



# PLATEAU PC USERS GROUP, INC GAZETTE



## July 2019

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“JOIN US FOR FUN AND LEARNING AT CROSSVILLE’S COMPUTER CLUB”

Volume 25, Issue 7

### This Month’s July Meetings

General Meeting  
Tuesday, July 9th at 6:00 P.M.  
At Christ Lutheran Church FFG

Plateau Photography Club Workshop  
Thursday July 18th at 1:00 P.M.  
At FFG Library Bldg.

The July 9th Program at 6:00 P.M.  
FFG Christ Lutheran Church

### How to communicate over the internet.

Web programs such as WhatsApp, Skype, FaceTime, Facebook and other methods of communication are making communication with family, friends and business associates around the world easy and, in many cases, free.

However, what are the risks, problems and reliability of these methods?

PPCUG President Steve Rosenstein will show how these programs work and what you should know about them.



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**July — It is time to pay your Yearly Dues this month**

**Winter Hours** start at **3:00 P.M.** (October through March)  
**Summer Hours** start at **6:00 P.M.** (April through September)

**Location:** Christ Lutheran Church  
481 Snead Drive, Fairfield Glade TN

## Join the Club!

Anyone interested to attend the general meeting or any of the SIG meetings as a guest will be charged \$3.00 per person for any or all meetings in that month. Afterwards, you are encouraged to become a member of the Plateau PC Users Group.  
Our Club cannot exist without you, the members.

### Membership Dues

Our annual dues are now payable July 1st of each year. Annual dues are \$24 per single person / \$30 per family starting July 1, 2014, with partial years dues as follows:

Join In	Jul-Sep Annual Dues	Oct-Dec	Jan-Mar	Apr-Jun
Single:	\$24	\$18	\$12	\$6
Families:	\$30	\$22	\$15	\$7

Student memberships (21 and under) are \$10 annually. Corporate memberships are \$30 a year for the first two memberships and \$10 a year for each additional membership from the same company.  
Contact the PPCUG Treasurer (931) 707-3677 for pro-rated dues of these types of memberships.

### BOARD OF DIRECTORS DISCLAIMER

All members of the Plateau PC Users Group are willing to help one another in the area of advice and tutorial instruction over the phone. If you should require more involved services or instruction, we have a few members who are very knowledgeable in several areas. As a responsible consumer, it is up to you to discuss, before retaining a member, any and ALL charges for repair services and time consuming tutorial activities.

It is not the desire of this Board of Directors to set fees for individuals for services rendered, nor the responsibility to intervene between members who enter into a contract among themselves.

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**Remember to pay your Yearly Dues in July**  
**Just \$24.00 per person**

## Up Coming Meeting for August 13, 2019

### Note: Change to Summer Hours

The next General Meeting of the  
**PLATEAU PC USERS GROUP**  
Will be on **Tuesday, August 13th at 6:00 P.M.**  
**at Christ Lutheran Church**  
**481 Snead Drive FFG**  
**(corner of Snead & Lakeview Drive)**

### Cool Tips & Sites

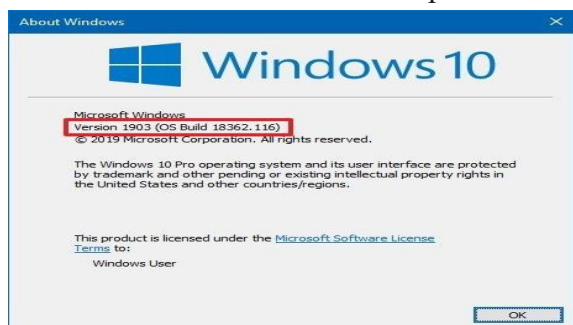
#### How to check if Windows 10 version 1903 is installed on your PC

On Windows 10, there are a number of ways to check the version that your device is running.

#### Checking version 1903 using “winver”

Use these steps:

1. Win + R
2. Search for “winver” and press Enter.



If the “About Windows” dialog shows “Version 1903” along with “OS Build 18362.116,” (or a later build number) then the Windows 10 May 2019 update is installed on your desktop, laptop, or tablet.

#### Checking version 1903 using Settings

Using the Settings app, use these steps:

1. Open Settings. “Win + I”
2. Click on System.
3. Click on About. “scroll to bottom of Systems”

Once you are in the “About” page, under “Version”, you should see the 1903 number, and under “OS Build”, the number should be 18362.116 or later.

## News of the Special Interest Groups

### Plateau Photography Club

In June 2018, the Plateau Photography and the Photo Editing Workshop Groups merged their monthly meetings into one meeting to be held on the third Thursday of each month, except for the months of December and February downstairs at the Fairfield Glade Library building (formerly the Multi-Purpose building), Room C, at 455 Lakeview Drive next to the swimming pool area. Enter the lower level from outside below the deck in back.

Members of the PPCUG may attend at no charge; guests are asked to pay \$3 for these workshops (the \$3 fee is good for all meetings and workshops in the month paid).

As more people take digital pictures, photo editing has become a necessary and essential part of producing the final picture. Since over 95% percent of all pictures taken today are photo edited in some way, it was felt that the two topics should be combined in our meetings.

The meetings will have monthly assignments covering a various categories. Each member will be asked to bring the original picture taken and then explain the photo editing tools used to produce the final picture. There will be discussion covering the picture itself and the tools used and why they were used. Pictures with no photo editing are also welcomed.

Each meeting will try to include short presentations on photography practices and/or photo editing techniques.

The topics and assignments will be published in advanced to allow enough time for each member to plan and carry out their assignments. The SIG leader is Jim Gries. at FGPhotographyclub@gmail.com

### **\*\* New look for PPCUG Website \*\***

Visit our website at [www.PPCUGinc.com](http://www.PPCUGinc.com). The Learning Center class schedule and Gazette are all available on our web site.

Send your comments and suggestions to the Webmaster, Alan Baker  
[Webmaster@ppcuginc.com](mailto:Webmaster@ppcuginc.com) (931) 239-0877

# How to Automatically Empty the Recycle Bin on Windows 10

By Brian Burgess

Last Updated on June 6, 2019

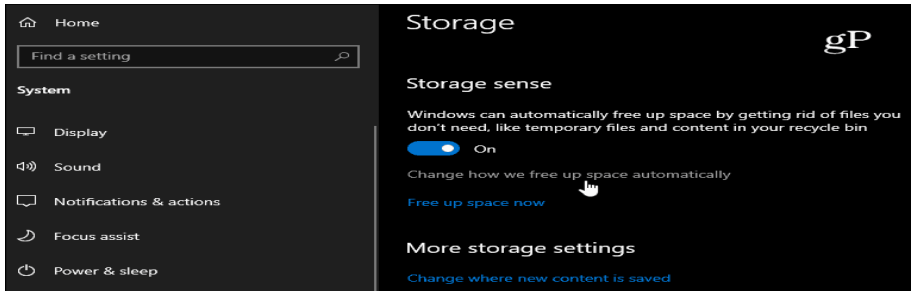


When you delete a file on Windows, it's not permanently gone. It actually goes to the Recycle Bin. It's the first place you should look if you accidentally delete a file. But the files continue to take up disk space. And after time, can take up quite a bit of storage.

We've shown you how to limit the amount of **disk space the Recycle Bin uses** (which works on all versions of Windows). But now with Windows 10, the company has a new utility that makes keeping your disk clean of clutter much easier. And it includes the Recycle Bin.

## Automatically Delete Recycle Bin on Windows 10

If you are running Windows 10 1809 or below, head to **Settings > System > Storage**. Then scroll down a bit and make sure to turn on the Storage Sense switch. Then, under the switch click the "Change how we free up space automatically" link.



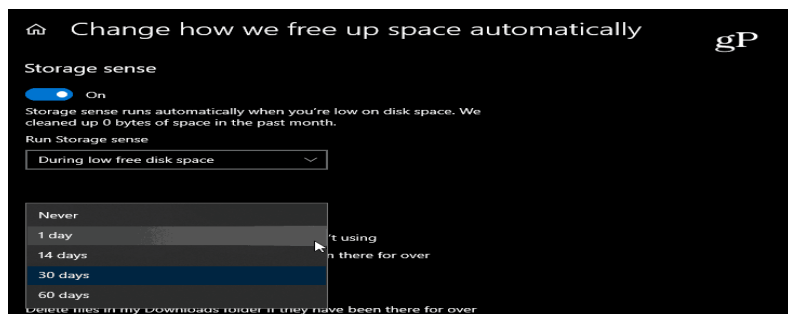
Now, under the Storage Sense section, choose how often you want the utility to run. You can choose from "Every Day" to "Every Month" or only when disk space is low. A good rule of thumb here is to set it to monthly. But if you're on a device with low storage capacity, you might want to have it run more frequently.



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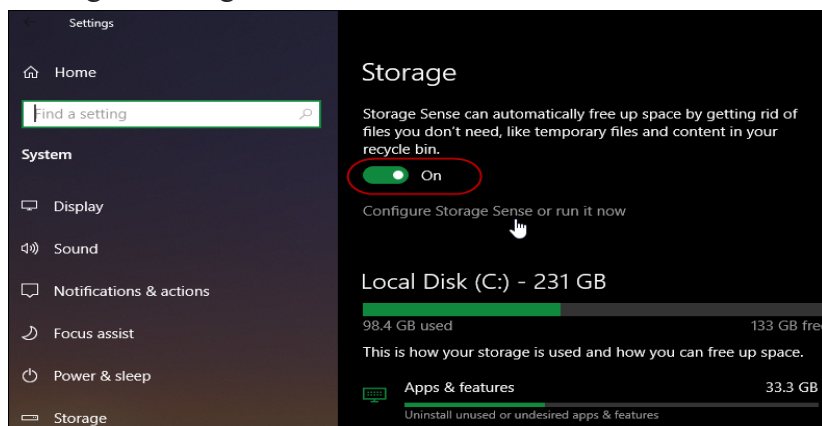
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Under the “Temporary Files” section check the “Delete temporary files that my apps aren’t using” option. Then under the Recycle Bin drop-down menu select how often you want files to clear the bin. You can choose from every day to up to every 60 days. Note that “Never” will disable the feature.

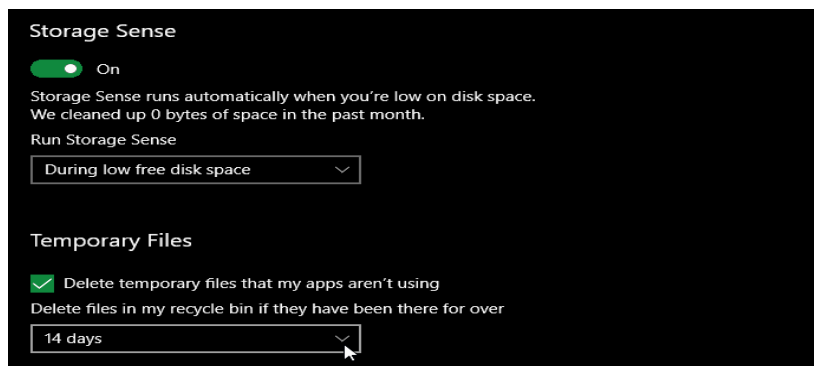


## On Windows 10 1903

The company has **changed things up a bit in Storage Sense** with Windows 10 1903 May 2019 Update. You still go to **Settings > System > Storage** but you can turn on Storage Sense at the top of the page. Then click the “Configure Storage Sense or run it now” link.



Then scroll down under the “Temporary Files” section and choose how often it automatically deletes files in the Recycle Bin.



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This is a helpful feature that helps keep your disk cleaned up without thinking about it. But remember, once a file is cleaned out of the Recycle Bin, it's gone. Unless you use a third-party, **recovery utility like Recuva**. If you often find yourself recovering files from the bin, set it to 60 days or don't enable the auto-delete feature. To avoid having problems with losing files in the first place, make sure to employ a **solid backup strategy**.

## **Personalize your Desktop – With Pictures and/or Slideshows**

By Phil Sorrentino, Contributing Writer, The Computer Club, FL  
April 2019  
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All desktops are not created equal. Just look at the differences the next time you go to a class where you bring and use your own laptop. I bet none of those other desktops will look like your own desktop. Probably the biggest differences will be in the desktop background. These differences come about from the choices in the "Personalize window" in "Settings." You can get to the Personalize window by at least two ways. Personalize is a selection in Settings so just click on the Start button and then the Settings button (the gear like Icon). Or, you can get to the Personalize window by just right clicking an empty space on the desktop. Either way, you get to the Personalize window where you can set up things like the Background, the Lock screen, the Start screen, and the Taskbar.

The Background can be set to three different possibilities; a picture, a color, or a slideshow. The picture can be one of the pictures that you get to select by browsing your Pictures folder. When you find one you like, select it and it will become one of your selections and it will also become your background. (If you have multiple monitors, you can select Monitor 1 or 2 or both, by right clicking the picture and then left clicking your choice.) After you've chosen a picture you can determine how it will show on your monitor by making a selection in "Choose a fit." Pull down the down facing arrow at the right-hand end of the selection box and make your selection among the choices, Fill, Fit, Stretch, Tile, Center, or Span. Pictures from different sources will show up slightly differently depending on this choice. Once you've chosen a picture, you'll just have to experiment with the choices. Don't worry, you can't really break anything here.

The second background choice, "Solid color," is maybe a little less exciting. When you select Solid color, you get to choose from a palette of colors to be the background. Just click on the color you like in the "Choose your background color" grouping of colors. You can even add a custom color by just clicking on the "Custom color button" and then in the "Pick a background color" area, click the color you would like and then click "Done." If you don't quite like the new custom color, just re-do the selection process and the custom color will change to your new choice.

The last background choice is "Slideshow," which is probably the most fun. When you choose slideshow, you get to choose the source of your slideshow pictures. Maybe you have a folder of grandchildren, or a folder of puppies or kittens, or a folder of your family vacations. Whatever you like can be the source of your slideshow pictures. Just click the Browse button, under "DesktopBackground," and you'll get a

navigation window to use to find the folder that contains the pictures you would like to use as a slideshow. If you don't have a folder with all the pictures you want to use in your slideshow, now is the time to create it. Just make a new folder, using File Explorer, and put it in an easy place to find, like under the Pictures folder, under "This PC," After you've created this folder and maybe named it "SlideshowPictures," put all the pictures that you want to be in the slideshow into it, and then go back to Settings-Personalize-

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Background, browse for your new folder, and make it the source of your slideshow. Next decide how often you want the pictures to change; choices go from 1 minute to one day. The pictures will show in the sequence that they are in the folder. (Remember, files in a folder will be in alpha-numeric order, numbers first, then letters.) If you don't want this sequence and would rather have them shown in random order, just slide the "Shuffle" slide switch to "On." Again, you can make a "Choose a fit" choice just as before in the "Picture" background choice.

The Lock screen is the next item that can be "personalized" in the Personalize window. (The Lock screen is displayed when the computer is locked. You can lock the computer by using the keyboard combination of the "Windows Key" and the L key. Or you can lock the computer by pressing the Control-Alternate-Delete key combination and then choosing "Lock".) The choices for the Lock screen are similar to Background, but slightly different. The choices are "Windows Spotlight," "Picture," and "Slideshow." Windows Spotlight is a feature of Windows 10 that downloads pictures from "Bing" and displays them when the lock screen is being shown. So it's like a picture option, only Bing is choosing the picture. The "Picture" choice seems to work just like the Picture choice in Background. You could even choose the same picture for Background and Lock screen, but it would probably be more useful if a different picture were chosen for Background and Lock screen. (The picture you see would be a hint as to what was on the display.) And "Slideshow" seems to work just about the same here in Lock screen as it does in Background, though there are some "Advanced slideshow settings" that can further determine how Slideshow works on the Lock screen.

The "Start screen" can be personalized by selecting "Start screen" and then setting the slide switches to "on" or "off" based on your need for the specific feature. You can even choose which "well known" folders appear on the Start screen by selecting "Choose which folders appear on start" and then switching that particular folder on or off. The Start screen is the pop-up window displayed when you click the start button (down on the screen, at the lower left end of the Taskbar). On this screen you'll find an alphabetical list of all the software (or Apps) on this computer and any App that has been "pinned" to the Start screen. Items on the Start screen can be moved around the Start screen by dragging and dropping them to other locations. Left-clicking an item on the Start screen will start that App. Right-clicking an item will provide the ability to "unpin" the item from the Start screen.

The Taskbar is the last item on the Personalize screen and is the bar at the bottom of the Windows display. It shows Apps that have been pinned to the Taskbar along with notification from Windows, Apps, or certain hardware such as the network you are connected to (and the amount of charge in your battery, if you are on a Laptop). The Taskbar can be personalized by selecting "Taskbar" and then setting the slide switches to on or off, based on your need for that specific feature. You can even move the Taskbar to the top or a side by selecting "Taskbar location on screen" and then choosing the desired location. "How do I customize Taskbars?" gives a good amount of helpful information for customizing the taskbar. The Notification area (at the right-hand end of the taskbar) can also be personalized by selecting "Select which Notification Icons appear on the taskbar." This will provide a screen of Apps, the Icons of which could appear on the Taskbar. Each one can be turned on or off, depending on your need for this notification. You can also "Turn system Icons On or Off." This selection will provide a list of system Icons along with on/off slide switches. The Clock, Volume, Network, Location, and Action center are system notification you might want to turn on, if they are not on already.

Personalization provides the ability to customize the way some very basic screens look and operate. The choices you make will make your computer look a little different from other computers and give it your particular customized look.

## **More About Browsers**

By John Fair, Vice President, Computer Users of Erie, PA  
May 2019 issue, the CUE newsletter  
www.cuerie.com  
johncfair (at) gmail.com

Meeting Idea -- The Computer Users of Erie (CUE) had this presentation at their March meeting; John Fair was the presenter. "About Web Browsers! If you access the internet, you use a web browser. Which one are you using? Chrome, Firefox, Explorer, Safari, Edge? Did you know you can have more than one on your device? Besides viewing a page on the internet, what else should you want your browser to do and how do you make sure that happens? We'll look at the popular web browsers, but there are other browsers out there. What are their strengths and why would you want to use them? We will explore security, cookies, cross-site tracking, hiding your identity, and more."

If you open a website you are using a browser. Your computer or mobile device came with a browser installed, but is it the "right" one or the only one you should use? Why would you consider installing one of the other browsers? Since the CUE program "About Browsers" in March I have continued reading more articles describing the latest browser news and I wanted to share some of my research and opinions.

Browsers are more complex and powerful than most folks appreciate. Their components include front end and back end user interfaces, networking, data storage and engines for rendering and executing Java Script. A web server that you contact by typing a web address into the front-end user interface or clicking on a link responds by sending your computer a string of information that your browser must turn into a web page. The rendering engine of the browser reads the content which contains HTML and CSS code to create the image you see on your screen. The Java Script interpreter allows you to change what you see on the screen.

Browser function also includes encryption and decryption. If the site provides secure communication by public-key encryption (the "s" in https), the browser checks for a valid certificate issued by a trusted source. Once validated, the browser creates a password, encrypts it and sends it back to the server to be decrypted with the server's private key and then the secure communication begins using the shared secret password. All in the virtual blink of an eye! Look for the https with any website that asks for personal information.

Probably because of the complexity of modern browsers and the difficulty for each to be compatible across all web sites, the number of different browser engines in use has dwindled over time. Apple uses WebKit in the Safari browser for computers and will allow only WebKit to be used for any browser installed on mobile devices. Chromium Blink, a fork of WebKit, is the foundation of the Google Chrome browser as well as Microsoft Edge, Opera, Vivaldi, Epic, Brave, and a number of minor players. Firefox and Tor use the Quantum engine. These browser engines are all open source but the bells and whistles that distinguish each browser may not be. Although Internet Explorer (and its proprietary engine Trident) at one time dominated with a 95% market share, IE is being discontinued by Microsoft and with obvious implications for support and insecurity. No one should be using a version older than the current IE 11 and even that version has had recent security problems. Microsoft is replacing IE and the original Edge with a Chromium based version of Edge, soon to be released.

Full disclosure, I am an Apple device user and as such have become accustomed to using Safari. I realize that Safari is not the best browser and it is not compatible with all features of some websites. For example, I have been frustrated when filling out a form on a website only to find the "submit" button does not work. If I open Chrome or Firefox on my Mac, I have no such problem with the same website. So if you are an Apple person,

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the easy answer to the question of how many browsers you should have is more than one. (I have four browsers installed on my Mac: Safari, Chrome, Firefox and Brave.) In fact, my answer to all users whether Apple, Windows, Android or Unix is the same: have more than one browser.

Which of the available browsers to install is a deeper question. Chrome has about a 2/3 market share of all browsers worldwide and it has a huge library of extensions to add functions and features to the basic browser. Google, however, has a history of harvesting and monetizing your information which makes some users limit their use of Chrome. Firefox, a product of the not-for-profit Mozilla Foundation, is designed for security and privacy as outlined in the Mozilla Manifesto (suggested reading). I have both on all my devices, and I currently favor Firefox Quantum.

In addition to the focus on privacy and security, here are some features I like about Firefox for a computer. The newer code in the Quantum engine is designed to make use of multicore processors rather than the single core used by Chrome. As processors gain more cores, the browser will work faster. Chrome also uses more RAM and slows as more tabs are opened. While the speed of both browsers is initially similar in most tests, Firefox is designed to gain speed as CPU technology improves. Also, as a traditionalist, I like the ability to add a separate search bar since I was never a fan of combining url and search functions in the same bar. I like taking screenshots and that function is built into Firefox, but then again, it is built into the Mac OS. Reader View and Pocket are built in, not ad-ons. Like Chrome and Safari, Firefox can be synchronized across devices so that bookmarks I add on my Mac as well as search history automatically appear on my iPad and iPhone. By the way, if you are weary of the ad-supported search results that appear at the top of a Google results list, you may want to look into DuckDuckGo as your search engine as I have in Firefox. Try them both and you will be surprised at the difference in quality of results. You also won't see the mysterious ads for products you researched as happens with Google.

You should carefully choose from the many extensions or ad-ons for either of these browsers and here are ones that remove distractions and enhance privacy and security. uBlock Origin is favored over Ad Blocker to limit advertisements. You may choose to "white list" some sites that object to the use of ad blockers of any type. My opinion: if they didn't have such obnoxious ads, perhaps I wouldn't be motivated to use the ad blocker in the first place! HTTPS Everywhere is a great extension to force secure connections when available. Browsers may have a similar sounding function built in but are less assertive. Privacy Badger is the recommended tool to prevent third party tracking. Privacy Essentials by DuckDuckGo also prevents tracking but has the additional feature of giving the site a privacy grade as well as blocking trackers. I have all four installed on both Chrome and Firefox and they do not interfere with each other. Users have reported no interference in any of the forums I have visited.

There are a handful of other add-ons or extensions that I believe enhance everyday functionality. I installed the Last Pass extension in all browsers so I can use that password manager. I recommend using a purpose-built and maintained password manager rather than a similar function that comes built into a browser. Just Read provides the same functionality to Chrome as Reader View which is built into Safari and Firefox. It provides a clean text without clutter and ads and is great for printing an article. Wikiwand reformats Wikipedia pages for a more modern, easier to read look in either Chrome or Firefox.

Finally, make sure your browser is set to automatically update itself. These updates are necessary for security. Both Chrome and Firefox may receive updates every several days to block vulnerabilities and keep current the information needed for proper functionality. If the browser you are using has only monthly updates (IE was known for this), it is an inviting target for exploit by hackers.

## How Worried Should You Be About the Health Risks of 5G?



Dave Johnson @davejoh

June 6, 2019, 6:40am EDT



5G, the next generation of cellular technology for the next generation of smartphones, is imminent. And with it, there's concern about the health risk of this new, more powerful network. How worried should you be about the coming 5G healthpocalypse?

By now, you may have seen articles on Facebook or alternative health websites. The gist: 5G is a dangerous escalation of traditional cellular technology, one packed with higher energy radiation that delivers potential damaging effects on human beings. Some 5G pundits contend that the new network generates radiofrequency radiation that can damage DNA and lead to cancer; cause oxidative damage that can cause premature aging; disrupt cell metabolism; and potentially lead to other diseases through the generation of stress proteins. Some articles cite research studies and opinions by reputable organizations like the World Health Organization.

It sounds worrisome, but let's take a look at the actual science.

### What Is 5G?

5G has been hyped for a few years, but this is the year that carriers begin the process of rolling out the new wireless standard. AT&T, Verizon, and Sprint have all started to deploy their networks in the first half of the year, though widespread availability is still a year or more away. 5G will get a foothold in little more than a handful of cities this year.

That isn't keeping device manufacturers and service providers from jumping onto the 5G bandwagon. Samsung's new Galaxy S10 and Galaxy Fold (the phone that unfurls into a tablet), for example, are both 5G-ready, along with models from LG, Huawei, Motorola, ZTE, and more.

5G offers at least a tenfold improvement in network performance. The last major network upgrade was 4G, which debuted in 2009 (the year of the Colorado balloon boy hoax), with a peak speed of about 10 Mbps. In comparison, 5G is poised to deliver peak speeds between 10 and 20 Gbps. And network latency will drop from 30ms to about 1ms, ideal for video game streaming, online video, and the Internet of Things, which is anticipating 5G to connect sensors, computers, and other devices with ultra-low latency.

### RELATED: *What Is 5G, and How Fast Will It Be?*

#### An Evolution of Concerns

Before we address 5G, it's worth pointing out that the latest health fears about radiation aren't happening in a vacuum (there's some physics joke in there, no doubt). Concerns about 5G are the latest iteration of decades of headlines about the dangers of electromagnetic radiation. We've seen controversies about everything from the health risks of Wi-Fi to smart meters.

Electromagnetic hypersensitivity, for example, is a hypothetical disease in which certain people experience debilitating symptoms in the presence of radiation like cell phones and Wi-Fi—so yes, Michael McKean's bizarre behavior on "Better Call Saul" is a real thing. But despite people claiming such sensitivities for at least 30 years, systematic scientific reviews have found that "blinded" victims can't tell when they're in the presence of an

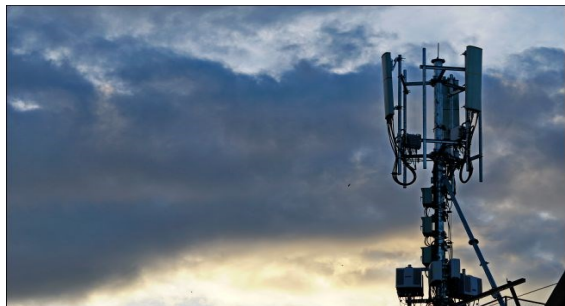
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electromagnetic field, and the World Health Organization now recommends psychological evaluation for people so afflicted.

Likewise, decades of studies have found no link between cell phones and cancers like brain tumors, though that hasn't kept municipalities like San Francisco from passing laws, requiring stores to display the radiation emitted by handsets—which implies, in the minds of consumers, risk.

### **How Dangerous Is Radiofrequency Radiation?**



At the root of all concerns about cell phone networks is radiofrequency radiation (RFR). RFR is anything emitted in the electromagnetic spectrum, from microwaves to x-rays to radio waves to light from your monitor or light from the sun. Clearly, RFR isn't *inherently* dangerous, so the problem becomes discovering under what circumstances it might be.

Scientists say that the most important criterion about whether any particular RFR is dangerous is whether it falls into the category of ionizing or non-ionizing radiation. Simply put, any radiation that's non-ionizing is too weak to break chemical bonds. That includes ultraviolet, visible light, infrared, and everything with a lower frequency, like radio waves. Everyday technologies like power lines, FM radio, and Wi-Fi also fall into this range. (Microwaves are the lone exception: non-ionizing but able to damage tissue, they're precisely and intentionally tuned to resonate with water molecules.) Frequencies above UV, like x-rays and gamma rays, are ionizing.

Dr. Steve Novella, an assistant professor of neurology at Yale and the editor of *Science-Based Medicine*, understands that people generally get concerned about radiation. "Using the term radiation is misleading because people think of nuclear weapons—they think of ionizing radiation that absolutely can cause damage. It can kill cells. It can cause DNA mutations." But since non-ionizing radiation doesn't cause DNA damage or tissue damage, Novella says that most concern about cell phone RFR is misplaced. "There's no known mechanism for most forms of non-ionizing radiation to even have a biological effect," he says.

Or, in the less refined but more visceral words of author C. Stuart Hardwick, "radiation isn't magic death cooties."

### **Studies Aren't Clearcut**

Of course, just because there's no known mechanism for non-ionizing radiation to have a biological effect, that doesn't mean it's safe or that no effect exists. Indeed, researchers continue to conduct studies. One recent study was released by the National Toxicology Program (NTP), an agency run by the Department of Health and Human Services. In this widely quoted study about cell phone radio frequency radiation, scientists found that high exposure to 3G RFR led to some cases of cancerous heart tumors, brain tumors, and tumors in the adrenal glands of male rats.

The study is a good object lesson in how hard it is to do science like this. As RealClearScience points out, the number of tumors detected were so small that they statistically could have occurred by chance (which may be more likely since they were only detected in male subjects). Moreover, the level and duration of the RFR

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exposure were well in excess of what any actual human would ever be exposed to, and in fact, the irradiated test rats lived longer than the unexposed control rats. Says Dr. Novella, “Experienced researchers look at a study like that and say that doesn’t really tell us anything.”

### **Sizing Up 5G’s Risks**

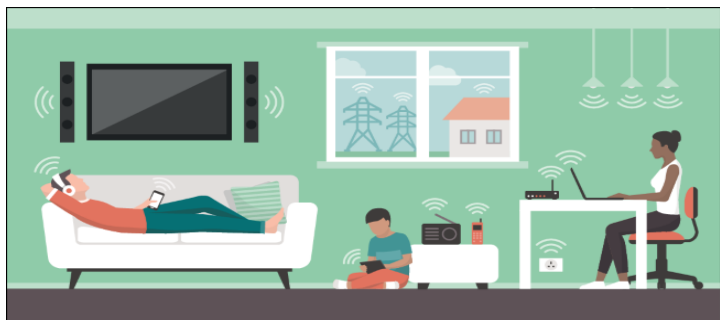
Ongoing studies aside, 5G is coming, and as mentioned, there are concerns about this new technology.

A common complaint about 5G is that, due to the lower power of 5G transmitters, there will be more of them. The Environmental Health Trust contends that “5G will require the buildout of literally hundreds of thousands of new wireless antennas in neighborhoods, cities, and towns. A cellular small cell or another transmitter will be placed every two to ten homes according to estimates.”

Says Dr. Novella, “What they’re really saying is the dose is going to be higher. Theoretically, this is a reasonable question to ask.” But skeptics caution you shouldn’t conflate asking the question with merely asserting that there’s a risk. As Novella points out, “We’re still talking about power and frequency less than light. You go out in the sun, and you’re bathed in electromagnetic radiation that’s far greater than these 5G cell towers.”

It’s easy to find claims online that the greater frequency of 5G alone constitutes a risk. Radiation-HealthRisks.com observes that “1G, 2G, 3G and 4G use between 1 to 5 gigahertz frequency. 5G uses between 24 to 90 gigahertz frequency,” and then asserts that “Within the RF Radiation portion of the electromagnetic spectrum, the higher the frequency, the more dangerous it is to living organisms.”

But asserting that the higher frequency is more dangerous is just that—an assertion, and there’s little real science to stand behind it. 5G remains non-ionizing in nature.



The FCC—responsible for licensing the spectrum for public use—weighs in as well. Says Neil Derek Grace, a communications officer at the FCC, “For 5G equipment, the signals from commercial wireless transmitters are typically far below the RF exposure limits at any location that is accessible to the public.” The FCC defers to the FDA for actual health risk assessments, which takes a direct, but low-key approach to addressing the risks: “The weight of scientific evidence has not linked cell phones with any health problems.”

In 2011, the World Health Organization weighed in, classifying RF Radiation as a Group 2B agent, which is defined as “Possibly carcinogenic to humans.” This, too, is nuanced. Says Novella, “you have to look at all the other things they classify as a possible carcinogen. They put it in the same class as things like caffeine. That is such a weak standard that it basically means nothing. It’s like saying ‘everything causes cancer.’”

Part of the problem with the WHO declaration is that it’s focused on hazard, not risk—a subtle distinction often lost on non-scientists, not unlike the rigorous distinction between “precision” and “accuracy.” (Precision refers to how tightly clustered your data is; accuracy refers to how close that data is to the real value. You might have a dozen miscalibrated thermometers that all tell you the wrong temperature with a very high degree of precision.) When the WHO classifies coffee or nickel or pickles as a possible carcinogen, it’s asserting hazard without regard for real-world risk. Explains Novella, “A loaded pistol is a hazard because theoretically, it can cause damage. But if you lock it in a safe, the risk is negligible.”

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Scientists will continue to test new networks as technology evolves, to make sure the technology we use every day remains safe. As recently as February, U.S. Senator Richard Blumenthal critiqued the FCC and FDA for insufficient research into the potential risks of 5G. As the NTP study shows, research into radiation risks is difficult and often inconclusive, meaning it can take a long time to make real progress.

But for now, everything we know about 5G networks tells us that there's no reason to be alarmed. After all, there are many technologies we use every day with a substantially higher measurable risk. And as Dr. Novella says, "With 5G the hazard is low—but non-zero—and the actual risk appears to be zero. We've picked up no signal in the real world."

### **Google Fi – Short for Fidelity, maybe a country code for Finland, or a new network?**

By Phil Sorrentino, Secretary & APCUG Rep  
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All are correct, but it is the new service that Google is making available that is the real news. At the last meeting where I had a chance to ask, "how many have a smartphone," there was a resounding show of hands that indicated almost 100 % of the attendees had one. (There were actually a few "flip phone" hold outs.) Although this was a "technically inclined" group of people, it is still amazing since the smartphone was only invented in 2007. In just 11 years the smartphone has had an enormous market penetration. Actually the statistics show that 95% of all Americans own a cell phone and that 77% of all Americans own a smartphone. That's around 250 million people in the US using smartphones.

The smartphone is the device that we come in contact with and are most familiar with, but it is the underlying network that the smartphone uses that allows it to connect to all the people and servers that we want to contact. Yes, we use the smartphone to contact people by voice, video and texts, but we also contact and communicate with servers like Google, Yahoo, Facebook, Amazon, Wikipedia, Alexa, Twitter, CNN, SunTrust, etc. to do our bidding. None of this contact would be possible without the network that connects these servers to our clients (smartphones, tablets, and computers). That's right, our smartphones are the clients in the Client-Server arrangement that makes our phone so useful. (If you had attended one of my internet related classes you would have known that.) So, without the network, our clients would not be able to contact the servers and the servers would just be left idle. But there is a network; in fact there are 4 major networks in the United States that offer nationwide wireless services: AT&T, Sprint, T-Mobile, and Verizon. (Listed alphabetically, not by size or customer service quality or any other quality.) US Cellular also provides regional wireless services, but not quite nationwide.

And now Google is proposing another network service. No, it's not going out and building cell phone towers; it is putting together the already available cell phone tower networks from some of the other network operators and making them available through a service called Google Fi. Google Fi will provide your phone the best of any of the three networks, Sprint, T-Mobile, or U.S. Cellular, by intelligently switching to the best network at that time and location. (Notice the two missing providers.) And it will use Wi-Fi to make calls and send texts whenever it can, thus possibly saving data. And when it connects via Wi-Fi, it automatically employs a Virtual Private Network (VPN) which encrypts all of the communications to keep them safe. They say

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that calls and texts work on Wi-Fi just as they do when you're using mobile data, and you can continue your phone call as your phone switches between the networks. To do all this magic, Google Fi uses a special Subscriber Identity Module (SIM) card. A SIM card usually identifies the phone (device) to the network. This special SIM card can identify your device to all three networks, T-Mobile, Sprint, and U.S. Cellular. And the really neat feature is that it can switch between the networks on-the-fly, based on many factors. You can order a free SIM card during the sign-up process or you can purchase one at an authorized retailer. SIM cards are now available at Best Buy and online from their website. The SIM card costs \$10, but it comes with a \$10 account that essentially makes it free.

Not all phones can be used on Google Fi, only unlocked phones can be used with the service. Recall that a locked phone can only be used on one specific network. (If you purchased your phone through Google Fi or the Google Store, your device is unlocked.) So, the phone you use must be unlocked. If you aren't sure if your phone is unlocked, you can contact your current network or the place where you purchased your phone. Also, you need to make sure you don't owe any payments on your device. All Android phones must be using Android 7.0 as a minimum and have LTE bands 2 and 4 (again, the place you bought your phone could probably help you with this.) The Samsung Galaxy 6, 7, 8, and 9, as well as the Motorola G5, 6, and Z 2 & 3 will probably work. And all iOS models must run iOS 11 or higher. The Apple 5, 6, 7, 8 and X should also be ok. (Phones that have been designed specifically for Fi, like the Pixel 2 or 3, sold by Google, will probably give you the best experience.)

The cost for the Google Fi service is not cheap but its billing is fairly straightforward. You pay \$20 per month for unlimited talk minutes and texts, and a flat rate of \$10 per gigabyte of data used (in .1 gigabyte increments) until you get to 6 Gigabytes (\$60) for the month. At that point you enter the "Bill Protection" level and effectively you have an unlimited plan for the rest of that month. That way you can use as much data as you need for the month without paying over \$80 total (\$20 base + \$60 data). Most of us would probably never get to the Bill Protection level, but if you did by accident you would be protected with this maximum expense cap. (There is another change at 15GB but most of us will probably never reach this.) With this type of billing, you don't have to pay for an "unlimited" plan every month, but you have one for any month when it may be required. This may be interesting for frequent travelers because the Bill Protection applies to international data usage as well as data usage at home. You can also set up a Group Plan for up to six people to share a single account. With the Group Plan, each additional person is \$5 less for the base plan charge, or only \$15 per month. Billing is handled by the account owner who is charged for the total bill, though it can be set up for each individual Group member.

So now you can get your network service through Google Fi, which tries to give you the best experience from three networks, instead of your smartphone being married to one specific network as most phones are.





# PLATEAU PC USERS GROUP, Inc.

## APPLICATION FOR MEMBERSHIP

\_\_\_\_ **New Member**

\_\_\_\_ **Renewing Member**

Return this application, with check for annual dues payable to "PLATEAU PC USERS GROUP." Return to the club Treasurer during our meeting or mail to PPCUG Treasurer, P.O. Box 3787, Crossville, TN 38557. Our annual dues are now payable on July 1st of each year. Annual dues are \$24 per single person / \$30 per family starting 7/1/2014 with partial years' dues as follows:

Join In	July-Sept Annual Dues	Oct-Dec	Jan-Mar	Apr-June
Single:	<b>\$24</b>	<b>\$18</b>	<b>\$12</b>	<b>\$6</b>
Families:	<b>\$30</b>	<b>\$22</b>	<b>\$15</b>	<b>\$7</b>

Date: \_\_\_\_\_ Amount Paid: \$ \_\_\_\_ :00, by Cash \_\_\_\_, or Check ( # \_\_\_\_\_ )

\_\_\_\_\_  
Last Name First Name Family Members (if family membership)

\_\_\_\_\_  
Address:

\_\_\_\_\_  
City State Zip Code ( \_\_\_\_\_ )  
Phone Number

E-Mail address: \_\_\_\_\_

I have belonged to a Computer Club before. Yes \_\_\_\_\_ No \_\_\_\_\_

I have used PCs since (year): \_\_\_\_\_

I have knowledge in the following areas that I would be willing to share with club members:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

January 2019



# August 2019



<u>Sun</u>	<u>Mon</u>	<u>Tue</u>	<u>Wed</u>	<u>Thu</u>	<u>Fri</u>	<u>Sat</u>
				1	2	3
4	5	6	7 <u>2:00 P.M.</u> PPCUG Board Mtg.	8	9	10
11	12	13 <u>6:00 P.M.</u> General Mtg. Presentation. Followed By Q&A Session	14	15 <u>1:00 P.M.</u> Plateau Pho- tography Club Workshop Mtg.	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

**Note:** Please see page #15 for the Plateau PC Users Group, Inc. [Application for Membership form.](#)