



Abort,
Retry,
Ignore....

Founded 1984 **ARI** is the
Official Newsletter of
Computers Are Easy User Group

March 2018

Volume XXXVI Issue 3

Confirmed meeting dates

:: ::

March 24

Board Room

April 24

Room A

May 26

Room A

:: ::

NEW!!! Mailing address:

CAEUG

P.O. Box 3150

Glen Ellyn, IL 60138

:: ::

Check

www.caeug.net
for confirmed meeting dates

:: ::

MEETING

PLACE is the
Glenside Public
Library

:: ::

Visitors

Welcome

HOPE TO SEE YOU THERE!!



Next meeting will be on March 24 (4th Saturday)

in the Board Room

Presenter: Kathy Groce will present an APCUG video

Libre Office Hands-On Demo and Presentation by John Kennedy

Is your cell phone CDMA or GSM? – Should you care?

By Phil Sorrentino, Contributing Writer, The Computer Club, Florida
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The short answer to the second question is “probably no,” but there are some benefits from knowing the differences that may help you decide which cell phone provider or cell phone to choose. The answer to the first question depends on your cell phone provider. CDMA and GSM are the two basic technologies used in modern digital cellular networks, which are then used by mobile phones. These two technologies are very different. The difference is much more than the difference between a Ford and a Chevy. It’s more like the difference between a gas-powered car and an electric vehicle; they both do the same thing, they get you to your destination, but the internal workings are very different. You can’t use a

Con't pg 2

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CDMA phone on a GSM network (and vice versa), just like you couldn't use the gas engine from the gas-powered vehicle to run an electric vehicle. So, if you are on a CDMA network, you need a phone with CDMA radio-telephone circuitry, and if you are on a GSM network, you need GSM circuitry in your phone. So, which phones have what, may be a question you will have to answer when signing up for your next cell phone plan.

Although there are many places to buy a cell phone, in the United States there are only four major cell phone networks. (US Cellular is actually a fifth, but much smaller network.) The four are Verizon, AT&T, Sprint, and T-Mobile, and they are evenly divided by the technologies used. Verizon and Sprint use CDMA and AT&T and T-Mobile use GSM. (US Cellular uses CDMA.) CDMA stands for Code Division Multiple Access and GSM is short for Global System for Mobile (Communications), both of which are terms used to represent the collection of many radio-telephone technologies that comprise the two different systems. CDMA actually describes the technology that is used to keep separate all the data channels that use the same wireless frequency band. Whereas GSM is the name of a standard used to describe the protocols used in digital cellular networks. But then, what is in a name? A rose, by any other name, would still be a rose. By the way, most of the world outside the US uses GSM, so if you need to use your phone over-seas, it will probably have to be compatible with GSM. This is another example of how an open standard can dominate over a proprietary product (think Android over iOS). GSM is an open standard, developed by the European Telecommunications Standards Institute, whereas CDMA is a proprietary technology developed and owned by Qualcomm. (Just to be complete, GSM uses a Time Division technique for keeping channels separate.)

Another difference you may be already be aware of, is the SIM card, or Subscriber Identity Module. GSM uses a removable SIM card as a container for customer information. CDMA does not typically use a SIM card. The SIM card is an integrated circuit chip that is intended to securely store the International Mobile Subscriber Identity (IMSI) number and its related cryptographic key, both of which are used to identify and authenticate subscriber devices. It's much easier to change phones on GSM networks, because of the removable SIM card. Just take the card out, put it into another phone, and the new phone now has your number. CDMA networks use a different technique to identify and authenticate subscriber devices. CDMA uses a network based database. The phone information has to be put into a "white list" database, that is then used to control access to the network. If you have a CDMA phone with a SIM card, it may be there to support foreign GSM networks and the phone may be called a "world phone" (which may be good to have if you travel a lot). You may also find a SIM card in a newer CDMA phone. It may be there to support the newer faster 4G LTE networks, because SIM cards are part of this new standard. Where did 4G LTE come from? you might ask. Well, so far, we haven't said anything about network speed and that is what 4G LTE refers to.

Most current networks operate at a 3G speed, which translates to a data rate of around 1-2Mbps. 3G has been in use since about 2003. The G only indicates Generation. The 4th Generation or 4G provides an almost 10 times increase in speed, so 4G will move data at around 10Mbps. The LTE indicates "Long-Term Evolution", which is a standard for high-speed wireless communications for mobile phones and devices. LTE is the upgrade path for both GSM and CDMA networks. (By the way, 1G was for analog cell phones and 2G was for early digital cell phones.) So now many phones have the appropriate hardware and software that enable them to operate on both 3G and 4G networks of their specific type of network, GSM or CDMA. The cost of a phone that can operate on the 4G network will be higher than a phone that can operate only on the 3G network. (There are many technical details defining and describing the 3G and 4G and

even the future 5G standards but I have simplified things so as to not get bogged down in those voluminous and sticky details.)

All of the four major networks have 4G, so if money is not an issue, a 4G phone would be advisable. Also, if you spend a lot of time on the web or regularly stream video, 4G might just be worth the extra phone cost. So, in general, if you expect to transfer large amounts of data, 4G is definitely worth it, but keep in mind that it is very easy to go over your data plan limit when you are working at the higher speed. Finally, if you want to future-proof your phone, get a 4G phone. 4G is only going to get better because that is where network operators are spending their money. Also realize that a 4G phone is backward compatible and will operate on 3G and even 2G networks. You still might consider only a 3G phone if you don't have a need for the faster data rate of 4G, and/or you use it mostly for voice. Also, if you live in an area that doesn't have 4G yet, the 3G phone might be just fine. So, in the long run, you should probably care about the network type so you can make an informed decision the next time you have to buy a phone or phone plan.



Lamp Post 200

by John Spizzirri
March 2018

On Friday March 16 Kathy Groce and I attended the FermiLab (1) Lecture by Manu Prakash about Frugal Science. Manu is an Assistant Professor of Bioengineering at Stanford University. He and his graduate students are looking at ways to accomplish scientific tasks in the health field using simple tools that can be made by hand. He spends much of his field work in India and sub Sahara Africa where health care is hindered by lack of infrastructure (no electricity, no transportation, and no clean water) and superstitions. He cited an example where he visited a clinic in Uganda, Africa. He saw a \$10,000 centrifuge being used as a door stop. He asked about it. It had been given to the clinic by an aid agency. The problem was that the clinic had not had electricity in 5 years so the optimum use of the device was as a door stop. The clinic still had need of a centrifuge to diagnose blood born diseases but was unable to do so. He and his graduate students thought about the problem and found a solution in a toy that is at least 3,000 years old. The toy is called a whirligig (2) in India. It consists of a button or disc on a loop of string, pull the looped ends to set the button spinning. It spins one way, stops then spins the other way. The stops are caused by the twisting of the string. Prakash calls the device a paperfuge ((3), (4)). It can be made for less than 25 cents and accomplish what the \$10,000 machine does in less time, without electricity. Once the blood is separated another device is needed to help diagnose certain diseases. It is called a microscope. Unfortunately, microscopes require a great deal of maintenance when they are not kept in clean, air conditioned spaces. Graduate students to the rescue. They thought about the problem and came up with the Foldscope ((5), (6)). Using community funding, Kickstarter (7), and a grant from the Bill and Melinda Gates Foundation (8), they were able to create an origami (folded paper) microscope that cost less than \$1 to make. They researched lenses for about a year for the optimum, general purpose lens. In that research, they also came up with some special purposed lenses and an accessory that allows the attachment of a cell phone to take photographs or video. They have given these Foldscopes away to school children around

the world (including poor areas in the United States) to spur scientific learning. Many were given to clinics for diagnosis of Malaria, Dengue fever, Zika virus, and schistosomiasis. The last part of lecture concentrated on the mosquito born diseases. Of the 3,500 known types of mosquitoes about 40 carry diseases that affect humans. For the last 100 years the only way to investigate whether a mosquito was a disease carrier was to wait until one tried to bite you and capture it. Once captured the mosquito could be dissected to see if it had the disease carrying parasites. Prakash's team found that each species of mosquito has a unique sound signature and that signature is used in mating. What they are doing is using the cell phone as an investigative device. Anyone using a cell phone can record a short (1 second or more) snippet of the sound of a mosquito near them and send it to Abuzz (9) at Stanford University. The recording has the time and date stamp as well as the latitude and longitude built into the metadata of the file. That data plus the sound is used to find concentrations of disease carrying mosquitoes. This information will lead to methods of interrupting the mosquito life cycle through various means to eradicate these diseases. Hopefully, it will include West Nile virus and Yellow fever which are still in the United States. Prakash did not think very highly of Deet (10). Its action is making humans impossible for mosquitoes to detect. Mosquitoes hunt by smell. Deet masks human scent is does not repel mosquitoes.

- 1) <https://goo.gl/7iqaso>
- 2) <https://goo.gl/q3so12>
- 3) <https://goo.gl/9Q7gUL>
- 4) <https://goo.gl/zDhcej>
- 5) <https://www.foldscope.com/>
- 6) <https://goo.gl/CTZT7k>
- 7) <https://www.kickstarter.com/>
- 8) <https://www.gatesfoundation.org/>
- 9) <https://abuzz.stanford.edu/>
- 10) <https://goo.gl/rLN6aP>

I was going to get rid of some non-functional power supplies in South Elgin at the electronics recycling center recently. When I got there, I found it has been closed permanently. I had to look up the various places I could recycle. The DuPage County centers (1) are in Lisle, Wheaton, Burr Ridge, Glendale Heights, and Naperville. The Kane County centers (2) are in Batavia and West Dundee with scheduled times in St. Charles.

- 1) <https://goo.gl/K1kcru>
- 2) <https://goo.gl/GH5vpF>

Google (1) is going to ban all cryptocurrency (2) advertising beginning June (3). They say it is due to harm that it is having on consumers. If that were the case, why not ban it immediately? I think the ban is precautionary as quite a few governments around the world are cracking down on the competition to their own currencies.

- 1) <https://www.google.com/>
- 2) <https://goo.gl/YeQonr>

3) <https://goo.gl/jc1AJQ>

Comcast (1) blocked its customers access to an encrypted e-mail provider, Tutanota (2). Comcast denies everything (3). They deny that it was done on purpose and they deny that it was done accidentally. They do not even admit that it happened. Since they are required by law to keep detailed records of all metadata for years, these denials means they are lying. Tutanota was unaware that a few hundred of their subscribers were missing for twelve hours. Tutanota is a German company. Comcast did this same thing (4) last year to Archive.org (5). At least last year Comcast admitted its wrong doing. This is the kind of thing that can happen without warning if Congress does not override the Federal Communications Commission (FCC (6)) repeal of the Net Neutrality (7) rules.

- 1) <https://my.xfinity.com/>
- 2) <https://tutanota.com/>
- 3) <https://goo.gl/1JVnf1>
- 4) <https://goo.gl/6E9oKQ>
- 5) <https://archive.org/>
- 6) <https://www.fcc.gov/>
- 7) <https://goo.gl/x8N5zt>

I was listening to Leo LaPorte and Steve Gibson on a Security Now (1) podcast (2) this past month. They reported that a Princeton research team (3) had found a flaw in Internet browsers that was being used by some companies. The flaw is autofill. I always turn off this 'feature' in any browser that I use. Browsers that sense a form to be filled out such as username, password, name, address, credit card number, or any number of security questions that some web sites ask will automatically fill these forms in after you have filled them in once. The research team found that Adthink and AudienceInsights had scripts that appeared on 1,110 of the top 1 million web sites according to Alexa. What information do they collect? here is a list;

'birth date, age, gender, nationality, height, weight, BMI (body mass index), hair_color (black, brown, blond, auburn, chestnut, red, gray, white), eye_color (amber, blue, brown, grey, green), education, occupation, net_income, raw_income, relationship states, seek_for_gender (m, f, transman, transwoman, couple), pets, location (postcode, town, state, country), loan (type, amount, duration, overindebted), insurance (car, motorbike, home, pet, health, life), card_risk (chargeback, fraud_attempt), has_car(make, model, type, registration, model year, fuel type), tobacco, alcohol, travel (from, to, departure, return), car_hire_driver_age, hotel_stars'.

You can stop this by adding two lines to your hosts file. Here are the two lines:

127.0.0.1 static.audienceinsights.net

127.0.0.1 api.behavioralengine.com

By adding these lines and rebooting your PC, Windows will block those web site from collecting any data. I noticed that Kim Komando also mentioned this research (4). The companies behind this privacy invasion are not shy ((5), (6))

- 1) <https://twit.tv/shows/security-now>
- 2) <https://en.wikipedia.org/wiki/Podcast>
- 3) <https://goo.gl/jSr53j>
- 4) <https://goo.gl/sisReh>
- 5) <https://adthink.com/>
- 6) <https://www.audience-insights.com/>

If you have a Hewlett-Packard (HP (1)) computer, you may have noticed in the file manager that you have a drive Z. If, like me, you investigated further, you found that you cannot look at that drive, you cannot save anything to that drive, and you cannot delete that drive. DO NOT try to move or delete this drive (partition) with third party software. Doing so may stop the PC from running. There are two ways to handle the situation. Ignore it or edit the registry. If you must edit the registry, make a back up of it first. The instruction for the registry edit are on the Windows 10 Forum (2).

- 1) <http://www.hp.com/>
- 2) <https://goo.gl/x51KUT>

Between you, me and the LampPost, that's all for now.

Interesting Internet Finds

Steve Costello, Boca Raton Computer Society
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<http://ctublog.sefcug.com/>

While going through the more than 300 RSS feeds, I often run across things that I think might be of interest to other user group members.

The following are some items I found interesting during the month of October 2017.

Did you know you can “Voice Type” in Google Docs?

<https://whatsonmypc.wordpress.com/2017/10/01/google-docs-voice-type/>

I did not know this before reading this post, and I am sure not many others do either. No special software needed, but of course, you do need to have a working microphone.

5 Common PayPal Scams and How to Avoid Them

<https://www.maketecheasier.com/common-paypal-scams/>

If like me you use PayPal, you should read this post and be aware of these common scams as well as others.

How to Use VirtualBox: User's Guide

<http://www.makeuseof.com/tag/how-to-use-virtualbox/>

I use VirtualBox all the time and have told others about it. For anyone who wants to know more about VirtualBox this is an excellent source.

Android Security 101: How to Secure Your Data Connections & Browse the Web Safely

<https://android.gadgetsacks.com/how-to/android-security-101-secure-your-data-connections-browse-web-safely-0180466/>

Good general advice. Specific apps are suggested but not necessarily the best, though I use the suggested password manager and privacy browser myself, and have for a long time. It really doesn't matter, if you use a good alternative.

Linux For Old Laptops: The 4 Best Linux Distros to Try

<https://www.addictivetips.com/ubuntu-linux-tips/linux-for-old-laptops-the-best-linux-distros/>

There are many Linux distributions out there. If you have an old laptop lying around, check out this post for four distributions to try if interested in trying Linux out.

The Best Ways to Scan a Document Using Your Phone or Tablet

<https://www.howtogeek.com/209951/the-best-ways-to-scan-a-document-using-your-phone-or-tablet/>

If you have a smartphone or tablet with you, you also have a portable scanner. Check out this post to learn how to scan documents with Android or iOS devices. It is quick and easy on my Android smartphone.

Most Fridays, more interesting finds will be posted on the Computers, Technology, and User Groups Blog:

<http://ctublog.sefcug.com/tag/interesting-internet-finds/>

The posts are under Creative Commons licensing.

A 21st Century Marriage

I stopped at a florist shop after work to pick up roses for my wife. As the clerk was putting the finishing touches on the bouquet, a young man burst through the door, breathlessly requesting a dozen red roses.

"I'm sorry," the clerk said. "This man just ordered our last bunch." The desperate customer turned to me and begged, "May I please have those roses?"

"What happened?" I asked. "Did you forget your wedding anniversary?"

"It's even worse than than," he confided, "I broke my wife's hard drive!"

Second Try

Arriving home from work at my usual hour of 5 p.m., I discovered that it had not been one of my wife's better days. Nothing I said or did seemed to be right.

By 7 p.m. things had not changed, so I suggested I go outside, pretend I had just got home, and start all over again. My wife agreed.

I went outside, came back in and, with a big smile, announced, "Honey, I'm home!"

"And just where have you been?" she replied sharply. "It's after seven o'clock."

March 2018 DVD of the Month

ARI - Monthly newsletter

AudioBook - Free audio book

BootRepairDisk - Repairs HDD that will not boot

Chromium - Updated web browser

Complete Internet Repair - Repair Internet connection

CPix - Photo viewer that resizes and converts formats

DesktopOK - Save and restore the position of desktop icons

DontSleep - Prevent system shutdown, Standby, Hibernate,
Turn Off and Restart

Dooble Web Browser - Alternative web browser

DVDOMlists - Contents of CDs and DVDs of the Month

ExodusBitCoinWallet - BitCoin wallet with tracking features

ImageMagick - Create, edit, compose, or convert bitmap images

MemberContributions - Things members send me

My Family Tree - Genealogy program to help create your
family tree

NetTraffic - Network bandwidth speed monitor

NirLauncher - Updated set of utility tools

OldTimeRadio - Old radio audio files

Otter Browser - Alternative Internet browser based on Opera

Pale Moon - Open source alternative to Firefox browser

Shotcut 64-Bit - Open source video editor

Sushi Browser - Next generation multi-panel Internet browser

Thunderbird - Updated e-mail client

ZHPCleaner - Removes browser hijackers

ZHPDiag - Perform quick and complete operating system diagnosis

ZHPLite - Provide a diagnostic analysis of reports generated by
ZHPDiag

Meeting Location and Special Accommodations

The Glenside Public Library address is at 25
E Fullerton Avenue, Glendale Heights,
Illinois. Please park away from the building.
Thank you. The meeting(s) are not library
sponsored and all inquiries should be
directed to Mike Goldberg at

. Individuals with disabilities who plan to
attend this program and who require certain
accommodations in order to observe and / or
participate in the program are requested to
contact CAEUG president, Mike Goldberg at
, at least five (5) days prior to the program,
so that reasonable accommodation can be
made.

NEW!!! Mailing address:

CAEUG
P.O. Box 3150
Glen Ellyn, IL 60138

Members Helpline

**Any member with a specific
expertise can volunteer to
be on the Members Helpline.**

Hardware problems, XP,
Win 7, Linux
and Virus Removal
- John Spizzirri

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