
The Memory Map

Canton Alliance Massillon Computer Users Group



Volume 42, Issue 1

January 2022

Next CAMUG Meeting, January 17, 2022 Both Zoom and In Person!

- Join us in person at Holy Cross Lutheran Church, 7707 Market Ave. in North Canton, Ohio.
- OR use the Zoom link that Dennis has emailed.

Program

6:30 PM: Q & A and chit-chat

7:00 PM Meeting: Open Discussion of Christmas Gifts (either given or received) and White Elephants (gifts or items you dislike and want to sell)

Geek Free

Understanding Internet Speed

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

How fast is my internet connection? Am I getting what I am paying for? These are typical concerns for consumers, especially if they think their internet connection is too slow. We will look at this from the top-down, starting with the service from the internet provider to the residence or business, then the modem/router that provides the local network over wire and Wi-Fi, and finally the adapters in the computing devices connected to the local network.

Internet service is provided under language like “speeds up to” many megabits per second (Mbps). This is the maximum speed that will be delivered with the lightest load on the providers’ distribution system. Suppose many consumers happen to be

streaming movies simultaneously on the same network branch that you are connected to. In that case, you may only experience 80 or 90 percent of the maximum speed. This possibility should be considered before you decide on what speed of service you need. Do you know what speed you need? I doubt that most people do. Let's look at some of the requirements.

Netflix recommends 3 Mbps for standard quality video (SD), 5 Mbps for high-definition video (HD), and 25 Mbps for ultra high definition video (UHD). Hulu recommends 3 Mbps for content from their streaming library, 8 Mbps for live streaming, and 16 Mbps for 4K content. Remember that if you have two people in the household or business who may be streaming videos simultaneously, these requirements will double, and four people would quadruple. To ensure that you always receive at least these speeds from your provider, you should increase the total simultaneous requirements by 25%. Suppose you don't stream high-definition movies (or games) over the internet at all. In that case, you can use a rule of thumb of 5 Mbps for each simultaneous connection to the internet, which is plenty adequate for email, internet browsing, standard quality video or video conferencing, and such.

The modem/router which may be leased from your internet service provider or provided by you must be capable of handling the total simultaneous network requirements, in addition to providing each connected device with its needed speed. Old "G" routers (802.11g) generally have either 10 or 100 Mbps for each wired connection and a maximum of 54 Mbps for Wi-Fi connections. The Wi-Fi speed will drop off dramatically as the distance from the router increases.

The "N" routers may have a single 2.4 GHz radio like the "G" routers or may have both a 2.4 GHz and a 5 GHz radio (dual band). The single band generally provides up to 300 Mbps, and the dual band up to 600 Mbps (total for both bands). The wired connections maybe 100 or 1000 Mbps. Newer "AC" routers are all dual-band and are often identified by a total combined Wi-Fi speed such as AC1200 for one with a 300 Mbps 2.4 GHz radio and 900 Mbps for a 5 GHz radio, or AC1900 for one with a 600 Mbps 2.4 GHz radio and 1300 Mbps for a 5 GHz radio. Wired ports are generally rated for 1000 Mbps.

A modem and or router may have a total bandwidth limitation that is less than the sum of the ratings of all individual connections. In other words, a router with four wired ports rated 1000 Mbps each may only be capable of delivering a fraction of that if all ports are active simultaneously. Unfortunately, the bandwidth rating is often a very difficult specification number to find.

The wired Ethernet adapter or Wi-Fi adapter in your computer or other internet-connected devices may also be a G, N, or AC capable type with its own specifications for speed. For the last several years, computers have included wired adapters rated 1000 Mbps. The ratings for Wi-Fi adapters vary greatly, as does their antenna's

capability to send and receive signals over distance. For example, the 5 GHz adapter in the laptop I am using connects to the router at 390 Mbps at a distance of about 20 feet. An external USB 3.0 Wi-Fi adapter I recently tested connects at over 700 Mbps from the same distance. For those with 1000 Mbps internet service, the Ethernet cable used for wired connections can limit achievable speeds. It will generally be necessary for cables over a few feet in length to use CAT 5e or CAT 6 cables to obtain maximum speeds.

Ultimately, the most interesting number is the speed we can actually get at our computer or device. The [speedtest.net](https://www.speedtest.net) site is often used to test the speed between your device and a selected server on the internet. For the most accurate test, other background tasks that could be connecting to the internet should be temporarily halted. Also, note that the site recommends using their app for testing connections rated 100 Mbps or more instead of the browser version. I have tested both ways on my 1000 Mbps capable internet service, and the browser version showed 394 Mbps compared to over 900 Mbps with the app. Real-world connections can be much slower than the test speeds because of the load on the servers for a particular website you are connecting to. Using a VPN service also generally results in slower speeds.

CAMUG December 2021 Meeting Minutes



The meeting was held in person at Holy Cross Lutheran Church, and it was also held on Zoom using an account provided by APCUG with Dennis Smith as host.

President Dennis Smith presided over the 458th meeting of CAMUG on Monday, December 20, 2021, starting at 6:30 PM with general chit-chat. Topics discussed included Covid, a Ken Burns TV program, and the wind-up fire alarms at Quail Hollow. Jan Bredon also showed his new Wyze car, his Christmas present to himself.

Dennis welcomed everyone present. There were eleven members present and no visitors. Five people were at the church and six attended via Zoom. Since that is more than 15% of the membership, the meeting was declared valid.

Liz Milford was the winner of the on-time drawing.

Dennis mentioned the credit of \$5 toward your membership dues for each new member you bring in.

Nominations and Elections for 2022

- President: Dennis Smith was previously nominated and had accepted the nomination. No additional nominations were offered. Jan Bredon moved that nominations for President be closed. Jim Albright seconded the motion, and the motion passed.
- Secretary: Liz Milford was previously nominated and had accepted the nomination. No additional nominations were offered. Gerald Schaefer moved that nominations for Secretary be closed. Cheryl Krantz seconded the motion, and the motion passed.
- Treasurer: Tim Elder was previously nominated and had accepted the nomination. No additional nominations were offered. Jim Albright moved to close nominations for Treasurer. Gerald Schaefer seconded the motion, and the motion passed.
- Three-year Director: Alice Lungociu was previously nominated and had accepted the nomination. No additional nominations were offered. Gerald Schaefer moved that nominations for Three-year Director be closed. Jan Bredon seconded the motion, and the motion passed.
- Director-at-Large: Carol Joliat was previously nominated; she had initially accepted the nomination and later declined through email. Carol also nominated Jim Albright for Director-at-Large, and he accepted the nomination. Gerald Schaefer moved that nominations for the one-year term Director-at-Large be closed. Liz Milford seconded the motion, and the motion passed.
- Since all positions had only one candidate, Gerald Schaefer moved to accept the election of all candidates by acclamation, and Jim Albright seconded the motion. The motion passed.

Program: The program included several topics followed by discussion of additional topics.

Zelle: Jan Bredon and Tim Elder have set up the club bank account so that it can accept Zelle payments. The CAMUG account is zelle@camug.com. Then Jan sent \$20 from his bank to zelle@camug.com and it was transferred almost instantly. Members can now use Zelle to pay dues or even to purchase raffle tickets for the meeting. Most banks have a connection to Zelle, and people can access Zelle either through online banking or through their bank's app. If your bank doesn't use Zelle, you can use the Zelle app and link a debit card. Of course dues can also be paid by check or by cash at meetings.

Pros and Cons of Leaving Your Computer on All the Time: Jan explained that there are two schools of thought on this: leave it on or turn it off. He feels there is no definitive answer. He found many videos on YouTube featuring both sides of the question. If you leave the computer on, eventually it will wear out just as a light bulb will burn out. Also, your computer may be more vulnerable to hacking if left on. If

the computer is turned off, nobody can hack you, but the computer can't get updates overnight.

Routers: A router has a minimal firewall. Adding another router behind the first router will isolate the devices connected to the second router. Always remember to change the default password on all routers.

Use of Recreational Fuel: Cherie Parker asked about this. Jan and others avoid fuel containing ethanol in devices such as blowers, chain saws, and generators. Fuel without ethanol, often called recreational fuel, can be found at a station at the corner of Route 43 and Easton for about \$4.00 per gallon. It's also available at Hartville Hardware on the lower level.

Other topics:

- A normal spinning **hard drive** is a mechanical device and can wear out. An SSD (solid state drive) should last longer.
- A **laptop** tends to heat up and needs air around it. Avoid putting a laptop on your lap, on the couch, or on a pillow. A laptop desk allows air circulation.
- **Battery problem:** After Jan had updated his laptop, the battery ran down and the laptop wouldn't start. The solution involved removing the battery, holding down the on/off button for 30 seconds, reinstalling the battery, plugging in the laptop, and turning it on. Bruce Klipec said this also worked with a UPS that had a totally discharged battery.
- The group discussed where to buy **replacement batteries** for laptops and other devices. Bruce Klipec described his use of UPSs (uninterruptible power supplies).
- **Streaming YouTube TV:** Jan uses YouTube TV (TV.youtube.com) for streaming live TV shows. Shows can also be recorded and saved for 9 months; no DVR is needed. It costs \$65 a month for six accounts but only 3 accounts can stream at the same time. An internet connection is required; Jan uses Spectrum, but only for internet. He also has an antenna for local stations.
- Using **Word on an iPad:** Use the free version using a browser at office.com. Not all features are available in the free version. Google Docs is similar and free.
- It is possible to turn an **old computer** into a Chromebook.
- Topic for future meetings: **Anti-virus programs.**

Adjournment: Liz Milford moved to adjourn the meeting. Jan Bredon seconded the motion. The meeting was adjourned at 8:39 PM.

Submitted pending Board approval,
Liz Milford, Secretary

CAMUG Board Meeting 12/20/2021

President Dennis Smith called the CAMUG Board meeting to order about 8:45 PM on Monday, December 20, 2021, both in-person and on Zoom. This meeting followed immediately after the regular meeting. All seven of the Board members were present; therefore, the meeting was declared valid.

President	Present	Dennis Smith	president@camug.com
Secretary	Present	Liz Milford	secretary@camug.com
Treasurer	Present	Tim Elder	treasurer@camug.com
Senior Director	Present	Carol Joliat	directors@camug.com
Director	Present	Bruce Klipec	
Director	Present	Jan Bredon	
Director at Large	Present	Jim Albright	
Web Page	Present	Dennis Smith	webmaster@camug.com
Software and Book Review	Present	Jan Bredon	
Membership	Present	Carol Joliat	membership@camug.com
Newsletter	Present	Liz Milford	newsletter@camug.com
Computer 101	Present	Carol Joliat	
Ways and Means	Present	Jan Bredon	
Others Present		Dave Bohm	

Approval of Minutes:

November Board Meeting: Jan Bredon moved to accept the November 23, 2021, Board Meeting Minutes as printed in the December newsletter. Carol Joliat seconded the motion, and the minutes were approved.

Reports:

Treasurer's Report: None

Membership Report: Carol had emailed an updated membership list to the Board.

January meeting topics:

January 17th meeting will be held in-person and on Zoom.

6:30 PM: Q & A and chit-chat

7:00 PM Meeting: Open Discussion of Christmas Gifts (either given or received) and White Elephants (gifts or items you dislike and want to sell)

New Business:

Other future meeting topics:

Backing up using Acronis or Windows Backup
Anti-virus programs.

Resuming the 6:15 Beginner's SIG. This discussion was tabled for now, but individual help can be given upon request.

Motion to Adjourn:

At 8:57 PM, Liz Milford moved to adjourn. Jan Bredon seconded the motion, and the meeting was adjourned.

Submitted pending Board approval,
Liz Milford, Secretary

About CAMUG

Our club is open to anyone with an interest in computers and technology. A household membership is only \$20 per year, and a visitor can attend two meetings free without any obligation.

Normally, monthly meetings are held the third Monday of the month at Holy Cross Lutheran Church, 7707 Market Ave. in North Canton, Ohio and also on Zoom. Informal chat begins at 6:30 PM and the regular meeting begins at 7:00 PM. At every meeting, we cover topics ranging from cell phones to computers and from software to the internet and networking. Board meetings are held the fourth Tuesday of the month at 7:00 PM using Zoom. Members are encouraged to attend the Board meeting although only Board members can vote; members can email Dennis Smith (denniss@camug.com) to get the Zoom link to the Board meeting.

The club mailing address is CAMUG, PO BOX 80192, Canton, OH 44708. The web site is at <http://www.camug.com>. CAMUG has a Facebook page called CAMUG Users Group at <https://www.facebook.com/CAMUG-Users-Group-100732168306718>. CAMUG also has a blog at <https://camugoh.blogspot.com>.

"The Memory Map" is a non-copyrighted newsletter. Permission is given to reprint the original articles as long as full credit is given to the author and source. The publication of information in this newsletter constitutes no guarantee of accuracy, and its use by readers is discretionary. Opinions expressed are those of the authors and not necessarily those of CAMUG.



CAMUG is a member of the Association of Personal Computer User Groups. APCUG is a worldwide organization that helps groups devoted to the world of technology by facilitating communications between member groups and industry. It offers the Virtual Technology Conferences and Wednesday Workshops, provides newsletter articles, and has a list of speakers for club programs. Explore the APCUG website at <https://www.apcug2.org>, and the APCUG Facebook page at <https://www.facebook.com/APCUG>.

Membership Report

December 2021

by Carol Joliat



Renewals: None

Total Family Memberships – 19



CAMUG Monthly Summary

Tim W. Elder, Treasurer 12/20/21

	Cash	Checking	Total
Start Balances	\$60.00	\$1118.96	\$1178.96
Total Income	\$0.00	\$20.00	\$20.00
Total Expenses	\$5.00	\$75.00	\$80.00
Transfer	-\$0.00	\$0.00	\$0.00
End Balances	\$55.00	\$963.96	\$1118.96

CAMUG Officers

President: Dennis Smith 330-477-5893

Secretary: Liz Milford 330-620-5178

Treasurer: Tim Elder 330-875-2323

Senior. Director: Bruce Klipec

Director Jan Bredon

234-564-0045

Director: Alice Lungociu

Director at Large: Jim Albright

Membership: Carol Joliat

Asst. Membership: Alice Lungociu

Web Page:

Newsletter: Liz Milford 330-620-5178

Tim Elder 330-875-2323

Computer 101: Carol Joliat

Ways and Means: Jan Bredon

List of Members

Name	E-Mail
Albright, Jim	jima
Bohm, David	daveb
Bredon, Jan	janb
Brugger, Bruce	bruceb
Chapman, Lila	lilac
Elder, Tim	time
Girt, Jesse	jesseg
Joliat, Carol	carolj
Klipec, Bruce	brucek
Kramer, Cecelia	ceceliak
Krantz, Cheryl	cherylk
Lungociu, Alice	alicel
McCoy, Myra	myram
Milford, Elizabeth	elizabethm
Newsome, Bernard	bernardn
Parker, Cherie	cheriep
Ponzani, Doris	dorisp
Schaefer, Gerald	geralds
Smith, Dennis	denniss

To email members, use the email name above followed by @camug.com

Visit our Home Page:

<http://www.camug.com>

Our Facebook Page:

CAMUG Users Group

Our Blog:

<https://camugoh.blogspot.com>

**Need help
with your electronic gadgets?**



Canton Alliance Massillon Users Group
Computer Users Group

Assistance for users of all ages and skill levels

When: 3rd Monday each month

Where: Holy Cross Lutheran Church
7707 Market Ave. N
North Canton, OH

Currently, we are also meeting via Zoom
Email us for a Zoom invitation!

Time: 6:30pm Social Time, Q&A
7:00pm Main Meeting

Ongoing topics include:

Computers	Tablets	Digital
Photography	Smart phones	eBooks
Toys & Gadgets		

info@camug.com

www.camug.com