

# The

# Computer Link

December 2011

The Newsletter of the Northern Neck Computer Users' Group

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for **NEXT ISSUE**,  
One week after meeting

## The State of Broadband in the Northern Neck

Charles Wrightson, a former Rappahannock Community College adjunct professor in computers, was our speaker. His topic was a **commentary on the general state of broadband Internet access (high-speed wireless)**, or lack thereof, in the Northern Neck and the **proposed Federal Communication Commission (FCC) changes to the Universal Service Fund (USF)**.

### What are the necessary elements for something to be broadband?

There must be two things – how much data can be passed and how fast can it be transmitted. There must be **BOTH a high data transmission rate (bandwidth) and very fast (low latency) connection to the Internet**. Generally, broadband is commonly defined as being 2 to 4 mbps with low latency. If one sees the little rotating circle while connecting to something on the Internet, there

is no broadband!

In response to a question, Charlie said it is not necessarily fraudulent for someone to advertise a service as broadband, even if it does not meet the strict definition. There is no set definition, and broadband is sometimes jokingly referred to as “fraudband.”

The **problem on the Northern Neck centers on the small size of the backbone** or “pipe” out to the Internet. **In essence there are too many people trying to use the pipe to get data, thus exceeding the limited ca-**

**capacity**; this results in high speed being lost. This is not the same issue as getting a signal from one’s home to the phone company central “office” or hub. DSL is true broadband using copper lines, if one can get it in this area. **FIOS**, also true broadband, uses fiber-optic cables, which are virtually non-



**Charlie Wrightson**  
Photo by Alan Christensen

existent in this area. Generally fiber-optic cables are buried in the ground and would carry data and phone signals.

**Does wireless transmission solve the problem?** Not really. A tower may have a wireless transmission range of three to five miles. However, the **tower must then send information from Kilmarnock to its destination via the "pipe"**. And as Charlie noted, the current one is too small! Unfortunately, the company (Verizon) has expressed no interest in upgrading outlying areas to a higher capacity.

**Satellite Internet access is not broadband.** One can get enough bandwidth but does not give the needed low latency. Therefore it is not high speed broadband.

**So what does this mean for the user?** Users can get Internet service in the Northern Neck area; however, it is slow, and often frustrating. Trying to download a movie with dialup, or even some local "broadband" is not fast! Slow Internet access can have an adverse effect on residents of the area.

Charlie noted that 80 percent of companies now want an applicant to fill out job applications online, and 50 percent of current jobs require that data be obtained from the Internet. Schools and colleges offer online courses: frequently the student is expected to get course materials on line. Information sent in Adobe format can take hours to download. Skype, which consists of pictures and audio, does not work too well in our locality.

**Businesses insist on broadband access. Productivity is enhanced** with video conferencing and this requires a broadband connection. For instance, in Westmoreland County, fiber optic cable for broadband connections has been installed in their industrial park, but it is not be available to the general public.

Other areas where access to broadband is essential are in medical facilities where re-

cords can be viewed on line. Broadband would allow doctors to consult by video with patients. In the Northern Neck, it is important that people involved in agriculture and fishing have easy, instant access to radar and weather information via the Internet for planning and safety reasons.

Charlie then discussed the **role of the FCC and funding in broadband communications**. The FCC is supposed to regulate interstate communications including broadband programs. Local communication is exempt from their regulation. However, the Internet is interstate in nature at the very least.

**The USF was originally established for the purpose of connecting people in rural areas to the telephone system** using copper lines, where it was not cost effective for the private companies to do so and to support public agencies such as libraries. Funding came from placing a small surcharge on each long distance phone call. There have been enormous changes in how Americans communicate by phone. Thirty percent of families no longer rely on landlines; cell phones have replaced them. This is one reason why telephone companies are not fixing the aging infrastructure, especially in rural areas. The USF fund paid a subsidy to fund installation of rural copper phone lines, however, the Fund has not been used to **update** telephone lines.

The **original goal has been met** and now the desire is to shift some of this USF funding to a new fund called the Connect America Fund (CAF). **The purpose of the CAF** would be to substitute the copper wire subsidy to cover costs of connecting over the "last mile" wirelessly to customers. In other words, **to connect rural America to wireless broadband networks in areas where it is not cost effective to do so now.**

The proposal being considered is to set up the CAF funded by a small surcharge on long distance calls. The proposal would re-

move the mandate for copper lines. This envisions a wireless infrastructure. This proposal is aimed at the “little” guys, small town USA, rural telephone companies; it would act as a subsidy for rural localities.

**In order to effectively implement a rural wireless infrastructure, the main data pipe and the connection to the user issues will have to be resolved.** The time-frame for implementation has not been addressed.

There are many complaints about this proposal; it is seen as a city versus country issue. Furthermore, establishing a rural broadband capability is not particularly cost effective. However, looking at our history, this country has subsidized the building of the railroads, canals, rural electrification, as well as building interstate highways, miles of which go through sparsely populated areas. This discussion also brings up considerations about the role of government. Is it to do what corporations and citizens cannot do for themselves? What is the role of the state government? Charlie believes that they are to be a “partner” with the Federal government (FCC), and funding may be received in the form of a grant program.

Mr. Wrightson feels that **having a broadband platform in the Northern Neck is essential to a healthy economy, and will be the “platform” for future economic development.** The existence of broadband capability also has implications for homeland security, law enforcement and firefighters. The main data pipe needs to be expanded to accommodate the needs of business and private individuals.

He discussed pros and cons of various ac-

tions that we could take. We might raise money and hire a lobbyist, create a special tax district (probably dead on arrival), enlist the aid of economic development offices in the counties, and point out the number of jobs lost for lack of an adequate broadband system to support businesses.

Finally, Charlie noted that we have enough physical towers. The issue is that the equipment installed on the towers is inadequate; however, equipment becoming available in the next four to five years may cure this problem. Another questioner wondered if we could get broadband with cable. He answered, yes, but it still wouldn't work - the data pipe squeeze is the issue.

Charlie, thank you for giving us a fascinating overview of the state of current broadband technology in the Northern Neck and the reality of trying to improve capacity and service.

**Anne Moss**

### **Windows 7 Explained!**

Please join us at the next **Membership Meeting on Saturday, December 17** at Rappahannock Westminster-Canterbury. Coffee and donuts available at 09:30 am, and the meeting starts at 10:00.

Our mystery speaker will present interesting hints, tidbits and commentary on the nifty things you can find in Windows 7.

In honor of the holiday season, **Raffle Master George Cadmus has promised special raffle items for your consideration** at this meeting.  
**ED.**

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## Dick's Clicks

Dick Ramette, President, Computer Club of Green Valley, AZ  
October 2011 issue, Green Bytes  
[www.ccgv.apcug.org](http://www.ccgv.apcug.org)  
Rwramette (at) mindspring.com

Just imagine where we'd be if the Apple that fell on Sir Isaac Newton's head had been an iPad 2. Instead of merely discovering gravity, he would have gone on to invent the App Store and the Internet.

A few months ago I was astonished to have an iPad 2 fall into my life as a surprise birthday gift from my Chicago son's family, and I've been discovering good stuff ever since. My first challenge was to resist addiction to games such as Angry Birds, Scramble and Solitaire.

**Gradually I've come to spend more time with my iPad than with my PCs.** It's far from a complete replacement, but this tablet sure is a comfortable convenience. It's a huge improvement over my beloved iPod Touch, which remains my choice for music while walking. The first thing I do each morning is to move my iPad from its charger to the sofa so that it's available as an adjunct to the Arizona Daily Star, using my WiFi connection and the Safari browser.

My most-used Apps are the NYTimes, Huff-Post, Weather Channel, What'sOn for the TV schedule, Flixster for what's playing at Desert Sky, CCGV of course, Merriam-Webster dictionary which understands my voice, and HiCalc calculator. I also view my favorite comic strips, political cartoons and check my email, which remains on the server for later viewing on my PC.

There's a neat App called HSW HD, for How Stuff Works, which is like that proverbial box of chocolates where you never know what you're gonna get. It's fun to browse HSW with finger swipes, and I spotted an essay by Jonathan Strickland titled "How will computers evolve over the next 100 years?" You can also find this on the Web at <http://www.howstuffworks.com/computer->

[evolution.htm](http://www.howstuffworks.com/computer-evolution.htm).

Another box of candy is Science360, an inexhaustible collection of pictorial goodies from the National Science Foundation. And when my 2003 Buick has aged a couple more years, I'll surely use CarZen to browse auto models with complete price and specs information.

ShowOfHands lets me see user opinions on numerous personal and political questions, displayed in pie charts for all states and for the nation as a whole.

So far I haven't read a book on my tablet, but I could. I've streamed movies from Netflix, looked at my photo collection and played my iTunes music. Really, there's no going back. **My iPad, my recliner chair and I are at one with each other!**

Quote of the Month: "...*there may be no meaningful difference between computers and humans within 100 years. In that world, we'll be transformed into a new species that can improve upon itself at a pace unimaginable to us in our current forms. Whatever the future may hold, it's a safe bet to assume the machines we rely upon will be very different from today's computers.*"  
Jonathan Strickland

### November Photo SIG

Bruce Mc Millan contributed this photo for members of the Photo SIG to experiment with.



Please go to the NNCUG web site to see what Bruce did with this image. There was no theme for this exercise. **ED.**

## November 19 Meeting Notes

TREASURER'S REPORT: 103 members.  
Treasury Balance: \$3480.57.

PRESIDENT'S REPORT: **Chris Christensen** said the **Audit Committee**, Jim Thompson - Chair, Bob Schultz, and Tom Duke, completed the required Audit Report. They gave an excellent rating, and singled out **George Cadmus, Treasurer for an excellent job.** They also noted that the Board did not vote on the proposed budget.

### SIG REPORTS:

PHOTOGRAPHY: **Jim Sapione noted that he will be phasing out as SIG leader**, and that the SIG members will share leadership responsibility. B.J. McMillan will send out lessons or challenges for the group to work on. The next challenge will be to create a photo with ghost like effects. The group meets on the second Tuesday of the month at 09:30 a.m., at the Lancaster County library. Bring a laptop and share in an interactive experience. The SIG uses Photoshop Elements 7, however, most exercises can

be done on many versions of Elements.

GENEALOGY: The genealogy group met November 10 at RWC where Ellen Messick-Hollister gave an excellent overview of the DAR library. This SIG meets every other month.

WEB SITE: Webmaster **Betty Lehman** announced her **resignation** from this position. The new Webmaster is **Dave Mower** at GGCWEB, LLC, who is a member of the NNCUG. **THANKS to Betty and Dave!**

SPEAKER: Charlie Wrightson, a former Rappahannock Community College adjunct professor in computers, and expert in the Northern Neck area's IT resources, discussed the state of affairs of broadband, the FCC's proposed changes to the Connect America Fund and implications for computer users in the Northern Neck.

Q AND A TIME: How **can one keep track of all the passwords** that seem to be needed for Internet sites? Solutions presented include: (1) **use "Roboform"** (full version requires payment) or similar programs to generate and record passwords; (2) **write down the user identifier and password** down for

each site and **keep in a secure location**; or (3) **use two basic passwords, one for financial and health sites and the other for general use, and modify them.** In manually developing passwords, one could remove the vowels from meaningful words and add numbers and symbols to increase security.

RAFFLE WINNERS: **Anne Moss** – 2 Sandisk Flash Drives and Case; **Roger Fortin** – Stepping Stone with Saying; and **George VanSant** PC for Dummies and Windows 7 for Dummies.

**Anne Moss**

### Membership Report - November 2011

*Welcome - None*

**RENEW December 2011 - Linda Enders-Bailey, Mary Stewart**

**RENEW November 2011 - Lou Dietrich, Frank Elliott, Joe Moeller, Chris Young**

Membership dues are \$20 annually. Please send to:  
George Cadmus, Treasurer, NNCUG, 150 Pine Drive,  
White Stone VA 22578

# The Computer Link

Northern Neck  
Computer  
Users' Group  
150 Pine Drive  
White Stone, VA 22578

## NNCUG Meeting Dates

*NNCUG GENERAL MEETING  
Third Saturday, 10:00 a.m.*

*Rappahannock Westminster-Canterbury Meeting Room*

### *BEGINNERS SIG*

*Meets three times a year. Those interested, contact  
B.J. McMillan at 580-8666*

### *GENEALOGY SIG*

*Meets bi-monthly, 2nd Thursday, 1:00 p.m.—RW-C  
Contact Ann Thompson at [athompson@kaballero.com](mailto:athompson@kaballero.com)  
to get on the mail list for announcements.*

### *PHOTOSHOP SIG*

*Second Tuesday, every month, 9:30 a.m.  
Lancaster Community Library, Kilmarnock  
For more information, Call Jim Sapione, 804-462-5831  
or message [Bird@kaballero.com](mailto:Bird@kaballero.com)*



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Computer Help available by appointment. Call Betty Lehman 435-2011 or B.J. McMillan 580-8666

## Coming Attractions

*Membership - Dec 17, Windows 7 Tips, Mystery Speaker  
Genealogy - January 12, Topic to be announced  
Photo SIG - Dec 13, 09:30 am, Lancaster Community Library*