

The

Computer Link

February 2011

The Newsletter of the Northern Neck Computer Users' Group

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

Charlie and the Cloud

Charlie Wrightson, a frequent and popular speaker at the NNCUG, presented an **overview of “cloud” computing**. In addition, he also educated and entertained us on related subjects including the current state of affairs in the Northern Neck regarding high-speed Internet access.

The use of the word **“cloud” implies something nebulous and ephemeral**.

It is this concept that **distinguishes cloud computing from the earlier common form where programs and data are stored on a personal computer** or an individual server operated by a business.

Data and application programs do not have to be loaded onto an individual computer; they are stored in the cloud. In fact, the storage of data may be on many servers located in many places. **For a business, this is very effective inasmuch as simpler computers and software on the company’s machines reduce costs to the firm. The downside is that the user or company is not in control of the data and there may be security issues involved with use of a cloud system.** As an example, Charlie indicated that Microsoft has had data leaks using the cloud sys-

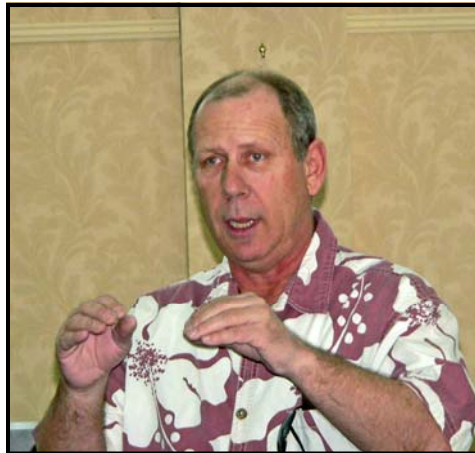
tem.

A real life example of how the elasticity of the cloud has been beneficial occurred in the recent WikiLeaks situation. When Amazon, one of the largest cloud server operators, cut off WikiLeaks from their cloud, WikiLeaks could not access its data. (However, WikiLeaks had a backup data set under its direct control.) In retaliation, pro-

WikiLeaks hackers attempted to bombard the site and thus immobilize Amazon. This effort was unsuccessful since Amazon was operating in a “cloud computing” environment. Amazon had an “Elastic Cloud Computing” environment whereby many virtual servers were created to handle excessive demands at any given time. In other words,

because data was located on virtual servers, in literally uncountable locations, the cloud simply expanded and shifted, and Amazon was not affected. Thus Amazon did not succumb to this denial of service attack. Another example of cloud computing is Gmail.

With cloud computing, a virtual server can create a mirror image of itself, providing more memory space. Amazon charges for creating virtual machines and is able to offer certain advantages



Charlie Wrightson

Photo by Alan Christensen

to protect data, and great flexibility in its use. There are some **disadvantages** of using cloud computing. If there is a problem with accessing data in the cloud, the data is not available for the user to access and problem solve. If there is a crash in the cloud, the user's data may not be retrievable. The user does not "own" the data in the same way as when it is physically stored in easily identifiable servers or on the user's computer. For highly sensitive databases this is a major consideration.

Charlie also gave us a quick **synopsis of forthcoming trends** for computers and data management. He said that the VGA standard for connecting monitors to computers is obsolete and **VGA ports will be gone within five years**. Many new motherboards and video cards do not offer a port to hook up a VGA cable.

As these accelerating changes occur, **backward compatibility of equipment for data storage is a concern**. Think of how 8-track tape was the wave of the future. Now where is it? The CD has been replaced with the DVD. How does one access data on old floppy disks? How can one store old data so that it is readable, and how does one plan for the future? Charlie recommends that with each new development in data storage technology, it is important to transfer data to the newer medium. In some cases one may have to keep an old computer available to retrieve data until it is transferred.

Another trend that Charlie told us about is that **future hard drives will be solid state, with no moving parts**. The ones that are currently available are significantly faster than ones based on rotating disk technology. (There is even an algae based hard drive under development.) Solid-state drives (SSD) that are significantly faster and practically indestructible currently are expensive; however, prices are going to go down. Charlie indicated that **64 Gig SSDs currently are the cost effective ones** and he will use one for the operating system and another for applications. He would still store data on a hard disk drive.

Charlie is building himself a new high-end computer. He said he identified his needs and wants (everything!), and then went to a computer maker's Web site to get the specifications of a top-level machine such as made by Alienware. It is important to plan for ample power and speed. He said that it is possible to save substantial sums by identifying what type of components are used in top-end machines, purchasing them, and assembling the computer. **He figures that he will spend about \$900-\$1000** (plus the cost of the operating system), and build the equivalent of a \$3500 computer.

Finally, Charlie talked about "**Net neutrality**" which is a term often heard these days. In theory it means to treat everyone using the Internet the same. However, this can create a "bandwidth hog." For example, a Netflix movie download (4 mbps) can use a lot of bandwidth with the potential for slowing down other users' traffic where the infrastructure is limited. **The issue revolves around adequate infrastructure to support all users**. This led to a spirited group discussion of the lack of infrastructure in the **Northern Neck** to allow for truly high-speed access. The demand is much greater than a simple use of towers can handle. **What is needed is a bigger "pipe" for data**. The reality is that the best solution is the phone company, and at this time, this area is not seen as worth the expense.

As always Charlie, we enjoyed your talk. Thank you!

Anne Moss and Ed.

Internet Access Speed Testing

Broadband Internet access speed is a regular topic of conversation at NNCUG meetings and among friends in the Northern Neck. But, how fast are the speeds that we actually get? For that matter, how fast is fast? What affects the speeds that we see at our computers?

The first step to understanding this issue is to be able to get measuring tools to assess broadband Internet access speeds.

While there are many measuring tools available on the Internet, the following tests provide interesting and possibly conflicting results. The **Speakeasy speed test**, obtained at www.speakeasy.net/speedtest, basically measures and reports on download speeds to your computer and upload speeds to the test server that you choose. **Measurement Lab (M-Lab)**, www.measurementlab.net, is an academic consortium with industry partners that seeks to "...advance network research and empower the public with useful information about their broadband connections..." The information provided by currently offered tests include up and download speeds and identification of possible causes of varying speed results, including "shaping" of traffic by Internet Service Providers (ISPs). The last test, which should be of particular interest to members of the NNCUG, is provided by the **eCorridors program at Virginia Tech** www.acceleratevirginia.org. It is part of a statewide effort to collect consumer Internet service details to engage and educate the public, and raise awareness about broadband availability (or lack thereof) in Virginia. While this test provides up and download speeds and an indication of possi-

ble causes for slow Internet speeds, the interesting part of the test is that users leave information about their individual test results on a Google map.

Just to give **some examples**, I tested my wireless broadband Internet access speed in two series of tests on January 26, 2011. The first series of test between 10:00-11:00 a.m. resulted in the following: 1) **Speakeasy** – (average of five tests) **download speed of 515 kilobits per second (kbps) and upload speed of 663 kbps** with no indication of any problems; 2) **M-Lab** – (average of four tests) **download speed of 132 kbps and upload speed of 598 kbps** with an indication that throughput is limited by other network traffic; and 3) **eCorridors** – (average of two tests) **download speed of 180 kbps and upload speed of 587 kbps** with an indication that other network traffic is congesting the link and packet queueing is detected. The second series of test between 10:50-11:10 p.m. resulted in the following: 1) **Speakeasy** – (average of five tests) download speed of 560 kbps and upload speed of 831 kbps with no indication of any problems; 2) **M-Lab** – (average of four tests) download speed of 238 kbps and upload speed of 789 kbps with an indication that throughput is limited by other network traffic and packet queueing detected; and 3) **eCorridors** – (average of two tests) download speed of 516 kbps and upload speed of 788 kbps with an indication that packet queueing is detected. There was no indication in this eCorridor test that other network traffic is congesting the link.

As for “**how fast is fast**”, my **dial-up modem speed is 45.2 kbps**, and **Netflix wants 1.5 to 4 megabits (mbps) per second to show streaming movies!** As can be seen from the results above, **my download Internet speed is not particularly fast at 200+ to 560 kbps** (depending upon which test results you believe). **My neighbor gets about 1.5 mbps** from another wireless Internet provider. I suspect that your mileage will vary!

There are several things to note about these test results and some comments provided with the numbers. **Different locations of servers may impact the results** as indicated in the Speakeasy tests. There may well be **different methodologies used in**

tests by different organizations that could affect results. One may get better results here in the Northern Neck depending upon **what time of day (or night) one tries to use the Internet**. Conventional wisdom has it that download speeds to a client computer are usually faster than upload speeds to a server; my test results are the opposite. **The comments provided by the M-Lab and eCorridor tests that other network traffic is congesting the link and and/or affecting throughput** would support Charlie Wrightson’s comment (see article on Page 1) that part of the Internet speed problem that we have is the need for a bigger “pipe” for data transmission. Finally, **M-Lab test data indicated that excessive packet loss is impacting my performance, and that the auto-negotiate function on my computer and network switch should be examined.**

Looks like both my ISP and I have some work to do to get higher Internet access speeds!

Computer users in the Northern Neck are encouraged to use the eCorridor test from Virginia Tech to measure their Internet access speeds. This test leaves comparative results that others can see and gives a very clear indication of the areas where Internet upgrades are needed in Virginia. **Ed.**

Nominations for NNCUG Officers

It is time to **nominate candidates for NNCUG officer positions** for 2011-2012. Positions to be filled are President, Vice President, Secretary, Treasurer, and Member-at-Large.

The **Nominating Committee** consists of: **Roger Fortin**, Chair, (804) 462-0431, rt410@nnwifi.com; **Marilyn Jurkops**, (804) 462-3220, marilyn.jurkops@gmail.com; and **Jim Thompson**, (804) 580-2538, jimandbev2000@yahoo.com.

If you have a nominee for one of these offices, please provide the name to one of the Nominating Committee members. Nominations also will be accepted from the floor at the February 19, 2011, meeting. **The election** will be held at the **March 19**, meeting at Rappahannock Westminster-Canterbury.

Ed.

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Google for Genealogists

The Genealogy SIG met on January 13th, when Ann Thompson shared many tips and tricks for finding genealogy data on the Internet with the Genealogy SIG on January 13th. There are many paid subscription databases for genealogy, but Google helps us find numerous resources for no charge.

Google allegedly has the largest market share for users of search engines. It also has the most websites indexed. Even so, Google finds less than 80% of the information on the Internet. The reason why this other information is not found by Google's search engines is due to file format and password protection. Still others that block Google's indexing are those with their own search engines. These areas of the web that are missed by search engines are often referred to as the Invisible Web or the Hidden Web.

The **first step** for anyone who uses Google regularly is to download **the free Google toolbar** at www.google.com/toolbar. One great feature of the toolbar is the ability to add buttons. A few such buttons that genealogists find useful are: translate; a highlighter pen for marking search terms in the results; and a Soundex calculator. There are many more.

Key to effective searching is the understanding of Boolean search operators, sometimes referred to as Google math. Such operators apply to all search engines.

Google math uses three operators: and, or, not. Think of two search terms – A and B.

- **“AND”** Google assumes the “and” operator where search results return pages containing both of the terms A and B.

- **“OR”** Here Google returns all results for both A or B as well as A and B.

- **“NOT”** This operator allows user to eliminate selected terms that would clutter results with the wrong information.

Users should **use Google's Advanced Search to utilize these operators**.

When constructing a search query, it is important to remember some words have multiple meanings, and these unwanted results may be eliminated by using the “NOT” operator. Be very careful with the “NOT” operator so that you find the results that you want. Another important thing is to **expand searches with synonyms such as grandfather, brother, siblings or cousins**. Always use Google's Advanced Search when eliminating terms.

Google assumes the search means “AND” when up to ten multiple search terms are entered. Google will simply ignore additional terms.

Google is not case sensitive. It will offer alternative spellings plus related searches. The most important term in a search is the first one that is entered. When using a surname, do not assume that it will appear last in a string or words. Many lists are alphabetized by surname, whereas articles usually use the first name followed by the surname. Surnames may have different spellings and women have maiden names. One should always search for alternate spellings using advanced search. To find a maiden name try searching for the last and married names. If you want Google to **search a string of words as a phrase, enclose the words with quote marks**.

First names including nicknames have their problems as well and must be searched for variations. For example: Geoff or Jeff, John or Jonathan, Elizabeth or Betty. Such searches should use the “OR operator to return results with either spelling.

The presentation also touched on interpreting search results and using specialized Google searches. It ended with an excellent fill-in-the-blank for Google genealogy searches that may be found at: <http://www.searchforancestors.com/google/searcher.html>.

This program was the **first part of a three part series on Google for genealogists**. The next program, to be presented later this year, will focus on tools such as Google's News archives, Google Books, maps, blog's, plus Google Alerts. The third program will feature Google Earth, where you may travel to the homes of your ancestors.

Ann Thompson

January Photo of the Month



Kayak Spinning
By B. J. McMillan

January 15 Meeting Notes

MEMBERS ATTENDING: 38 and two visitors.

TREASURER'S REPORT: 109 members.

PRESIDENT'S REPORT: President **Chris Christensen** stated that the transition to an e-mail distribution system for the Computer Link newsletter is proceeding. When indicating a preference for the e-mail version, please double check your e-mail address for accuracy.

Chris requested nominations for the annual election of all officer positions in the NNCUG. Nominations should be made to a member of the Nominating Committee, and will be accepted from the floor at the February meeting. Election of officers will be held at the March meeting.

SIG REPORTS:

PHOTOSIG: The group meets on the second Tuesday of the month at 09:30 a.m. at the Lancaster County library in Kilmarnock. An assignment will be identified before the meeting; **B. J. McMillan** mails out a "cheat sheet" concerning the topic. Bring a laptop and enjoy an interactive learning experience.

GENEALOGY SIG: At the January SIG meeting, **Ann Thompson spoke on "Google Your Family"** which focused on refining Google search tech-

niques. The Genealogy SIG meets the second Thursday of every other month at 1:00 p.m. at RWC. The next meeting will be in March.

Q AND A: A member gets a blue screen on her PC when she unplugs a USB device without using the proper method of closing the device prior to removal. While not specific cause could be determined, it was suggested to close the USB device and properly remove it from the computer. In addition, one could check for updated motherboard firmware or visit the Intel web site to check for possible solutions.

Should there be a minimum distance between a wireless router and a PC? If the two are less than six feet apart, it may pose problems. For relatively close distances, use an Ethernet cable to make the connection and avoid wireless connection issues.

GUEST SPEAKER: Charlie Wrightson presented an overview of **Cloud Computing**. This was his principal topic, but he also educated and entertained us on related subjects, including the current state of affairs in the Northern Neck regarding high speed Internet access.

RAFFLE WINNERS: Betty Lehman - Computer Cleaning Kit; **Roger Forstin** - two books, Computers for Seniors for Dummies and Small Websites, Great Results; and **Bruce Mc Millan** - SanDisk 8GB Cruzer USB Flash Drive and Case Logic case.

Anne Moss, Secretary

Membership Report - January 2011

Welcome - Barbara Shore, Karen Stebbins, Barbara Touchette

RENEW February 2011 - Margaret Alderson, Susan Christopher, Alden Head, Joe Hecht, BJ McMillan, Brandon Rohr, Clark Schumacher, Bob Shultz, Bev Wierbinski, Philip Allan, Jerry Hawley, Susan Heath, Doris Lundegard, David Mower

RENEW January 2011 - Maricel Baker, Carol Hallett

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

Printers and Printing

Printers and printing are vital in the use of computers; whether it be as mundane as printing a letter or as complex as printing an art worthy photograph. **Jim Sapione**, will address this subject at the next meeting of the NNCUG General Meeting at **RW-C on Saturday, February 19** at 10:00 a.m. He will **emphasize printing photographs**, and will cover printer types, printer inks and their application, as well as printing paper and its importance to achieving desired results.

Chris Christensen

The Computer Link

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150 Pine Drive
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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
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*

For a photo treat visit
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Coming Attractions

*Membership - Feb. 19, 10:00 am, Jim Sapione - Printers
Genealogy - Mar. 10. 1:00 pm, DNA and Genealogy
Photo SIG - February 8, 09:30 am, Kilmarnock Library*