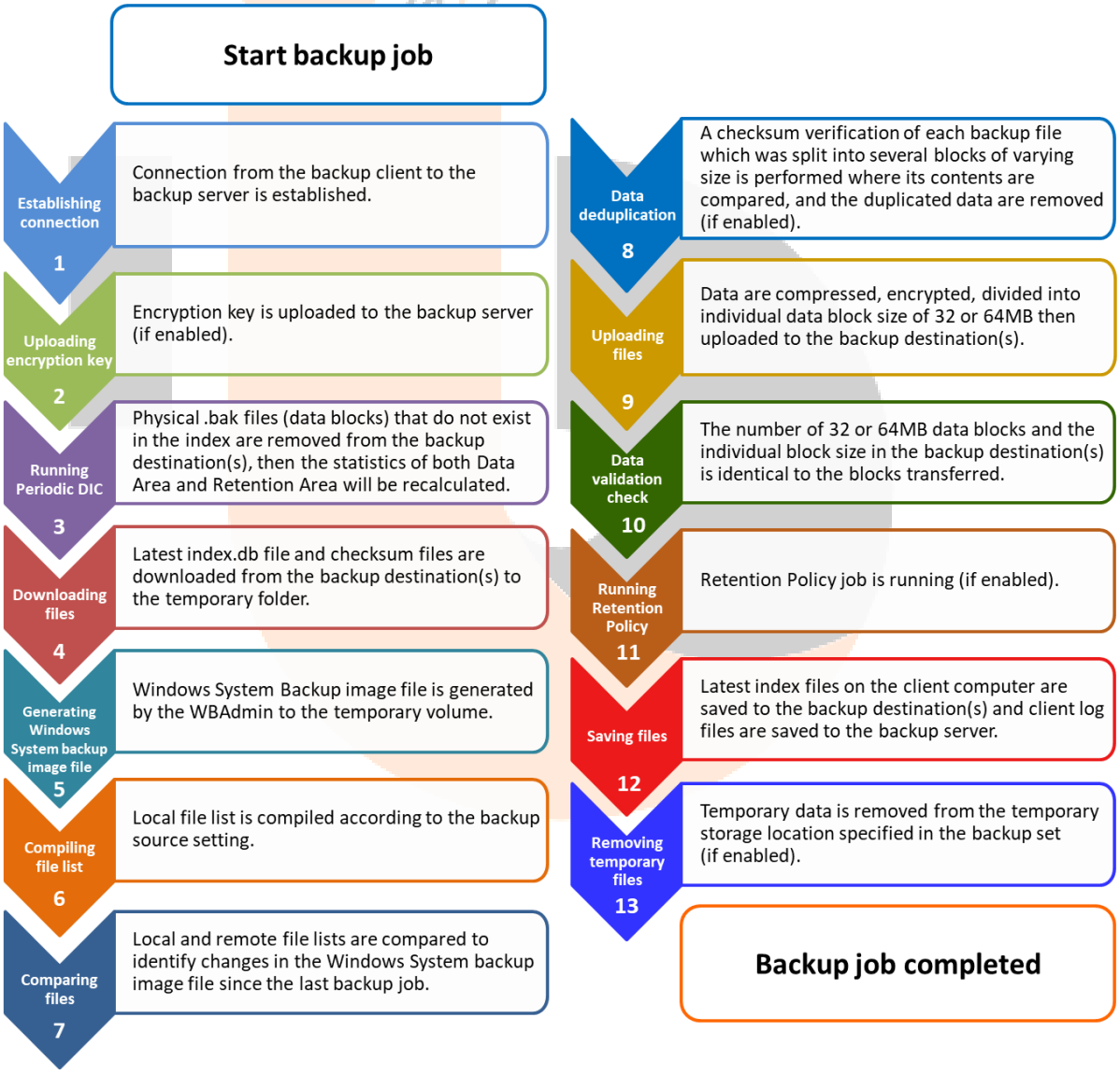


6 Running a Backup

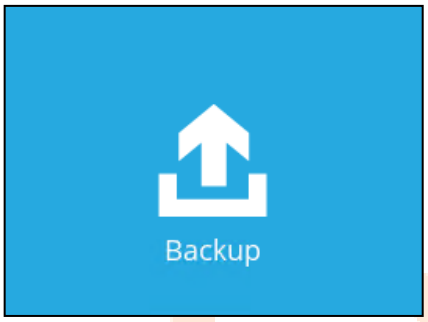
6.1 Start a Manual Backup

The following steps are performed during a backup job. For an overview of the detailed process for Steps **3**, **4**, **10**, and **12**, please refer to the following chapters of the **Backup247 Standard Backup Suite (B247LITE) v9 Quick Start Guide for Windows**.

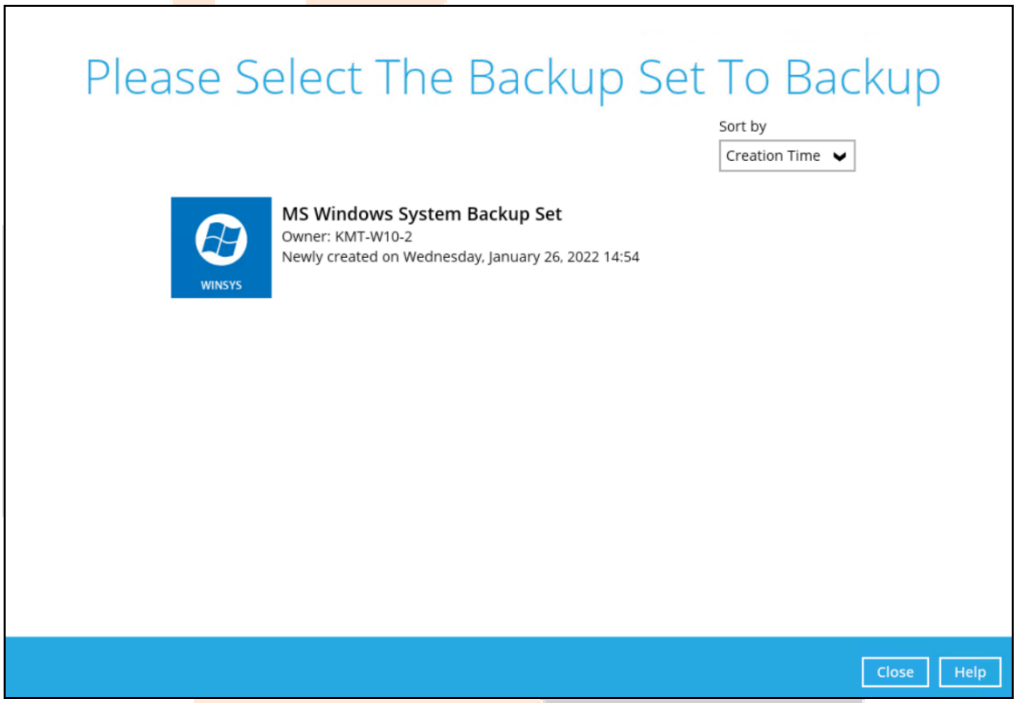
- Periodic Data Integrity Check (PDIC) Process **(Step 3)** – Chapter 12.1
- Backup Set Index Handling Process
  - Start Backup Job **(Step 4)** – Chapter 12.2.1
  - Completed Backup Job **(Step 12)** – Chapter 12.2.2
- Data Validation Check Process **(Step 10)** – Chapter 12.3



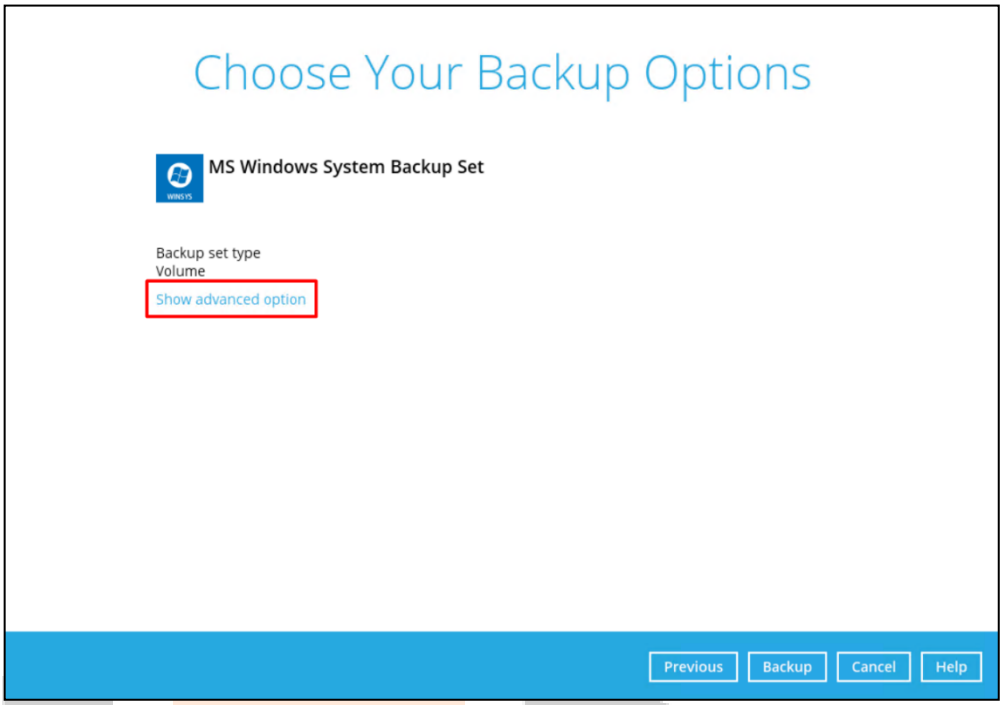
1. Click the **Backup** icon on the main interface of Backup247 Standard Backup Suite (B247LITE).



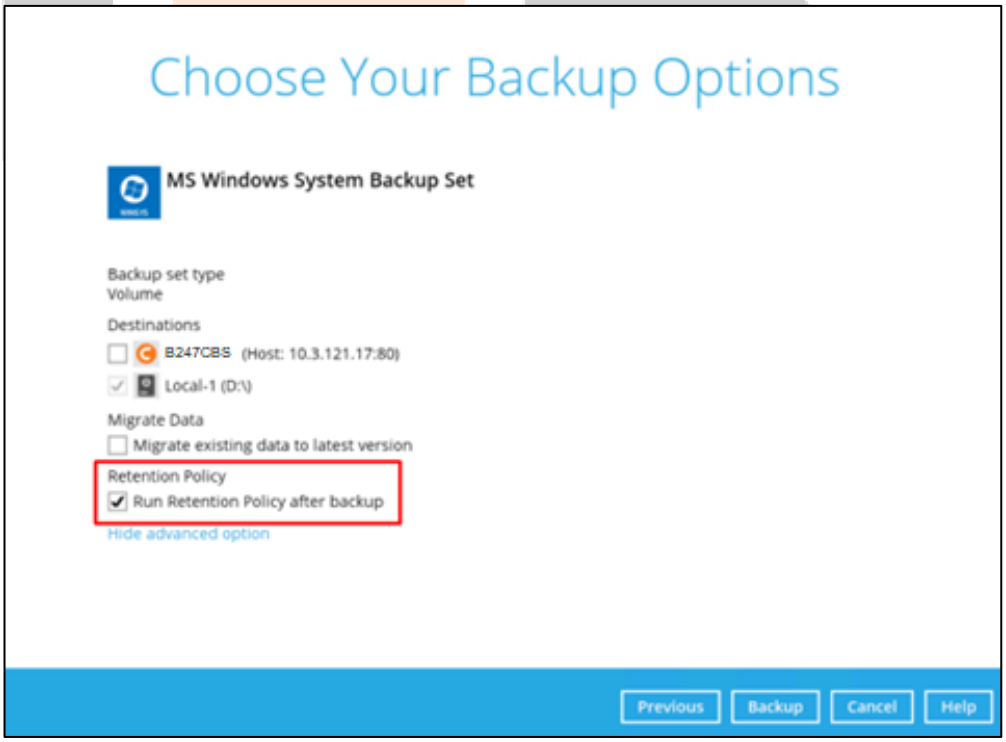
2. Select the backup set which you would like to start a backup for.



3. Click the **Show advanced option** in case you want to modify the Destinations, Migrate Data and Retention Policy options.



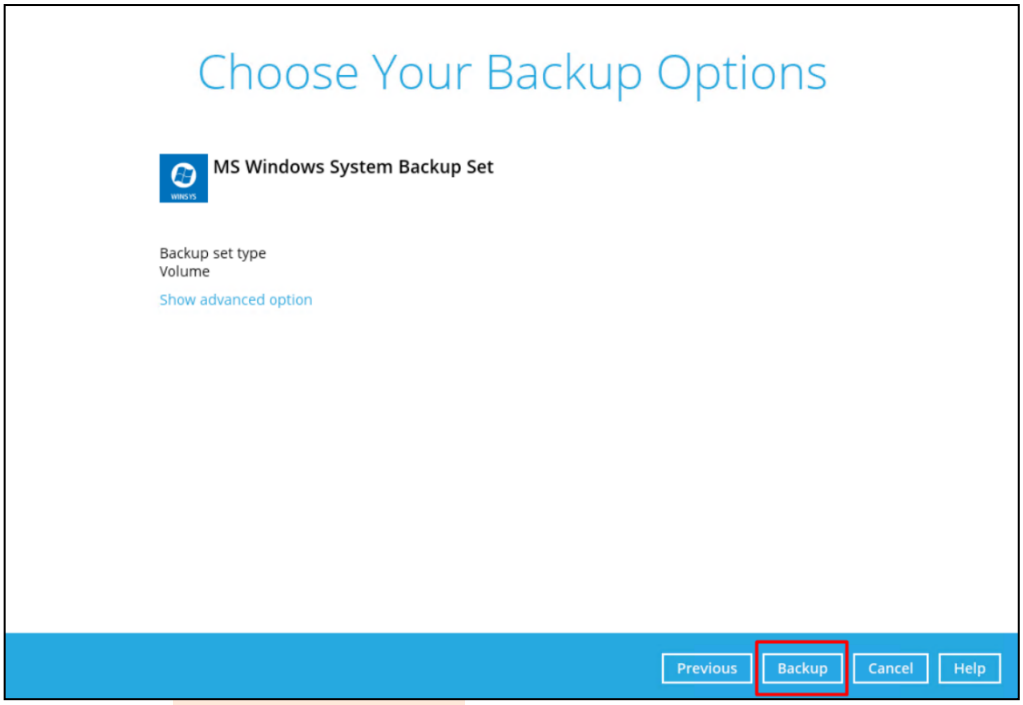
4. When the advanced options are shown, it is recommended to enable the **Run Retention Policy after backup**. This will help you save hard disk quota in the long run.



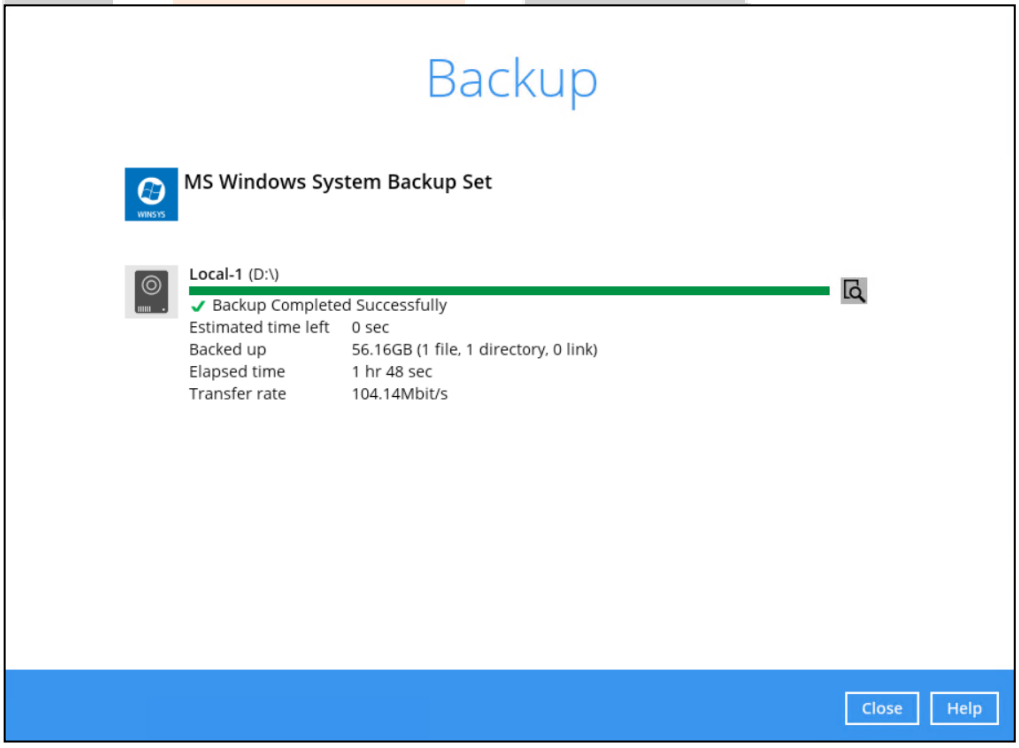
NOTE

When the **Migrate Data** option is enabled, the existing data will be migrated to the latest version during a backup job. This option is disabled by default. Backup job(s) for backup sets with Migrate Data enabled may take longer to finish. For more information about this feature, refer to B247CBS v9 New Features Supplemental document.

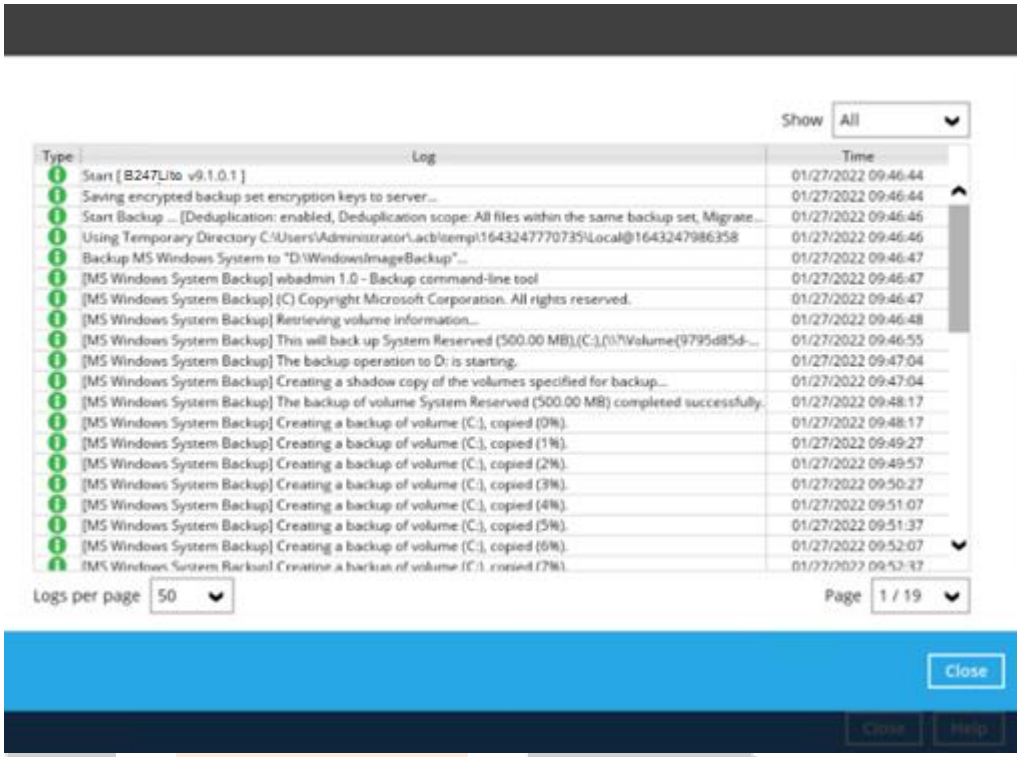
5. Once done with the settings, click the **Backup** button to start the backup job.



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

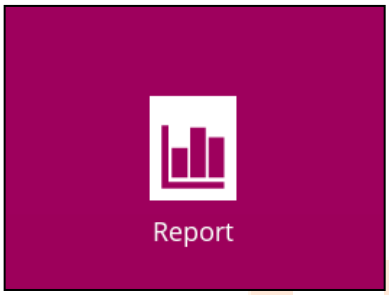


7. Once you are done with checking the backup log, click the **Close** button to return to the previous screen.

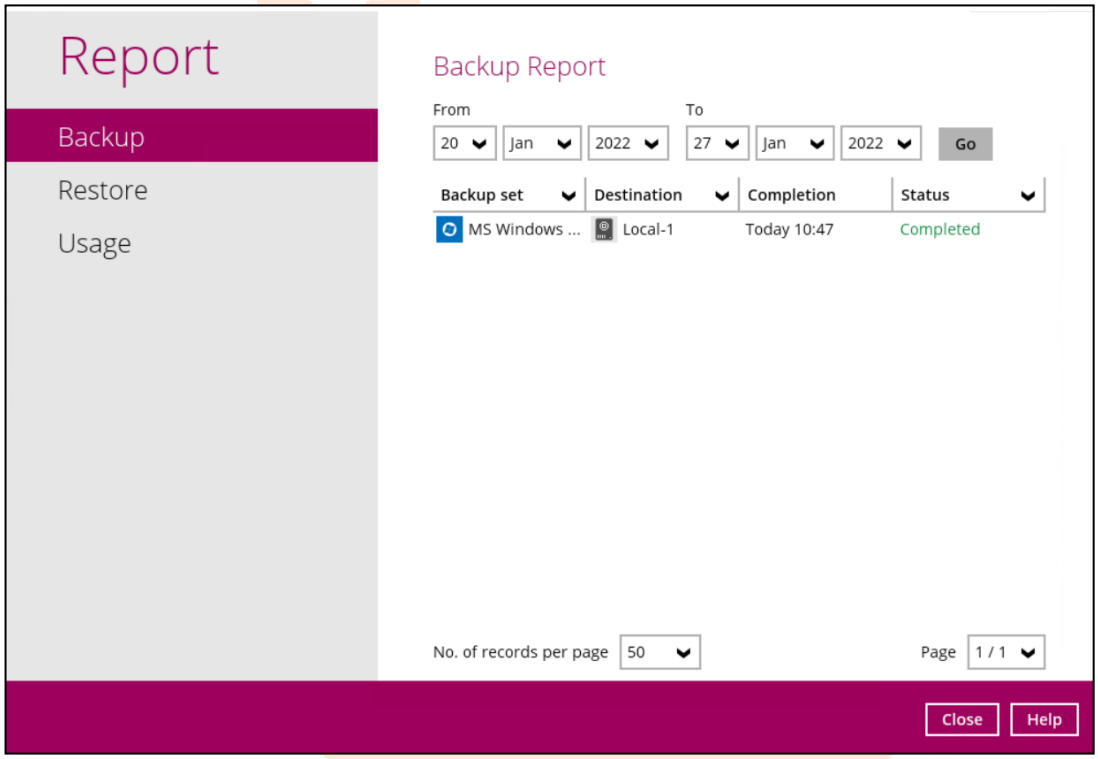


View Report

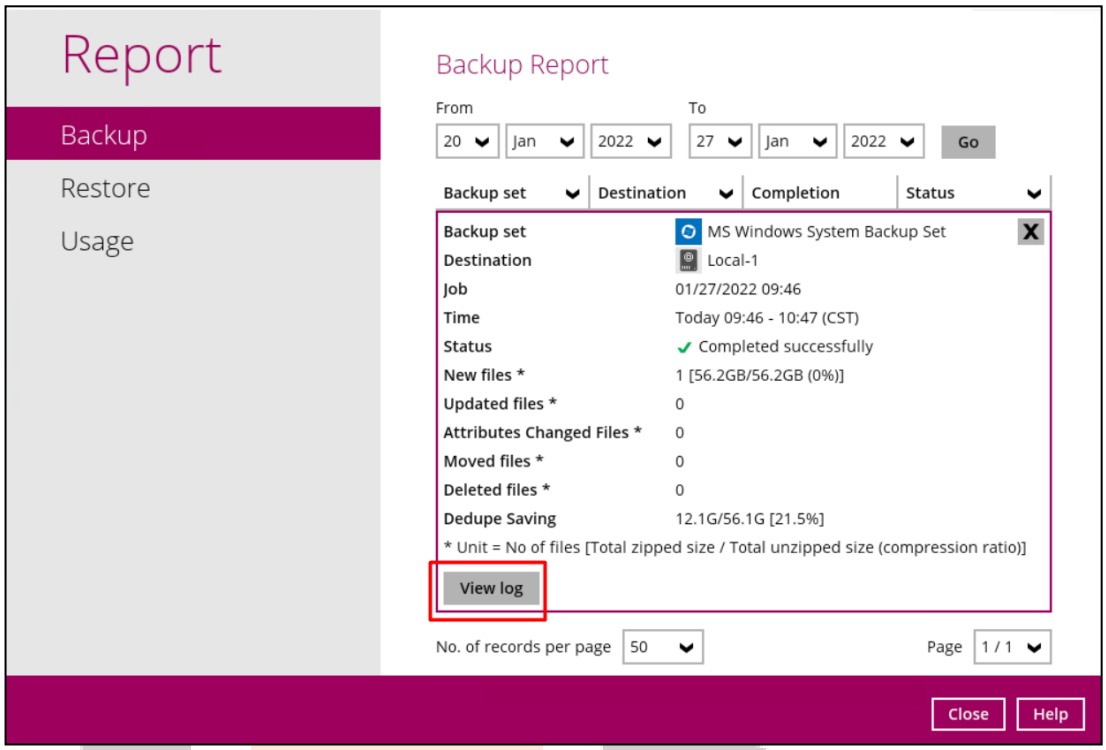
To view the backup report(s), go back to the Backup247 Standard Backup Suite (B247LITE) main interface, then click **Report > Backup**.

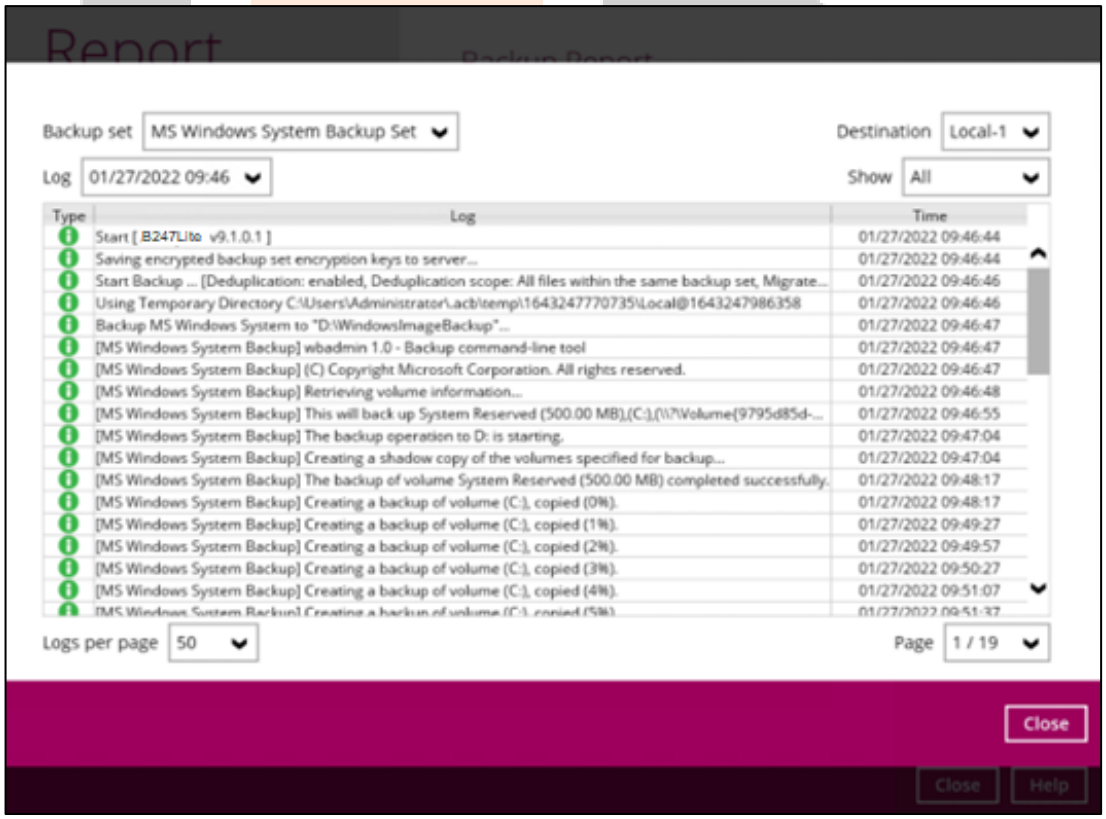


In the Backup Report screen, you will see the backup set with corresponding destination, completion date and time, and status. Click the backup report to display the summary of the backup.

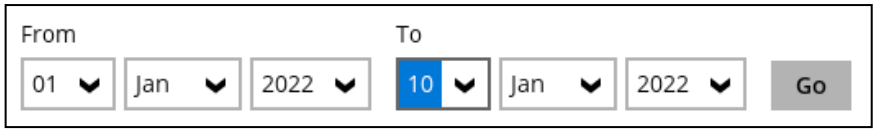


Click the **View Log** button; this will redirect you to the log summary of your backup.

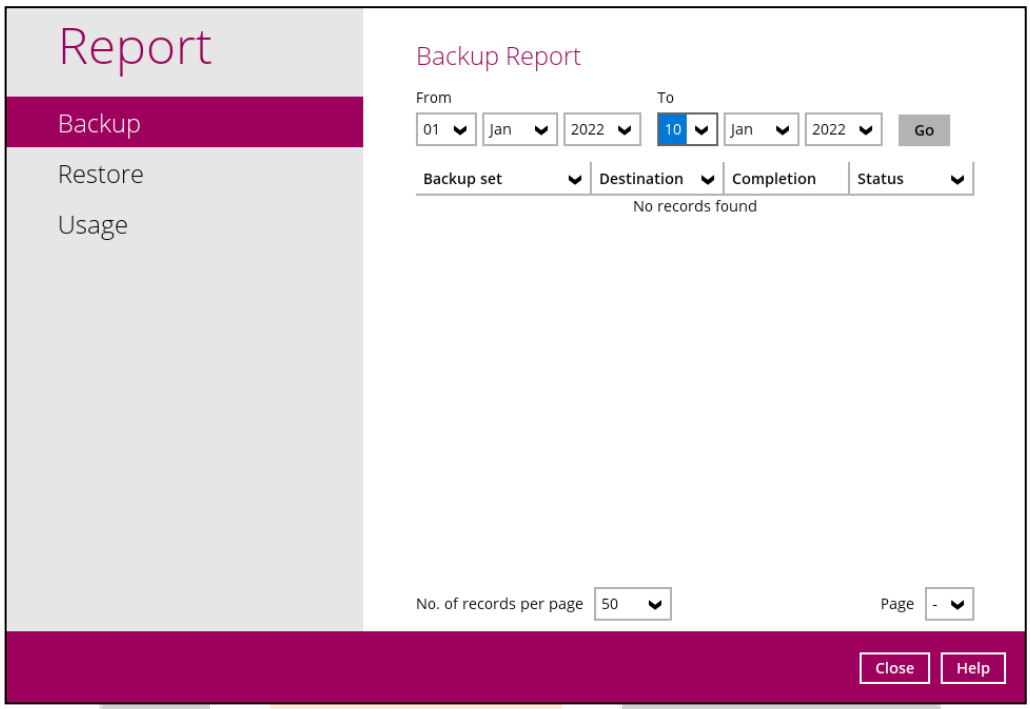




You can also search for backup reports from a specific period of date. For example, we have the **From** date which is, **01 Jan 2022** and the To date which is, **10 Jan 2022**. Click the **Go** button to generate the available reports.

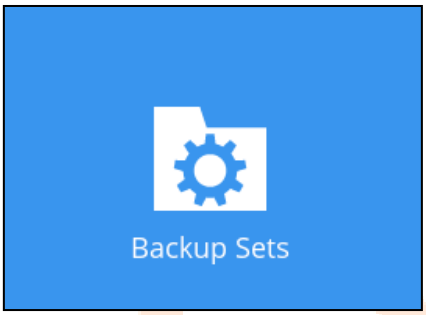


If this is a valid range of dates, then backup report(s) will be displayed unless there were no backup running on the specified dates. A message of **No records found** will be displayed.

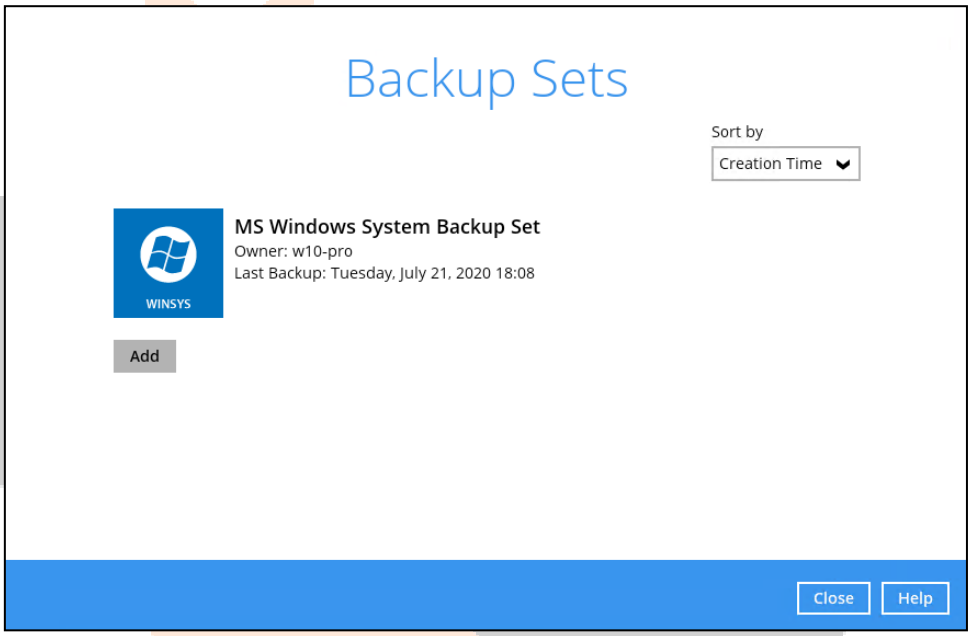


6.2 Configure Backup Schedule for Automated Backup

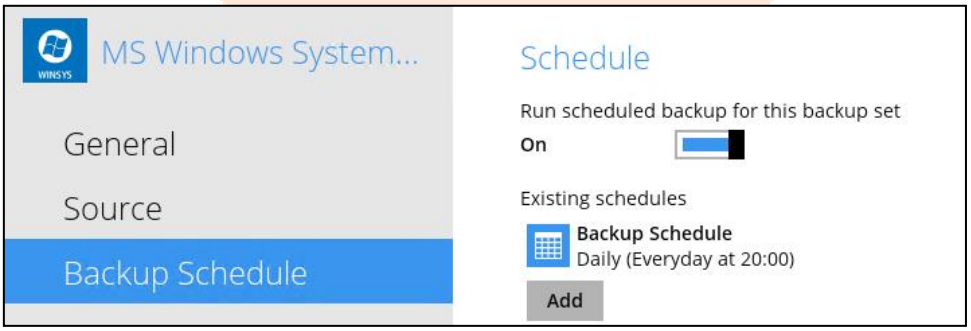
1. Click the **Backup Sets** icon on the main interface of Backup247 Standard Backup Suite (B247LITE).



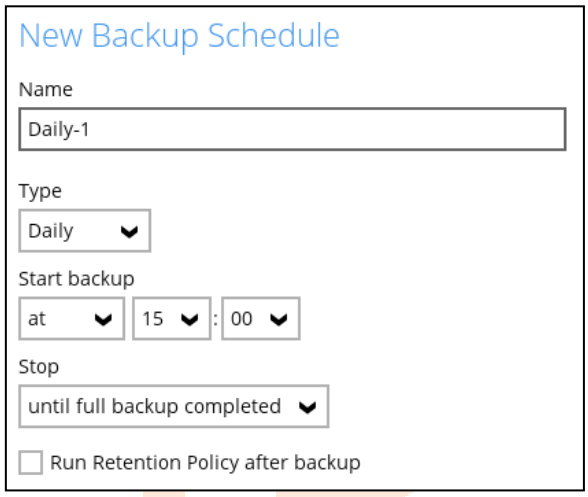
2. All backup sets will be listed. Select the backup set that you would like to create a backup schedule for.



3. Go to the **Backup Schedule** tab. If the **Run scheduled backup for this backup set** option is Off, switch it **On**. Existing schedules will be listed if there is any. Click the **Add** button to add a new backup schedule.

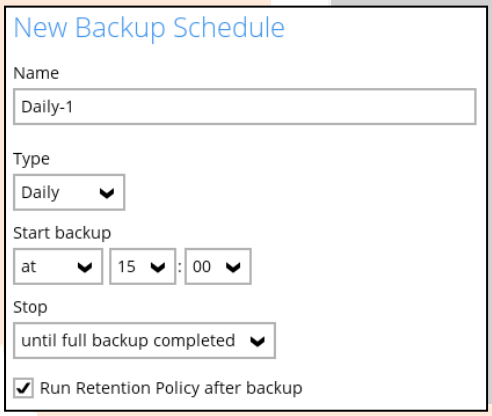


4. The New Backup Schedule window will appear.

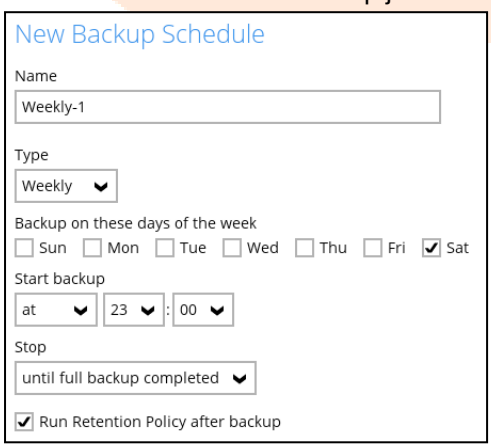


5. In the New Backup Schedule window, configure the following backup schedule settings.

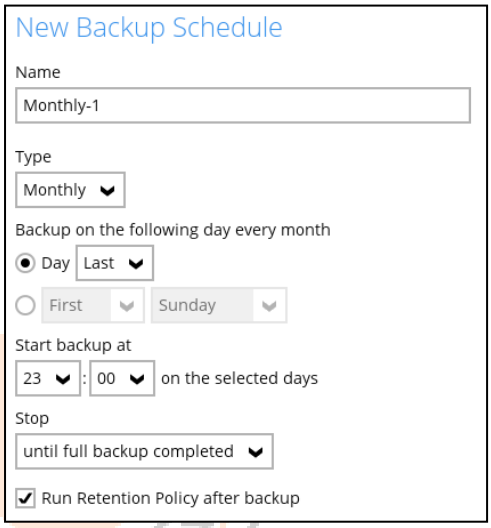
- **Name** – the name of the backup schedule.
- **Type** – the type of backup schedule. There are four (4) different types of backup schedule: Daily, Weekly, Monthly and Custom.
  - **Daily** – the time of the day or interval in minutes/hours when the backup job will run.



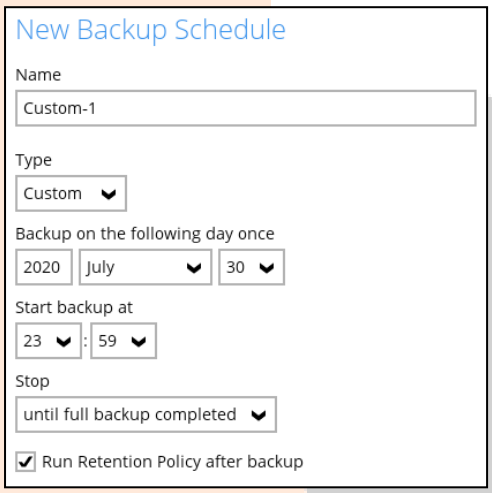
  - **Weekly** – the day of the week and the time of the day or interval in minutes/hours when the backup job will run.



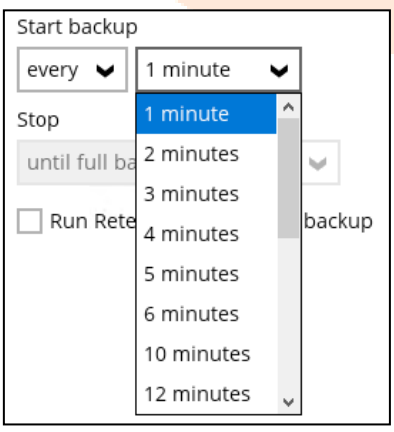
- **Monthly -** the day of the month and the time of that day which the backup job will run.

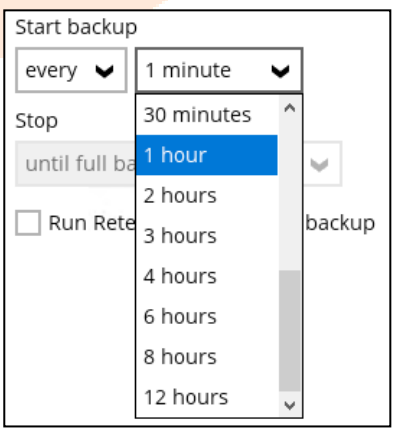


- **Custom** – a specific date and the time of that date which the backup job will run.

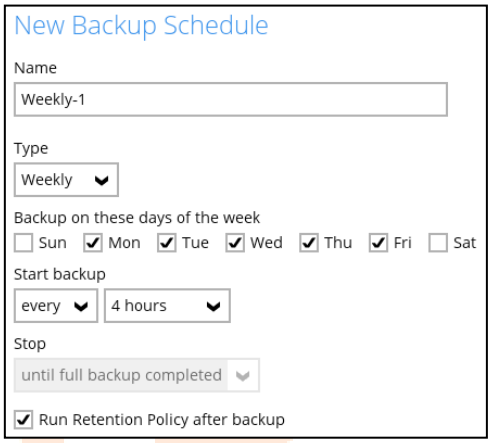


- **Start backup** – the start time of the backup job.
  - **at** – this option will start a backup job <u>at a specific time</u>.
  - **every** – this option will start a backup job <u>in intervals of minutes or hours</u>.





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



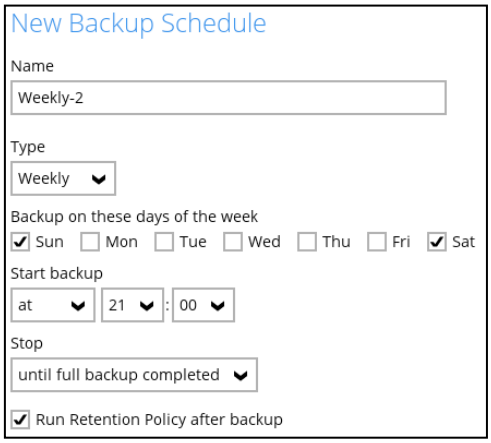


Figure 1.1 ***Figure 1.2***

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

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

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

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

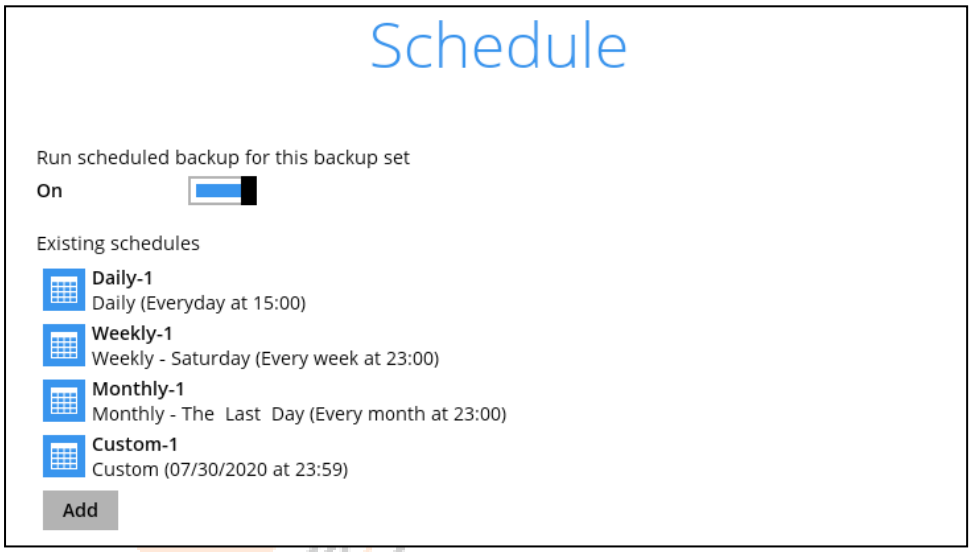
    For example, if a backup has 100GB file size which will take approximately 15 hours to complete on your environment, but you set the "stop" after 10 hours, the file will be partially backed up and cannot be restored. The next backup will upload the files from scratch again.

    The partially backed up data will have to be removed by running the Data Integrity Check.

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

- **Run Retention Policy after backup** – if enabled, the Backup247 Standard Backup Suite (B247LITE) will run a retention policy job to remove files from the backup destination(s) which have exceeded the Retention Policy after performing a backup job. To save hard disk quote in the long run, it is recommended to enable this option.

As an example, the four types of backup schedules may look like the following:



6. Click **Save** to confirm your settings once done.

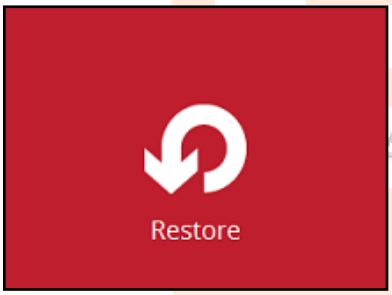
7 Restore with a MS Windows System Backup Set

7.1 Login to Backup247 Standard Backup Suite (B247LITE)

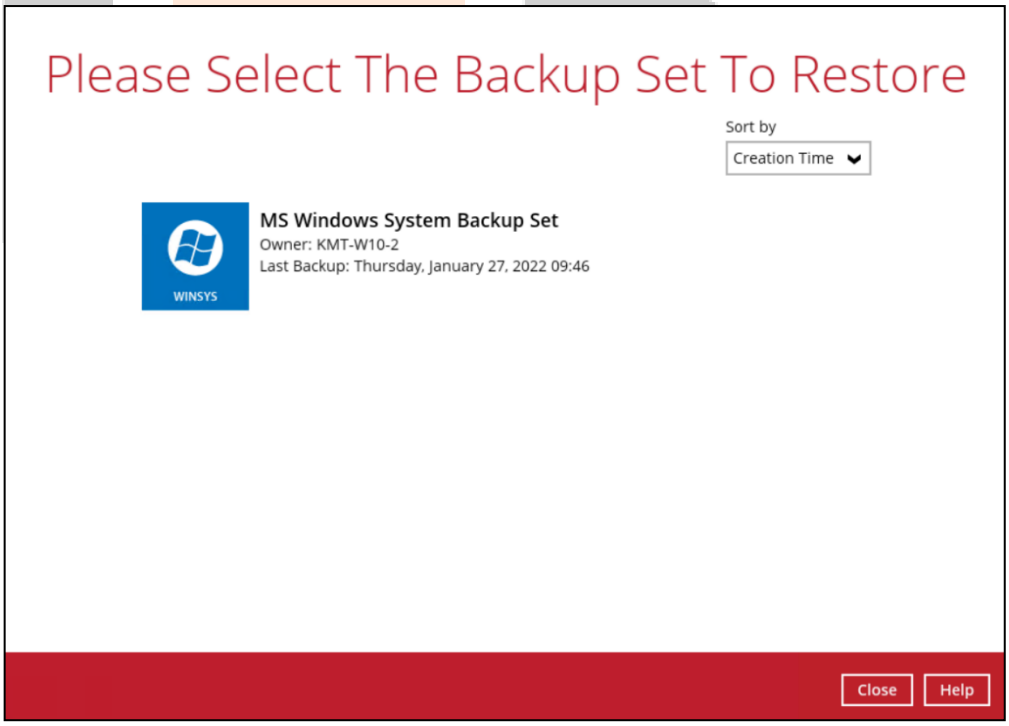
Log in to the Backup247 Standard Backup Suite (B247LITE) application according to the instructions provided in Chapter 8 of the **Backup247 Standard Backup Suite (B247LITE) v9 Quick Start Guide for Windows**.

7.2 Restore the System Image

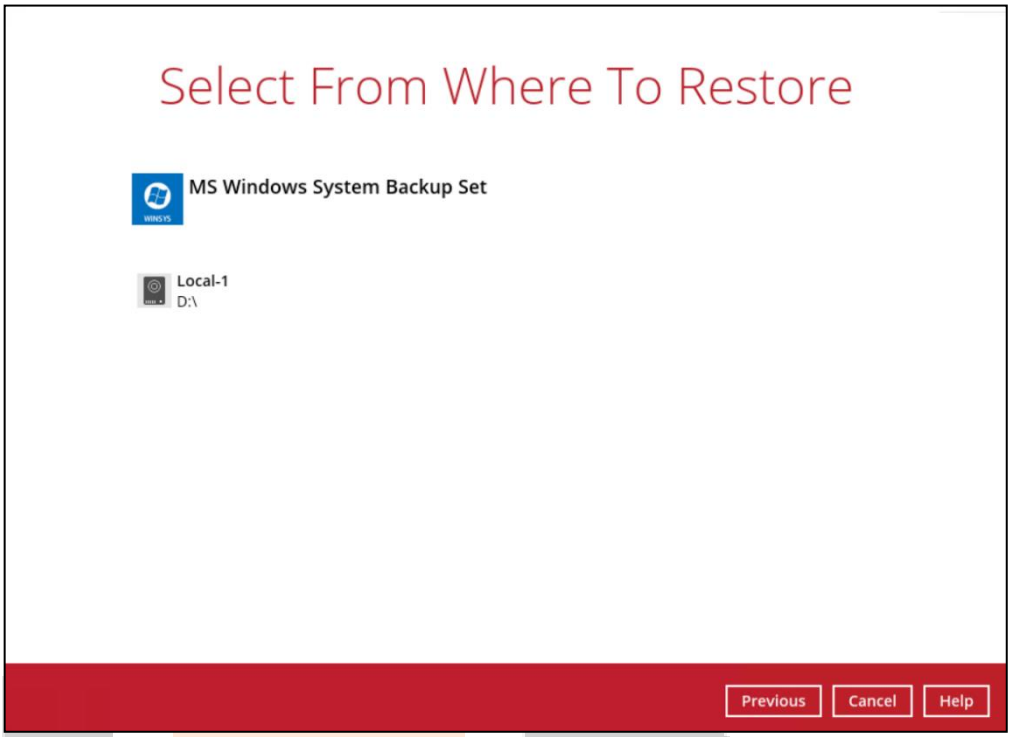
1. Click the **Restore** icon on the main interface of Backup247 Standard Backup Suite (B247LITE).



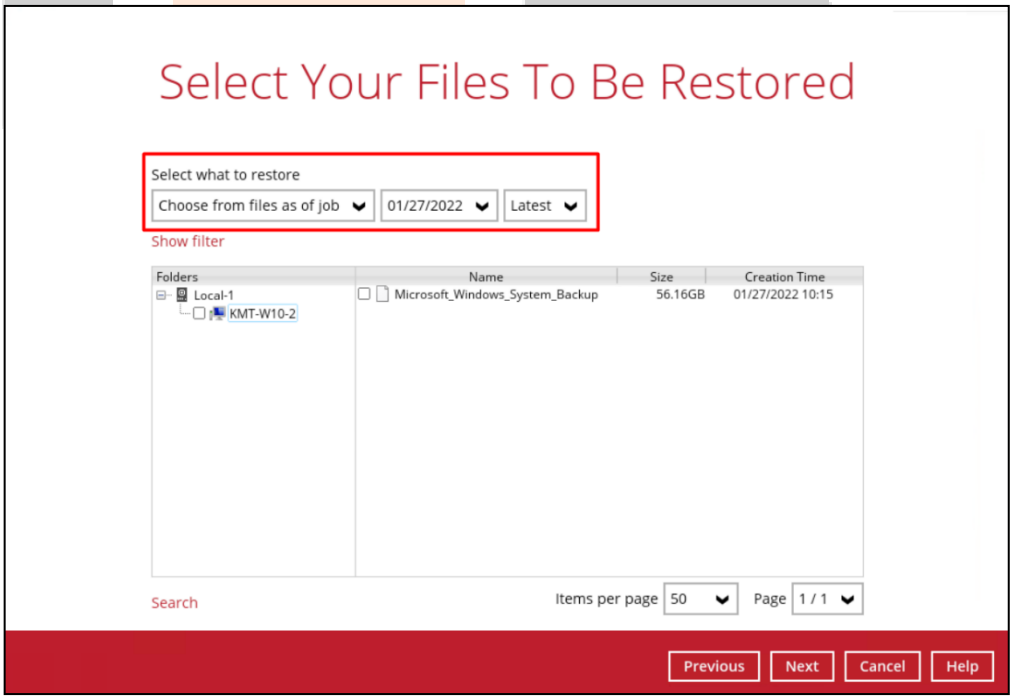
2. Select the backup set that you would like to restore the system image from.



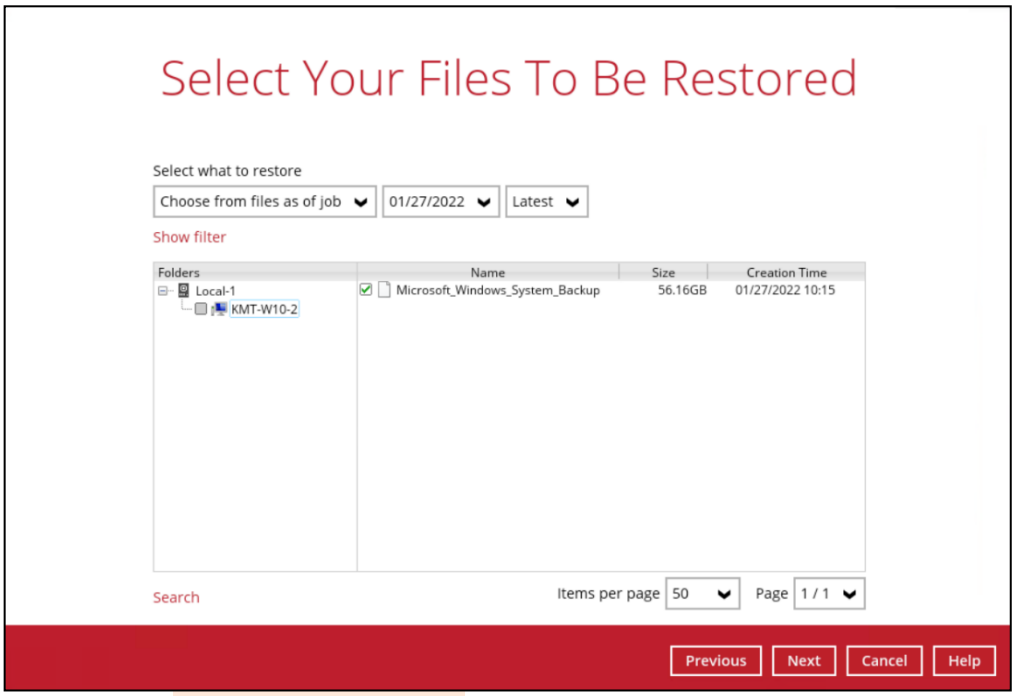
3. Select the backup destination that contains the system image that you would like to restore.



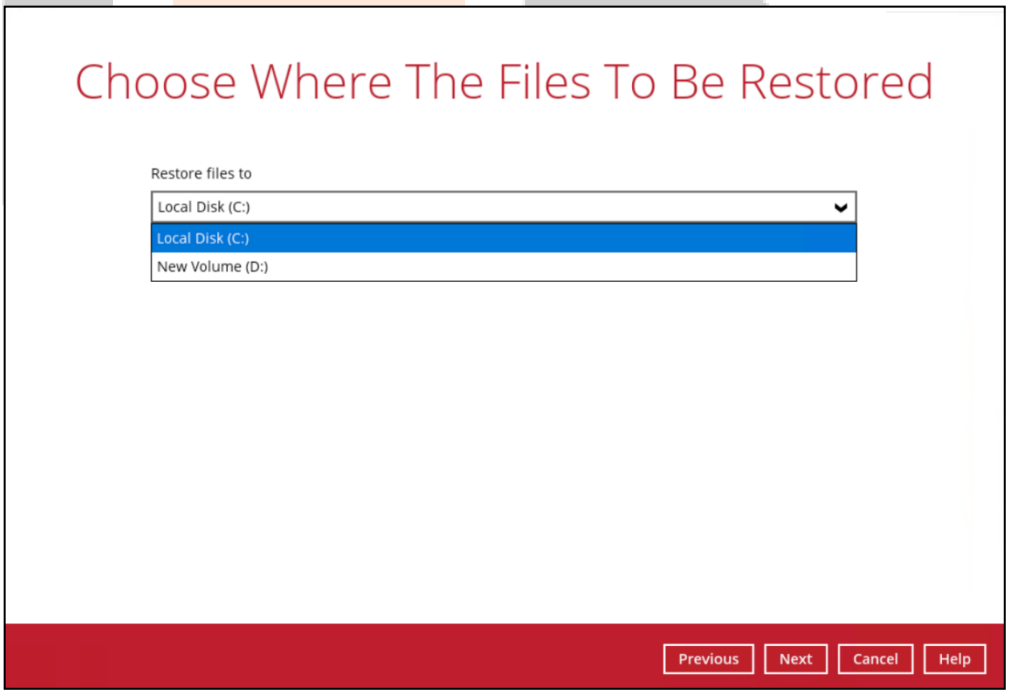
4. Select to restore from a specific backup job, or the latest job available from the **Select what to restore** drop-down menu.



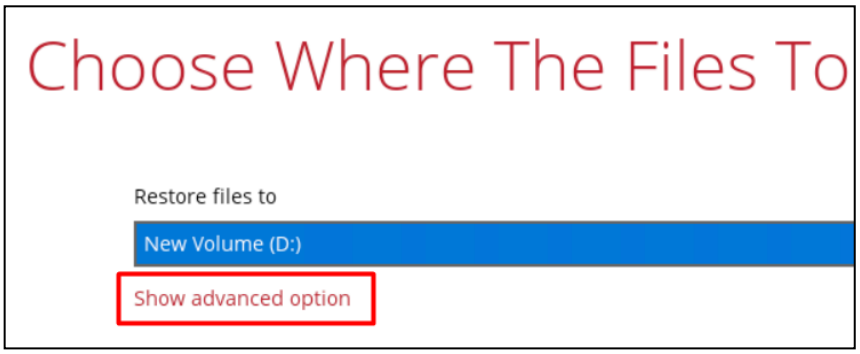
5. Select the **Microsoft_Windows_System_Backup**, then click **Next** to proceed.

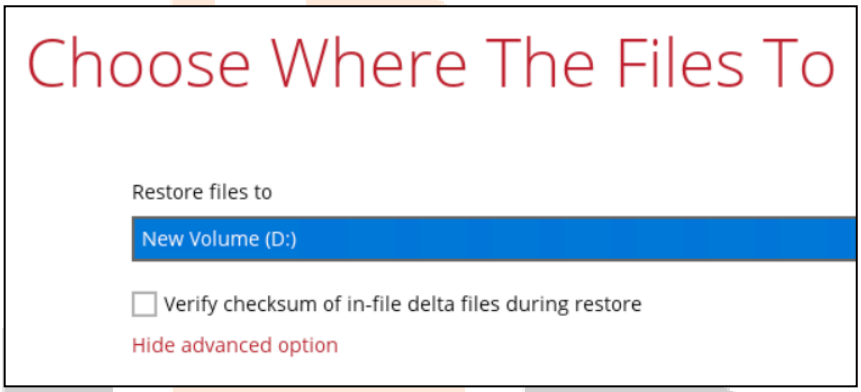


6. Select to restore the system image to a local volume or to a removable drive. Click **Next** to proceed.



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

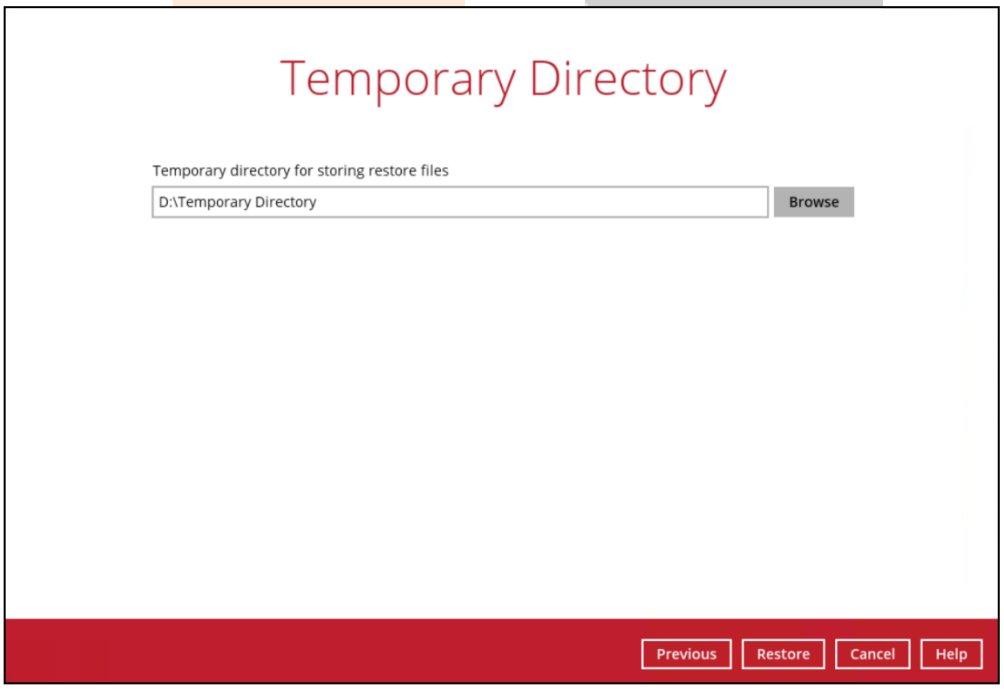




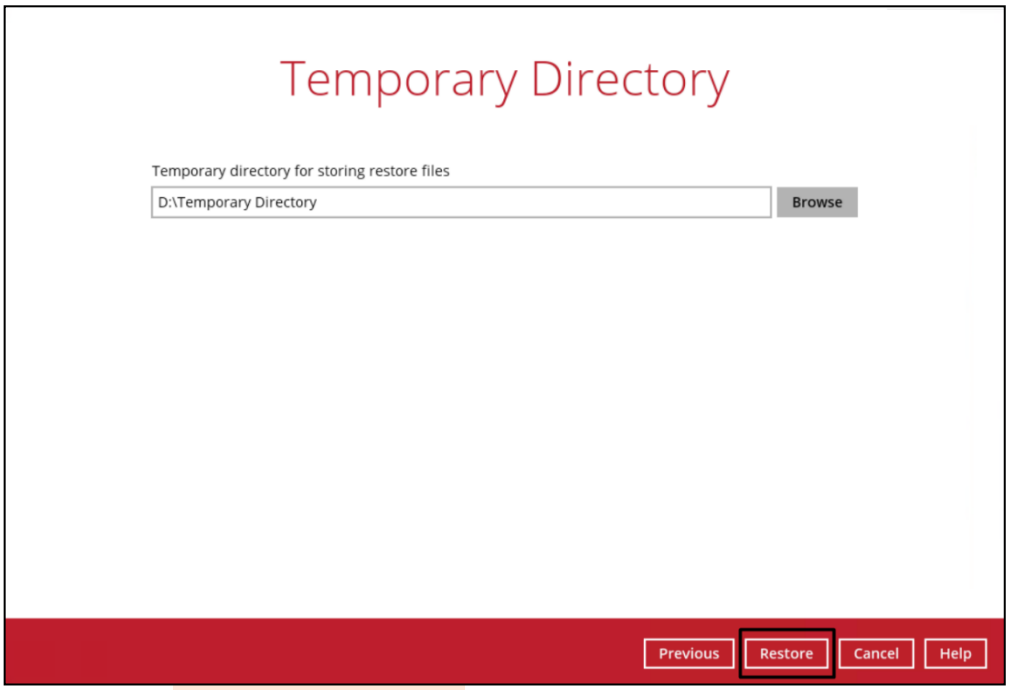
- **Verify checksum of in-file delta files during restore**

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

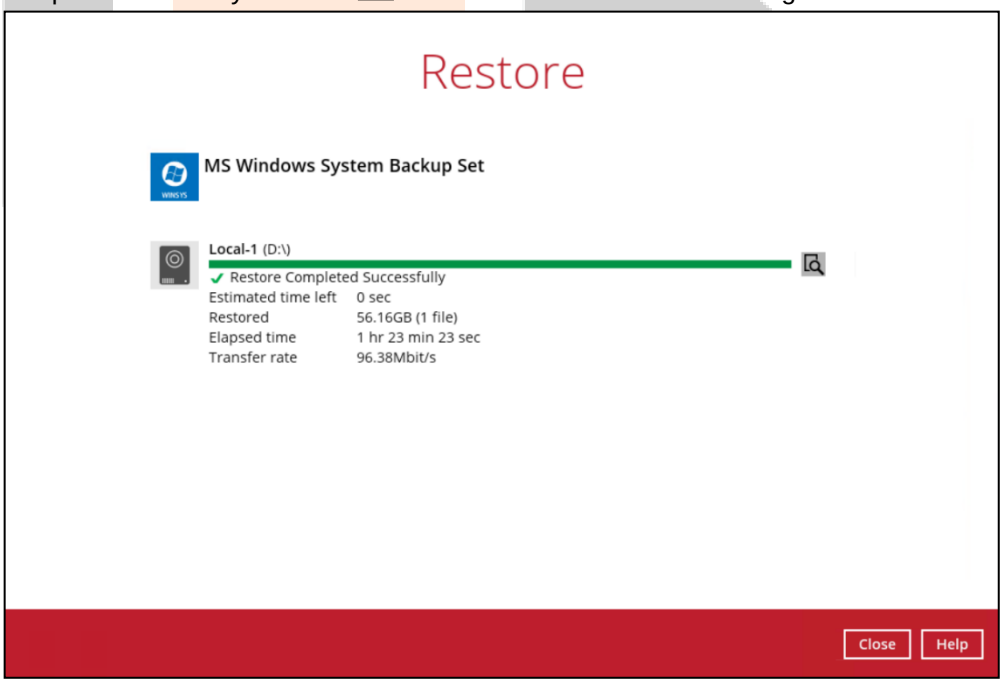
8. Select the temporary directory for storing temporary files.



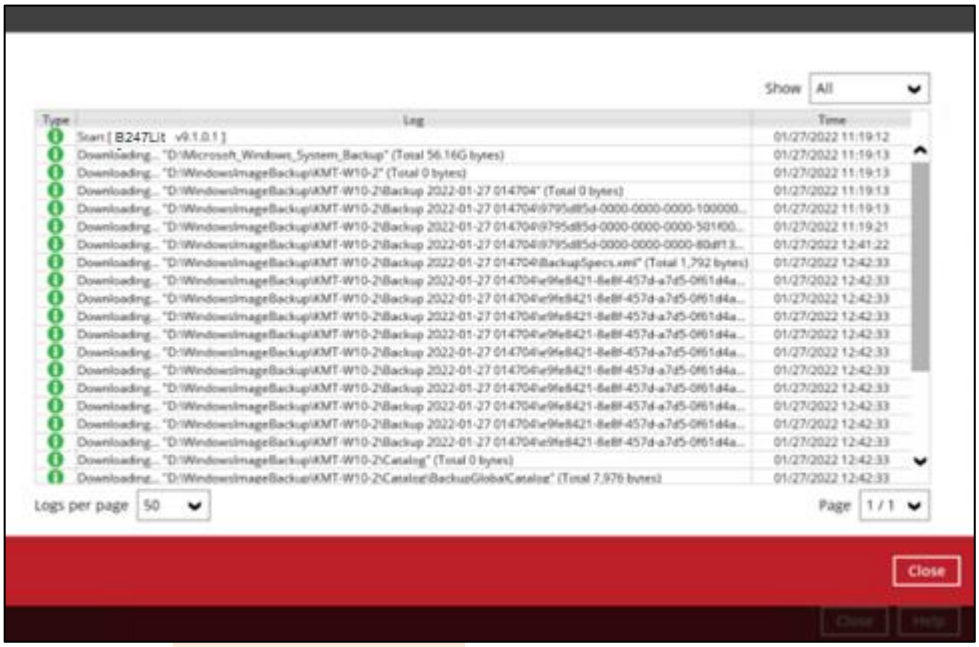
9. Click **Restore** to start the restoration process.



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

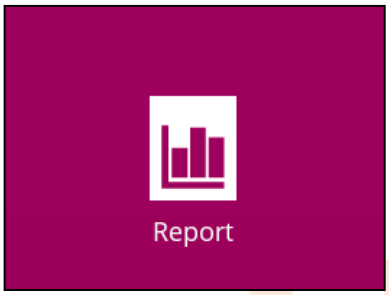


11. Once you are done with checking the restore log, click the **Close** button to return to the previous screen.

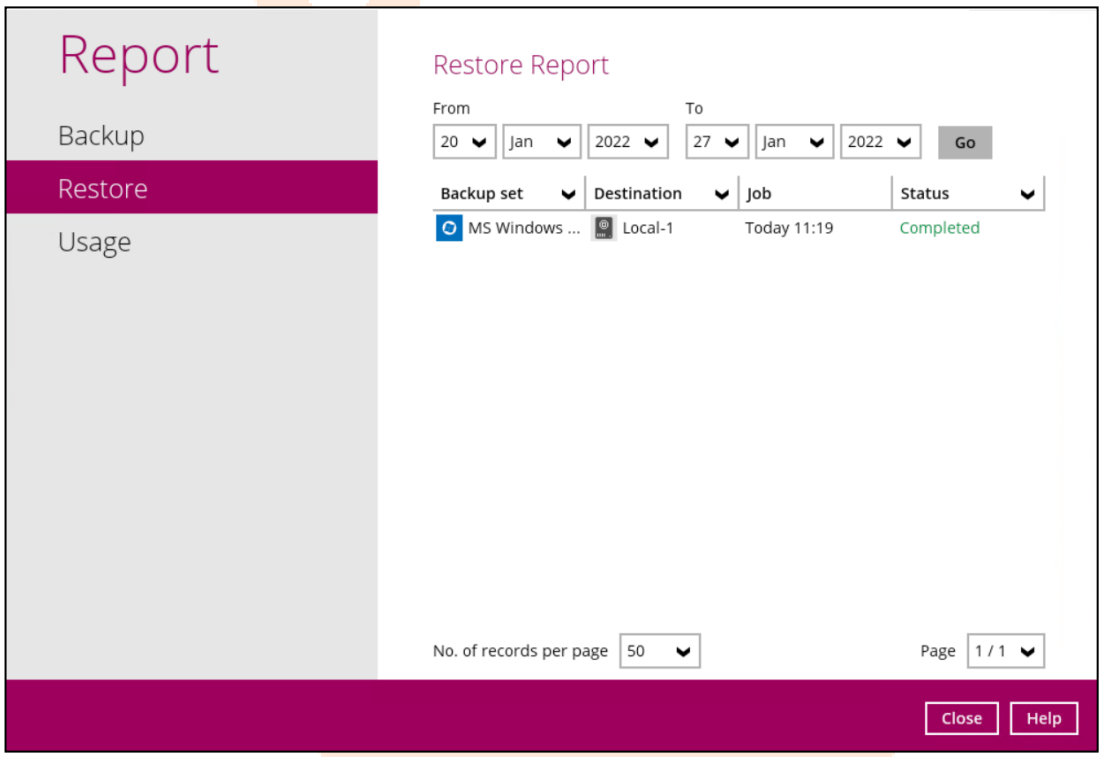


View Report

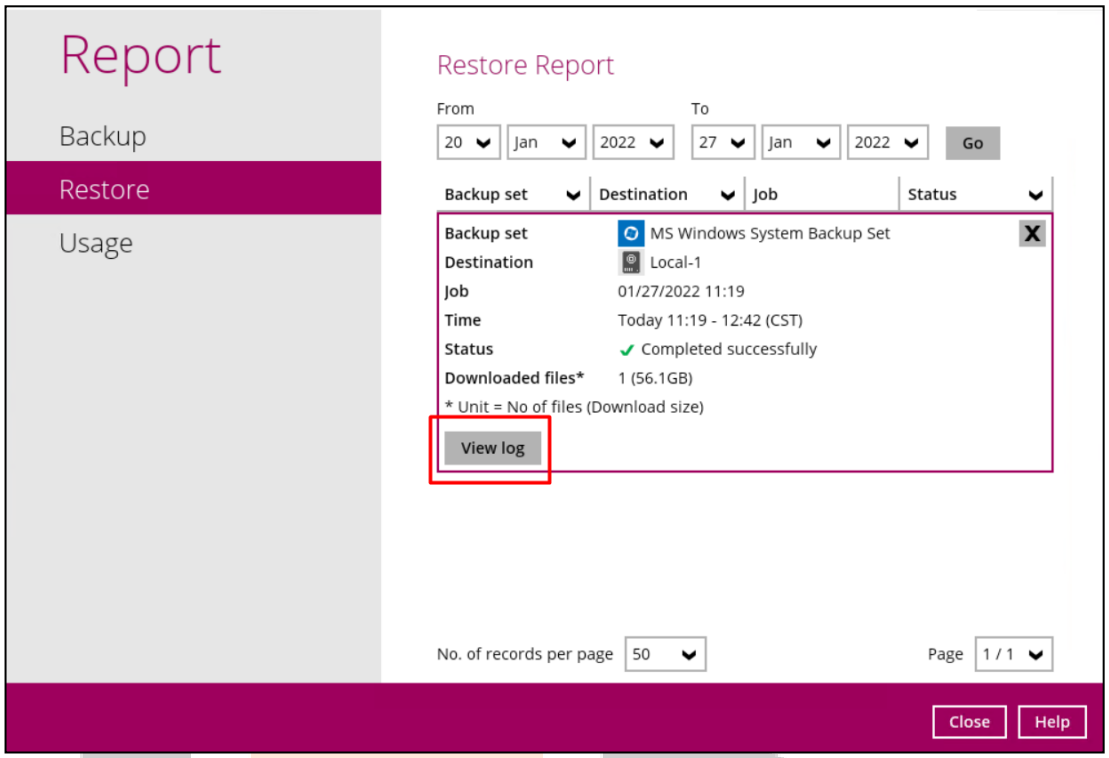
To view the restore report(s), go back to the Backup247 Standard Backup Suite (B247LITE) main interface, then click **Report > Restore**.

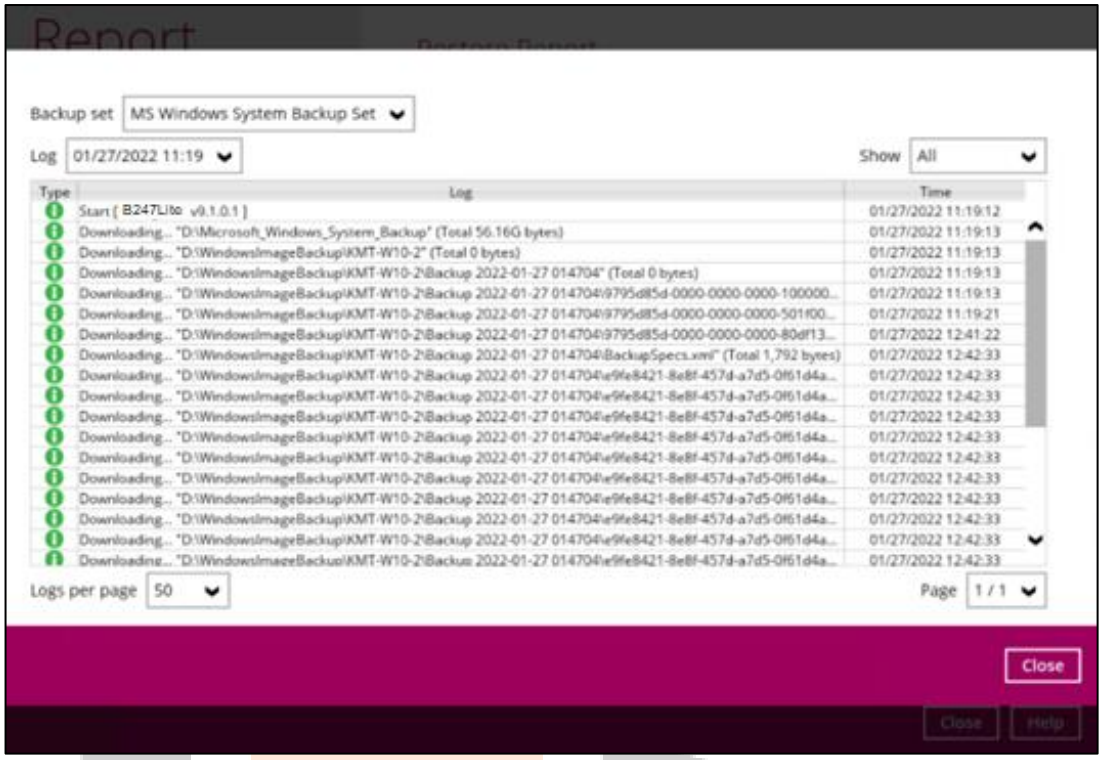


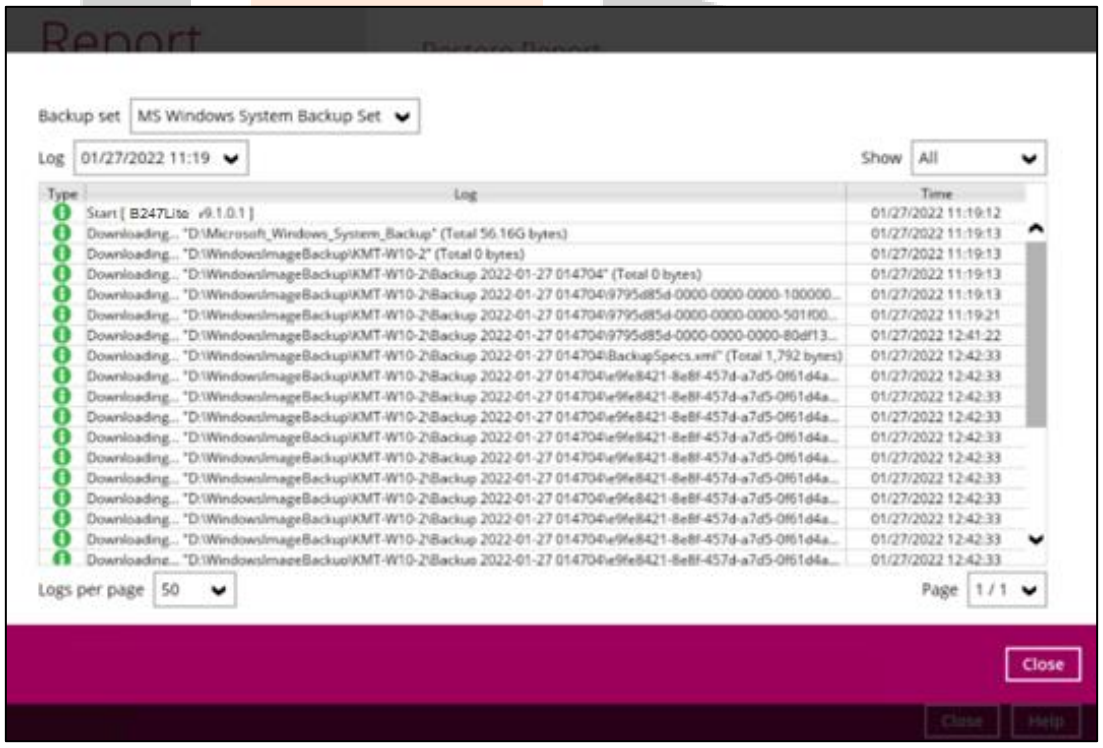
In the Restore Report screen, you will see the backup set with corresponding destination, completion date and time, and status. Click the restore report to display the summary of the restore.



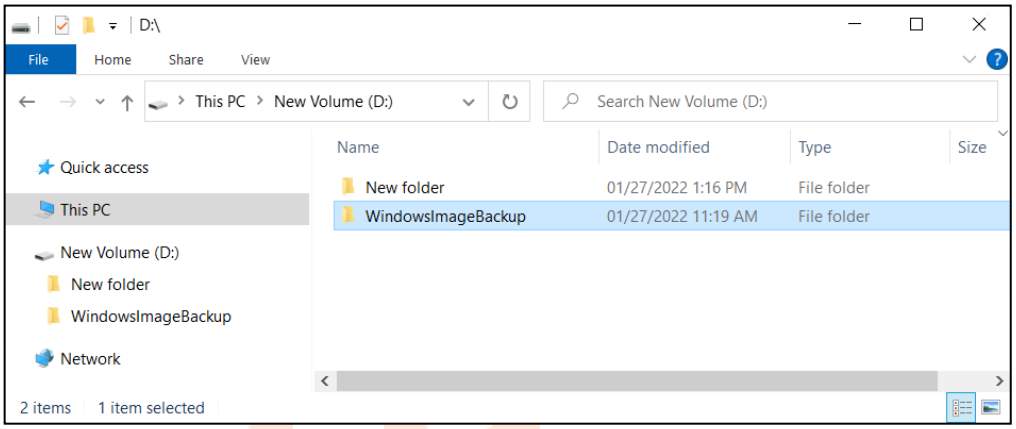
Click the **View Log** button; this will redirect you to the log summary of the restore report.




Report
Backup set MS Windows System Backup Set
Log 01/27/2022 11:19
Show All
Type
Log
Time
Start [B247Lite v9.1.0.1] 01/27/2022 11:19:12
Downloading... "D:\Microsoft_Windows_System_Backup" (Total 56.16G bytes) 01/27/2022 11:19:13
Downloading... "D:\Windows\ImageBackup\KMT-W10-2" (Total 0 bytes) 01/27/2022 11:19:13
Downloading... "D:\Windows\ImageBackup\KMT-W10-2\Backup 2022-01-27 014704" (Total 0 bytes) 01/27/2022 11:19:13
Downloading... "D:\Windows\ImageBackup\KMT-W10-2\Backup 2022-01-27 014704\9795d85d-0000-0000-0000-100000... 01/27/2022 11:19:13
Downloading... "D:\Windows\ImageBackup\KMT-W10-2\Backup 2022-01-27 014704\9795d85d-0000-0000-0000-501f00... 01/27/2022 11:19:21
Downloading... "D:\Windows\ImageBackup\KMT-W10-2\Backup 2022-01-27 014704\9795d85d-0000-0000-0000-80df13... 01/27/2022 12:41:22
Downloading... "D:\Windows\ImageBackup\KMT-W10-2\Backup 2022-01-27 014704\BackupSpecs.xml" (Total 1,792 bytes) 01/27/2022 12:42:33
Downloading... "D:\Windows\ImageBackup\KMT-W10-2\Backup 2022-01-27 014704\e9fe8421-8e8f-457d-a7d5-0f61d4a... 01/27/2022 12:42:33
Downloading... "D:\Windows\ImageBackup\KMT-W10-2\Backup 2022-01-27 014704\e9fe8421-8e8f-457d-a7d5-0f61d4a... 01/27/2022 12:42:33
Downloading... "D:\Windows\ImageBackup\KMT-W10-2\Backup 2022-01-27 014704\e9fe8421-8e8f-457d-a7d5-0f61d4a... 01/27/2022 12:42:33
Downloading... "D:\Windows\ImageBackup\KMT-W10-2\Backup 2022-01-27 014704\e9fe8421-8e8f-457d-a7d5-0f61d4a... 01/27/2022 12:42:33
Downloading... "D:\Windows\ImageBackup\KMT-W10-2\Backup 2022-01-27 014704\e9fe8421-8e8f-457d-a7d5-0f61d4a... 01/27/2022 12:42:33
Downloading... "D:\Windows\ImageBackup\KMT-W10-2\Backup 2022-01-27 014704\e9fe8421-8e8f-457d-a7d5-0f61d4a... 01/27/2022 12:42:33
Downloading... "D:\Windows\ImageBackup\KMT-W10-2\Backup 2022-01-27 014704\e9fe8421-8e8f-457d-a7d5-0f61d4a... 01/27/2022 12:42:33
Logs per page 50
Page 1 / 1
Close


Report
Backup set MS Windows System Backup Set
Log 01/27/2022 11:19
Show All
Type
Log
Time
Start [B247Lite v9.1.0.1] 01/27/2022 11:19:12
Downloading... "D:\Microsoft_Windows_System_Backup" (Total 56.16G bytes) 01/27/2022 11:19:13
Downloading... "D:\Windows\ImageBackup\KMT-W10-2" (Total 0 bytes) 01/27/2022 11:19:13
Downloading... "D:\Windows\ImageBackup\KMT-W10-2\Backup 2022-01-27 014704" (Total 0 bytes) 01/27/2022 11:19:13
Downloading... "D:\Windows\ImageBackup\KMT-W10-2\Backup 2022-01-27 014704\9795d85d-0000-0000-0000-100000... 01/27/2022 11:19:13
Downloading... "D:\Windows\ImageBackup\KMT-W10-2\Backup 2022-01-27 014704\9795d85d-0000-0000-0000-501f00... 01/27/2022 11:19:21
Downloading... "D:\Windows\ImageBackup\KMT-W10-2\Backup 2022-01-27 014704\9795d85d-0000-0000-0000-80df13... 01/27/2022 12:41:22
Downloading... "D:\Windows\ImageBackup\KMT-W10-2\Backup 2022-01-27 014704\BackupSpecs.xml" (Total 1,792 bytes) 01/27/2022 12:42:33
Downloading... "D:\Windows\ImageBackup\KMT-W10-2\Backup 2022-01-27 014704\e9fe8421-8e8f-457d-a7d5-0f61d4a... 01/27/2022 12:42:33
Downloading... "D:\Windows\ImageBackup\KMT-W10-2\Backup 2022-01-27 014704\e9fe8421-8e8f-457d-a7d5-0f61d4a... 01/27/2022 12:42:33
Downloading... "D:\Windows\ImageBackup\KMT-W10-2\Backup 2022-01-27 014704\e9fe8421-8e8f-457d-a7d5-0f61d4a... 01/27/2022 12:42:33
Downloading... "D:\Windows\ImageBackup\KMT-W10-2\Backup 2022-01-27 014704\e9fe8421-8e8f-457d-a7d5-0f61d4a... 01/27/2022 12:42:33
Downloading... "D:\Windows\ImageBackup\KMT-W10-2\Backup 2022-01-27 014704\e9fe8421-8e8f-457d-a7d5-0f61d4a... 01/27/2022 12:42:33
Downloading... "D:\Windows\ImageBackup\KMT-W10-2\Backup 2022-01-27 014704\e9fe8421-8e8f-457d-a7d5-0f61d4a... 01/27/2022 12:42:33
Logs per page 50
Page 1 / 1
Close

The restored system image files are stored in the **WindowsImageBackup** folder in the restore location.



Important: In addition to the system image files, the **WindowsImageBackup** folder includes catalog files that contain information about all backups in there up to the current backup, and MediaId, that contains the identifier for the backup storage location.

This information is required to perform a recovery. Do not alter the directory structure or delete any file / folder within the **WindowsImageBackup** folder.

Copy the **WindowsImageBackup** folder with its content to the server that you want to perform the restore for or copy the folder to a network drive that is accessible to the server that you want to perform the restore for.

WindowsImageBackup folder must be stored at the root level of a volume (e.g. top-most level), unless you are copying the folder to a network drive.

Continue to the next section of the guide.

7.3 Recovering Your Server

You can recover perform a full-system (bare-metal) with the following tools:

Tool	What you can recover
Advanced startup option (in safe mode)	Full system recovery.
Advanced startup option (Windows installation media)	Full system recovery.

Note: *You can also perform the above tasks using wbadmin command. For the syntax of the command, refer to: http://go.microsoft.com/fwlink/?LinkId=140216*

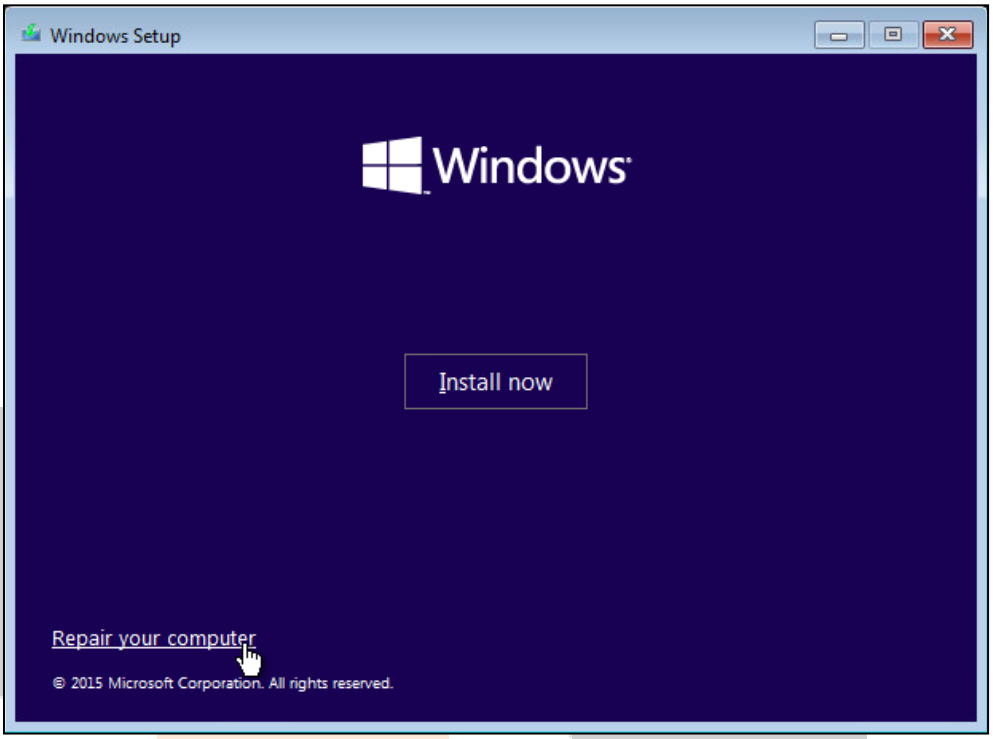
Recover a Full System

You can recover a full system using the advanced startup option by:

- **Booting from a Windows installation media**

  Insert the installation media that has the same architecture of the system that you are recovering and restart your computer. Press the required key to boot from the disc.

  When you see the **Windows Setup** page, click **Next**, then click **Repair your computer**.

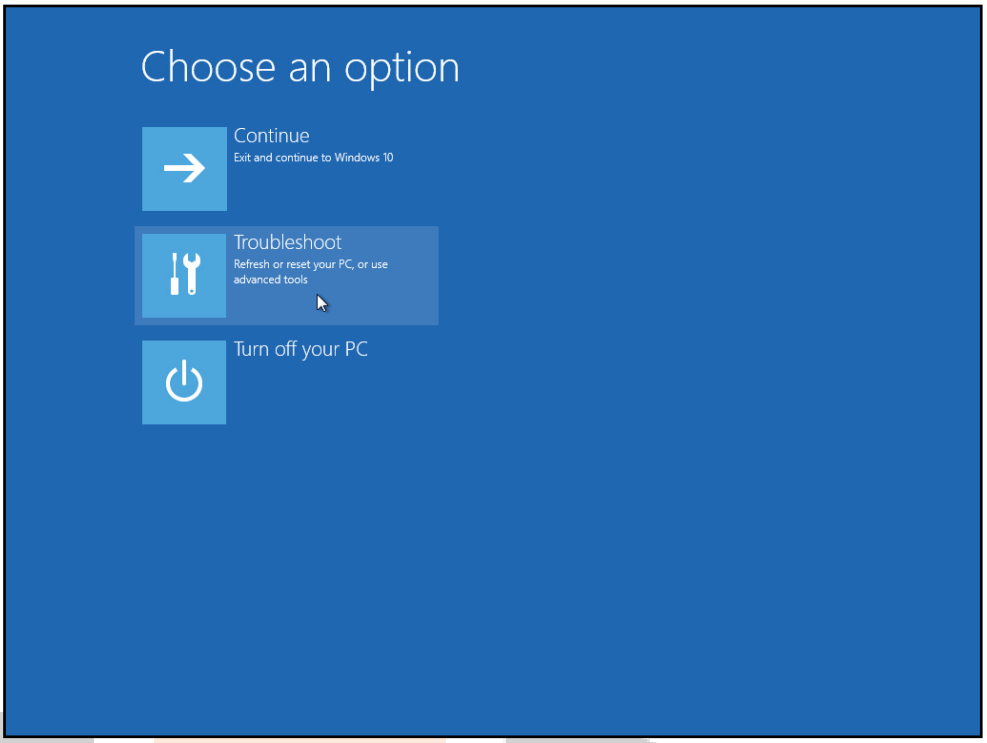


- **Starting Windows in safe mode**

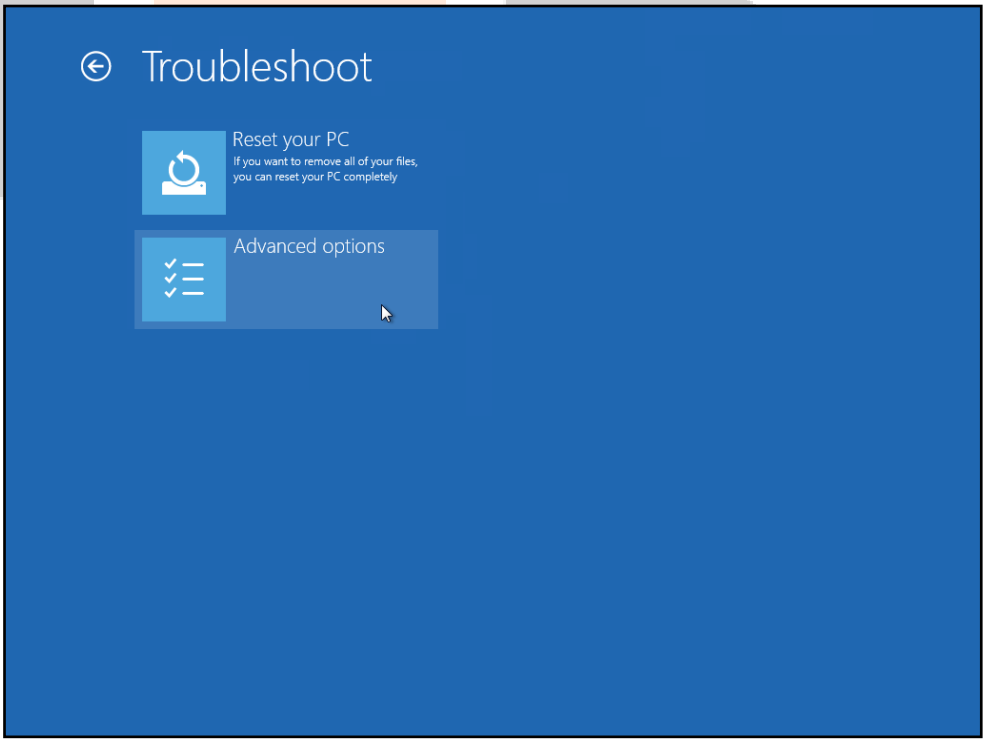
  Press the **Power** button at the Windows login screen. In the Start menu or in the Setting screen, press and hold the SHIFT key on the keyboard and click **Restart**.

Once you are in the Startup Option menu, perform the following steps.

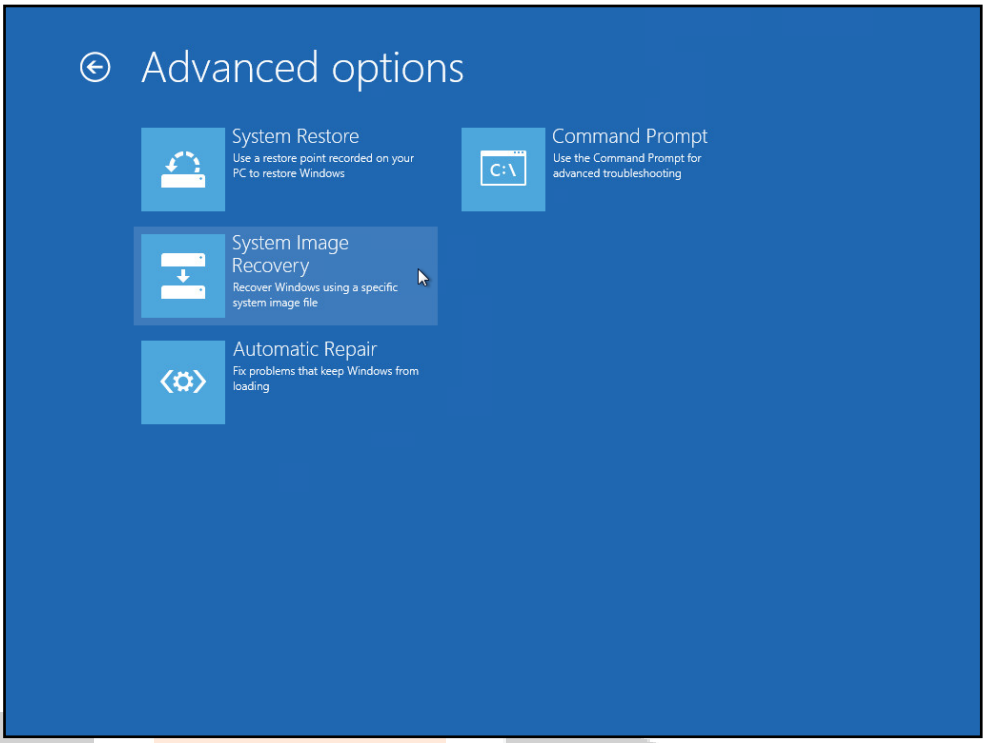
1. Click **Troubleshoot**.



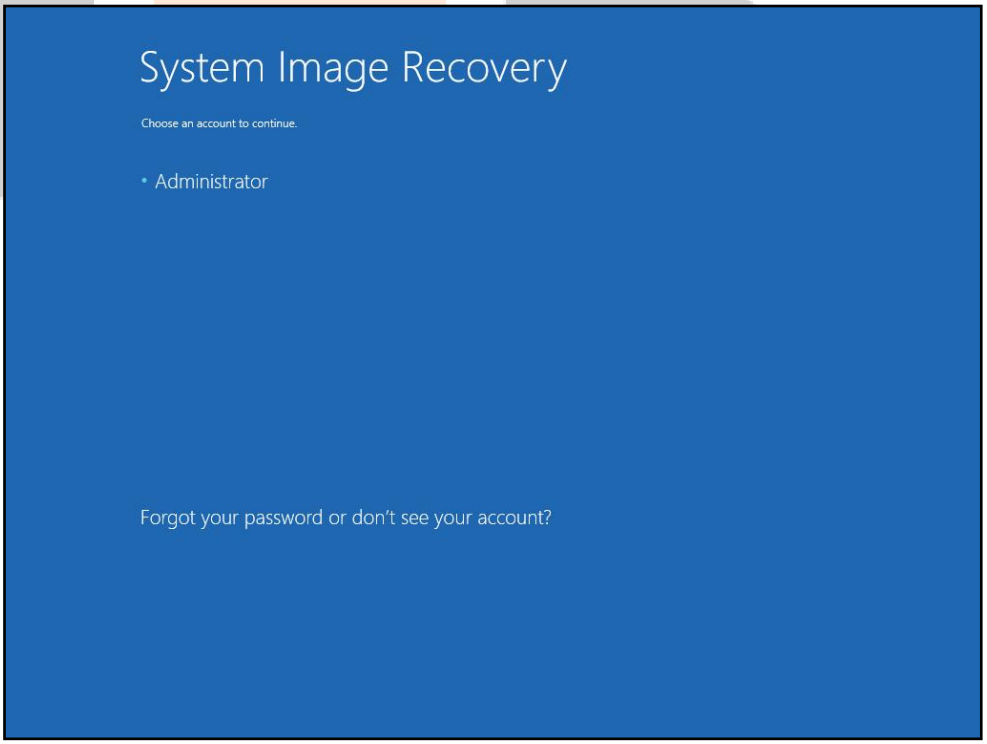
2. Click **Advanced** options.



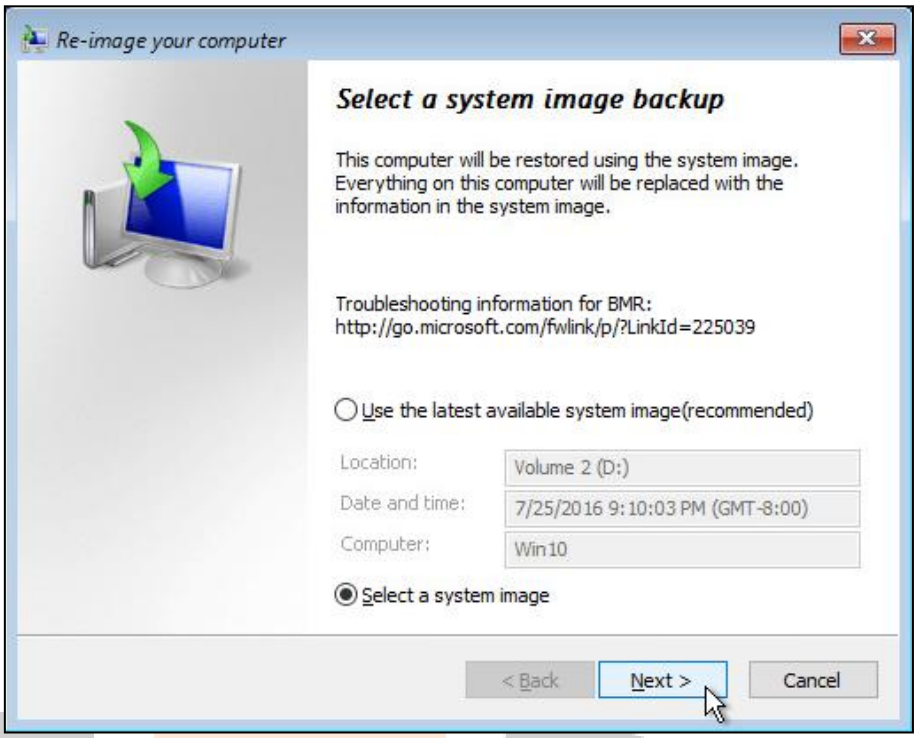
3. Click **System Image Recovery**.



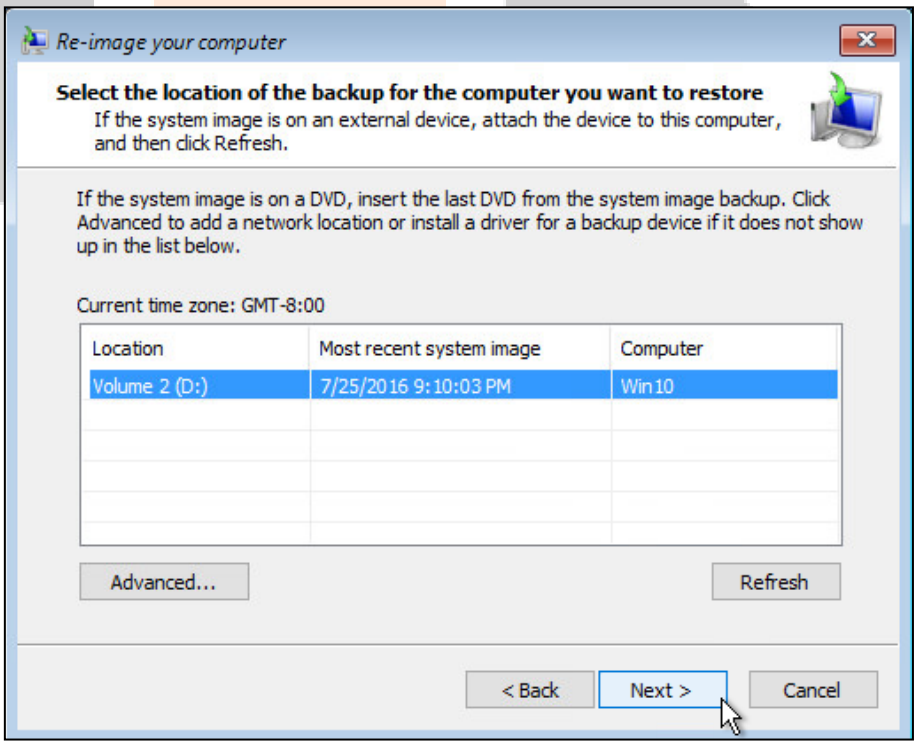
4. Log in with an administrative account by clicking on **Administrator**.



5. Click **Select a system image**, then click **Next**.



6. Select the location that contains the system image to restore from.



If you do not see the image available, then

- Click **Advanced** and install the required driver for the removable drive to be accessed, if the system image was copied to a removable drive attached to the server.

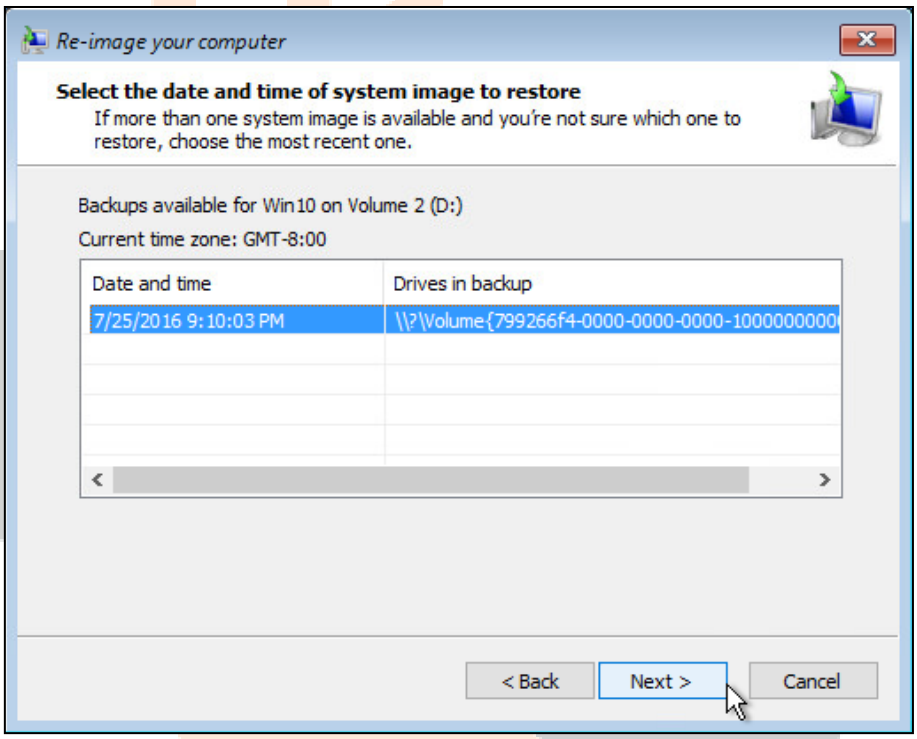
To install a driver, the driver must be located on the local system. You cannot install a driver from a network.

- Click **Advanced** and browse to the remote shared folder which contains the system image if the system image was copied to a network path.

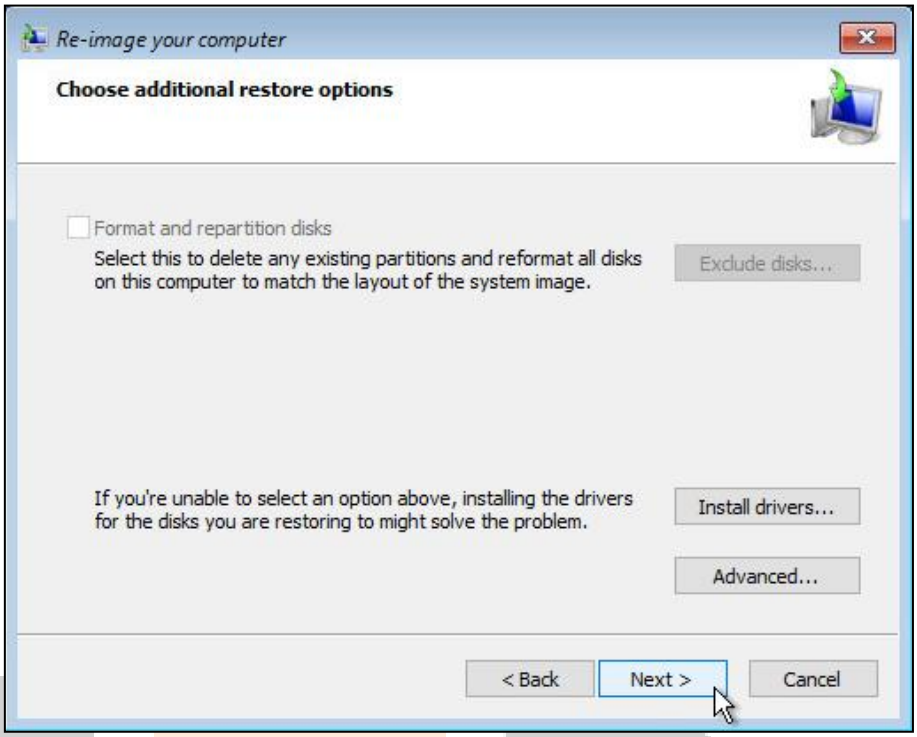
  For domain environment, if the backup storage location is on a computer that is a member of that domain, then the computer containing the storage location should be on the IPsec boundary, to be accessible by non-domain computer.

  When a computer boots into Windows Recovery Environment, it becomes a non-domain computer, therefore, cannot access the usual network shares. Only those computers that allow non domain computers to access the share can be used as a backup storage location in this way.

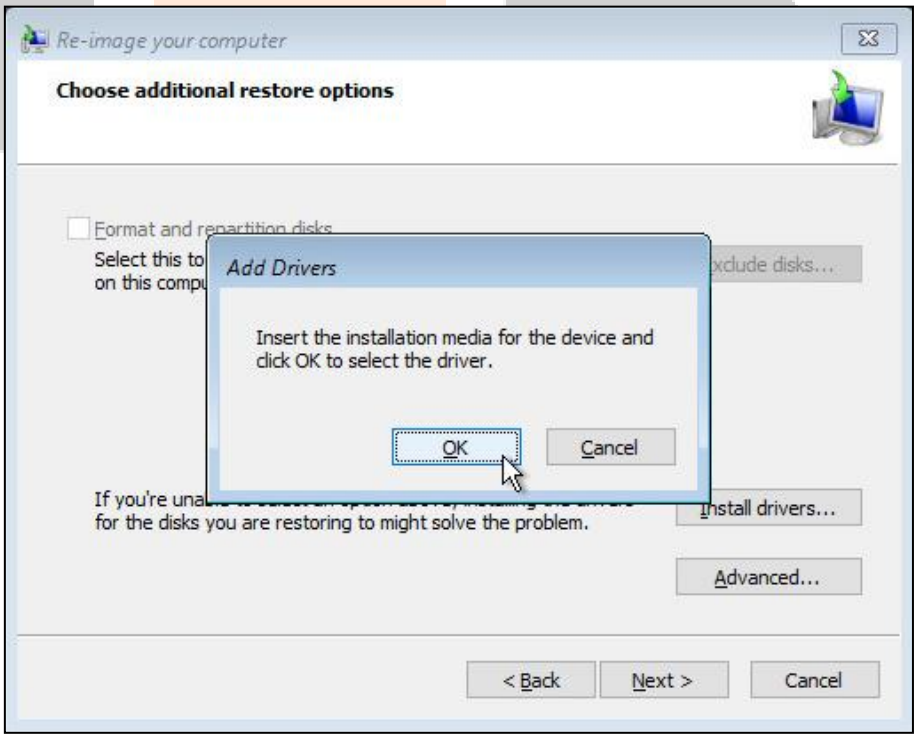
7. Select the system image to restore, then click **Next** to proceed.



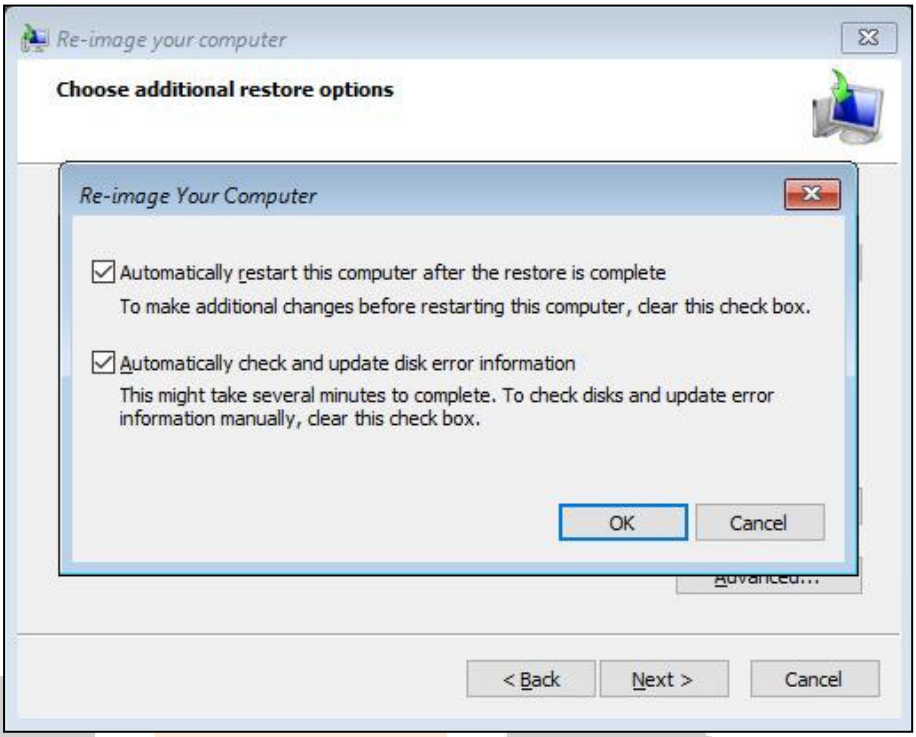
8. On the **Choose additional restore options** page, click **Install drivers** to install device drivers for the hardware that you are recovering to.



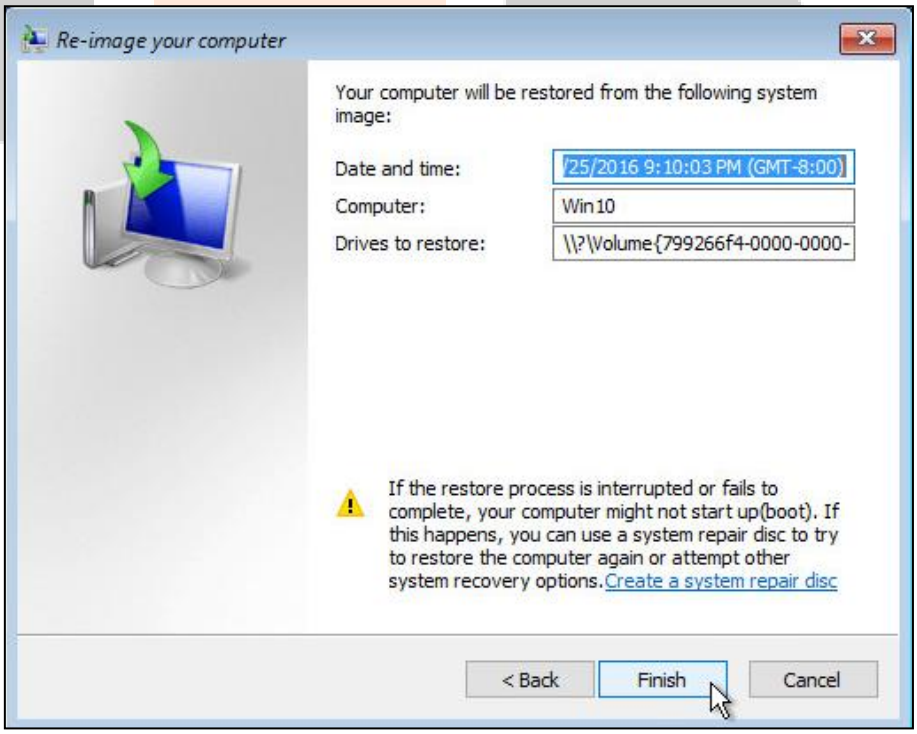
Click **OK** to add drivers.



Click **Advanced** to specify whether the computer is automatically restarted, and the disks are checked for errors immediately after the recovery.



9. Confirm the details for the restoration, and then click **Finish** to start the recovery process.



Important: Do not interrupt the restore process.

The recovery will succeed as long as all the critical volumes (e.g., volumes containing operating system components) are recovered.

8 Contact Backup247

8.1 Technical Assistance

To contact Backup247 support representatives for technical assistance, visit our website https://backup247.com.au/Support.php

8.2 Documentation

Documentations for all Backup247 modules, user guide and QuickStart are available on our website. Alternatively, email us on support@backup247.com.au for technical demo.

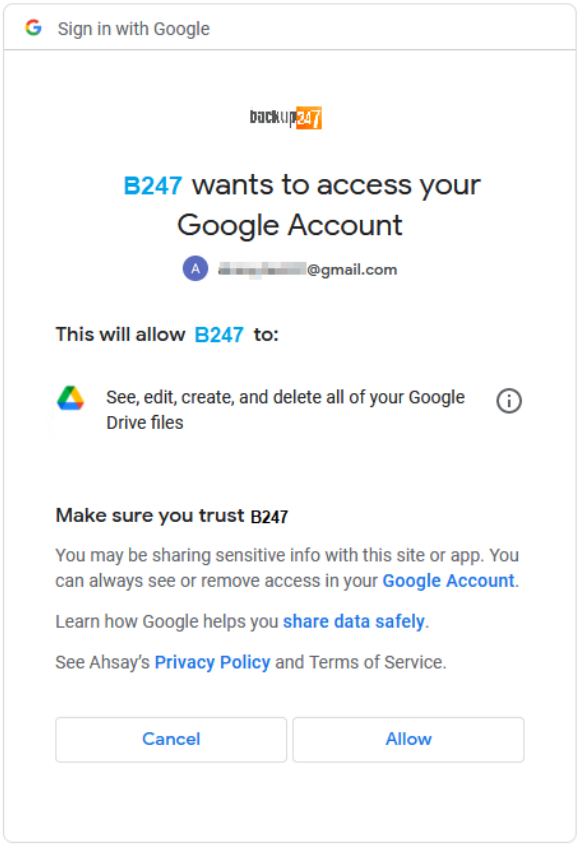
Appendix

Appendix A Cloud Storage as Backup Destination

For most cloud storage provider (e.g., Dropbox, Google Drive ... etc.), you need to allow access Backup247 Standard Backup Suite (B247LITE) to access the cloud destination. Click **OK** / **Test** to be prompted to log in to the corresponding cloud service.

Important: The authentication request will be opened in a new tab / window on the browser, ensure that the pop-up tab / window is not blocked (e.g., pop-up blocker in your browser).

Click **Allow** to permit Backup247 Standard Backup Suite (B247LITE) to access the cloud storage:



Enter the authentication code returned in Backup247 Standard Backup Suite (B247LITE) to complete the destination setup.

Note: *A backup destination can be set to a supported cloud storage, backup server, FTP / SFTP server, network storage, or local / removable drive on your computer.*

Multiple backup destinations can be configured for a single backup set. In fact, it is recommended for you to set up at least 2 backup destinations for your backup set.

For more details on backup destination, for example which cloud service providers are supported, destination type, or limitation, you can refer to this link:
FAQ: Frequently Asked Questions on Backup Destination