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By John Krout,

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**GENERAL CLUB MEETING
VIA ZOOM**

**Wednesday, August 24, 2022
6:00 P.M.**

Amazon Smart Devices Share Your Internet Connection with Your Neighbors

By Kurt Jefferson, Editor, Central Kentucky Computer Society
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I know several people who refuse to buy a smart speaker because they fear it will “listen in” on their supper-table discussions, their side of phone conversations, and even their interactions with their family pets.

The New York Time’s website that has garnered praise for its accurate testing on everything from ponchos to microwave ovens, addresses the issue with the headline, Amazon Sidewalk Will Share Your Internet With Strangers. It’s Not As Scary As It Sounds. The [Wirecutter](#) says you need to know four points:

- You can turn off Sidewalk at any time.

Now, news reports may seal the deal and reinforce their objections so they will never invite a smart speaker into their homes.

These reports have to do with Amazon smart devices. In June, the company launched a program called Amazon Sidewalk.

It requires owners of many Amazon Echo smart speakers and Ring security cameras to automatically share a portion of their wireless Internet connection with their neighbors.

How do you stop this? The only way is for you to turn off Sidewalk.

You have to opt-out of the program. Amazon defends Sidewalk by saying it makes sure that its devices that are out of reach of a Wi-Fi connection keep operating.

The concept behind Sidewalk is to turn home Wi-Fi connections into a “mesh network” that can extend Internet coverage to areas that residential Wi-Fi can’t reach. Amazon’s Echo and Ring devices work in unison to create this network by taking a small portion of bandwidth from home Internet connections.

But news reports indicate some security experts are frowning. They say the technology is so new that potential risks to one’s security and privacy are unclear.

Connecticut’s attorney general even warned consumers that Amazon’s approach is “unchartered territory” and urged people to opt-out of Sidewalk unless they are absolutely sure their privacy and security will be protected.

Others praise the technology.

A computer science professor in France tells The Washington Post that Amazon’s network would make it easier and less expensive to use Internet-connected devices as long as the system is open and accessible.

- Compatible devices automatically will have Sidewalk enabled.
- Your involvement is totally optional.
- Your Internet Service Provider does not like Sidewalk and could flag you for using it.

The Wirecutter points out, “Crucially, you will never know who is sharing your signal (or when), and vice versa – your devices will never be able to tell which Sidewalk device you’re connected to when you leave home.”

The Wirecutter describes how a Tile tracker on a child's backpack or dog collar may allow you to follow their path as they connect or disconnect from all of the Amazon Sidewalk-connected devices in your neighborhood.

Amazon says it alerted customers in emails last November and in May that Sidewalk was on its way.

If you'd like to disable or enable Sidewalk, Amazon provides instructions [here](#). It says you can use the Alexa app to change the settings. (You cannot use your desktop Mac or PC to make the changes.)

I suspect Sidewalk will push folks who don't trust smart speakers even further into the category of those who will never buy one of these gizmos. This is because they don't trust them. They don't favor them. They don't want them in their homes. Period.

Read more about Sidewalk at [Tom's Guide](#), [PCMag](#), [TechHive](#), [WIRED](#), and [C|net](#).

Let me add: We're going to hear plenty more about Amazon Sidewalk. The discussion about the pros and cons of this technology has only just begun. Stay tuned.

How Do I Know When It's Time to Buy a New Wi-Fi Router?

By Kurt Jefferson, Editor, Central Kentucky Computer Society
<https://www.ckcs.org> — [lextown2 \(at\) gmail.com](mailto:lextown2@gmail.com)

Shortly before Halloween last year, I noticed my Internet connection was getting slower and slower. I would visit CKCS.org to check the latest newsletter. Then I would visit The Animal Rescue Site to give free food to shelter pets. [The Animal Rescue Site | Click to Feed Rescue Animals \(greatergood.com\)](#)

Molasses pours faster out of the bottle than my Internet service. So I ran the free Speedtest app on my Macs and iPad. My Internet speed was as fast as usual.

But the connection was problematic. Pages were relatively slow to load. Delivery of email was on the pony express route. I would open my email app, and new mail would eventually appear.

I considered what was going on and realized that my eight-year-old WiFi router might be the problem. Most folks don't realize the beating their routers encounter. They can get very warm and have to deal with interference from neighbors' signals, microwave ovens, and even wireless landline phones. In addition, electrical spikes in the home (when the refrigerator compressor kicks on or the dryer is running) can take a toll on the router, even if it's plugged into a surge protector.

After checking everything I could think of, I ordered a new TP-Link router from Amazon (using smile.amazon.com, so CKCS gets a portion of what I'm paying Amazon.)

TP-Link is one of the top-rated routers, according to thewirecutter.com, one of my favorite review websites.

If you're wondering about your Wi-Fi router's performance, here are some signs your device is failing, according to robots.net:

Slow Internet – If web pages are loading more slowly than normal, that's a telltale sign that your router is not up to par. robots.net recommends plugging an ethernet cable from your computer into the router (and turning Wi-Fi off on your desktop or laptop.) If the signal perks up and pages load much faster, that's a clear indication your router's performance is failing. If you are streaming a show and the website on your computer or app on your iPad rebuffers constantly (a circular arrow often turns on the screen when there's a signal problem), that's a sign all is not right in router-land.

Your router stops functioning altogether or the indicator lights stop glowing – This is an obvious indication that your router cannot function properly. But, of course, you want to check your internet service provider first to make sure there's no outage in your neighborhood.

Overheating – This occurs more often than most people realize. robots.net writes, “Most routers, depending on the brand, are made from quality materials that can withstand minor impacts and heat. However, routers aging from three to five years and up can be damaged by heat. So, if you've been using your device longer than the mentioned average lifespan and it suddenly breaks down, perhaps its internal components are no longer working due to heat. When this happens, try to move your router to a place where the airflow is good or place a fan pointing at the device and see if it exhibits any difference. If not, it's about time to replace your router with a newer version.”

GeekFree

Mac Computers: A Love-Hate Relationship

By Joe Callison, Author, GEEK FREE & FOR~GO (For Geeks Only) blogs; Convener, Senior Techies SIG Seniors Computer Club of Greater Kansas City — <https://kcsenior.net/> — [sencommember00 \(at\) gmail.com](mailto:sencommember00@gmail.com)

Full disclosure: I do not own or regularly use a Mac computer. I have provided technical support and upgrade services for several clients with MacBook Pro, iMac, or iPad devices over the years and have virtual MacOS systems running on my Windows computers to help increase my knowledge and skills to support them.

As a long-time Windows PC user, my first exposure to macOS was a little intimidating. I can appreciate the similar challenges going from Mac to PC. Soon I began to realize that the differences were mostly in semantics. For most familiar Windows functions or apps, there was an equivalent macOS one with a different name. There are many helpful articles on the internet explaining this:

<https://www.online-tech-tips.com/mac-os-x/mac-equivalents-of-windows-software-and-features/>

<https://www.laptopmag.com/articles/windows-hot-keys-on-mac>

<https://support.apple.com/en-us/HT204216>

<https://www.dummies.com/computers/macs/comparing-common-windows-terms-with-mac-terms/>

There are also some differences in navigating the user interface on a Mac vs. a PC, but it can be learned with practice. My overall impression of the macOS after experiencing several of the yearly updates of Mac OS X is that the look and feel of the user interface changes much less than Windows does, which may be appealing to some users.

The Apple hardware is the most distinguishing difference between a Mac and a PC, in my opinion. Each new model usually introduces new advancements in lighter and thinner design, display technology, port capability, or other features. That, coupled with the fact that Apple only competes with itself (through the Apple certified refurbished market), means that Apple can and does demand a premium price compared to mainstream Windows PCs.

The biggest distinguishing difference between a Mac and a PC that I find particularly frustrating, along with many other independent repair companies, is that Apple likes to control the aftermarket repair business. Official Apple parts are only available through the Apple supply chain to Apple Certified repair facilities and only for as long as they want to produce the parts. Attempts to sell the identical part produced independently by the same factories have been limited by Apple sometimes officially coding parts. As a result, the device will either not function or not update with non-Apple-supplied parts that do not have the code. Other industries have tried taking similar actions and have eventually been stopped by

right-to-repair legislation to protect the independent repair shops and consumers. I can sort of understand the desire to control repairs while a product is under warranty, but after that, the consumer should have the right to obtain parts and repair the device in any manner they choose. I follow a website called [ifixit.com](https://www.ifixit.com/) that likes to dismantle new products to see what has changed and how difficult it might be to repair. Eventually, they produce repair videos and sell parts and supplies for do-it-yourself repairs. They also have information on the right-to-repair issue. Another good resource for information on the repair or upgrade of Apple products is Other World Computing (OWC).

<https://www.ifixit.com/>

<https://www.owc.com/>

In general, Apple products have a good track record for quality and reliability. However, a few notable miscues have been noted, such as a problem with Nvidia graphics processors popping loose or problems with new keyboard designs. How a company responds to such problems is essential, and I feel Apple could do a better job of that. Typically they wait until customers start threatening class action lawsuits before extending the warranty on defective products. Still, the repair or replacement is usually the same design as the original, so there is a good probability that the problem could reoccur. This does not seem to bother a lot of Apple customers who typically replace their devices frequently, but for those who want to hang on to a device for more than a few years, it could be an issue.

Offline Maps for Portable Devices

You can download free offline maps for later use on the go where no cell tower is accessible

Part 1 of a 3-part article series

By John Krout, Presenter & Newsletter Contributor — Potomac Area Technology and Computer Society
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INTRODUCTION

Mapping apps on portable devices require two data sources: (1) maps and (2) GPS signals. The standard default maps for widely used apps such as Google Maps and Waze are delivered to portable devices on-demand over cell phone data networks, meaning cell towers.

This access method for maps is not feasible in regions where a cell tower is absent. There are many such regions in the US. I have found myself beyond the reach of cell towers in much of the Potomac Highlands of West Virginia and Maryland and other mountainous areas nationwide, including most of Yellowstone National Park. Mountain ridges in these regions lack sufficient cell towers to make data service available in many areas. One or more ridges often block the line of sight to nearby towers.

The towers are intentionally limited to the Yellowstone Villages in Yellowstone, meaning the clusters of hotels, restaurants, gift shops, and gas stations around that gigantic park. When I visited that park in early September 2018, I found that data service during day times around Old Faithful Village was slowed to a crawl by the crowd of tourists posting photos and videos to social media.

You can count on GPS service just about anywhere outdoors since the GPS signals are delivered by satellites. Car GPS receivers have maps built-in, so those work where cell sites are too distant. But map apps cannot display online maps where cell towers are a distant memory.

I decided to look into how some mapping apps can use **offline vector** maps. **Offline** means maps stored on your Android device. **Vector** means that the maps show sharp detail over a wide zoom range, from one block to several miles, just like your favorite mapping app does.

While using an offline map, your map app will work fine where cell towers are absent or just plain slow.

TYPES OF MAP APPS

I came across three types of map apps that use offline maps. There may be other types, but these three describe the nine or ten map apps I have used over the past several years.

HYBRID: These apps provide online maps and can use offline maps installed by the user. Examples include Locus Map, a full-featured mapping app, and c:geo, a geocaching-oriented app in which a map display geocache icons. Unfortunately, both are available only for Android phones and tablets.

OFFLINE ONLY: These apps only provide offline maps; the maps must be downloaded using the app itself. This type has been mushrooming on app stores as of April 2021. Examples include Maps.me, Alltrails, and Avenza maps, available for both Android and iOS phones and tablets.

ONLINE+: These apps provide online maps with the option to download map portions for offline use. An example is Google Maps, available for both Android and iOS phones and tablets.

For those last two types, a caution is worth noting for any reader whose cell phone contract includes a monthly limit on data usage. Maps are big; downloading maps while connected only to a cell tower can use up your cell phone service contract monthly data limit in a hurry. If you have such a contract and know where you will be traveling, download offline maps in advance while connected to Wi-Fi.

This article series will explain how to configure and use offline maps in Locus Map (Hybrid type) and Google Maps (Online+ type).

OFFLINE MAP TRADEOFFS

Before you dive in, you should know there are some tradeoffs associated with offline maps. Mostly the news is good.

Whether or not you are in range of a cell tower, offline maps use **much less battery power** than online maps because your device is not constantly asking for more map data from cell towers.

If your cell phone contract includes a ceiling on monthly data usage, then using offline maps will help you stay below the data usage ceiling.

The offline maps I use are for Hybrid-type apps are **big files**, as you will see below. Fortunately, the maps can be stored on an inexpensive microSD card on your Android device.

FINDING OFFLINE MAPS TO DOWNLOAD

MapsForge is a German website that provides freely downloadable vector maps of the world, divided into various parts. For the US, you can download maps of individual states or multi-state regions. In addition, you can download maps of Canadian provinces and maps of most countries around the world. The US maps display place names in English. All of the Mapsforge maps are vector maps.

Ultimately the maps for North America can be downloaded from the German university site below, which is a fast university mirror site for Mapsforge:

<http://ftp-stud.hs-esslingen.de/pub/Mirrors/download.mapsforge.org/maps/v5/north-america/>

That web page is shown in **Illustration 1**. Each map file name ends with the extension **map**. The easiest way to get maps for the entire US is to download the five files beginning with the US, shown within the red outline.

US STATED COVERED BY THE MAPSFORGE REGIONAL FILES

US-South: DE, MD, VA, WV, NC, SC, GA, FL, AL, MS, LA, TX, OK, AR, TN, KY

US-Northeast: PA, NY, NJ, CT, RI, MA, VT, NH, ME

US-Midwest: ND, SD, NE, KS, MN, IA, MI, MO, OH, WI, IL, IN

US-West: WA, OR, CA, NV, AZ, CO, NM, UT, ID, MT, WY

US-Pacific: AK, HI

Additionally, the website folder named US contains a map for each US state at the bottom of the illustration. To get maps for the entire US from that directory, you would have to do 50 downloads rather than just downloading five regional maps. On the other hand, if you need maps for only a few US states, consider downloading one regional map or perhaps a couple of state maps.

The directory named Canada includes a map for each province of Canada.

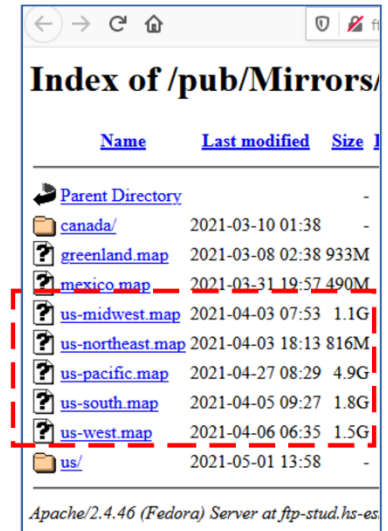


Illustration 1

The mirror site is a File Transfer Protocol (FTP) site. All the links to map files are FTP links, which means your click on a map file name in the website folder causes your web browser to download the file.

Three US regional files are 1 GB or larger, so the downloads are not accomplished quickly, even with my ISP's 300+ megabits per second (Mbps) download speed. The largest took about 6 minutes to download. If your download speed is minimal, or you have only minimal space on your Android device to save offline maps, you may prefer to download a few state maps instead.

You may notice that the US-Pacific.map file is significantly larger than any other. It is also seven times larger than its predecessor map, which was posted online in July 2020. I asked Mapsforge if they knew of any reason for that change. Unfortunately, as of May 2021, they have yet to find one. Perhaps, by the time you see this article, that problem will have been resolved by Mapsforge, and you will find a later, more compact US-Pacific.map file on the website. If not, and you need to use an offline map for Hawaii or Alaska, I suggest downloading the state map file found in the US folder on the site. The Alaska.map file, though quite large, is far smaller than the US-Pacific.map file.

DOWNLOAD STRAIGHT TO PHONE OR TO COMPUTER?

I downloaded it to my personal computer because it is connected to my router by ethernet. Thus, it generally has far higher speed service than my phone, connected to my router by Wi-Fi. Also, by keeping the maps files on my computer, I can readily install them on my tablet, retired phones, and so forth.

This ends Part 1 of this article series. In part 2, you will learn how to use these Mapsforge offline maps in the Locus Map app.

ABOUT THE AUTHOR: John Krout has been writing about the uses of personal computers since the early 1980s and is a frequent contributor to PATACS Posts, the newsletter of the Potomac Area Technology and Computer Society. He also occasionally demonstrates interesting uses of personal computers or smartphones at PATACS meetings. As of the end of 2019, before the pandemic started, his travels have included 48 US states, Europe, and South America.

President's Corner

Taking Technology Too Personally

By Greg Skalka, President, Under the Computer Hood Users Group

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When I was growing up, there seemed to be more universal and unifying experiences in our lives related to technology. We had much less tech than today, but it served us well and was more common in its applications and experiences. While there were the 'have' and 'have not' divides initially, new devices were often adopted relatively quickly and usually went to fairly high usage levels across society. This provided a common basis of experience for most people.

Television often provided a common topic that many strangers could discuss. With few channels and limited programming, a large number of people were watching the same things. You could talk to your friends about the shows you watched the night before as they likely watched some of the same ones. Telephones were very basic but provided a capability that everyone had to have. The instruments were all very similar as Ma Bell controlled the technology and the market. The rotary dial of the phone and the channel knob on the TV provided simple, common user interfaces. Anyone versed in using a phone or TV set could likely operate anyone's phone or TV. Operating a car was the same; with its standardized controls, almost anyone could drive any vehicle (even use most of the accessories). Our homes had very standardized appliances and lighting systems, providing a common user experience.

Today we have much more technology, much more complex technology, and more diverse technology. In addition to more capabilities, we have more choices, with more competition in the marketplace. As a result, there is much less standardization and much more personalization. Choice can be good, but with more options, there is often less consensus. There are more ways to personalize your experiences, which means fewer people use the same things, watch the same things or do the same things. This can result in fewer people caring about the same things as you do. While our technology supposedly enables greater communication, the countless choices, versions, and variations we have can sometimes be an isolating factor in society.

It is great to have thousands of choices of what to watch on television, but having a shared cultural baseline is more difficult when everyone watches something different. Choices don't end with content; how you watch can be personal. Fewer people watch "broadcast" television (over the air); we often choose cable, satellite, or streaming. Music is consumed in the same ways with the same multitude of choices. If you don't like what is playing, tell Alexa to skip to the next song. More and more, our entertainment is "on demand." At one time, we more often watched shows or listened to music with others; now, we are more likely to consume media individually. Instead of getting together to listen to that new album, we have our own playlists.

The introduction of the "personal" computer may not have started the trend, but it seemed to accelerate it. First, families used to sit around the radio in the evenings for entertainment; later, the focal point was the living room television. The personal computer pushed everyone to their own devices. I remember having four computers in our house when our two children lived with us. There are only two of us here, but we do have more than four computers in the house.

Smartphones are the ultimate in "personal" devices. Almost everyone has one. They are not the same. However, they could be iPhone or Android, and any number of makes, models, and screen sizes. Even the same phones can be loaded with personalized apps, photos, media, and cases. Unfortunately, no one shares them, so everyone is alone with their individualized device. I've seen this sad scene far too many times: a family out at a restaurant, and each member, while sitting together, is intently manipulating their own smartphone. And they don't appear to be communicating with each other.

There are now so many choices in the tech world and so few standards. Email used to be pretty standardized. Remember the AOL voice saying, "You've got mail." It was once so culturally universal that it was the title of a movie. Now there are so many email clients, web hosts, and types of devices to get mail on that everyone's email experience can be unique. I don't know if that is good or bad, but it is the direction most things are going. It is probably not hard to name five different ways of doing anything, from listening to a podcast, viewing a movie, placing a voice call, or writing a document.

Tech companies are just giving us what we want. More choices, more things we "need," more opportunities to buy their products and services. While there can be dominant providers in the market, being dominant does not necessarily make them the best. With so many things to have and so many choices for each, how can anyone optimize their lives? What is the best photo editor? The best streaming service? The best smartphone? The best family car? The best internet provider? These are hard questions to answer as they are. When you add "for me" to the end of each, it gets even more complicated. Do you spend so much time researching your choices that you never get to enjoy your things? By the time you have finished your research, is the item you chose out of date? Do you pick what your friends are using or what you have seen in commercials? Do you keep a suboptimal service because it is a hassle to change?

Our technology is much more powerful but also much more complex. At one time, you simply had to turn on the TV power switch to watch something. Now you may also have to select a signal source, app, or service, using a remote control with dozens of buttons on it. For example, to drive a car, you unlocked the door, put the key in the ignition switch, turned it, put the transmission in gear, and drove. Now you may have a remote fob to unlock it, you may press a button on the dash to start it (assuming the fob is near), and the pedal you press may inject more fuel into an internal combustion engine or may provide more current from a battery to an electric motor. Finally, one day you may get in and tell the car where you want to go.

As our things become more and more complex, they sometimes don't do what we expect them to. Sometimes this is our fault, as we may not fully understand how to use them. For example, my parents have had to buy a new dishwasher and a new washing machine in the last year, and though the new items are more energy-efficient and do more things, they are more difficult for them to operate. They bought a Samsung dishwasher with the controls on the top edge (rather than the face) of the door. This is confusing even to me. On their old dishwasher, you closed the door and set the controls to run it. On this new one, you set it to run and then close the door, as the controls are inaccessible with the door closed. Their old clothes washer had a big knob on the panel to control it; the new one has buttons to move LED indicators to set modes. It does more but is more challenging to figure out how to set.

Other times, our devices are so complex that they don't operate in a stable and consistent manner. Unfortunately, with our internet-connected devices, that which works today may not work the same tomorrow, as updates change features, fix bugs, and introduce new bugs. We have a lot of smart home devices in our house, including various Amazon Echo smart speakers and internet-connected light controllers of different brands and styles. I've been using the light device apps to turn on lights at certain times in the morning and then turn them off manually with our Echo Show in the kitchen. Recently I've been having problems controlling the lights through the Echo Show reliably. My wife uses the Show as a timer for cooking. Recently she has been setting timers, but the alarm never goes off. It seems like the Show got a bad update.

With all the choices and options available, tech means something different to each of us. We can tailor our devices and services to our preferences for experiences that are uniquely ours. However, if our devices don't act the way we want them to, it is not clear who is to blame or who will sympathize.

Watch A Zoom Meeting On Your HDTV

The big screen may make details easier to see and is easier to share with family members

Part 2 of a 2-part articles series

By John Krout, Presenter & Newsletter Contributor — Potomac Area Technology and Computer Society

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INTRODUCTION

As noted in Part 1, there are many reasons why you may want to watch a Zoom teleconference on your flat-screen HDTV rather than on a tiny phone or tablet screen.

This Part 2 article explains how you can connect your tablet or smartphone to an HDTV so that you can see the Zoom teleconference on a big screen.

As explained in Part 1, in general, there are two methods for connecting a tablet or smartphone to an HDTV:

(1) connect the Zoom device to the TV using an **HDMI cable**, or

(2) connect the Zoom device to the TV or a network-connected media box, using your **home Local Area Network (LAN)**.

These techniques are not limited to Zoom alone. Since the connection methods share the **tablet or smartphone screen**, the connection methods will work with any other app running on a tablet or phone. Games, email apps, weather apps, even split the device screen so you can see two apps side by side on the TV.

Using an HDMI cable, the first method is your only choice if your HDTV is not a modern smart TV and is not attached to any network-connected media box, such as a Roku or Chromecast. If you do not know if your TV qualifies as a smart TV, such HDTVs provide a Web browser inside the TV and often many other apps such as Amazon, YouTube, and so forth. And smart TVs almost always include an ethernet cable socket.

The second method, using your LAN, will work if yours is a smart TV connected to your home or, if yours is not a smart TV, a network-connected media box is attached to your TV.

ASPECT RATIO ISSUES

It is rare that a tablet or smartphone screen is exactly the same aspect ratio (long side to short side) as the standard 16:9 aspect ratio of an HDTV.

My Android tablet screen resolution, 4.1 megapixels, exceeds the HDTV standard 2.1 megapixels but is 16:10, therefore not as wide as HDTV. When I connected my tablet to my HDTV, I saw black bands on the left and right side of the tablet screen image on the HDTV, and the image looked a tad bit compressed horizontally.

My Android smartphone screen resolution is 4.3 megapixels but is 19:9, wider than the standard 16:9 aspect ratio of HDTV. As a result, I saw black bands above and below the smartphone image on the TV.

Both devices offer to adjust video output when connected to an HDTV, so the device screen image fills or almost fills the HDTV screen.

USING THE CABLE METHOD

This method requires a Display Adapter accessory connected to your smartphone or tablet's data and charging port. For Android devices, that port is either micro-USB or USB-C. Some iPads also have a USB-C port. For most other iPhones and iPads, the port is Lightning. Older Android devices have micro-USB ports.

Fortunately, Display Adapters are not expensive. Since my phone and tablet have USB-C ports, I obtained a JSAUX brand Display Adapter with a USB-C plug for direct attachment to my phone or tablet. This item cost less than \$15 and claims to be upward compatible with 4K video from the smartphone or tablet.

When I tried connecting my tablet to my HDTV using the Display Adapter and an HDMI cable, initially, the tablet displayed the dialog box shown in **illustration 1**. DeX is a Samsung-specific technology that allows a tablet to be operated remotely by a personal computer, for instance. However, DeX is not useful when the tablet is connected to a TV since a TV has no mouse and no keyboard. So, when the tablet is connected to an HDTV, tap the CANCEL button, which is circled in the illustration.

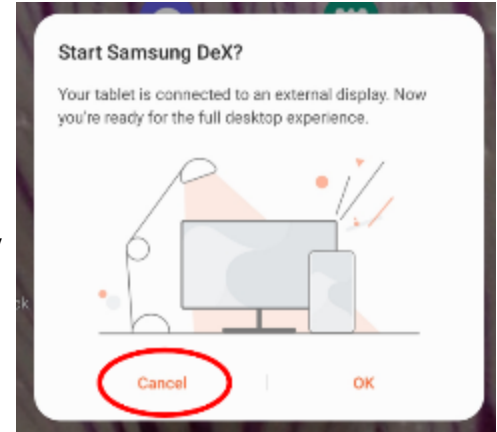


Illustration 1

Then I saw the tablet screen on my TV. So, I started the Zoom app on my tablet. **Illustration 2** shows my 42" HDTV with my tablet below it, both displaying the Zoom app running on my tablet.



Illustration 2

USING THE LAN METHOD

In my case, I have a Roku Premiere+ box connected to my LG smart HDTV. Although both the TV and the Roku box are connected to my LAN, the tablet and smartphone scanned my LAN and found only the Roku box, so I chose to connect to that device.

My smartphone and tablet both have the Zoom Cloud meeting app installed. There is no need to configure the Zoom Cloud app to make the LAN method work because the LAN method displays the entire tablet or phone screen on the HDTV.

The following info is specifically for Android tablets and smartphones.

The key capability is already available on my Android 10 tablet and my Android 11 phone. Both are Samsung products. It is not available on my older Samsung tablet, which runs Android version 8.1.

However, on the Google support page for Chromecast, I found that any Android device running Android version 6 or later and any iOS device running iOS 12 or later can install the **Google Home app** to add Chromecast to the device.

HOW TO CAST PHONE/TABLET SCREEN TO HDTV

These instructions are specifically for Samsung brand phones or tablets. Each maker of Android devices has its own brand for the software that casts the device screen image to a TV, Roku, or Chromecast device. Samsung calls that cast software **Smart View**.

STEP 1. Make sure the HDTV is turned on.

If you plan to use Roku or Chromecast, then turn on that device, and set the TV's input to display that device.

STEP 2. Since you cannot adjust the TV to Portrait orientation, you should use your phone or tablet in Landscape orientation, so the long edges of the screen are horizontal. That means you will see the highest resolution version of the tablet or phone screen on the TV screen.

STEP 3. Pull down the top edge of the phone or tablet screen. Then, pull it all the way down. Before this research, I had been consistently overlooking two large buttons, labeled **Display** and **Media**. You can see those buttons in **illustration 3**.

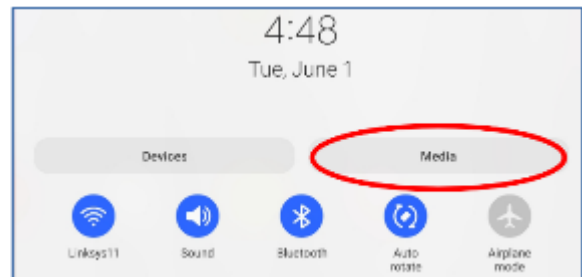


Illustration 3

If you have used the top edge menu to lock the tablet or phone screen in Portrait mode, as I did initially, then you will have to unlock that feature so that the screen can rotate to Landscape orientation. The button for that purpose is the **Auto Rotate button**, immediately below the Media button.

STEP 4. Tap the **Media button**, which is circled in the illustration.

The screen changes to the Media menu, shown in **illustration 4**.

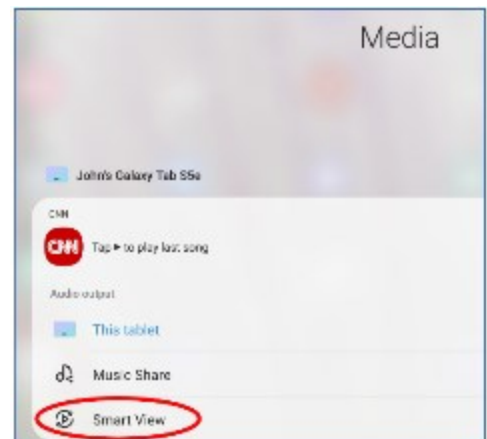


Illustration 4

STEP 5. Tap the Smart View button circled in the illustration. The screen changes to show the Smart View menu and takes some time to identify all of the Smart View compatible devices on the home LAN. In my case, two devices were found, the Roku Premiere+ box and a Samsung TV. You can see that in **illustration 5**.

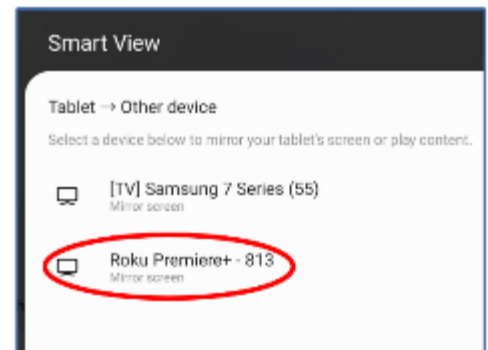


Illustration 5

STEP 6. Tap the device to which you want to cast your tablet or phone.

My LG TV was displaying the Roku box at the time. So I tapped Roku, which is circled in the illustration.

It may take several seconds for the connection to be established.

STEP 7. A popup dialog box appears on the tablet, as shown in **illustration 6**. Tap **Start now** to establish the cast, which is circled in the illustration.

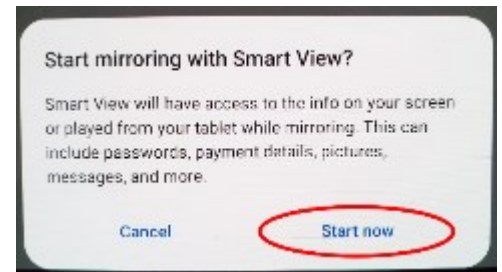


Illustration 6

STEP 8. On the TV, Roku asked me for permission to display the cast screen from my tablet. You can see that in **illustration 7**. I used the Roku remote to select the **Allow** choice, which is circled in the illustration.

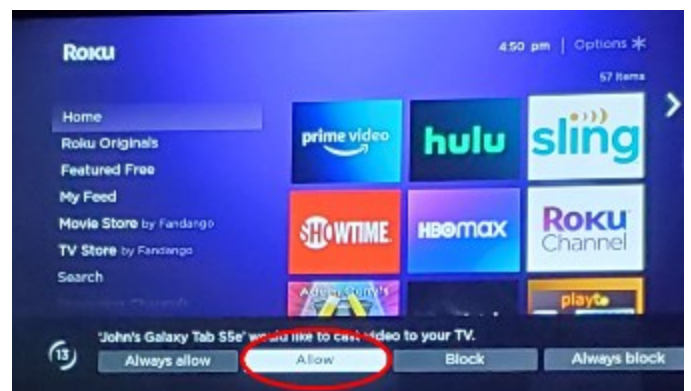


Illustration 7

If you wish, you can instead choose **Always Allow**, the choice to the left of Allow, so you do not have to use the Roku remote every time you want to cast to the Roku box.

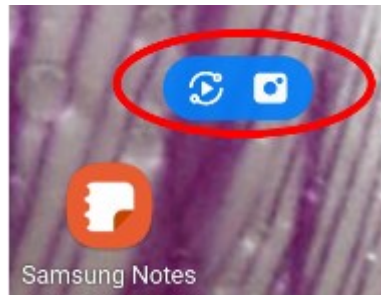
At that point, the TV screen shows the same image as my tablet. I started the Zoom Cloud app on my tablet, and the TV screen showed the Zoom app too.

STEP 9. Once the smartphone or tablet learns the TV's aspect ratio, you will see another popup on the screen, asking if you want to adjust the video sent out by the smartphone or tablet to fill the TV screen. I recommend that you tap the **Change button** in the popup. This popup appears only during the *first* time you connect the portable device to the TV; after that, the portable device remembers your choice. After you do the Change once, the phone or tablet remembers that setting and, when you later connect to the TV, re-applies the setting.

At that point, I can start or join a Zoom teleconference on my tablet, and the TV shows it all. A key point is that the smartphone or tablet camera continues to act as the Zoom camera for you, but you can leave that camera disabled if you wish.

HOW TO END THE CONNECTION

On the tablet screen, a small icon is added. That icon is circled in **illustration 8**.



The icon contains two symbols. Each symbol does two different things during a cast. Tap the left side of the icon.

That tap brings in a menu, shown in **illustration 9**, including a **Disconnect** choice to end the cast. Tap that choice, and the cast is ended.

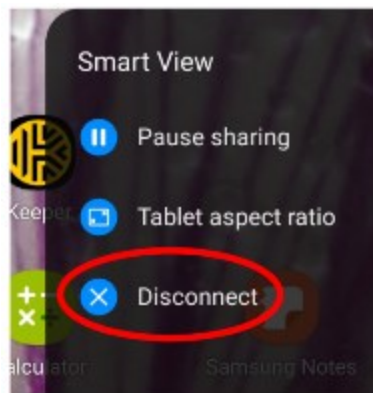


Illustration 9

ABOUT THE AUTHOR: John Krout has been writing about creative uses of personal computers since the 1980s. He is a frequent contributor to PATACS Posts, the newsletter of the Potomac Area Technology and Computer Society, and occasionally provides presentations at PATACS meetings. He lives in Arlington, VA, with his son, many computers and digital cameras, and too many cats.
