THE GIGABYTE GAZETTE

The Monthly Newsletter
of the

SUN CITY SUMMERLIN COMPUTER CLUB

https://www.scscc.club

February, 2023

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Issue Contributors

Tom Burt   *Peggy Cushman*

Kathy Kirby   *David Kretchmar*

Jeff Wilkinson   *Kurt Jefferson*

President's Message

New Year Update

by Jeff Wilkinson

As we head into February with our recently elected Board of Directors, we are busy planning for the year ahead. The Board has approved the 2023 Club Budget and it will be presented for ratification by the general membership in April at our scheduled monthly meeting.

The NPT (Neighborhood Preparedness Team) has an aggressive agenda and one item our club will be participating in is the Ring doorbell sub-committee program. We are planning some information sessions on the use of various video doorbells and how to retrieve and save info, how to set up alerts and other aspects of video doorbell ownership. As security becomes more and more important in our lives each day, we are examining the role the club can play in supporting devices used to maintain a secure home.

We are also continuing to actively solicit residents willing to teach or host a class or information session related to technology. We want to strengthen our weekly class offerings with useful information and activities. Along that line, we are open to any and all suggestions.

Jeff Wilkinson, President
(702) 527-4056 pres.scscc@gmail.com

General Membership Meeting

The February General Meeting will be held at **2 PM on Thursday, February 2** via Zoom webcast only. The program will feature a brief review of the club's 2023 budget, to be ratified in April, followed by a video on how to add streaming services to a smart TV.

*For Club information: go to **www.scscc.club**, contact Jeff Wilkinson, President at (702) 527-4056 or email him at **pres.scscc@gmail.com**.*

SCSCC Board of Directors Actions

The Computer Club Board of Directors took the
following actions on January 11, 2023

Chuck Hagen made a motion that the **minutes of the December 14, 2022 Board Meeting be approved as submitted.** The motion was seconded by Tom Burt and unanimously approved by the Board.

George Lobue made a **motion** that the **meeting adjourn**. Jeff Wilkinson **seconded** the motion, and it was unanimously **approved** by the Board. The meeting was adjourned at 10:09 AM.

February 2023 Printable Calendars

To view this month's printable classroom and lab calendars, click the following hyperlink:

https://www.scscc.club/Calendars/scscc_calendar_2023-02Feb.pdf

Submissions Welcome

We are always looking for new information to share with our club members. If you have computer or technical information or tips you would like to share with members of the club, send your articles to editor **Tom Burt** at tomburt89134@cox.net. Thank you to everyone for your contributions.

Welcome New Members

The following new 2022 / 2023 members have joined the Computer Club
from December 28, 2022 to January 30, 2023.

Jackie Forsting	**Gina Mosher**
Gail Hayes	**Dick Reed**
Dorothy Janowsky	**Joanna Romersa**
Antolik John	**Benny Ruda**
Marjorie Krenzien	**Alfred Settele**
Angela Luksetich	

As of January 30th, the club has 356 paid memberships for 2023.

As of December 31st, the club had 571 paid memberships for 2022.

The Computer Club is now accepting new and renewed memberships for 2023.
Annual dues are $10 per person.

Special Interest Groups and Kaffee Klatches

Special Interest Groups (SIGs) provide a forum for general discussion on a specific computer related subject. Admission to all SIGs is on a first-come, first-seated basis and is subject to the maximum allowed by fire code regulations. <W>, <L>, <M> or <H> indicate whether a SIG would be of interest to a Windows, Linux, MacOS or Hand-held Device user.

Apple iPhone / iPad Lab <M/H> *Live in the Classroom*

Zane Clark 702-332-5747
First Wednesday, 9 a.m. monthly
Next meeting: Wednesday, February 1, 2023

The lab sessions will be in the usual format, one-on-one help with your questions. Come anytime, leave anytime.

Repair SIG <W/L/M> *Live in the Classroom*

Chuck Hagen (702-418-2614)
Every Tuesday, 12:30 p.m. to 3:30 p.m.

The Repair Lab provides **CLUB MEMBERS ONLY** with no-cost assistance for those having upgrades and / or hardware and software problems with their computers. Bring in only your PC tower, your Mac or your laptop and your problems. Our TECH team will give you our best effort. ***Be sure to mark your cables so you can re-connect when you get home***.

Internet Investing <W/M/H> *via Zoom*

Tom Burt (702-341-7095)
3rd Thursday, 9:00 a.m. monthly
Next meeting: Thursday, February 16th

The Internet Investing SIG provides a forum for members interested in using Internet resources for researching and managing investments to meet, discuss, and learn more about the topic. The SIG's target audience is members with intermediate computer skills and investment experience, but all members are welcome.

Kaffee Klatch <W/M/H> *Live in the Classroom and via Zoom*

Jeff Wilkinson (702-527-4056)
Every Tuesday, 8:30 a.m.

This Kaffee Klatch is an open, free-form discussion group for all users, from beginning to advanced. KK discussions are not restricted to any one subject, computer platform or computer-knowledge level but should be computer or technology related. We will try to answer your questions, help you keep your systems updated and provide some useful "tips and tricks."

Windows 10/11 SIG *Live in the Classroom*

Bill Wilkinson (702-233-4977)
First and Third Saturdays at 9:30 a.m.

If you are a novice or near-beginner computer user, or if you just want some refresher information together with a refreshing cup of coffee, then jump-start or recharge your computing knowledge by attending these Windows 10/11 SIG / Q&A sessions. At each session, attendees will explore several topics of interest to beginners and near-beginners. The topics are always announced a couple of days in advance via e-mail to SCSCC members who have subscribed to the club's SCSCCNews mailing list. Each topic is presented in a step-by-step manner and is supported by "how to" notes that can be easily and conveniently downloaded from the SCSCCBKK.org web page. Following each "up front" presentation of one or more topics (approximately 60 minutes in duration), an informal open-ended Question and Answer period takes place for those who wish to participate, listen, reflect, or inquire.

Seminar and Q&A Offerings

The club's educational sessions are being conducted either as Zoom webcasts, live in-person or a hybrid of the two. Check the weekly calendar on the website to see which mode the session is using. Unless explicitly stated, advance registration is not required for these sessions.

Google Photos – Web Version and Mobile App
Saturday, February 25 at 9AM
Presenter: Gail Weiss
Location: Classroom Live and Zoom

Back in October 2022 I conducted a class on Google Photos focusing on using it only as an application on your mobile devices. The class in February will focus on using Google Photos on both your computer (the web version) and how it interacts with your mobile devices. I will show you how to upload and download photos between the two.

Come and explore this application with me on both your computer and mobile devices. This class will be held in the club classroom. Feel free to bring your own laptops or mobile devices if you want to follow along. For more information about this class or if you have any questions or ideas for future classes, please email me at gmweiss5@gmail.com.

Tax Preparation Software – Tax Year 2022

Monday, February 27th at 10:00 AM *via Zoom*
Presenter: Tom Burt

Rescheduled from January 30th.

Two of the most popular programs for preparing your personal income tax return are **H&R Block** and **Turbo Tax**. You can run these programs on your PC or Mac or you can work with the online versions. Purchase one of these software programs, install it on your PC (or go to the maker's website) and answer the step-by-step questions that are presented to you. When you've finished, either program will provide you with a finished tax return ready for filing. You can even choose to file your return electronically! Happily, for 2022 the tax law changes for individuals were few and minor.

In this year's seminar we will discuss both programs briefly and then do a demonstration of the excellent H&R Block Deluxe program. We will create a 2022 tax return for a fictitious senior couple who have typical financial transactions such as: wage income or retirement benefits, interest and dividends, social security benefits, capital gains, itemized deductions, required minimum distributions, etc. You may be surprised how easy it is to prepare and file your own tax return. We'll also look at how to set up electronic payments on the IRS web-site.

2022 presentation notes will be available about February 22nd at: http://www.scscc.club/smnr.

We will be recording this seminar and posting it to the club website.

Tom's Tech-Notes

Home Network Technology – What's New?
Originally published September, 2020

It's been a while since I've written about home networking technology. More and more homes have been deploying various "smart" devices, such as cell phones, tablets, smart TVs, digital assistants (Alexa) and home controllers whose operation depends on having a robust fast and reliable home wireless network. There also have been some interesting evolutionary developments in the technology that allows it all to work. This month we'll survey what's new, with hyperlinks for those who want to dig deeper.

WiFi 6 (aka 802.11AX)

https://en.wikipedia.org/wiki/IEEE_802.11ax

https://www.theverge.com/2019/2/21/18232026/wi-fi-6-speed-explained-router-wifi-how-does-work

https://www.pcmag.com/picks/the-best-wi-fi-6-routers

https://www.cnet.com/pictures/meet-the-wi-fi-6-routers-that-support-802-11ax-wifi/

WiFi 6 is a relatively new wireless networking protocol that offers higher speeds and allows a router to support more concurrent wireless connections. It is backward compatible to existing WiFi 5 (802.11ac), WiFi 4 (802.11n) and earlier devices. To get the full benefit of WiFi 6, both the router and the connecting device need to be WiFi 6 capable. However, performance and connection reliability for earlier-generation devices still benefits from installing a WiFi 6 router. That's a good thing because few existing WiFi devices support WiFi 6.

An upgrade to WiFi 6 called **WiFi 6e** came out late in 2020. It uses the 2.4 GHz, 5 GHz and a newly available 6 GHz frequency bands. This won't matter much for most small home networks but may be of benefit to business settings where there are many concurrent connections demanding high speed. Unfortunately, new hardware chips are needed to support WiFi 6e, so existing WiFi 6 gear will not be able to use the 6 GHz band for higher speed.

Prices on WiFi 6 routers vary depending on features and capacity. Current prices run from around $80 to $300. There are now USB WiFi 6 network adapters for sale, so you *can* upgrade an existing laptop to WiFi 6. There are also WiFi 6 network cards that can be installed in a desktop tower. Prices run $40 to $60.

WiFi Extenders and Mesh Networks

In large homes or layouts with many walls between the WiFi router and a wireless device connecting to it (such as a smart TV), the WiFi signal can often be weak and error prone. Also, as users with cell phones or tablets connected to the WiFi router move around the house, the connection may drop as the user enters a "dead zone" within the house.

To resolve this, the network hardware providers have offered WiFi extenders and similar, but more sophisiticated, WiFi mesh network devices. Both types of device connect to the primary router wirelessly and then act as secondary wireless access points.

https://www.amazon.com/NETGEAR-Wi-Fi-Range-Extender-EX3700/dp/B00R92CL5E/ref=asc_df_B00R92CL5E/

The simple **WiFi Extenders** are relatively inexpensive. The Netgear shown is typical. You plug it into a wall outlet between the router and the location where the router signal is weak. The extender connects wirelessly to the router. It broadcasts and receives WiFi signals to devices too far away to get a strong signal from the main router. You can have more than one extender in the house. Each one appears to user devices as a separate WiFi network with its own SSID.

In **Mesh networks**, the primary router and the extenders coordinate to make the distrubted set of of mesh access points appear as a single network to the user devices. As the user device moves around, the mesh network hands off the connection to the mesh access point best able to service that connection.

https://www.linksys.com/us/r/resource-center/whole-home-mesh-wifi/#:~:text=Mesh%20WiFi%20or%20Whole%20Home,password%2C%20unlike%20traditional%20WiFi%20routers.

https://www.pcmag.com/picks/the-best-wi-fi-mesh-network-systems

Mesh network systems are best bought as a kit from a single vendor. The kits typically come with two or three nodes. Prices vary based on number of nodes and WiFi technology. A two node Netgear Orbi AC1200 WiFi 5 kit costs about $130.

With all that said, our home setup uses a single Netgear AC1750 router, sitting in one of the bedrooms we have dedicated to office space. The WiFi 5 signal is strong all over our 2000 square foot house. So we have no need for extenders or a mesh network.

Powerline Networking

https://www.hns-berks.co.uk/blogs/power-line-adapters-pros-and-cons

Powerline networking uses your household's electrical wiring to carry an Ethernet signal from a wall outlet near your router to a wall outlet in another part of the house. The powerline adapter plugged into a power outlet near the router connects to the router via an ethernet cable. The powerline adapter plugged into a power outlet in the remote location connects to a device via another ethernet cable.

The advantage of powerline network devices is that they're not subject to wireless interference. They're a good option for streaming devices like a Roku box that are far from your main router.

There are also some new models of remote powerline adapter that can function as a WiFi access point as well as an Ethernet extender. You can have more than two powerline nodes by buying either single adapters or extra two-node kits.

Powerline adapter speeds have steadily increased. The latest models' speeds are rated around 1 gigabit per second, comparable to Ethernet speeds. Simple two-node powerline kits cost about $50. Kits with a remote access point cost about $130.

Cable Modems – DOCSIS 3.0 and 3.1

More and more households are abandoning their cable and satellite TV providers in favor of streaming TV services such as Netflix, Hulu, Apple TV, YouTube TV and others. Other "smart home" devices, such as the Amazon Echo also frequently access the Internet. For all these Internet "services" to be responsive, you need fast Internet speeds.

The cable Internet services (Cox in Las Vegas) offer various performance tiers from 10 megabits downstream all the way to 940 megabits downstream. However, for speeds above 30 megabits, you need a cable modem that supports the DOCSIS 3.0 cable Internet standard and for the 940 megabits service, you need a modem that supports the DOCSIS 3.1 standard.

https://en.wikipedia.org/wiki/DOCSIS

https://www.coxvalue.com/High-Speed-Internet_west_south

While you can rent a cable modem from Cox, it is generally less expensive to buy one. The payback period is about 1 year. Popular DOCSIS 3.0 or 3.1 cable modem choices are described in: https://www.tomsguide.com/us/best-modems,review-2832.html. For speeds up to 300 megabits downstream, you will want a modem with 16 downstream x 4 upstream channels. Above 300 megabits you will want a modem with 32 downstream x 8 upstream channels and probably should choose one that's DOCSIS 3.1 compatible.

Internet Service Options – Upcoming

At present, Las Vegas consumers have only two major choices for Internet service: Cox cable and CenturyLink DSL. For existing homes, CenturyLink top speeds are about 20 megabits downstream. You can also use cellular data hotspots, but these are relatively slow speed and often subject to caps on maximum data volume per month. Cox's top speed Gigablast service is 940 megabits inbound but it requires a DOCSIS 3.1 cable modem upgrade.

There are two new technologies coming that should offer consumers some alternatives.

One option is **5G cellular data**, which will include fixed-point Internet service. An antenna on the outside of your house will connect via a 5G cellular data radio to a nearby 5G antenna and from there to the carrier's Internet network. AT&T, Verizon and T-Mobile are working on building cellular data networks to support this. Speeds and prices should be competitive with Cox. T-Mobile reportedly has 5G Internet coverage in the 89134 zip code, though not everywhere. AT&T has 5G cellular coverage in parts of Las Vegas, but "only for business". Expect their coverage areas and speeds to increase over the next 12 to 18 months. Verizon currently has no 5G Internet service in our area.

Elon Musk's **Starlink satellite Internet** service is also supposedly available, but prices are high and wait lists are long. It's not a very attractive option compared to Cox or T-Mobile.

Final Thought

Having very fast Internet service (i.e. more than 100 megabits downstream) won't result in much real-world benefit if your internal home network is running at speeds slower than 100 megabits per second. If your cable modem or router's Ethernet ports are running at 100 megabits or less, or your WiFi network is running at 100 megabits or less (maybe a lot less), that's as fast as that part of your network will run.

Check out all of your networking equipment and consider upgrading it to 1 gigabit Ethernet and 802.11AC (Wifi 5) or 802.11AX (WiFi 6). That will assure you realize the full benefit of your high speed Internet connection.
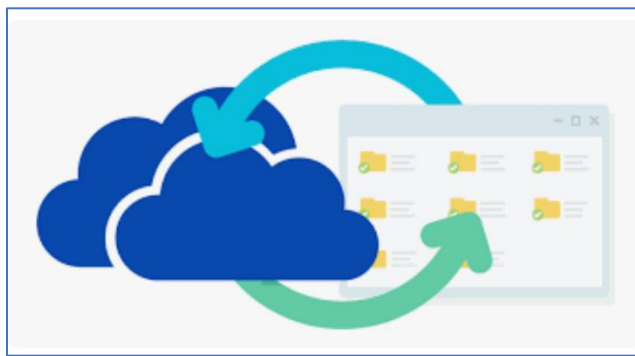
Kretchmar's Korner

Windows 11 OneDrive
Are You Missing out??

David Kretchmar, Computer Technician

OneDrive is the 5GB of free cloud storage built into the Windows 11 operating system. Microsoft has integrated OneDrive more closely into Windows 11 than with Windows 10, presumably to get more users onboard with what OneDrive has to offer. In this article I'm going to get into the "nuts and bolts" of the operation of OneDrive in Windows 11 and discuss some advantages of using OneDrive, and hopefully convince users who have not taken advantage of this feature to consider it.

Either using or losing (deleting) OneDrive are the least used options for this tool.

The majority of users simply ignore it. It is unfortunate that more users are not using OneDrive; they're missing an opportunity to utilize some valuable features of OneDrive, especially secure storage of important documents and pictures.

Microsoft has built OneDrive into a solid, reliable, useful service that gives you a minimum of 5GB of cloud storage for free. Over time my free OneDrive cloud has grown, first to 15GB as the result of "loyalty bonuses". Then last year I finally paid $99 and got an Office 365 account which includes a terabyte of online storage, for up to 5 computers.

In this article, I discuss OneDrive's main features. Even if you're experienced with OneDrive, you might learn something about OneDrive's newer features.

OneDrive Settings

Several of the features I will describe require making changes to your OneDrive Settings. To get to OneDrive Settings, open File Explorer, right-click the OneDrive icon (the cloud) in the notification area on the right side of your Taskbar, or in Windows Explorer, and then click Settings. As you can see, this settings window is the key to configuring OneDrive.
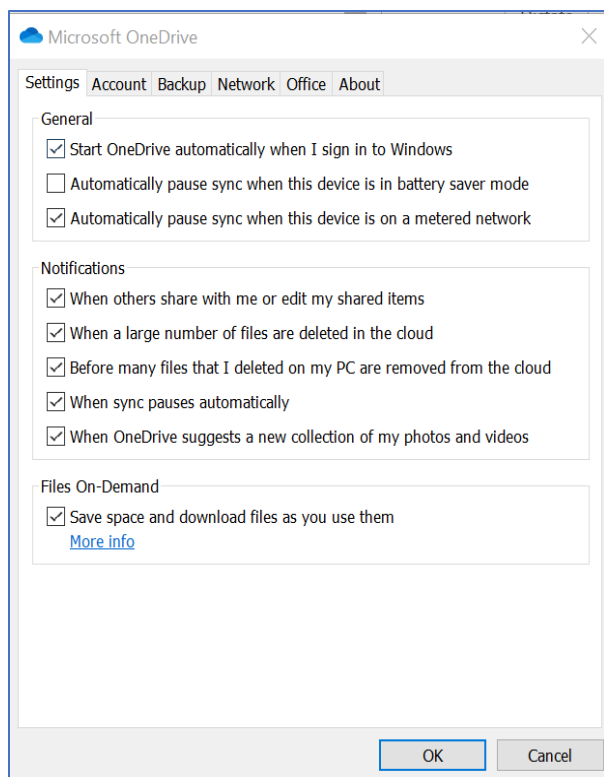
Set up your local sync folder

When you first sign into OneDrive, you get a chance to choose the folder where any files you choose to sync from the cloud will be stored. The default location is a folder called OneDrive in your user profile. That location is usually fine, but you can choose a different location if you have a secondary drive (formatted using NTFS) that has more storage than your system drive.

Next, choose which folders you want to make available locally. Open OneDrive Settings, click the Account tab, and then click Choose Folders. Note the option at the top.

That box at the top doesn't sync the files themselves; it just makes them available in File Explorer.

The default is to make all your files available; even if you have hundreds of gigabytes of files in the cloud and limited local storage. This is still the right option, because of a feature called Files on Demand, which we will discuss next.

Set up Files on Demand

Files on Demand is a feature of OneDrive in Windows that gives you the ability to browse through your entire collection of OneDrive files using File Explorer even if those files are not synced to your PC.

If you open a file, OneDrive downloads it immediately (that's the "on demand" part); you can also mark files to be available even if you're not connected to the internet. To use this feature, right-click any file or folder and then click Always keep on this device. A solid green icon in the Status column shows which files are available offline.
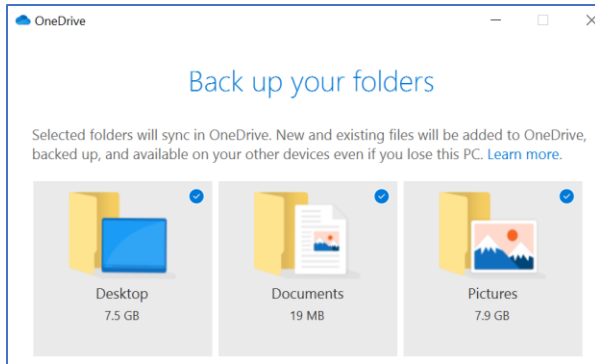
The solid green checkmark indicates files that are available locally even when you're offline.

If you no longer need to keep those offline copies, right-click the file or folder and then click Free up space to remove the local copies. (They remain available in the cloud and on demand.)

Note that if you do not designate a file to be available when you are not connected to the internet you cannot access that file if you do not have an internet connection. I had not paid much attention to this feature until last year when my internet was down for 5 days. Since I had not designated any files to be accessible offline, I could not access any of the files I had saved for years since they were all synced to OneDrive!

Sync your Folders

This feature appeared in 2018 with little fanfare and is very useful. You have the option to redirect any or all of three system folders that are part of your user profile to the cloud instead. The effect is the same as if you had changed the default location of the Desktop, Documents, or Pictures folder to a folder with matching names in your OneDrive folder.

To make this change, open OneDrive Settings, click the Backup tab, and choose the option you prefer for each of the three folders.

Keeping these system folders synced to the cloud is an effective way of backing them up.

After you make the change, OneDrive moves files from the current folder in your local profile to that same-named folder in OneDrive and merges any existing files from the cloud-based folder. Any changes you make to the files in the OneDrive folder on any device will be synced to all your devices. Remember to designate the files you want available offline.

Share a File
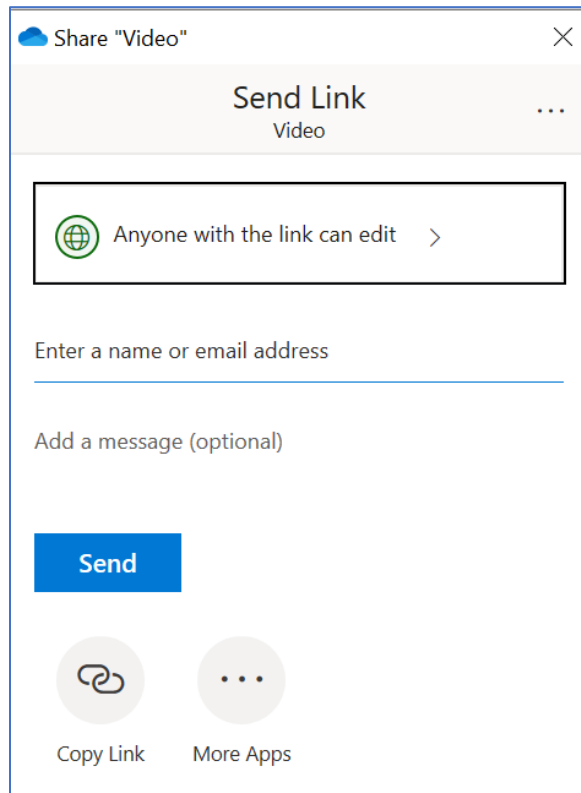
If you have a file stored in OneDrive and you want to share it with someone else, there's an easy way to accomplish that. Right-click the file in File Explorer and then click Share a OneDrive link. OneDrive generates a short link and copies it to the Clipboard, ready for you to paste it into an email message or a chat window.

Anyone who has that link can open and edit the file, so use this option only when you're sending a file to a trusted friend or colleague.

Share files with extra security
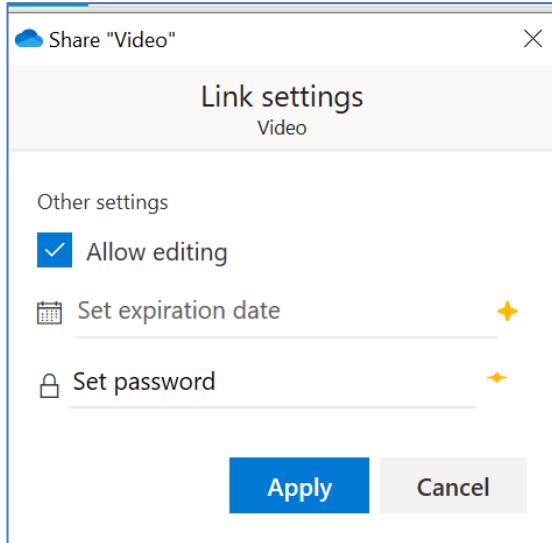
Quick links are convenient, but you might want a little more control when sharing a file or folder from OneDrive. For example, you might not want the addressee to be able to make changes to the file, or you might want the link to expire so it can't be reused if someone finds it in an old email. Or maybe you want to protect the shared link with a password.

You can do any or all of those things by right clicking a file or folder in File Explorer and then choosing More OneDrive sharing options. That opens OneDrive in your web browser with the Share dialog box open for the object you selected, as shown here.

Set an expiration date of just one or two days to prevent links from being reused later.

This is a discussion of what I consider the most important things you can do with Microsoft OneDrive. As a minimum, you should use cloud storage for files you cannot afford to lose. Remember to make those files available offline so they will be available if you lose your internet connection.

APCUG Guest Article

Experts: DON'T Charge Your Smartphone or Tablet Overnight
Your Battery Will Thank You

Kurt Jefferson, Editor, Central Kentucky Computer Society
https://ckcs.org/ lextown2 (at) gmail.com

Many of us who own iPhones, iPads, Android phones, or similar devices charge them while we sleep. So, as we're napping, our phones and tablets slowly charge their batteries. Then, when we awake, we're ready to take on the day, and so are the devices on which we depend—ready with a 100% charge.

Now, experts are spreading a new message: By charging our devices overnight, we might slowly be killing the battery. Techjury.net writes, "I know it's great to wake up and have 100% juice to carry you through the day. However, your cell phone battery needs only about two hours to recharge itself completely."

TechJury adds, "Experts' opinions on Li-Ion batteries are unanimous – you should keep your iPhone charged at 40%-80%. This is the optimal charge level of your iPhone (or any other smartphone, for that matter) to prolong its battery life. Sometimes this 20% could mean the difference between your iPhone lasting through the day or not. Still, charging your iPhone overnight to 100% often will decrease its battery capacity faster."

If you need more proof, ladbible writes, "Before going to sleep, most of us will put our phone on charge to make sure it's ready for the day ahead. But doing this could be causing damage to our iPhones, according to tech expert Adrian Kingsley-Hughes, writing for ZDNet."

"An iPhone can go from zero to 50% charge in about 30 minutes using a 20W charger, and then go to being fully charged in under two hours," writes Kingsley-Hughes.

He adds, "Given that an iPhone can charge up so rapidly, it doesn't make sense that we hook it up to a charger for eight hours a day.

That works out to a third of its lifetime."

Plenty of iPhone owners are unaware of this, but Apple introduced Optimized Battery Charging in iOS 13 for iPhone. So, if you're running that version of iOS or later, your device stops charging when it's 80% charged.

Optimized Battery Charging is switched on by default. (It's available only on the iPhone—not the iPad.)

Optimized Battery Charging 🟢

To reduce battery aging, iPhone learns from your daily charging routine so it can wait to finish charging past 80% until you need to use it.

If, for some reason, you want to turn off Optimized Battery Charging, visit Settings > Battery > Battery Health > Optimized Battery Charging.

Apple writes, "When the feature is enabled, your iPhone will delay charging past 80% in certain situations. Your iPhone uses on-device machine learning to learn your daily charging routine so that Optimized Battery Charging activates only when your iPhone predicts it will be connected to a charger for an extended period of time. The algorithm aims to ensure that your iPhone is still fully charged when unplugged."

Returning to the original question – why shouldn't you charge your device overnight?

The simple one-word answer is–heat.

Here's how Kingsley–Hughes explains it: "Heat is a killer of batteries. While there's nothing you can do about the normal wear and tear that a battery experiences from being charged and discharged, heat is something you can do something about. When your iPhone is connected to a charger, it gets warmer -- warmer than if it isn't connected, and even though that increase might only be a few degrees above room temperature, doing this overnight every night doesn't seem smart to me."

He writes that he has radically changed how he charges his iPhone.

Instead of charging it overnight as he sleeps, he now gives it one or two daily charges.

Under his new schedule, he charges his iPhone for 30 to 45 minutes directly after he awakes. (During this same period, he charges his Apple Watch.)

Then during mid-afternoon, he charges his phone for another 30 minutes so that the battery icon shows it's 80% charged. Kingsley-Hughes says that's usually enough of a charge to last until the next morning.

If he knows he'll be on a trip that keeps him inside his car, he takes a car charger or a power bank and recharges his phone using either of those measures.

In summary, he believes the new charging regimen stresses his iPhone's battery and charger less. And he uses a cable rather than a wireless charging system.

So, there you have it.

If you're still charging your iPhone, iPad, or Android device while you sleep overnight—stop it. Instead, find an alternative charging schedule.

Experts say your battery will live longer.

Lab Monitor Schedule

The Open Lab session is held once per week: 9 am to noon on Saturdays.

February	Monitor Schedule
Jeff Southwell Ann Warhaflig	Saturday 2/4/2023
Fred Cohen	Saturday 2/11/2023
John Zuzich Raymond Pun	Saturday 2/18/2023
Linda Muench Marilyn Gramms	Saturday 2/25/2023