

# AOMEI® Centralized Backupper

## User Manual



**AOMEI Centralized Backupper**

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# 1 Getting Started

This section covers AOMEI Centralized Backupper's main features, the system requirements to run it, supported file systems and operating systems and storage media, to help you easily start your experience with AOMEI Centralized Backupper. Take some time to familiarize yourself with AOMEI Centralized Backupper's powerful and comprehensive features before getting started.

Additional assistance can be viewed at: [www.ubackup.com/abnet/help](http://www.ubackup.com/abnet/help)

A Glossary is contained in Chapter 8.

## 1.1 Overview of AOMEI Centralized Backupper

AOMEI Centralized Backupper, a reliable centralized backup management solution that enables you to create and manage backup tasks for all PCs, workstations, servers and virtual machines within LAN from a single central management computer.

- The easiest centralized backup software.
- Cut down backup administration costs and save much time for enterprises.
- Remotely monitor backup jobs for all your clients with the central control server.
- Centrally manage and backup of all these clients to a network share or NAS.

## 1.2 System Requirements and Supported Operating/File Systems

### Minimum Hardware requirements

- 1 Ghz x86 or compatible CPU
- 256MB RAM
- Mouse or another pointing device (recommended)
- 300 Mb of available disk space fo installation

### Supported Operating Systems

- Microsoft Windows 10 (all editions, 32-bit and 64-bit)
- Microsoft Windows 8/8.1 (all editions, 32-bit and 64-bit)
- Microsoft Windows 7 (all editions, 32-bit and 64-bit)
- Microsoft Windows Vista (all editions, 32-bit and 64-bit)
- Microsoft Windows XP (all editions, 32-bit and 64-bit)
- Microsoft Windows Server 2019 (all editions)
- Microsoft Windows Server 2016 (all editions)
- Microsoft Windows Server 2012 and 2012 R2 (all editions)
- Microsoft Windows Server 2008 and 2008 R2 (all editions, 32-bit and 64-bit)
- Microsoft Windows Server 2003 and 2003 R2 (all editions, 32-bit and 64-bit)

- Microsoft Windows Home Server (WHS) 2011
- Windows Small Business Server (SBS) 2011

### Supported File Systems

- NTFS
- FAT16
- FAT32
- ReFS
- Ext2/3
- ExFAT

For ReFS, Ext2/3, ExFAT file systems and other known file systems, Backupper will image the partition with sector-by-sector way.

AOMEI Centralized Backupper supports almost all storage devices recognized by Windows, such as IDE, SATA, SCSI, SSD, USB external disks, RAID (Redundant Array of Independent Disks) and NAS (Network Attached Storage).

Additionally, AOMEI Centralized Backupper supports MBR (Master Boot Record) and GPT (Globally unique identifier Partition Table) disk standards and works effectively with the UEFI (Unified Extensible Firmware Interface) start-up process.

## 1.3 Install and Uninstall

### Install Software

#### ● Server software installation

AOMEI Centralized Backupper is the central console for managing all backups. Please install AOMEI Centralized Backupper on the Server side (you can select one PC, Workstation or Server as server side).

#### ● Client software installation

Client software will be needed to perform backups on the machines managed by AOMEI Centralized Backupper. Please install AOMEI Backupper on the client computers. There are two ways to install:

**Manual Client Install:** Copy AOMEI Backupper setup program to client computers, and then run it as administrator to install. When the pop-up window appears, click "Next" and follow the wizard installation guide. After the installation process has completed, you may be prompted to restart your computer to completely finish the installation. Once the installation process is completed, you can see the computers from AOMEI Centralized Backupper console under Computers Tab->Uncontrolled computers.

**Remote Client Install:** Install AOMEI Backupper via AOMEI Centralized Backupper console: Click "Install client program" under Uncontrolled computers -->"Remote Client Install". It will automatically detect all available computers within LAN, and you can also add computers manually via entering its NetBIOS name or IP address. After

that, please select listed client computers and then type into administrator accounts of these computers to install. Once the installation process is completed, you can see these computers from AOMEI Centralized Backupper console under Computers Tab->Controlled computers.

## Uninstall Software

You can uninstall AOMEI Centralized Backupper or AOMEI Backupper client software using one of the following methods:

1. Go to Start Menu -> All Programs -> AOMEI Centralized Backupper -> Uninstall AOMEI Centralized Backupper.
2. Go to Windows Control Panel -> Programs and Functions->select AOMEI Centralized Backupper to uninstall.
3. Remote Client Uninstall: This way enables you to remotely uninstall AOMEI Backupper for clients via AOMEI Centralized Backupper console. Click "**Controlled Computers**"-->"**Manage client program**"-->"**Uninstall client program**"-->"**Remote Client Uninstall**".

### Note:

- You can find AOMEI Backupper setup program in package folder under the installation directory of AOMEI Centralized Backupper. Or, you can manually download AOMEI Backupper setup program from the download link you get.
- After the uninstallation process has completed, you may be prompted to restart your client computers to completely finish the uninstallation.
- You can also remotely update client software via AOMEI Centralized Backupper console-->"Controlled Computers"-->"Manage client program"-->"Update client program"-->"Remote Client Update" with the same flow as remote installation.

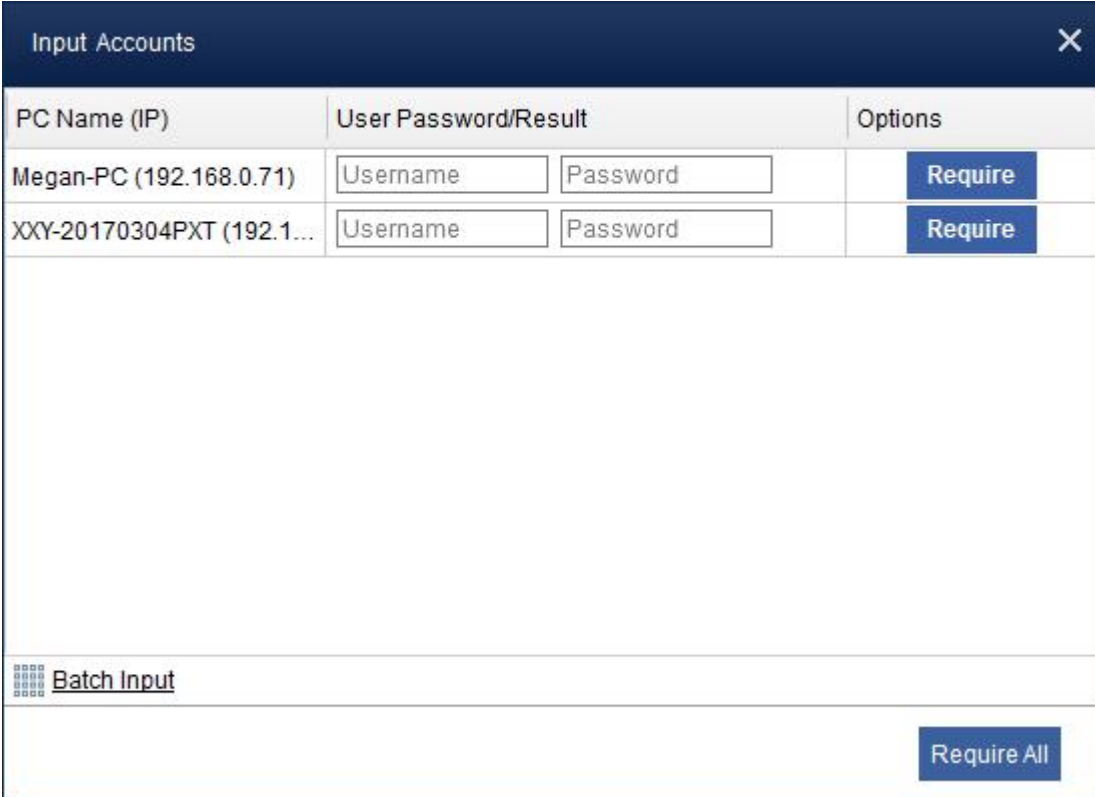
## 2 Obtain control permissions from clients

In order to create and manage backups of client computers from the central console, AOMEI Centralized Backupper first needs to obtain control permissions from client computers.

Go to **Computers** tab, and click **Uncontrolled Computers**, in which shows a list of computers that can be controlled. Select computers you need to obtain the control permissions, then click **Request Control** to obtain permissions, there are two ways to do that:

### 2.1 By entering accounts

It allows you to enter client computers' login credential (administrator account is required) to acquire control permissions.

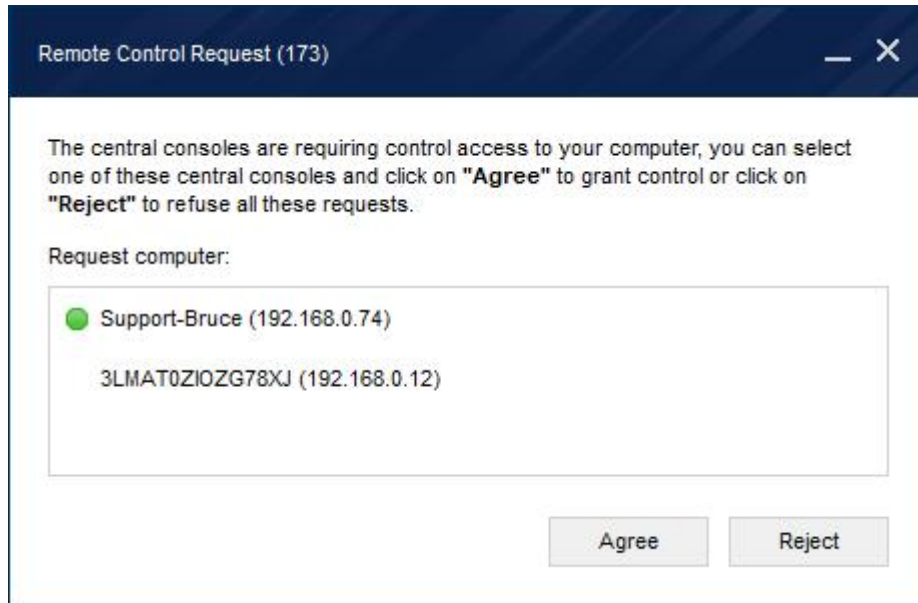


PC Name (IP)	User Password/Result		Options
Megan-PC (192.168.0.71)	<input type="text" value="Username"/>	<input type="text" value="Password"/>	<input type="button" value="Require"/>
XXY-20170304PXT (192.1...)	<input type="text" value="Username"/>	<input type="text" value="Password"/>	<input type="button" value="Require"/>

Tips: You can **Batch Input** administrator accounts of clients to acquire control of multiple clients.

## 2.2 By sending a message

It will send a message to your client computers to obtain the permissions, which shows up with a window to **Agree** or **Reject** on client computers. Please click Agree or Reject the control request.



After control permissions are granted, you can see those added computers in **Controlled Computers** under Computers tab in AOMEI Centralized Backupper console. After that, you can create backup for these controlled computers.

**Note:**

- AOMEI Centralized Backupper console has obtained control permissions of these clients installed client software via remote installation way. You can directly see these computers from AOMEI Centralized Backupper console under Computers Tab->Controlled computers.
- You can add multiple controlled computers to a group via **Add Group** in order to classify client computers for better management. For example, you can select a group you created to create backup, so it will create the same backup task for all computers under the group.
- If client computers haven't been registered, you can enter license code of AOMEI Backupper to register from AOMEI Centralized Backupper remotely.
- If you right-click a controlled client, you can View Details, View Logs and Cancel Control of client. You can check client computer's Disk Info and Task Info of local and created by AOMEI Centralized Backupper in View Details.
- If a client is occupied by another server, you need to cancel control from this client (open client software, then Cancel Control under the three-line button on the upper right side of the main window), and then AOMEI Centralized Backupper can control it again.



## 3 Create/Manage Backup Tasks

After you control client computers, you can create **File Backup**, **File Sync**, **System Backup**, **Disk Backup** and **Partition Backup** for these client computers via AOMEI Centralized Backupper.

### 3.1 File Backup

File backup can help you back up files and folders to an image file so that you can have a copy for your important files and folders.

Go to **Tasks** Tab, click **New Task**, and select **File Backup**. Or, you can directly click **File Backup** on **Home** screen.

1. Select **“Add Computers”** in **Step 1** to add these client computers you want to do file backup.
2. Hit **“Select the source data you need to backup”** in **Step 2**:
  - **Select items based on each client**: manually select files/folders path of one client computer you want to back up.
  - **Select items based on backup rules**: please enter file's/folder's path or environment variable as the rule to match backup source. But network path is not accepted.

For example, backup User folder under C: drive of all clients you added, you can use C:\Users as a backup rule.

Or, you set “%Temp%” as backup rule, it will back up all Temp folder under different paths of all clients you added. Note, Temp is an environment variable.

3. Click **“Select a location as the destination path”** in Step 3: right click **“Share or NAS device”** or select **“Add Storage”** button to add storage path.
4. Click **“Start Backup”** to create the task or execute the task.

#### Note:

- More advanced options for the current backup task can be set via **Settings**, **Schedule** and **Scheme**.
- You only can modify backup task name during creating task via AOMEI Centralized Backupper.
- If you create a group to manage client computers, you can directly add this group in Step 1 (Add Computers) to create backup for all computers under the group.
- AOMEI Centralized Backupper currently doesn't support backing up files/folders from Network/Shared drive.

- AOMEI Centralized Backupper only supports saving backup to Network/Shared drive.

## 3.2 File Sync

File Sync allows you to synchronize files/folders to Network Drive. File Sync copies the individual files/folders similar to a Window's "copy" command and therefore does not compressed to an image file. Instead, files and folders can be easily accessed in the destination.

Go to **Tasks** Tab, click **New Task**, and select **File Sync**. Or, you can directly click **"File Sync"** on **Home** screen.

1. Select **"Add Computers"** in **Step 1** to add these client computers you want to do file sync.
2. Hit **"Select the source data you need to backup or sync"** in **Step 2**:
  - **Select items based on each client**: manually select files/folders path of one client computer you want to sync.
  - **Select items based on sync rules**: please enter file's/folder's path or environment variable as the rule to match sync source. But network path is not accepted.

For example, sync Users folder under C: drive of all clients you added, you can use C:\Users as a sync rule.

Or, you set "%Temp%" as sync rule, it will sync all Temp folder under different paths of all clients you added. Note, Temp is an environment variable.

3. Click **"Select a location as the destination path"** in Step 3: right click **"Share or NAS device"** or select **"Add Storage"** button to add sync's destination.
4. Click **"Start Sync"** to create the task or execute the task.

### Note:

- More advanced options for the current backup task can be set via **Settings** and **Schedule**.
- You can enable **"Real Time Sync"** task under **Schedule**.
- You only can modify backup task name during creating task via AOMEI Centralized Backupper.
- If you create a group to manage client computers, you can directly add this group in Step 1 (Add Computers) to create backup for all computers under the group.
- AOMEI Centralized Backupper currently doesn't support syncing files/folders from Network/Shared drive.
- AOMEI Centralized Backupper only supports syncing file to Network/Shared drive.

- After backup tasks are created, you can also check and run them from clients.

### 3.3 System Backup

System backup will enable you to back up your system drive completely, including applications, drivers, configuration settings, system files and boot files.

Go to **Tasks** Tab, click **New Task**, and select **System Backup**.

1. Select “**Add Computers**” in **Step 1** to add these client computers you want to back up. It will recognize system partitions of your client computers automatically as the backup source.
2. Click “**Select a location as the destination path**” in **Step 2**: right click “**Share or NAS device**” or select “**Add Storage**” button to add storage path.
3. Click “**Start Backup**” to create the task or execute the task.

#### Note:

- More advanced options for the current backup task can be set via **Settings**, **Schedule** and **Scheme**.
- You only can modify backup task name during creating task via AOMEI Centralized Backupper.
- If you create a group to manage client computers, you can directly add this group in Step 1 (Add Computers) to create backup for all computers under the group.
- System backup task will select “system” partition, “boot” partition(C: drive) and system’s recovery partition as source by default.
- AOMEI Centralized Backupper only supports saving backup to Network drive.
- After backup tasks are created, you can also check and run them from clients.

### 3.4 Disk Backup

Disk backup will back up all partitions or volumes on this disk. It supports backing up MBR disks, GPT disks, external hard drives, USB disks, and other storage devices that can be recognized by Windows. And, if you back up a system disk, it will back up all partitions, include system partitions, after restoring it, the restored disk can also be booted directly.

Go to **Tasks** Tab, click **New Task**, and select **Disk Backup**.

1. Select “**Add Computers**” in **Step 1** to add these client computers you want to back up.
2. Hit “**Select the source data you need to backup**” in **Step 2**:

- **Select data based on client:** manually select disks of one client computer you want to back up, so that all the selected disks available on other clients will be included.
  - **Select data based on backup rules:** there are several alternative backup rules.
    - 1) all disks: backup all local disks, including internal and external disks.
    - 2) disks containing system partitions: backup disks containing system partitions with “boot” and “system” flag, generally including C: drive and hidden boot system partitions.
    - 3) disks containing partitions with specified drive letters: backup disks containing at least one partition with drive letters you specified. You can specify multiple drive letters.
    - 4) disks containing partitions with matching labels: backup disks containing at least one partition with labels you specified. The specified text is case-insensitive.
3. Click “**Select a location as the destination path**” in Step 3: right click “**Share or NAS device**” or select “**Add Storage**” button to add storage path.
  4. Click “**Start Backup**” to create the task or execute the task.

**Note:**

- More advanced options for the current backup task can be set via **Settings**, **Schedule** and **Scheme**.
- You only can modify backup task name during creating task via AOMEI Centralized Backupper.
- If you create a group to manage client computers, you can directly add this group in Step 1 (Add Computers) to create backup for all computers under the group.
- When you use “**Select data based on client**” in Step2, you can click “**Matching clients**” label to see which clients meet the selected rules.
- Disk Backup task doesn't support dynamic disks.
- AOMEI Centralized Backupper only supports saving backup to Network drive.
- After backup tasks are created, you can also check and run them from clients.

### 3.5 Partition Backup

This option enables you to back up one or multiple partitions/volumes (including dynamic volumes) to an image file. If you just want to back up particular partitions and volumes rather than the entire disk, this feature is the best choice.

Go to **Tasks** Tab, click **New Task**, and select **Partition Backup**.

1. Select “**Add Computers**” in **Step 1** to add these client computers you want to back up.
2. Hit “**Select the source data you need to backup**” in **Step 2**:
  - **Select data based on client**: manually select partitions of one client computer you want to back up. So that all the selected partitions available on other clients will be included.
  - **Select data based on backup rules**: there are several alternative backup rules.
    - 1) partitions with specified with drive letter: backup partitions with drive letters you specified. You can specify multiple drive letters.
    - 2) partitions with matching labels: backup partitions with labels you specified. The specified text is case-insensitive.
    - 3) partition index: backup the Nth partitions on specified disk, for example, the second partition on disk 0.
3. Click “**Select a location as the destination path**” in Step 3: right click “**Share or NAS device**” or select “**Add Storage**” button to add storage path.
4. Click “**Start Backup**” to create the task or execute the task.

**Note:**

- More advanced options for the current backup task can be set via **Settings**, **Schedule** and **Scheme**.
- You only can modify backup task name during creating task via AOMEI Centralized Backupper.
- If you create a group to manage client computers, you can directly add this group in Step 1 (Add Computers) to create backup for all computers under the group.
- When you use “**Select data based on client**” in Step2, you can click “**Matching clients**” label to see which clients meet the selected rules.
- AOMEI Centralized Backupper only supports saving backup to Network drive.
- After backup tasks are created, you can also check and run them from clients.

### 3.6 Manage Backup Task

After creating backup tasks, they will be listed under **Tasks** Tab, you can view the status of these tasks. There are several available features for a single task management: **Backup**, **Advanced**, and **Add/Remove Computers**.

#### Backup

You can manually run the task with Full, Incremental or Differential backups.

- **Full Backup** will takes a snapshot of all the data on the selected folders, partitions or disks at the time the backup is performed and saves it to an image file. It is always the basis of any incremental and differential backup. Once you have performed a Full backup, you can create Incremental and Differential backups.
- **Incremental backup** takes a snapshot only of the changed and newly added data based on the previous related backup, either a full or incremental backup depending on what was last done. Data that have not changed will not be backed up. Thus, the time and image storage space required for incremental backups are both less than a full backup. A Full Backup must exist as the start point of a series of incremental backups. A typical set would be in time sequence. All the image files in an incremental backup series share a sequential relationship and data can be recovered to the state when any Incremental Backup was done. If any one of the incremental image files in the sequence is damaged or missing, then subsequent image files will be invalid.
- **Differential Backup** is always directly related to its originating Full Backup. It will back up all data added and changed since the Full backup was done. Therefore, compared to a full backup, the backup time and image file storage space required are both less. If one of the differential backup image files becomes damaged or lost, it will not affect others. All data can be returned to the state when the Differential Backup was done. If there are a lot of changes made to the data between backups, then each Differential Backup will become progressively larger, because each one will contain more changes made since the last Full Backup was done. Compared to Incremental back up, Differential Backup costs more time and requires more disk space but is more robust in terms of being able to restore when preceding differential backups are damaged or missing.

### Advanced

Click the "Advanced" button and you will see more functions (Edit Backup, Restore, Clone Task, Delete, Properties) to help you manage this backup task.


- **Edit Backup:** you can modify this backup task after a backup is complete from here. You can add new clients or remove unnecessary clients from this backup task. In addition, you can enable "Schedule" feature for this task if you have not enabled it during creating a task.
- **Clone Task:** When you need to perform the same type of backup with an existing backup task for other client computers, you can clone this backup task without creating a brand-new backup task. You can just re-edit the cloned task, for example, modify the task name, change the backup source and destination, add/remove computers and modify backup settings.
- **Delete Backup:** You can delete this task only from the central console or client computers. Or delete the task and image files from the central console and client computers.

- **Properties:** You can view more detailed information about this backup task. For example, you can view Task Name, Backup Type, Created time, Last Backup Time, Scheduled Backup, Image Path, and Comments, etc.

### Add/Remove Computers

You can select **Add Computers** to add those controlled client computers with same backup goal (e.g. all need to back up C:\ partition) based on this task or Click **Remove** to remove those computers that are no longer needed to back up with this task.

### Notes:

- If you are running a task for the first time, then the task will perform a full backup. After running this backup task, you can rerun it as full/incremental or differential backup.
- This version cannot perform Restore operation remotely. If you want to perform Restore operation, go to the client computer and run AOMEI Backupper to perform Restore.
- You can check backup status quickly by unfold  button of a single task.
- You can view the tasks or logs under Logs tab on the toolbar.

## 4 Scheduled Backup

An automatic backup will make backing up your information much easier. You can set up a schedule to run full, incremental or differential backups automatically with daily, weekly, monthly mode.

To set the scheduled backup:

Select "**Task**" Button->Create "**New Task**" ->Check "**Schedule**" ->Select client computers-> Set schedule backup.

You can also enable or modify the "**Schedule**" feature after backup task is created under "**Advanced**"->"**Edit Backup**" on the task.

Schedule Type Settings:

### 4.1 Once

Set a time point to perform backup only once.

### 4.2 Daily Mode

1. Set a time point to perform backup once every day.

2. Set a time frame in a day first, then choose the time interval between each backup and the program will perform backup at intervals of 1, 2, 3, 4 or 6 hours within this time frame every day.

### 4.3 Weekly Mode

Choose the day(s) for the backup from Monday to Sunday. And then, set a time point and the program will automatically perform backup at a given time point on the chosen day(s) of every week.

### 4.4 Monthly Mode

1. Specify one day to perform the backup task each month. For example, you can let the program perform the backup on the third Tuesday in every month.
2. Choose one day from the calendar to perform backup in every month. And, you can also click multiple days on the calendar.

#### Note:

- In the “**Advanced**” tab of Schedule Settings, you can choose a schedule backup way: Full Backup, Incremental Backup (Default), Differential Backup. For example, you select Incremental Backup (Default) and it will perform full backup at first time, then create incremental backup every time at the schedule time.
- When you add multiple clients, you can set schedule for all computers or only partial computers.
- If you need to close schedule of backup task, you can find the task under Task, and then uncheck Scheduled Task.

## 5 Backup Scheme

The Backup Scheme (or Backup Strategy) feature automatically manages and saves disk space usage as a result of having many image files.

The Backup Scheme feature can be enabled by using one of the following methods.

**Method 1.** In the process of creating a backup task in the AOMEI Centralized Backupper paid version, select the “**Scheme**” button to set it.

**Method 2.** Enable or modify the “**Scheme**” after backup task is created under “**Advanced**”->“**Edit Backup**” on the task.

### Detailed Introduction of the Backup Scheme

#### 5.1 Full Backup Scheme



1. Always retain the latest xxx versions of full backup image files. When it exceeds the number of versions, the older full backup image file will be deleted automatically.
2. The Full Backup Scheme is like a circular queue. When the queue is full, and as new members want to join the queue, then the oldest members will be removed from the queue.

### Example:

It is assumed “3” is set, which means to always retain the latest 3 versions of full backup image files. When 3 versions are exceeded, the oldest version of the backup image file will be deleted automatically. So, if there are FULL.adi, FULL1.adi, FULL2.adi, and after creating a new full backup FULL3.adi, the older backup FULL.adi will be deleted automatically.

If you tick “**Create a full backup and always retain it before performing the scheme**” option, it will first create a FULL backup before backup scheme circular queue and the full backup will always be retained, the procedure is:

**FULL→FULL1→FULL2→FULL3→FULL4 (delete FULL1)→FULL5 (delete FULL2)→FULL6 (delete FULL3)→FULL7 (delete FULL4)→.....**

If you don’t tick the option, the procedure will be:

**FULL→FULL1→FULL2→FULL3(delete FULL)→FULL4 (delete FULL1)→FULL5(delete FULL2)→FULL6 (delete FULL3)→.....**

Note: The minimum reserved version is 1, the maximum reserved version is 10.

## 5.2 Incremental Backup Scheme

1. Always retain the latest one set of backups. Specify xxx backups in this set. When the number of backups in this set is exceeded, it will start the next set backup. A set of backups is composed of a full backup and multiple incremental backups.
2. The Incremental Backup Scheme is like a group queue. The former group must be removed from the queue when the later group meets the requirement of joining the queue.

### Example:

We assume that you have set “3”, and tick the “**Create a full backup and always retain it before performing the scheme**” option, it will first create a FULL backup before backup scheme circular queue and the full backup will always be retained. The procedure is:

**FULL (original full backup)→FULL1→INC1→INC2→FULL2→INC3→INC4(delete FULL1, INC1, INC2) →FULL3→INC5→INC6 (delete FULL2, INC3, INC4)→.....**

If you don’t tick the option, the procedure will be:

**FULL (original full backup)→INC1→INC2→FULL1→INC3→INC4(delete FULL, INC1, INC2) →FULL2→INC5→INC6 (delete FULL1, INC3, INC4)→.....**

Note: The minimum reserved version is 2, the maximum reserved version is 100.

### 5.3 Differential Backup Scheme

1. Always retain xxx versions of backup image files. When it exceeds the number of versions, the older backup image files will be deleted automatically.
2. The Differential Backup Scheme will create a full backup and multiple differential backups as one group. It will first delete the differential backup one by one during one group, then delete the full backup of the group.

#### Example:

We assume that you have set “3”, and tick the “**Create a full backup and always retain it before performing the scheme**” option, it will first create a FULL backup before backup scheme circular queue and the full backup will always be retained. The procedure is:

**FULL(original)→FULL1→DIFF1→DIFF2→FULL2(deleteDIFF1)→DIFF3(deleteDIFF2)→DIFF4 (delete FULL1)→FULL2(delete DIFF3)→.....**

If you don't tick the option, the procedure is:

**FULL(original)→DIFF1→DIFF2→FULL1(deleteDIFF1)→DIFF3(deleteDIFF2)→DIFF4(delete FULL)→FULL2(delete DIFF3)→.....**

Note: The minimum reserved version is 2, the maximum reserved version is 100.

### 5.4 Space Management Scheme

1. Please specify for the scheme that creates XXX backup versions as one group. It will run as the differential backup way and it is the extension of Differential Backup.
2. The Space Management Scheme will create a full backup and multiple differential backups as one group. When backup versions exceeds one backup group, if the program detects insufficient space when performing the new backup, old backup image files will be deleted to free up disk space for storing the new backup image files.
3. The scheme will first delete the differential backup one by one during one group, then delete the full backup of the group.

#### Example:

We assume you set to create 3 versions as one group and tick the “**Create a full backup and always retain it before performing the scheme**” option, it will first

create a FULL backup before backup scheme circular queue and the full backup will always be retained. The procedure is:

#### **Full (Original full**

**backup)→FULL1→DIFF1→DIFF2→FULL2→DIFF3→DIFF4→FULL3→DIFF5→DIFF6→FULL4 (If there is not enough space when doing this backup, Backupper will delete DIFF1 and if space is still not enough, Backupper will delete DIFF2...FULL1...DIFF3)**

If you do not tick the option, the procedure is:

**FULL→DIFF1→DIFF2→FULL1→DIFF3→DIFF4→FULL2→DIFF5→DIFF6→FULL3(If there is not enough space when doing this backup, Backupper will deleteDIFF1 and if space is still not enough, Backupper will delete DIFF2...FULL..DIFF3...)**

## **5.5 Other Scheme**

There are two ways to delete the previous versions of backup image file, as follows.

1. **By time.** When it exceeds XXX Days/Weeks/Months/Years, it will create a new full backup, and then delete all previous backup files.

For example, it is assumed you set to create a new full backup when it exceeds “3 days”. If it has created FULL.adi, INC1.adi, INC2.adi, INC3.adi, and INC4.adi during three days, then creating FULL2.adi automatically at the fourth day, these previous versions (FULL1.adi, INC1.adi... INC4.adi) will be deleted.

If you tick “**Do not delete the image file of the first backup during disk space management**” option, the procedure is:

**FULL(original Full Backup)→FULL1→INC1→INC2→INC3→INC4→FULL2 (delete FULL1, INC1, INC2, INC3, INC4) →INC5→INC6...→FULL3 (delete FULL2, INC5, INC6...)**

**By version.** Automatically delete the previous XXX versions of backup image files after the next full backup finishes.

For example, it is assumed you set to delete previous “3 versions”, so it will create a full backup after 3 backup versions and then delete previous 3 older versions. If there are FULL1.adi, INC1.adi and INC2.adi, then it will create FULL 2.adi, then delete FULL1.adi, INC1.adi and INC2.adi.


If you tick “**Do not delete the image file of the first backup during disk space management**” option, the procedure is:

**FULL (original Full Backup)→FULL1→INC1→INC2→FULL2 (delete FULL1, INC1 and INC2) →INC3→INC4→FULL3 (delete FULL2, INC3 and INC4)**

**Note:**

- If you have done several backups (Full, INC, DIF) before enabling backup scheme via "Advanced" -> "Edit Backup" -> "Scheme" on a task, these backup files will not be deleted by the scheme.
- If you use different backup way on Schedule Settings and Backup Scheme, the backup will be performed as the way in backup scheme. For example, you set an incremental schedule backup and select differential backup scheme, so it will create differential backups.
- If you have performed some backups with a backup scheme and then you change the backup scheme, for example, change Incremental Backup Scheme to Space Management Scheme, it will restart the backup queue with the new backup scheme and those backup files generated during using previous backup scheme will not be deleted.
- For Space Management Scheme, if backup versions don't exceed one backup group and then the storage space is insufficient, it will not delete old backup files to free up space. So, please confirm that there is enough space to save backup versions of one group.

## 6 Backup Settings

Customizing backups is based on your preferences and needs. For example, add comments, encrypt backup images with passwords, choose backup compression level, split backup images and so on. You can find Settings under the button  in the top right corner of the program to do global settings. And, there is also a Settings when creating backup task. And, the former's change will sync to the latter.

### 6.1 Compression

Determine a proper compression level for your backup task. The Normal option is selected by default and is recommended, but you may also select Higher or None. See more details as follows:

- **None:** Data will be imaged without any compression, so the image file size will be equal to your original data.
- **Normal:** Data will be compressed to a moderate level. It is a recommended compression level. (Default).
- **High:** A much higher compression level is used during the backup. The image file will be smaller than other levels, but the backup will take a longer time to complete.

Please note some kinds of files are essentially compressed, such as .jpg, .pdf or .mp3. If your backup contains many such files, then the generated image file might not obviously decrease even when High compression level is selected.

## 6.2 Splitting

Image files can be split into several smaller files to fit into different smaller storage media. The program supports automatically splitting one image file into several parts during the backup process.

- **Automatic:** The split size depends on the file system of the destination storage medium.
- **Customized size:** Input a proper value and the image will be split to this size. Note that the minimum file size is 50MB.

## 6.3 Intelligent Sector

AOMEI Centralized Backupper allows you to select different backup modes for System/Disk/Partition Backup.

- **Intelligent Sector Backup:** Only backs up the used sectors of file systems. This will reduce the size of image file and backup time.
- **Make an Exact Backup:** This method is also called Sector by Sector Mode. This will back up all sectors of the disks or partitions whether they are in use or not.

## 6.4 VSS

VSS is short for Volume Shadow Copy Service. This technology allows you to continue working while the backup is in progress. If you don't use VSS, the program will automatically use the built-in technique instead of live backup. Choose one of the modes to begin your backup task. We highly recommend you use the VSS service.

Note: There are several paths and file type are excluded by Microsoft VSS, like Windows Upgrade list and Outlook \*.OST file, you can select "Don't use VSS" to include them in the backup file. And, you can find the exclusion list of VSS under registry(regedit) path:

```
Computer\HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\BackupRestore\FilesNotToSnapshot
```

## 6.5 Notifications

In unattended operations, you may wish to be informed about the results of backup plans. This function can be used to send a report of the execution result to an email address you provide.

There are two SMTP servers for sending the email notification: **Hotmail Server** or **Gmail Server**.

Firstly, you need to input your Hotmail or Gmail account for the SMTP authentication and then type into an email address which the program will send the execution result to. So, it will use Hotmail or Gmail server to send the email notification.

Note: after you configure Email Notification under Backup Settings in the top right corner of the program, you need to **Enable email notification** when you create backup task under Settings-->General.

## 6.6 Simultaneous PCs

Generally, if there are too many clients (for example 10 or 20 computers) backing up to the same NAS or Network share storage simultaneously, it may lead to backup speed slow due to bandwidth pressure within same LAN. Therefore, AOMEI Centralized Backupper allows you to set suitable numbers of clients that can be backed up at the same time based on the LAN bandwidth and the storage server's capacity. E.g.: set the number to 3, so, there only are 3 computers backing up data to target drive at the same time.

## 6.7 IP Segments

You can manage client computers under different subnets. For example, your server with AOMEI Centralized Backupper is under 192.168.0.1, you can manage computers within 192.168.x.x~192.168.x.x. For managing client computers under different subnets, please refer to the following steps:

Step 1: Install AOMEI Backupper client software on computers you want to manage.

Step 2: Please **Enable IP Segments Management** under Settings, and then add legal IP segments you want to manage, such as 192.168.0, 192.168.1 and so on. After that, it will scan all computers under the IP Segment automatically and list them under Uncontrolled Computer.

Step 3: Select client computers listed under Uncontrolled Computer to obtain the control permissions and then create backup for them.

### Notes:

- You can input IP segments in batch via importing a text file. Please create a text file first and input IP segments to text: each line with one IP segment.
- You can also add computers under different subnets via **Remote Client Installation**. Solution one: Let software detect all computers available within the same LAN including different subnets automatically but it would take much time. Solution two: Add computers manually by entering the specific IP address of the client computer through Remote Client Installation---Add Computers.

## 6.8 Other

Directly exit the program when closing the main window.

Hide the tray icon while the client computers start performing backup task.

## 6.9 Encryption

An image file could be accessed and restored by anyone. In order to protect your data from unauthorized access, you can encrypt it by setting a password. Enter your password in the password field to encrypt the data. A maximum of 64 characters is allowed.

1. You are able to check "**Enable encryption for backups**" in "**General**" of "**Settings**" when you create backup task.
2. Type in your password in the first field and then retype it in the second field to confirm it.

### Notes:

- You must remember your password otherwise it will be impossible to recover your backup. The methodology is not simple password protection; the password is used as a key by the industry-standard AES (Advanced Encryption Standard) cryptographic algorithm, which will totally encrypt all data in the image.
- Currently the program does not support changing the password of a password-protected backup after the backup was created because it not only has set a password for the image file, but also has encrypted all data you backed up.
- You can write Comments in "General" of "Settings" when you create a task, so that you can find and distinguish it easily.

## 7 Restore

If an unexpected error occurs (such as system crash, data loss, disk corruption or failure), all data can be recovered from the backup using AOMEI Centralized Backupper.

### 7.1 System Restore

If the system crashes or fails to boot, restoring the system from system backups is a better solution than re-installing the operating system.

Go to the "**Tasks**" tab, select a system backup task that you want to restore, click "**Advanced**", and then select "**Restore**". Or you can expand the list of task computers, right click the computer you want to restore, and select "**Run Restore**".

1. On the "**Select a computer to restore**" page, select a computer that needs to be restored from the list and click "**Next**".
2. The "**Select the items to restore**" page:

- If you want to restore a bootable system, then select “**Restore this system backup**” . And in the drop-down box on the right side of the page, select the backup version to be restored.

**Tips:** You can select “**Restore system to other location**” and then select another location to perform restore in the next page. If you don’ t check “**Restore system to other location**” , the program will restore system to its original location by default.

- If the system image file contains multiple partitions, you can select “**Restore a partition in this system backup**” . In the drop-down box on the right side of the page, select the backup version to be restored. In the disk information box below, select a partition to perform restore, so only data on that partition will be restored.

**Tips:** This operation can’ t ensure the restored system is bootable.

After selecting the items to be restored, click “**Next**” .

3. The “**Select a destination for restore**” page:

- Selecting “**Restore to the original computer**” means to restore system to the computer where the backup is from. Then, select a specific partition or unallocated space as the restore destination below.
- When AOMEI Centralized Backupper has controlled multiple client computers, you can select “**Restore to other computers**”. Then, select disk space on other client computers as the restore destination below.

After selecting the destination for restore, click “**Next**”.

4. The “**Operation Summary**” page of system restore:

On the “**Operation Summary**” page, preview the operations that will be executed and choose needed advanced settings as follows: if the destination disk is an SSD, select the “**Allow partition alignment to optimize SSD**” option to improve SSD performance. If you choose to restore only one system drive, there will be the “**Edit Partition**” option which allows you to change drive letter, partition type, and adjust partition size. If you restore system to dissimilar hardware, it is recommended to check the “**Universal Restore**” option.

After finishing the settings, click “**Start Restore**” to perform the restore task.

#### **Notes:**

- If the system is backed up periodically, a new image will be generated for each backup, so there may be multiple backup points to choose from.
- The destination disk or partition will be completely overwritten. If the target location contains any significant data, we recommend you copy or move it to another location and then perform restore.
- The progress of the created restore task will be displayed next to the computer that is restored in the task. Expand the list of the restored tasks to see the specific restore status.



- When the target location of the restore task is occupied, it needs to restart to enter the WinPE to perform restore. The system will restart automatically after the restore process is finished.

## 7.2 Disk Restore

If data or partitions are lost due to disk corruption or failure, the disk can be fully restored to its last backup state.

Go to the **“Tasks”** tab, select a disk backup task that you want to restore, click **“Advanced”**, and then select **“Restore”**. Or you can expand the list of task computers, right click the computer you want to restore, and select **“Run Restore”**.

1. On the **“Select a computer to restore”** page, select a computer that needs to be restored from the list and click **“Next”**.

2. The **“Select the items to restore”** page:

- You can select **“Restore a partition in the disk”**. In the drop-down box on the right side of the page, select the backup version to be restored. In the disk information box below, select a partition to perform restore, so only data on that partition will be restored.
- You can also select **“Restore the entire disk”**. In the drop-down box on the right side of the page, select the backup version to be restored. Then, select a disk to restore from the backed up disks.

After selecting the items to be restored, click **“Next”**.

3. The **“Select a destination for restore”** page:

- Selecting **“Restore to the original computer”** means to restore to the computer where the backup is from. Then, select a specific disk or partition on the computer as the restore destination below.
- When AOMEI Centralized Backupper has controlled multiple client computers, you can select **“Restore to other computers”**. Then, select a specific disk or partition on other client computers as the restore destination below.

After selecting the destination for restore, click **“Next”**.

4. The **“Operation Summary”** page of disk restore:

On the **“Operation Summary”** page, preview the operations that will be executed and choose needed advanced settings as follows: if the destination disk is an SSD, select the **“Allow partition alignment to optimize SSD”** option to improve SSD performance. There is the **“Edit Partitions”** option which allows you to resize partitions on the destination disk manually or automatically. If you restore the system disk to dissimilar hardware, it is recommended to check the **“Universal Restore”** option.

After finishing the settings, click **“Start Restore”** to perform the restore task.

**Notes:**

- If the disk is backed up periodically, a new image will be generated for each backup, so there may be multiple backup points to choose from.
- The destination disk or partition will be completely overwritten. If the target location contains any significant data, we recommend you copy or move it to another location and then perform restore.
- The progress of the created restore task will be displayed next to the computer that is restored in the task. Expand the list of the restored tasks to see the specific restore status.
- When the target location of the restore task is occupied, it needs to restart to enter the WinPE to perform restore. The system will restart automatically after the restore process is finished.

**7.3 Partition Restore**

This function is used to restore partitions or volumes. If the data on the partition is corrupted, the backup image can be used for recovery.

Go to the **"Tasks"** tab, select a partition backup task that you want to restore, click **"Advanced"**, and then select **"Restore"**. Or you can expand the list of task computers, right click the computer you want to restore, and select **"Run Restore"**.

1. On the **"Select a computer to restore"** page, select a computer that needs to be restored from the list and click **"Next"**.

2. The **"Select the items to restore"** page:

In the drop-down box on the right side of the page, select the backup version to be restored. Then, select a partition to restore from the backed up disk partitions. After selecting the source data from the corresponding backup version, click **"Next"**.

3. The **"Select a destination for restore"** page:

- Selecting **"Restore to the original computer"** means to restore to the computer where the backup is from. Then, select a specific disk or partition as the restore destination below.
- When AOMEI Centralized Backupper has controlled multiple client computers, you can select **"Restore to other computers"**. Then, select a specific partition on other client computers as the restore destination below.

After selecting the destination for restore, click **"Next"**.

4. The **"Operation Summary"** page of partition restore:

On the **"Operation Summary"** page, preview the operations that will be executed and choose needed advanced settings as follows: if the destination disk is an SSD, select the **"Allow partition alignment to optimize SSD"** option to improve SSD

performance. There is the “**Edit Partition**” option which allows you to change drive letter, partition type, and adjust partition size.

After finishing the settings, click “**Start Restore**” to perform the restore task.

**Notes:**

- If the partition is backed up periodically, a new image will be generated for each backup, so there may be multiple backup points to choose from.
- The destination partition will be completely overwritten. If the target location contains any significant data, we recommend you copy or move it to another location and then perform restore.
- The progress of the created restore task will be displayed next to the computer that is restored in the task. Expand the list of the restored tasks to see the specific restore status.
- When the target location of the restore task is occupied, it needs to restart to enter the WinPE to perform restore. The system will restart automatically after the restore process is finished.

## 8 Support

### 8.1 Logs Report

Centrally view backup status at a glance to examine any backups and diagnose any failures. Also, you can generate log reports (HTML format) with 1-click. You can send the log reports to the support of AOMEI to analyze if there are any failures.

### 8.2 Technical Support

If you cannot find what you are looking for and need further help, please do not hesitate to send an email to [support@aomeitech.com](mailto:support@aomeitech.com), or visit the following webpage: [www.ubackup.com/abnetwork.html](http://www.ubackup.com/abnetwork.html)

### 8.3 AOMEI Centralized Backupper FAQ

**Q:** You have already set numbers of the computers that can be backed up in parallel, why does not it work while performing backup? (How do you improve backup speed when there are a batch of computers backing up simultaneously?)

**A:** Generally, if there are too many clients (for example 10 or 20 computers) backing up to same NAS or Network share storage simultaneously, it may lead to backup speed slow due to bandwidth pressure within same LAN. Therefore, AOMEI Centralized Backupper allows you to set the suitable numbers of clients that can be

backed up at the same time based on the LAN bandwidth and the storage server's capacity. However, the feature only works for these clients on which you perform backup manually via AOMEI Centralized Backupper console. If these clients are performing schedule backup, it will be invalid. So, the actual numbers of clients performing backup may be greater than the one you set. And, for schedule backups, you can set different time for each computer in same task or you can set different time for each group to run this task so it can resolve backup speed problem indirectly.

**Q:** Could AOMEI Centralized Backupper back up dynamic disks?

**A:** AOMEI Centralized Backupper doesn't support backing up dynamic disks with disk backup and you can back up dynamic volumes with partition backup.

**Q:** When the disk/partition information (such as, drive letter, volume label and so on) of the clients have changed, why AOMEI Centralized Backupper doesn't update it timely.

**A:** Please reboot AOMEI Centralized Backupper program on server side, select and double click the client computer with changing disk/partition information under Computers-->Controlled Computer, and then click Refresh button to update.

**Q:** The client computers always show "offline" on AOMEI Centralized Backupper.

**A:** It might be that the "Backupper Service" of client has stopped. Please start Windows Task Manager, select Services, and then restart "Backupper Service". If clients are still "offline", please reinstall AOMEI Backupper standard on clients.

**Q:** Could AOMEI Centralized Backupper support to back up these partitions with no drive letters on client computers?

**A:** You can match label of these partitions with no drive letters to back up. But, AOMEI Centralized Backupper currently can't back up partitions with no drive letters and volume labels. In this situation, you can run AOMEI Partition Assistant on clients to assign drive letters or volume labels for these partitions manually.

**Q:** Why do you receive

"The network share/NAS username or password is incorrect..." during backup?

**A:** It might be that the username and password of the Share/NAS you added have changed, please click "new task" and then modify the username and password in "Share/NAS device" panel under "Step 3: select the destination location to save the backup". After that, back up again. Please noted that there is no need to create a new task, you just need to modify the username and password in Step 3.

**Q:** Why does it fail when you remotely install/update/uninstall AOMEI Backupper on the client computers?

**A:**

1) Please check if you are using the account under Administrators and the password should be not null. And, please right click "This PC"-->Manage-->Local

Users and Groups to confirm the administrator account unchecks "account is disabled" option.

2) There is no enough access permission for the clients computers, Windows service of clients is closed or prevention software are running on clients (for example, firewall and antivirus program are running, UAC remote is disabled and etc.). Please modify these settings on clients: you can copy from "C:\Program Files (x86)\AOMEI Centralized Backupper Beta\tools\Preinstall.exe" on server side to clients and then run it, close anti-virus programs and personal firewall and so on. After that, please try to remote install/ update again.

3) Please confirm if your client account has write/read permission for installation location when doing remote installation.

4) If AOMEI Centralized Backupper is installed on Windows XP/Server 2003 system and the clients are running windows 10, you need to enable "SMB1.0/CIFS File Sharing Support" on your clients because Windows XP/Server 2003 use SMB1.0/CIFS protocol. Please check "SMB1.0/CIFS File Sharing Support" option and you can find it under Control Panel-->Programs and Features-->Turn Windows features on or off. And, please press "Win+R" to open Run box, run "gpedit.msc" to open Local Group, and then Enable insecure guest logons under Administrative Templates-->Network-->Lanman Workstation. And then, reboot client computers.

**Note:** You need to temporarily enable "SMB 1.0 / CIFS File Sharing Support". After installation is completed, we suggest you turn off the "SMB 1.0 / CIFS File Sharing Support" for the sake of system security.

## 9 Glossary

Term	Meaning
Restore	Restore refers to restoring the contents of a backup image file to the state of the backup point in time. If an unexpected error occurs (such as system crash, data loss, disk corruption or failure), AOMEI Centralized Backupper Enterprise edition can restore all data from the backup.
Backup	Backup refers to copying data into an image file which can be used to restore its contents to the original state if there is any data loss. Backupper supports creating image files for disks, partitions, volumes, etc.
Differential Backup	A Differential Backup is an image file containing all changed or newly added data based on the previous Full Backup. A Differential Backup must always be directly related to a Full Backup. As time progresses, each Differential Backup will

	<p>contain more changes made in comparison with the original Full Backup and will therefore become progressively larger.</p> <p>Differential Backups can only be used in conjunction with their related Full Backup.</p>
Full Backup	<p>A Full Backup is an image file that contains a selection of files and folders, partitions or discs that can be completely restored to their original state, independently from any other image file.</p>
Image File	<p>An Image file is a file containing a 'snapshot' of the state of saved computer files, folders or partitions, allowing the data within to be faithfully restored to that state, if required.</p>
Incremental Backup	<p>An Incremental Backup is an image file containing only changed or newly added data based on the previous backup created in time sequence. The first incremental backup in the sequence must always be preceded by a full backup. Compared to a Full Backup, the image file of an Incremental Backup is much smaller, and the backup operation will take less time. In addition, because multiple backups can exist in the sequence each relating to a different time point, users are able to pick a time in the past to which to restore data, if required.</p> <p>Incremental Backups can only be used in conjunction with their related Full Backup along with all the other Incremental Backups that were done in between.</p>
Network/Shared Drive	<p>A network drive is a storage device on a local access network (LAN) within a business or home. Within a business, the network drive is usually located on a server or a network-attached storage (NAS) device.</p> <p>A shared drive is a storage device on a local computer, which lets users quickly share files from computer-to-computer. The shared network most often operates on a Local Access Network (LAN).</p>
SSD	Solid State Disk