

THE GIGABYTE GAZETTE

The Monthly Newsletter
of the

***SUN CITY SUMMERLIN
COMPUTER CLUB***

www.scscclub.com

December, 2020

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President's Message

by Jeff Wilkinson

Roll Your own Chromebook

Recently I've started attending the Monday morning sessions of Tech for Seniors. It's an interesting hour long Zoom presentation with lots of information about computers, security concerns, some useful apps and extensions and finished off by selected music history from the early years of rock and roll.

These sessions are hosted by Ron Brown and Howie Poplock, members of APCUG, a group our computer club belongs to. They are a lot of work to put together each week and have just under 100 Zoom attendees. Recently Ron and Howie have branched off into offering a class on Chromebooks.

This piqued my interest, since I have an old Hisense Chromebook that I've found very useful for many tasks. It's light weight and small size made it particularly useful for travel. The ability to have full access to your Gmail account and all the associated applications such as web bookmarks, photos, Gmail and Google drive while traveling was welcomed. I found I could do most anything I needed with this setup. The synergy of the Chrome operating system using Android apps and my smartphone was a welcome feature.

So, what is a Chromebook? The Chromebook was an economical answer to Apple's iPads used in schools. The commercial version developed by Asus and Samsung was an almost instant success. Making use of Google's cloud networking expertise and the Google Suite of applications proved to be a winning combination.

Armed with this new information I recognized a potential opportunity for our Computer Club. We host a Repair SIG on Tuesday afternoons to repair, upgrade and setup club members computers and related equipment. Many times, aging laptops running Windows 7 or even Windows XP are brought to one of these sessions because they are hopelessly slow, far behind on updates and hard to use.

When we ask the member what they use the computer for, it's usually to check email and surf the web doing some online shopping, banking or brokerage account updates. Replacing the old computer with a newer \$800 plus laptop and learning a new operating system such as Windows 10 doesn't offer much appeal.

So, when the member is informed that there are alternatives, such as the free **Neverware CloudReady** operating system (<https://neverware.com>), a newfound interest appears. Most of their usage is exactly what a Chromebook excels at and most are already familiar with the Google platform or can easily make the transition.



I have converted a couple of older laptop computers using the Neverware's CloudReady v85.3 software and have found it to work quite well. The opening screen contains my Google bookmarks bar with all my favorite links and bookmarks readily available, the task bar along the bottom of the screen has shortcuts to my preferred applications. So, this previously marginal laptop computer has been updated for a few more years of service.

I will continue my investigation of this alternative and as to what machines are compatible with this update and report my findings in future articles.

A very Happy, Healthy and Safe Holiday season to all.

Jeff Wilkinson, President

(702) 527-4056 pres.scsccl@gmail.com

General Membership Meeting

Our November General Meeting will be held at **2 PM on Thursday, December 3rd** via Zoom webcast. Our program will feature a video presentation by **Ron Brown** on "Navigating the Post-Covid Era".

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

December 2020 Calendars

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

http://www.scsccl.club/Calendars/scsccl_calendar_2020-12Dec.pdf

Submissions Welcome

We are always looking for new information to share with our club members. If you have computer or technical information 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.

SCSCC Board of Directors Actions

The Computer Club Board of Directors took the following actions on November 11, 2020

George Lobue made a motion that the **minutes of the October 14, 2020 Board Meeting be approved as submitted**. The motion was seconded by Jerry Sanderson and unanimously approved by the Board

Tom Burt reported on progress toward adding a feature to the club website to allow club members to pay annual dues online via credit card.

Chuck Wolff made a **motion** that the meeting adjourn. Tom Burt **seconded** the motion, and it was unanimously **approved** by the Board. The meeting was adjourned at 10:30 AM.

Welcome New Members

The following new members have joined the Computer Club from October 25th to November 29th.

John Berthelsen
Louis Fortucci

Ken McCracken
Donna Peterson

As of November 29th, the club has 593 paid memberships for 2020 and 118 paid memberships for 2021.

Special Interest Groups (SIGs)

Currently, all seminars, SIGs, Q&As and Kaffee Klatches are being conducted as Zoom webcasts. Unless explicitly stated, advance registration is not required for SIG sessions.

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. All of the following meetings are held in the Classroom. <W>, <M> or <H> indicate whether a SIG would be of interest to a Windows, Macintosh or Hand-held Device user.

Apple Q&A <M/H> DARK

3rd Mondays, 10 a.m. (new date/time)

Next meeting: January 18th

Gail Weiss

Bring your Apple iPhone, iPad, Watch or MacBook to get one on one help with your questions about how to use any Apple device and popular iOS or MacOS apps.

Genealogy Q&A <W/M> DARK

4th Saturday, 9 a.m. to noon in the Lab

Next session: TBA

Karen & Ray Ristic (702-749-6489)

Genealogy is one of America's most popular and rewarding hobbies. With billions of records now available online, researching your family tree has never been easier – if you know where to look and which keywords you'll need to use to create an accurate family tree from start to finish.

Karen and Ray Ristic have been doing family history research for over 40 years, teaching classes, members and officers of genealogy societies, and have published two family history books.

Hardware / Software Repair Lab <W/M >

Reservation Required

Every Tuesday, 12:30 p.m. to 3:30 p.m.

Chuck Wolff (702-233-6634) and

Chuck Hagen (702-418-2614)

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

3rd Thursday, 9:00 a.m. in even months

Next meeting: December 17th

Tom Burt (702-341-7095)

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.

Networking SIG <W/M/H> via Zoom

2nd Thursday at 9 a.m.

Next Meeting: December 10th

Robert Ambrose (rna@muttsoft.com)

This SIG is a discussion forum on computer network technology including modems, routers, firewalls, protocols and ISPs.

~~**Windows 10 SIG <W> DARK**~~

First and Third Saturdays, 9:30 a.m.

Bill Wilkinson (702-233-4977)

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 Win 10 SIG / Q&A sessions. At each session, attendees will explore several topics of interest to beginners and near-beginners. Topics are always announced a couple of days in advance via email 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.

Kaffee Klatch

Currently, all Seminars, SIGs, Q&As and Kaffee Klatches are being conducted as Zoom webcasts. Advance registration is not required for Kaffee Klatch sessions.

Kaffee Klatches provide a forum for general discussion on all computer-related subjects. Admission to all Kaffee Klatches is on a first-come, first-seated basis and is subject to the maximum allowed by fire code regulations. The following meetings are held in the Classroom. <W> or <M> or <H> indicate whether a SIG would be of interest to a Windows, Macintosh or Hand-held Device (iOS or Android) user.

Kaffee Klatch <W/M/H> via Zoom

Every Tuesday, 8:30 a.m.

Sandy Mintz (702-838-2525)

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.” Since our SCSCC is built on “neighbor helping neighbor,” if you have a tip or information, we encourage you to bring it in and share. The fellowship is great, the coffee is good, and the education received from the KK attendees is priceless. Stop by on Tuesday morning and have a cup of coffee with us.

Seminar Offerings

Currently, all Seminars, SIGs, Q&As and Kaffee Klatches are being conducted as Zoom webcasts. Unless explicitly stated, advance registration is not required for Seminar sessions.



E-Books and E-Book Readers - 2020

Thursday, December 30th 9:30 AM – 11:00 AM *via Zoom*

Presenter: Tom Burt

Location: Zoom Webcast

Electronic Books (E-books) are a steadily growing segment of the book market. At the same time, the landscape for book reading devices has evolved away from dedicated book-reading devices to software applications that run on PCs, tablets and smart phones.

This 1½-hour seminar will review how to download free and purchased E-books from various popular online stores. We'll briefly cover a few of the common E-book file formats and a software tool you can use to convert between them. We'll look at several popular E-book reader / organizer programs for PCs and tablets and how to download and install them.

We'll also do a live demo with my Amazon Fire 8 book reader / Android tablet. We'll explore how to check out E-books from the Las Vegas Clark County Library website or directly from the OverDrive service. And, we'll save time for your questions.

The target audience for this seminar is all SCSCC members who have Boot Camp or higher-level experience. Updated presentation notes will be available about December 24th at:

<http://www.scscclib.org/smnr/E-BooksandE-ReadersSeminar.pdf>.



Tom's Tech-Notes

Zoom Etiquette

Tips for Having Better Meetings

Tom Burt, SCSCC Vice-President

Here in Sun City, because of continuing COVID virus restrictions, the Association and our Computer Club have been using the **Zoom** webcasting service for almost all meetings and educational sessions. Zoom meetings can work very well ... or very poorly.

This month's essay will explore Zoom etiquette, which has a big impact on how successful Zoom web conferences are. There are many types of Zoom sessions from informal small discussions, to more formal business or committee meetings to educational seminars. Zoom is also used extensively for "remote learning" in K-12 and higher education. Etiquette rules will vary somewhat for each scenario.

Part of the appeal of Zoom is that you can attend a meeting without commuting – just fire up your webcam, speakers and microphone, click the hyperlink to join the meeting and *shazam*, you're *there*. Actually, your electronic effigy is there ... and all the other attendees are [virtually] in *your* home, looking through your camera at you and whatever else is in your house.

A Google search for Zoom etiquette yielded 23 million hits – an indicator of how prevalent Zoom has become as an alternative to "in person" meetings. Here are two links to representative articles if you want to dig in a bit more:

<https://www.andrewmacarthy.com/andrew-macarthy-social-media/zoom-etiquette-tips-great-video-calls-meetings>

<https://blogs.otago.ac.nz/zoom/zoom-etiquette-attendee/>

Here are some things you can do to be more friendly to other Zoom meeting attendees.

Invest in Good Gear

When participating in a meeting, your co-attendees will appreciate being able to see and hear you clearly. For a desktop, a quality USB 2 web camera / microphone combo can be had on Amazon.com for under \$40. Best is to get one with 1080P (HD) resolution. The webcam / microphone mounts on top of your desktop monitor. Most modern laptops have a webcam and microphone built in, though often not capable of 1080P resolution.

Test and Configure Your Gear

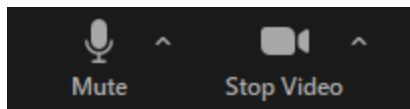
It's no fun for meeting attendees to wait around while newbies try to learn how to do basic things in Zoom (like changing view, turning the mic and camera off and on, posting a chat, setting a background). In your web browser, go to <https://zoom.us/test> and join the test meeting. This will let you download the Zoom client software, check out your camera and

microphone settings, configure your background and confirm how you will look and sound to others during a Zoom session.

I See (and Hear) You / You See (and Hear) Me

Be mindful that, when your webcam and microphone are enabled, the other meeting attendees can see and hear you. This might seem obvious, but it's easy to forget that you're on camera. Also, the Zoom app has two display modes: Gallery (which shows a thumbnail image of each attendee in a grid on the screen) and Speaker, which shows a full screen view of whoever is currently speaking. Each Zoom session attendee can choose which view they want to see.

If you sneeze, burp, cough or make other vulgar noises or if your phone rings, Zoom may suddenly display your face on the speaker view of someone else's display. Even in gallery view, Zoom displays a yellow box around the current speaker's thumbnail image.



It's wise to keep your microphone muted except when you explicitly want to speak. Then press and hold the **Spacebar** to unmute your microphone only while you're speaking. When finished, release the Spacebar again to return to mute mode. You can also toggle between muted and unmuted by pressing the **Alt+A** keys. Or you can click the microphone icon at the lower left of the Zoom window to toggle between muted and unmuted.

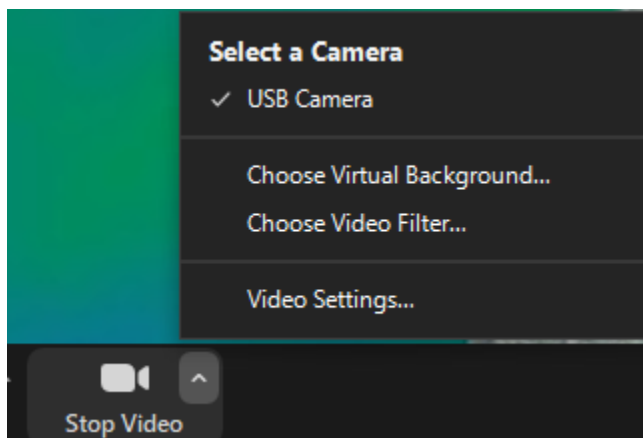
You can also toggle the video off and on by clicking the camera icon at the lower left of the Zoom window. It's a good idea to do this if you're leaving the room temporarily or even if you just need to blow your nose or perhaps if someone comes into the room and needs some momentary attention.

If possible, Use a Virtual Background

Zoom's client software is quite clever at distinguishing your head and torso in the overall video image the web camera is seeing. How well it does this depends on the processing power of your computer's video chip along with the Zoom software. This allows you to have zoom superimpose your head and torso onto a background image or looping short video clip that you can select. The background replaces whatever is actually behind you.

The idea is that you don't want to share your messy computer room with the rest of the attendees. The virtual background hides that; it will even ignore another person in the room if

they're a few feet away. This allows my wife to work at her computer without being on camera while I'm in a Zoom meeting.



Zoom has a small set of default backgrounds and you can add images of your own to the set. To enable and choose a virtual background, click the ^ chevron on the camera icon to open a popup menu. Then click either "Choose Virtual Background" (for a still image) or "Choose Video Filter" (for a looping video clip). You can add new background images by clicking the + icon

and then selecting one or more image files stored on your computer's hard drive.

Identify Yourself

Remember to click the 3 dots at the upper right of your on-screen thumbnail and rename your session so it displays your name instead of your email address. Zoom should remember this setting for future sessions.

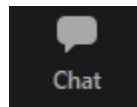
Dress for Success

Especially for formal / business meetings, put on business casual attire. This is especially true if you're working from home.

Avoid Eating on Camera

Drinking beverages is acceptable but avoid noisy slurping unless your mic is muted. As noted above, if you make noises, you may suddenly be displayed full screen to the other attendees. If you want to chow down during the meeting, unless it's scheduled "virtual lunch or dinner" turn your webcam off while eating.

In Larger Meetings, Raise Your Hand or Use Chat



As the number of attendees grows, it gets harder to manage who has the virtual floor. In larger meetings, it's polite to raise your hand and be recognized before speaking out. The chat icon is in the bottom center of the Zoom window. Click it to open a small chat window where you can type a question or comment to the entire group or to specific attendees. This is especially effective for large meetings, where the thumbnails of attendees can't all fit on the screen at one time.

For Business Meetings, Please Exclude Fido, Fluffy and the [Grand]Kids

Pets and grandkids can be disruptive and distracting to you and to others attending a Zoom session, particularly one whose focus is business issues. If you can, close the door to the room where you are connecting to Zoom. If that's not possible, be ready to turn off the camera and mute the microphone.

Keep it PG-Rated – Recording Alerts

Zoom meetings are often being recorded. Speak and act accordingly. Particularly at business meetings or formal social meetings, civility and decorum are the order of the day. Also, meeting hosts, if recording, should let their attendees know the meeting is being recorded.

Meeting Hosts / Presenters – Managing Your Attendees

If you are hosting a Zoom meeting (i.e. you logged into your Zoom account, set up and started a meeting), you have some additional things you can do to manage your attendees. Take some time beforehand to get used to these extra features you can use to control things like: muting other attendees' microphones, screen sharing, whether there's a waiting room for your meeting, the initial state of attendees' microphones (e.g. muted) and possibly blocking access after the meeting has begun.

I hope this helps you have better Zoom experiences in the future.



Kretchmar's Korner

How Do I Remove a Virus from My Browser?

By David Kretchmar, Computer Technician

Our computer operating systems have become more secure, so developers of malware have turned their attention to a more vulnerable target, our web browsers.

Chrome, Edge, Firefox, Safari, and Opera are the browsers most of us use to connect to the Internet. All of these browsers can be infected by a redirect virus, in spite of their built-in security.

Redirect viruses, also known as hijackers, can make your online life very difficult

In this article, I'm going to describe the process of acquiring, identifying and removing an infection from your browser. I'm going to focus on Google Chrome; the techniques are similar, yet slightly unique for each browser. Most users should be able to use the described procedures on their own systems, with small variations depending on the browser and underlying operating system (Windows, Apple, or some flavor of UNIX/Linux).

Redirect viruses can come from several sources.

Extensions

Hijackers can sometimes be "Trojan Hosed" in with browser extensions; extensions are small programs for a browser that serve a desired purpose, such as weather, price comparison, coupons or productivity tools. If you install these extensions, you could unknowingly grant them the ability to influence your browser settings or change your preferences such as your home page or your default search provider. Extensions are usually the first place to examine if you suspect you might have an infection.



Spam emails

On at least a weekly basis I receive an email telling me that my account at Amazon, Facebook, eBay, PayPal, etc. has been frozen due to suspicious activity. The email contains a link to click on to resolve the problem. In reality, if I clicked on the link provided, my problems would be just starting. If you receive an email informing you of a problem with, for instance, your Amazon account, access your Amazon account the way you would normally if you think there might actually be a problem.

Social Media

Links from your Facebook or Twitter feed could also be rerouted in phishing, redirects, or browser hijacking. Facebook is notorious for allowing questionable items to appear in your feed. Some bad links might be posted by unsuspecting Facebook friends who find it easier to copy and paste or just click Share than to actually vet an item. And no, Costco is not going to send you a \$50 voucher if you just take this survey revealing all sorts of personal information.

Free software downloads from unreliable sites.

Hijackers can get added along with free software downloads. Often web sites will offer a desirable program but try to trick the user into downloading malware. Always look at the address bar to make sure you are downloading software from the legitimate provider's site.

Without realizing it, you could lose control of your browser by clicking on the wrong link on the wrong website.

Do I have a browser virus?

A browser virus on a PC or Mac is a browser hijacker that targets your browser. This type of malware is used to generate web traffic and collect information.

How do you find out if your browser has a virus? Here are the main symptoms:

- Your homepage redirects to a website different from what you expect.
- Unwanted extensions appearing in your browser (you might see icons at the top right side of your browser).
- Ads show up more often than they should, usually in unexpected places.
- Pop-ups and banners that advertise fake updates or software regularly appear.
- The link you click in search results redirects to dubious or possibly malicious websites.
- Your browser performance decreases dramatically no matter where you go on the Internet.

A virus can also ask you to update a program such as Adobe Flash Player or download any other tool (program) that would help you fix the problem it is creating. These warnings don't always mean that you have issues with the browser but should be suspect.

If you notice any of these signs, your computer browser is possibly infected with a virus.

Potential risks of a browser virus

As a browser hijacker, a pop-up virus is categorized as a potentially unwanted program (PUP). Once the malicious program attacks your computer, it starts modifying browser settings. For



instance, it changes the default search engine and homepage, without asking for your permission.

The most serious problem created by having this virus is the ultimate invasion of your privacy;

secretly harvesting as much of your personal information as possible to engage in identity theft. Some browser viruses are all about collecting personal details (IP address, location, searches, etc.) and sharing them with third parties. This may cause serious problems related to privacy and data security.

How to get rid of the browser virus

Delete unrecognized extensions

1. Go into your browser settings (in Chrome it is the three perpendicular dots at the upper right side of the browser).
2. Click on the Extensions tab.
3. Look for any extensions that shouldn't be there. If you find anything, select it and hit the Uninstall button to remove it.

Check your homepage and search engine settings

These settings appear in the settings area of your browser. In Chrome go into the browser settings and click on Settings. Make sure your homepage and default search engine are correct.

Additional things to check

1. Go to the Applications or Applications and Features folder and find any suspicious software. It may disguise as a desired application, so search for anything you don't remember downloading. Also note the install date to identify possible problems and look the last program you downloaded before noticed problems.
2. Check your Downloads folder for items recently downloaded from the Internet for clues about the possible problematic vector that has introduced the malware into your browser.
3. Once you detect the malware, drag it to Trash and empty it, or delete it and then remove it from your Recycle Bin.

Get rid of every trace of malware

After the above steps, download and perform a Malwarebytes scan as well as a full scan with your installed virus protection to make sure no harmful PUPs are left on your system.

Conclusions and Recommendations

To avoid getting browser virus, pay attention to websites you visit, files you download, and apps you install. Avoid using third-party software downloaders and installers - they usually include PUPs. Never ignore the warnings if your browser alerts you that a website is not secure.

Still, it's always better to prevent the problem than trying to deal with it. Browse wisely!

APCUG Guest Article

Wi-Fi 6 – What Happened to b, g, n, ac?

By Phil Sorrentino, Contributing Writer, Sun City Center Computer Club
www.sccccomputerclub.org philsorr (at) yahoo.com

Ever since Wi-Fi appeared way back around 2005, the Wi-Fi version has been described by a letter because of the letter reference used in the 802.11 Local Area Network standard. Initially, there were 802.11a and 802.11b. Most of us became familiar with the “b” version because this version used the 2.4 GHz frequency band which had better coverage than the “a” version that used the 5 GHz frequency band. (Today many Wi-Fi routers provide networks at both 2.4 and 5 GHz.) So, until recently the version of the standard has been used as the version for the Wi-Fi router product. When there was only a and b, that was easy enough, but as time went on, faster and more capable standards were developed and each had a new designation, and now the standards are using multiple letters for the designation like ac, and ax (the latest).

To simplify the designation for products, the Wi-Fi Alliance (the group responsible for certifying Wi-Fi products) decided to use numbers to designate the version. The newest standard 802.11ax is to be known as Wi-Fi 6. Earlier versions will be called Wi-Fi 5 (previously ac) and Wi-Fi 4 (previously n), but you will probably never see those designations in practice. This may initially cause some confusion but eventually, it should be a simpler way of determining Wi-Fi product capabilities. Eventually, we’ll all know exactly what the 6 in Wi-Fi 6 indicates; well, at least as well as we know what the “n” indicates in the n version of Wi-Fi.

Unlike many of the earlier Wi-Fi updates, Wi-Fi 6 is not just an increase in speed, it also provides the groundwork for future improvements that will ensure that Wi-Fi speeds continue to increase in the future. Wi-Fi 6 is just starting to arrive this year. There is a good possibility that it will be in your next smartphone or laptop. At some time in 2021, new Wi-Fi 6 routers will start to include 6E which will be the use of a new 6 GHz frequency band (I guess the E indicates an extension into the 6 GHz band).

So, what is Wi-Fi 6? Wi-Fi 6 is just the next generation of the Local Area Network standard that will do the same thing past Wi-Fi standards have done - it will connect your many devices to the internet, but it will do that at faster speeds, and it will introduce new, faster and more efficient technologies into the router. Wi-Fi provides the critical link between our Client Apps and the internet Servers (remember Client-Server Technology?). Much of the improvements with Wi-Fi 6 are aimed at handling the demands of the Internet of Things (IoT). (In fact, very small networks might not even notice much of an improvement. A single Wi-Fi 6 device connected to a Wi-Fi 6 router may only be slightly faster than a single Wi-Fi 5 device connected to a Wi-Fi 5 router.) Another benefit of Wi-Fi 6 will be the fact that all Wi-Fi 6 certified devices will include WPA3, a new, stronger, Security Protocol that improves on WPA2 making it harder for hackers to infiltrate a network.

Many of our homes now have many devices that need to be connected to the internet. Think about it, there are smart bulbs, smart plugs, smart assistants (Alexa comes to mind), indoor and outdoor cameras (Ring doorbell camera comes to mind), door or garage locks, smart

thermostats, door or garage door magnetic sensors, as well as laptops, desktops, smartphones, streaming devices (Amazon fire stick comes to mind), and tablets. The last time I had to change the password on my router, I had to change it in 23 devices before I was finished, though the number for an average house today is about nine. (I have seen predictions that the average home in the future may have up to 50 devices.)

Wi-Fi 6 introduces some new technologies to help mitigate the issues that come from putting tens of Wi-Fi devices on a single network router. Wi-Fi 6 has been designed to handle many devices efficiently, by splitting up the available bandwidth so that many devices can be serviced simultaneously. Without getting into any technical detail, Wi-Fi 6 will let routers communicate with more devices at one time, let routers send data to multiple devices in the same broadcast, and let devices schedule check-ins with the router, all features that will allow more devices to be serviced. Where current routers might start to get overwhelmed by requests from a multitude of devices, Wi-Fi 6 routers will keep all those devices up to date with the data they need.

Without the improvements that Wi-Fi 6 will bring, the performance of your future network would slow down as you increased the number of devices on a given network. You may even want to use the fact that things may slow down with your old router to your benefit and wait till you notice your internet connection “seems to be a little slow” before you take the plunge into Wi-Fi 6.

To get Wi-Fi 6, you’ll need to purchase a new Wi-Fi 6 router. Without a Wi-Fi 6 router, all the devices that may be Wi-Fi 6 compliant will not have any advantage. To take full advantage of Wi-Fi 6, all the devices connected to your Wi-Fi 6 router will have to be Wi-Fi 6 compliant. So, the improvements we get from having Wi-Fi 6 will probably only slowly be incorporated into our internet experience, but it eventually will be worthwhile. New devices will slowly appear with Wi-Fi 6 incorporated, but it will probably take a few years to get to the point where your whole network is compliant with the Wi-Fi 6 standard.

Just a brief review of the new technologies. Two technologies are helping speed up Wi-Fi 6. One is “Multi-user, Multiple-input, Multiple-output” (MU-MIMO), which is already in use in some high-end routers and devices, which allows the router to communicate with multiple devices at the same time, rather than broadcasting to one device, and then the next, and then the next, etc. Current high-end MU-MIMO routers can communicate with four devices at a time, Wi-Fi 6 will increase this to 8. (You have probably seen routers that incorporate MIMO because it involves multiple antennas, which let the router talk to multiple devices at one time.)

The second technology is “Orthogonal Frequency Division Multiple Access” (OFDMA) which allows one transmission to deliver data to multiple devices at once. Both of these technologies are used to get more out of each transmission from your router to your devices. Most of the details of these technologies will probably never become too apparent to most of us, but we all will benefit from them in that we will be able to attach more and more devices to our router, without slowing it down, so we can enjoy the benefit of all the features provided by all of those wonderful internet servers.

Lab Monitor Schedule

Facial coverings and social distancing of 6 feet required.

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

December	Monitor Schedule
Jeff Southwell Linda McMullin	Saturday 12/5/2020
Fred Cohen Gail Weiss	Saturday 12/12/2020
Marilyn Gramms John Zuzich	Saturday 12/19/2020
CHRISTMAS CELEBRATION CLOSED	Saturday 12/26/2020