



Backup 2026

Backing up your Mac in 2026

Introduction

- The SBAMUG has had presentations on Backup in April 2016, March 2021, and a Carbon Copy Cloner backup application in February 2022.
 - It was felt that it is time to cover this topic again.
- This presentation will primarily cover Macintosh backups. I will devote some items to iPhone/iPad backups, and also note if the online backup vendors have support for these devices.
- The following topics will be discussed.
 - Temporal Backups (Apple Time Machine)
 - Local backups- Single backups, Network Attached Storage
 - Archival backups
 - Cloud/Offline backups

Introduction (cont'd)

- Why Backup?
- Didn't Solid State drives (SSD) eliminate the need for backups?
 - No, while SSDs are more reliable than spinning hard drives they can still fail.
 - Your laptop you left on top of your car can still crash into the pavement and get run over by an 18-wheeler, or lost, or stolen.
 - Same issues for desktops, theft, fire, flood etc.
- While you can migrate from an old mac to a new one, if your old mac fails, what are you going to migrate from?

Temporal Backup

- Temporal Backups let you go back to earlier versions of files to retrieve them.
 - Great if you hit save instead of save as and changed the original
 - You or others in a committee what to use an earlier version of a file
 - You put a file in the trash and then emptied the trash
- Apples Time Machine was introduced in 2007. It is part of the Mac OS; no need to purchase it.
- Time Machine automatically makes hourly backups for the past 24 hours, daily backups for the past month, and weekly backups for all previous months. The oldest backups are deleted when your backup disk is full.

Temporal Backup (cont'd)

- An external drive will need to be connected to your Mac
 - The Drive should be at least twice the capacity of your internal storage.
 - The drive can be a Spinning Hard Drive or SSD. While normally one would go for a SSD for speed, in backup use speed is not needed. Also, large 8 or 16 TB SSDs are expensive.
 - <https://support.apple.com/en-us/104984>
- The time machine backup can be used to migrate your content to a new Mac.
- Apple sold a wireless backup called Time Capsule
 - It was discontinued in 2018
 - Next Mac OS (27) will not support it at all (AFP issue)

Local Storage

- Having only one backup is not a good idea. Having more than one backup reduces the chances of a failed backup.
- There are many backup programs for local backup.
 - Two popular ones are Carbon Copy Cloner (CCC) and SuperDuper
 - There are many others like Chronosync Express, and Get Backup Pro. We don't have the time to cover all
- Both CCC and SuperDuper can make incremental backups, only copying what has changed
- Both CCC and SuperDuper can schedule automated backups. This is important; as manual backups are not made if you forget them
- Bootable Backups: Bootable backups are good in that you can boot from the backup drive and continue to work.

Local Storage(cont'd)

- The issue is that with later Mac OS's and Apple Silicon (M series) macs, bootable backups are iffy, if not impossible
- Both CCC and Superduper claim to make bootable backups. CCC discourages this (use one time only) and Superduper does not qualify, but has had issues with some revisions of the OS.
- This is due to Apple having a locked System Volume for security and a separate data volume for all user storage.
- Your best bet is, if needed restore your Mac System from the internet using Mac OS Recovery, and if the user data volume is not recovered, use your backup to restore.
- <https://support.apple.com/en-us/102655>

Local Storage(cont'd)

- CCC has the ability to make snapshots, capturing the data at one point in time. You can use the snapshots to go back to earlier revisions
- CCC is more sophisticated, but more complex to use. Superduper is simple to use in comparison.
- Both programs are intended for use on one Mac. Sure, you can have the backup program installed on multiple macs, each with a backup storage drive.
 - But what if you want a one box solution for all your macs? **NEXT SLIDE**

Local Storage(cont'd) -NAS

- Network Attached Storage (NAS) extends the amount of storage for your Mac, but lets you use your network (ethernet mostly- wired/wireless) for storage
- It is useful for sharing projects across multiple Macs.
- It can be used for backup, including time machine images.
- If you choose the right RAID configuration, data is backed up on one or more drives. One configuration uses four drives and two can fail and you are still backed up
- The downside is that you need to purchase the hardware and will often need to purchase hard drives to install. Requires more drives than one to get the failure protection

Local Storage –NAS (cont'd)

- Several vendors let you back up your iPhone and or iPad to the NAS
- There is a lot of detail involved, so rather than that type it lets go to a Macworld article.
- <https://www.macworld.com/article/668856/best-nas-pcs-drives-for-mac.html>

Local Storage –Archival

- You may want to store data for the future, years, decades etc.
- This is archival storage. If you maintain and replace your local storage devices as they fail and continue to maintain backups they are available for the future.
- You might want to store data and leave it for future generations. Unpowered storage in a home safe or safety deposit box.
 - There is an issue with spinning hard drives, stiction may prevent the drive spinning up after being stored for years.
 - One would think SSD's would be the answer. However, SSD depending on the technology may experience data corruption with a year or 2 to 3 years when unpowered

Local Storage –Archival (cont'd)

- Back in my 2016 presentation I mentioned there are “Archival” CD’s and DVD’s with life up to 100 years if properly stored. They are still available,
- However back then CD/DVD/bluray hardware were common on computers. Not anymore. External drives are still available but I seeing disturbing reports of manufacturers ending new production.
- Best bet for local archival storage might be a tape drive. 15-to-30-year life is claimed for the tapes if stored correctly.
- FWIW: <https://arstechnica.com/science/2026/02/microsofts-new-10000-year-data-storage-medium-glass/>
 - Note this is a concept, not a shipping product

Cloud/Offsite Backups

- The one issue with local backups is that if a major disaster hits your home (Fire, Flood, Earthquake, etc) the backups may be destroyed along with your Mac.
- One workaround is to backup to several different drives, storing one offsite; say at work, relatives house, friend house, etc., and swapping them out frequently. Requires work and dedication.
- There are a variety of solutions using the internet to backup your devices.
- In general, you will want Offsite Backups, not Cloud services. Cloud services are aimed at syncing documents between your devices, allowing guest access, etc. The offsite services are tailored to backing up your devices.

Cloud/Offsite Backups (cont'd)

- Cloud services are things like iCloud, Dropbox, Google Drive, and Microsoft Onedrive. Offline services are things like Backblaze, Carbonite, iDrive, interntx, a pCloud. (Plus many more...)
 - There is a grey area between the Cloud and Offsite services.
 - In the case of iCloud, it does limited backups just by syncing select files, and the interntx and Pcloud by offering cloud features as well as backup

Cloud/Offsite Backups (cont'd)

- iCloud can sync Photos, videos, contacts. Calendars, notes, passwords and more. Pages/Keynote/Numbers files can be stored in iCloud, allowing editing on multiple devices.
 - Note this does not include other files such as financial, third party note files, medical files, etc. Not a complete backup
- iCloud does allow iPhones and iPads to be backed up.
 - Alternatively, you can use a cable and locally back up to your Mac. Its either/or on the backup
- While you can store items in iCloud using iCloud drive, it is not recommended for backup

Cloud/Offsite Backups (cont'd)

- Now we get into the name brand third party (non Apple) internet based backup providers
 - BackBlaze
 - iDrive
 - Carbonite
 - Internxt
 - Pcloud
 - Others
- Now I don't want to publish another ton of slides detailing the attributes and costs of each service.

Cloud/Offsite Backups (cont'd)

- It will come down to what service works for you. Things to think about.
 - COST!!!
 - Mac OS compatible- ones I've listed are but not all
 - Tiered Storage vs unlimited. Depends on how much you need to back up. 250GB, 1TB, 5 TB, 100TB?
 - Oh, on the last one, if that's what you create and need to back up in a day, you likely can't upload it in a day on most internet plans.
 - Does the service offer physical media shipped to you for very large backups?
 - iOS/iPad backup?
 - Complexity, do you need it and are willing to learn

Cloud/Offsite Backups (cont'd)

- <https://www.techradar.com/best/best-cloud-backup>
- <https://www.cloudwards.net/award/best-online-backup-services/>
- You will have to look at these and other reviews. Do check out the full reviews. Determine what makes sense for you
- Questions/Comments?