

The

PULP

Newsletter of the Hartford User Group Exchange

<http://www.huge.org>

Volume 39 Issue 09

SEPT. 15th General Meeting:

Raspberry Pi
& Other Stuff

**Rev. Fleming Hall
2533 Main Street,
Glastonbury, CT**

Q&A Session: 7 PM–7:15PM
Meeting starts at: 7:15PM



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MEETING LOCATIONS

**Rev. Fleming Hall
2533 Main Street,
Glastonbury, CT**

From The Editor

by Stuart Rabinowitz

How I spent my summer: I was planning on spending much of the time learning and playing with my new Raspberry Pi. But, I had to spend some time swapping out my router. Wound up getting an upgraded, newer version of my TP-Link AC1200 C-50 to TP-LINK AC1200 A6. The biggest differences are the Gigabit ethernet vs 100Mbps, 4 antenna vs. 2 for better coverage, easier setup with 'smarts' to allocate bandwidth usage between 2.4. & 5 Ghz, and also can serve as a base for a 'mesh' system. I can verify better coverage in my house, what had been a semi-slow zone upstairs is significantly better. On the other hand, I lost my network USB port. So I have to work out network storage, hmm I do have a Raspberry Pi. Also spent more time and money bolstering the economy. Had to troubleshoot sound issues on our HDTV. Turned out the audio circuit on the set was dying. Then did research on new 4k smart TVs and forgot to measure the stand it would sit on (short by 2 inches). Back to the store to get a smaller model. Hopefully, I've figured out my uses for the Raspberry Pi for the meeting. Actually, that is the meeting. I'll share my trials, tests, tribulations, and successes. In the News: Now you can run Mac OS 8 on your current Mac, there is a JavaScript for that. You can run a few games and some old Adobe applications. Do you remember playing Tetris, Frogger, & Pac-Man? These games and a few others are now available for your phone. In the good news, Microsoft patched a critical DNS bug in Windows Server, it was only 17-years-old. Garmin experienced a company-wide outage after an apparent ransomware attack. They have begun restoring 'Garmin Connect' features, services. They do report customer data was not impacted.

Microsoft has analyzed data on its newly remote workforce. One consequence was surprising, people worked longer.
Corning's new Gorilla Glass Victus can withstand 2 meter drops with improved scratch resistance.
A new 'Shadow Attack' can replace content in digitally signed PDF files.
Revealed: Home router warning. They're riddled with known flaws and run ancient, unpatched Linux. Many home router manufacturers dropped the ball on security and failed to provide updates.
Seven VPN Apps Exposed More Than a Terabyte of Private Data.
A robot walks into White Castle... and plays chef.
Backdoor accounts were discovered in 29 FTTH devices from Chinese vendor C-Data.
There may be new life for soon to be obsolete Intel Macs. They'll make great Windows (or Linux) machines for years to come.
Microsoft to permanently close all of its retail stores.
80,000 printers are exposing their IPP port online
Adobe wants users to uninstall Flash Player by the end of the year.
Your old videos may not play in macOS Catalina.
Microsoft's new Cortana app doesn't know the answer to 2+2.

Send your comments to editor@huge.org

Until next month...Happy computing!!

Here is the appropriate copyright citation for the "Tidbits" articles. Each article has a link to the full text.

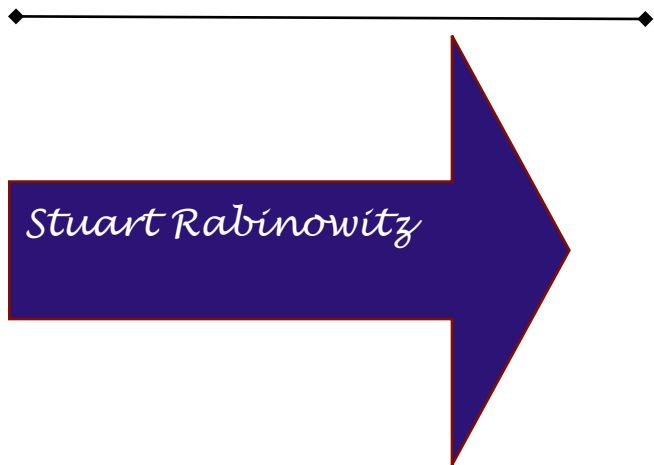
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A Little Computer Quiz

June Quiz Answers

- 1 Once upon a time, there was a game called "Lode Runner", but that was not the original name. What was it originally called & on what computer was it initially released?
- 2 Who wrote it?
- 3 When & what company sold it?
- 4 What companies turned him down?
- 5 How many levels did the first commercial release have?

- 1 One of the earliest home computers to have color without a color graphics card was what computer?
A The 1977 Apple II. BTW, The IBM PC & TRS-80 did the same thing
- 2 How was this accomplished?
A It was a software hack know as the NTSC artifact color
- 3 Actually, the same method was used by an earlier home entertainment system. What system was it?
A The 1974-75 Atari Pong Console
- 4 Who came up with the process?
A Allan Acorn, who had hired Steve Jobs
- 5 What was the first home video game console & who designed it?
A Ralph Baer designed the "brown box" that became the Magnavox Odyssey



Thinking of Buying a New Router?

By Jeff Wilkinson, President, Sun City Summerlin Computer Club

April 2020 Gigabyte Gazette

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Purchasing a new router can be an intimidating task. Trying to decide what you need and how to make the correct selection from the myriad offerings can certainly use some clarification. Having just gone through this experience, I thought I'd offer some guidelines.

If you have a modem/router supplied by your internet service provider and you are tired of paying a rental fee each month, you may also want to consider *purchasing* your own modem and router.

Overwhelming as it can be, let's see if we can sort it out. Your router is the central hub of your home network. The internet connection is input to the router from the cable modem and the signals are "routed" to your devices by either direct connection or Wi-Fi. You will want to choose a router that is powerful enough and has enough features to service all your current devices and has some expansion or growth capacity for future needs.

A first step would be to estimate the number of devices you expect to connect to your network via Wi-Fi – such as your smartphone, laptop computer, a streaming device like a Roku or Amazon Fire TV, Wi-Fi thermostat, newer IoT appliances, and Kindle devices. Next look at the size of your home and the locations where you will be using any of the wireless devices. If your home is over 2,500 square feet, you may want to consider a mesh wireless system. That requires multiple devices and can become expensive and is generally not needed in our community. Expensive doesn't always mean better!

Then consider the location of your internet connection, where your cable modem is located, or where the internet connection enters the residence. This is the location where you would most likely locate your router and you would want it to allow for strategic placement of the router. Up high rather than on the floor is desired. Open surroundings rather than behind equipment or in a cabinet would also be preferred.

Looking at routers and their advertised specs, they often sum up speeds of the various bands which is a meaningless number for all practical purposes. If the top speed from your Internet Service Provider (ISP) is 100 Mbps having a router capable of 800 Mbps is not necessary. An AC750 would work well for a single user.

You will want to look at routers with an "AC" prefix on the model number, AC750, AC1750, AC1900, etc. The AC prefix indicates WiFi-5 standards and AX indicates WiFi-6, which is the current latest standard but can be a bit pricey. Many of your current Wi-Fi devices won't support the AX standard. The iPhone 11 and Samsung Galaxy S10 are exceptions.

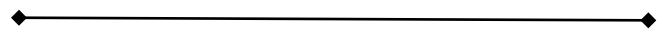
The numbers after the prefix give you a rough sense of the combined speeds of each of the router's bands - typically 2.4 and 5GHz, and perhaps a second 5GHz band if we're talking about a tri-band router. Since a device can only use one band at a time the number is not all that relevant and is a theoretical number achievable in a controlled lab environment, maybe. Of course, your speed will vary!

For the typical user in our community, someone who uses the internet to check email, surf the internet, buy online occasionally, and has a smartphone, a dual-band router can be had for under \$100. I don't think our internet speed will increase much from where it is today given the infrastructure upgrades required, so a superfast tri-band router is generally not needed although that is what I wound up with.

The common manufacturers are Netgear, Asus, D-Link, TP-Link, and Linksys but there are many others. A router should be easy to set up and require little to no maintenance. You can read users' reviews at many web sites to help you make a decision.

Routers are fairly easy to install and setup. Many come with Apps for your smartphone which can guide you through the process. We also have club members who can help install and set up a new router.

So, in conclusion, a router upgrade can be a major improvement to your home network.



Transferring and Preserving Photos
By Dan Douglas, President, Space Coast
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May 2020 issue, The Space Coast PC Journal
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Transferring and preserving photos is probably the single most common activity that practically all of us perform. Let's break this into two parts – A) the actual transfer of the picture files; B) how to store them.

A) The source of pictures can be varied, although I'm sure the most common today is via Smart Phone. The most common way to transfer pictures from a phone is to use a direct USB cable connection. The phone usually appears as a storage drive to the Windows file explorer and allows you to identify those files that need to be manipulated (copied/moved/deleted/edited/ etc.) as you would with any file stored on any of your storage drives. They may also come from an actual camera using a storage card or even through a direct WiFi connection that is available on some models. Of course, pictures may also originate as email attachments or as downloads from web sites. Some of these allow direct transfer to a directory/library/folder located on your local PC.

B) By default, Windows 10 creates a folder called Pictures for each user account on a PC. This allows each user to maintain their library of files separate from other users on the same PC.

As with any collection of files, you want to think about how to organize them into sub-folders to allow for easy access later. The fact that picture files from phones and cameras will have additional information stored internally, such as the date and place the picture was taken, which will allow for ease of searching and categorizing later. This information is

stored as part of the picture file as an Exchangeable image file format for digital still cameras (EXIF) standards. The storage can be on whatever is convenient and appropriate for what you want to do with them.

So for ease of portability, a USB memory stick can be ideal – cheap and readable by practically any device with a USB port. An SD memory card is common in many cameras and the micro SD card is commonly used in many other types of devices, such as android phones and other recording devices. CDs and DVDs were quite common ways to backup pictures a few years ago, but they have fallen out of use due to accessibility, speed, capacity, longevity, and cost considerations.

Of course, the best way today to ensure that you can always access your pictures is to use one of the many cloud services, many of which are already tied to your phone and PC. Refer to the April 2020 journal for a complete discussion of cloud storage options.

Video Chatting Apps

Skype, Facebook Messenger, and Others
By Tom Burt, Vice-President, Sun City Summerlin Computer Club

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While practicing “social distancing,” I got interested in ways to use video chatting to have face-to-face interaction with friends, family, and potentially with doctors (telemedicine) and that led to this article. **Video chatting** is a real-time video/audio conversation between two or more parties connected via the Internet. They use your device’s webcam, microphone, and speaker to create a virtual face-to-face interaction between you one or more other connected parties. These connections can be full audio and video, audio-only, or even just text messaging, depending on what hardware features are available.

We’ll start with an overview of some of the major video chatting apps and services and then delve into Facebook Messenger and Microsoft Skype in more detail to illustrate how it’s done.

Video Chatting Apps Overview

I found a couple of good articles describing the best free video chatting apps:

<https://parade.com/1010666/jessicasager/best-video-chatting-apps/>

<https://www.cnet.com/news/7-free-video-chat-apps-to-use-if-youre-social-distancing/>

At the top of the list was Apple’s **FaceTime**, which works for Mac and iOS devices, but not Android or Windows. The second was Facebook’s **WhatsApp** for Android and iOS devices (but not for Windows or macOS). High on the list was **Facebook Messenger** for smartphones, tablets, and computers. Also high was **Microsoft Skype** for smartphones, computers, tablets, smartwatches, and Xbox

One. Two others of interest are **Zoom** and **Webex**. All of these have free versions as well as higher-end paid versions. There are links to the details of these in the articles referenced above.

Most video chatting services mediate the connections through dedicated web-based servers that can handle thousands of simultaneous connections. As a user, you set up an account with that service. Your login ID also serves as the “handle” to which other video callers connect. For instance, on Facebook Messenger, you use your existing Facebook ID and on Skype, you use your existing Microsoft ID. You can easily create accounts if you don’t already have them.

Some of the video chatting apps are implemented as web browser extensions. Others, including Skype and Facebook Messenger, have standalone client apps that run on your desktop.

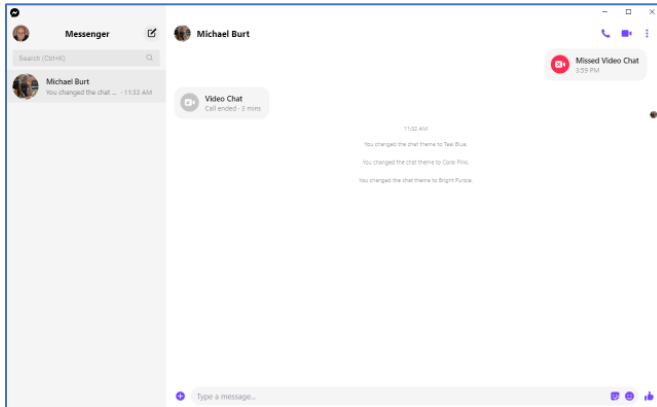
What Hardware Do You Need?

Aside from some kind of computing device (smartphone, tablet, PC, Xbox) with a video display, the key requirements are a **webcam**, **microphone**, and **speakers** connected to or built into the computing device. Laptop PCs, All-in-One PCs, tablets, and smartphones normally have these built-in and also have the proper hardware drivers installed by the manufacturer. On desktop tower PCs the webcam, speakers, and microphone are usually separate add-ons. In all cases, it’s important to have the latest hardware drivers for your webcam, speakers, and microphone.

Facebook Messenger

Facebook Messenger is available on Windows, macOS, Android, and iOS. It also can run via a web browser. For Windows, I recommend getting the free Facebook Messenger app from the Microsoft Store. Once it’s installed, you can just launch it from the Start menu or a desktop icon. The first time you

start it, you can configure and test your webcam, microphone, and speakers. It then asks you to login using your Facebook ID (usually your email address).



Facebook Messenger Windows App Main Screen

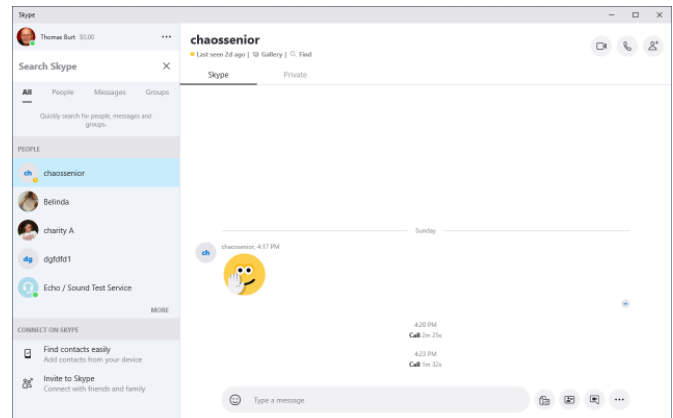
Once you're logged in, you can search for other Facebook users (family, friends, business associates), select one and then click an icon in the upper right to initiate a video or an audio call to that person. If the other party accepts your call, the screen will show what the other party's webcam is showing along with a small image of what your webcam is showing them. This helps you stay "on camera" during the chat. When you're done, you can click an "end call" icon to close the connection.

Microsoft Skype

Skype is available on Windows 7, 8.1, and 10, Android, iOS, and the Xbox game console. It is a built-in app on Windows 10 and is updated automatically via Windows update. You can download it from the Microsoft download site as well as the Android and Apple app stores.

When you launch Skype, it will first walk you through configuring your webcam, microphone, and speakers. You can then log in using your Microsoft ID and password. Once logged in, you can search for other Skype users or type in the Skype ID of a user. Then you can initiate a video or an audio call by

clicking the icons at the upper right or you can type text messages.



Microsoft Skype Windows App Main Screen

If the party you're calling accepts the call, the screen will display what their webcam is seeing along with a small image of what your webcam is seeing. When you're done, you can click an "end call" icon to close the connection.

Final Thoughts

As you can see, the Facebook Messenger and Skype desktop apps for Windows are very similar in layout and behavior. There's a lot I haven't touched on – especially chat's involving more than two participants. You will probably have a better experience of your desktop device is using a wired Ethernet connection, but a strong WiFi signal should also be OK. The video chat is definitely more engaging with a large screen that you don't have to hold.

Cloud Storage

By Dan Douglas, President, Space Coast PCUG, FL

April 2020 issue, The Space Coast PC Journal
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This month I'll be taking a look at cloud storage and what that means. The mystery of what is the 'Cloud' is actually very simple. On the internet, each accessible device has an IP address assigned by the Internet Service Provider (ISP) that connects that device to the internet. This internet address is then shared among the many servers worldwide that link all internet paths together. This is how you can access a given PC or Server that provides services such as a web site.

The SCPCUG web site, for example, is actually on some PC that no-one in the club has ever seen, likely based in the company facilities, of the company that we pay to 'host' our web site. So, when you use a browser to access www.scpcug.com, your ISP (Spectrum or AT&T, most likely in our county), refers to the Domain Name Servers (DNS) to locate the actual IP address to go to, to request the web pages for the SCPCUG.

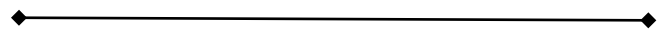
Now when it comes to cloud storage, the process is quite similar. The app that you use to perform cloud backups or copies of your files, like DropBox, Apple iCloud, Microsoft OneDrive, Google Drive, etc., connects to the target PC for that service across the internet and then proceeds to do whatever you have instructed the app to do. For example, I use OneDrive to backup all of my personal files on my home PC. The app is associated with my personal Microsoft account, which is required to use OneDrive services. That way my data is accessible to only my Microsoft account, from whatever app is requesting it. I have a OneDrive app on my iPhone as well as on all other Windows 10

PCs. As long as I log into that app with the correct credentials of my Microsoft account, I can access the files stored in my account.

Each remote PC is, in essence, just like your PC, except it has much more data storage available to it. Enough data storage to create a directory or folder for each user that has an account for that service. In reality, it is not one PC but rather a cluster of PCs or servers that appear as one logical server to provide connections to the various apps accessing the storage. Email works in a similar manner, where each Email account (email address) has it's own storage directory and is accessible only when the correct credentials are used (email address and password). A few years ago, many email servers would limit the size of your email storage, as storage was relatively expensive. Now, with storage being so much cheaper, your email provider either has increased your storage limits or has removed restrictions altogether. This may depend on whether you pay for your email account or if it is free.

When it comes to my personal preferences for cloud storage, I like OneDrive as I'm a Microsoft partner and the ease of accessing OneDrive can't be easier in my situation. DropBox and Google Drive, both offer some nice features if you are part of a company where multiple users may need to access common files frequently and keep changes to those files in sequence.

No matter what your choice may be, the important thing to remember is to backup your data somewhere! Cloud storage makes it easy and automatic which is what I've learned is the key to having good backups in place.



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Editor Stuart Rabinowitz
 Distribution George Carbonell

Membership: Anyone may become a member. Dues are \$12 per year and includes a one-year subscription to The Pulp. Meeting topics, times and places can be found on page 1 of this issue.

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20 1954 1st successful FORTRAN program run	21	22 Hobbit Day	23	24 Larry Wall B'day (created PERL)	25	26
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