



NEWSLETTER

*The Best Accessory
for your PC!*

MAIN MEETINGS

West Side. Tuesday, October 14

CollegeAmerica, 6533 N Black Canyon Hwy, Phoenix

East Side ... Wednesday, October 15

University of Advancing Technologies
2625 W Baseline Rd, Tempe
(one block west of Fry's Electronics)

Fountain Hills...Thursday October 16

Fountain Hills Library, 12901 N La Montana Drive,
Fountain Hills

**The Presentation this month is :
High Definition TV**

Phoenix PC Users Group

Steering Committee

President: Dean Botchuck
Vice-President: David Yamamoto
Secretary: Chuck Lewis
Treasurer: Lo Hardman

Also

**Members who are present at the
6:00 P.M. West Side meeting**

Staff Members

Membership Coordinator: Chuck Lewis
Asst Membership Coord: Tj
Fountain Hills Coordinator: Marion Smith
East Side Coordinator: Bill Aulepp
West Side Coordinator: Steve Semon
Public Relations: Bill Aulepp
Newsletter Editor: David Yamamoto
Newsletter Production Editor:
Advertising Manager:

Contact Information

Dean Botchuck president@phoenixpcug.org
David Yamamoto vicepres@phoenixpcug.org
Chuck Lewis secretary@phoenixpcug.org
Lo Hardman treasurer@phoenixpcug.org
Newsletter editor@phoenixpcug.org

Inside this Issue...

Moving on to Vista.....	5
Hard Drive Recovery	6
Digital Scribe.....	7
Rootkits.....	10
Cloud Computing.....	13

***Steering Committee meets at 6:00 P.M.
before the West Side meeting each Month***

**Check our Website at www.phoenixpcug.org
to verify subject matter and time changes**

ALL meetings!

JUST IN FROM OUR MEMBERS

WORD FROM YOUR PRESIDENT

This month's presentation on Digital and High Definition Television should be of interest to many members. Old timers and newcomers alike. I was in the TV repair business back in the early very 1960's. You may recall, vacuum tube type black and white sets. While doing some research on this presentation, I discovered that there was much I did not know and had not heard. (and I own several HDTVs)

Digital Television is a giant step forward. Not only in High Definition but, it has the capability to do things we could only dream about with Analog Television. Things will be happening and you will not be aware. Example, you may be thinking you are watching channel 8 but the TV is receiving channel 29 or how about "on air program guides". Come to the meetings find out about this interesting system .

The October Executive Board meeting was delayed because of prior commitments by several Board Members. News comes too late to be included in this month's Newsletter so it will be in the November issue.

No comments have been received regarding the merger with the ASCIi group as of this writing. Please be thinking of comments and questions for our Steering Committee this month. I am asking the Committee to conduct a "straw poll" in order to give the ASCIi merger committee some guidance on our prospective. I would like for us to conduct a final vote on the matter in the

WORD FROM THE EDITORS

This month I helped Steve Semon with the Newsletter because he had some personal problems that occupied much of his time.

I attended the October Executive Board meeting as a Steering Committee representative on Tuesday the 7th.

The Board encourages members to attend these meetings, held once every three months, and I will be happy to provide transportation for any member that does not have any other means to get there. [See Page 9]

Dave Yamamoto and I for the next few months will be doing articles on some of the future developments in the world of computers. Take Laptops as an example. There are many changes coming soon - large drives 320 GB+, new CPU's, SSD - solid state hard drives, USB 3.0, Blu-Ray, WiMax, Apple - which can run XP & Vista, for starters.

We hope some of the other members will also submit articles on PC subjects near and dear to their hearts.

Steve Semon, Dean and I [Bill Aulepp] want the Newsletter to have more input from the Members. Get your emails to us with both articles and ideas at.....

editor@phoenixpcug.org

near future. We need to move ahead or abandon the idea of merger.

Dean

JUST IN FROM OUR MEMBERS

THE OPTIMUM LIGHTWEIGHT LAPTOP

By Bill Aulepp and David Yamamoto

Assuming you are looking for a light weight portable Laptop the following areas should be considered..

PHYSICAL ATTRIBUTES:

A durable Metal Case with a substantial hinge. Maximum weight 5 to 6 pounds and no more than 1.5 inches thick. A screen size of 12 to 15 inches. (17 inches if used as a multi media Laptop) and possibly a display using the new LED backlighting which weighs less and uses less power. As screens differ, check out the display in person to determine if you are comfortable with it. Some screens have a glossy surface you might find objectionable. Also if possible view a DVD movie to determine how well the laptop handles it.

STATISTICS:

Look for an Intel Core 2 Duo Processor or an AMD Turion Processor. Keep in mind there is no one best processor for all tasks.

If using Vista the least amount of memory should be 2 GB and preferably more.

The Hard Drive should be several hundred GBs in size with a rotational speed of 5400 rpm. SSD Solid State Drives are not recommended, at this time, because of their limited size.

Most Laptops use integrated graphics which are not suitable for gamers. If you plan to use your Laptop for games that is an item beyond the scope of this article.

Wireless connectivity is essential if you plan to use Wi-Fi. Be sure your Laptop

supports integrated Bluetooth and not only the 802,11a,g standard but also the new Draft N wireless standard which provides greater distance and faster signal processing.

The optical drive should be DVD +/- burner. If you want high-definition Blu-Ray ability buy an external model as this is an evolving product and could change making your Laptop obsolete.

The battery should be the 9 cell type with a usage span of 3 to 4 hours before recharging.

Be sure there are several USB ports and also a 1394 Firewire port. A built in web cam and microphone for video conferencing might be considered. If you do a lot of photo editing or graphics drawing consider a tablet PC.

You probably will not find all of these features in your Laptop but most of them are important and should be included.

Digital Photography

Bill Funk runs the Digital Photography SIG. The Digital Photography SIG meets on the fourth Wednesday of each Month.

Bfunk @ pippina.com

Video

David Yamamoto leads the Video SIG, which meets right after the Digital Photography SIG.

General Interest

Chuck Lewis leads the General Interest SIG. This SIG meets in the Fountain Hills Library conference room. It will meet this month on the 29th of October.

Contact SIG leaders by e-mailing :

SIGs@phoenixpcug.org for more information.

CALENDAR

Check our website for room and time information and to check for last minute changes

October 2008

Tuesday, October 14..... West 6:00 PM.

HIGH DEFINITION TV..... CollegeAmerica

Wednesday, October 15 East 6:30 PM.

HIGH DEFINITION TV..... UAT

Thursday, October 16 Fountain Hills 6:30 PM.

HIGH DEFINITION TV..... Library

Wednesday, October 22 Photo SIG 6:00 PM.

TBD CollegeAmerica

Wednesday, October 29 General SIG 6:00 PM.

TBD Fountain Hills Library

November 2008

Tuesday, November 18 West 6:00 PM.

THE WEBSITE FLICKR CollegeAmerica

Wednesday, November 19 East 6:30 PM

THE WEBSITE FLICKR UAT

Thursday, November 20 Fountain Hills 6:30 PM.

THE WEBSITE FLICKR Library

Wed, November 26 Photo SIG 6:00 PM.... CollegeAmerica

Moving on to Vista

Moving on to Vista by Neil Stahfest, Librarian, Tacoma Area PC User Group, WA

www.tapcug.org
ncstahfest(at)msn.com

Obtained from APCUG with the author's permission for publication by APCUG member groups.

Vista's Service Pack 1 is out. I didn't see any real changes in my computer after I installed it, most of modifications are supposed to deal with computer security. I have since encountered a problem with my printer.

I don't print too often from my "Vista computer" so the problem wasn't immediately obvious. When I did try to print some documents they "disappeared" without printing. My first thought was that I had changed the firewall on my print server and locked out connections from other computers on my home network (I've done that before). No that wasn't it. After checking and finding that I could transfer files between my computers, I went to the printer section of my control panel. That's where I discovered that Vista wanted a new printer driver installed. I don't remember any problems with the printer when I started using this computer. As I recall, Vista recognized my printer (a fairly new HP ink jet printer) and it just worked. Anyway, a search of Hewlett Packard's web site didn't reveal a new printer driver. In fact it told me to use the one built into Vista. I turned to the installation CD that came with the printer and reinstalled the printer driver from the CD. It worked and I can print over my

home network using a wireless connection again. I have no idea why this happened but at least one other TAPCUG member also discovered a printer driver problem after installing Vista SP1.

Speaking of security (see paragraph 1), Windows Vista, like Windows XP, comes with a firewall program pre-installed. As all you computer gurus know, a computer firewall is a hardware or software tool that examines all Internet traffic letting only "safe" traffic into your computer. The firewall for Vista was supposed to scan Internet traffic both entering and leaving your computer. I can hear some of you saying, "If I scan incoming traffic to be safe, why do I care about outbound traffic?". Well, incoming traffic is the bigger threat to you. Using pre-defined rules it determines which programs are allowed to use your network connection or which ports can be used for communications. If some spyware, Trojans or or malicious "phone home" software slip past your firewall they may allow someone to take remote control of your computer to attack it other computers through your Internet connection (that's why Microsoft is always sending you those security updates). So a firewall that scans outbound traffic attempts to stop this. To make a longer story short, contrary to plans, the ability to check outbound traffic has not been provided with Vista's firewall.

Another shortcoming of Vista's firewall is that it does not create a log of all attempts to contact your computer from

Continued on page 8

Hard Drive Recovery

Prepare for Hard Drive Recovery
by Bob Hudak, Greater South Bay User
Group Hardware SIG Leader (California)

<http://gsbug.apcug.org>

uags(at)aol.com

Obtained from APCUG with the author's
permission for publication by APCUG
member groups.

When you lose control of your computer
due to a virus or some sort of malware,
or your O.S. becomes corrupted for one
reason or another, be ready to fix the
problem.

1. Start by setting up your hard drive
with 2 partitions at least. Put all
programs on 'C:' & all Data on 'D:'

2. When hard drive is clean and all
programs are loaded, it is time to make
an image file of 'C:.' Use Acronis *True
Image* to do this or whatever program
you like. Put it on 'D:' drive in the root.
Name it using date. Remember you do
not have a backup till you have two
copies in two different places. So now
copy this image file to an external USB
drive. The reason is if "C:" goes bad you
can reformat it and start over without
losing any data. If your computer will not
boot and you did not put all your data on
another drive or partition, you will want
to save your data before reinstalling your
operating system. What can you do?

A. Open computer case and remove
drive. Install drive as a slave drive in
another computer. Now you can copy and
paste your data or burn to a CD. This
means opening two computers and
moving the drive in and out and
resetting the jumpers.

B. Hook up the drive you removed
from your computer to a second
computer using a USB adapter, like the
one we have at the Hardware SIG, to
another computer and copy and paste or
burn the data you want to keep.

C. Here is my first choice in a case
like this. Use a Live Linux CD to boot up.
Plug in a USB drive before booting. After
booting, mount your 'C:' drive and your
USB drive. Copy your data from 'C:' drive
to the USB drive. With this option there is
no case to open and drive to
remove.

3. Backup your data as necessary to a
CD or another drive. Use a USB drive.
This drive can also fail so putting backup
on a CD or DVD is better way to go. Also,
there is an on-line service at
Carbinite.com that will automatically back
up your data. This service costs \$50.00 a
year for unlimited backups. How
important is your data?

Here are a few key folders to have on
'D:' drive:

Data — In this folder make sub folders
for each application you use. Include one
called Pictures. Under this folder have
another sub folders for different events.
Like: Christmas07, Vacation08, Dog, etc.

D/L — Use this folder for all your
downloads. Then you will always know
where your down-loads are. Set it up so
the last thing you downloaded is on top.

E-Mail. If possible you want your mail off
the 'C' drive

Continued on page 8

Digital Scribe

IOGEAR Digital Scribe Review

By Rebecca Feinstein, a member of WINNERS – WINDOWS usERS
www.windowsusers.org
editor(at)windowsusers.org

Obtained from APCUG with the author's permission for publication by APCUG member groups.

I was thrilled when I first found out there was a digital scribe product at the last WINNERS meeting. As many of you recall, I was well, somewhat reluctant shall we say, to give up the raffle donation item. At the 35% discount I could not wait to get it.

The IO Mobile Digital Scribe took six days to get here from the Illinois. It comes with the pen, cable, mobile unit, two program CDs something that looks like a green tipped stylus (turned out to be the pen/refill), two small (hearing aid size) batteries and a Quick Start Guide.

Installation of the software was easy, Mobile Digital Scribe (Note Management) and My Script Notes Lite (handwriting recognition software); as was charging the mobile unit and installing the batteries into the pen. However, installing the pen was a bit puzzling as in the reference guide, IOGEAR never shows the actual size of the refill in the pictures. It also took a few e-mails to Customer Support and product management to find out where you can purchase the re-fills as well.

Okay, I got it up and working, I did a few test runs with it at home with the Mobile

management software required bit of a unit attached to the computer. The note learning curve, but still was fairly easy to use. Included with the software is a .pdf users guide for the entire kit (58 pages). The handwriting recognition software was pretty impressive. With my handwriting I expected it to have a problem with my convoluted shorthand as well as my capital Is, js and my contractions. To my surprise, the software only had a problem with the Is. It even captured my signature scrawl quite well! As with a regular pen, the program doesn't erase; but recognizes crossed out information as crossed out.

With all this practice under my belt, I decided it was time to haul out the big guns, – WORK! As a technical writer, as with many other positions, I attend a lot of meetings. My expectations were high for my new tool. No more having to rewrite all my notes into electronic format for distribution. I was armed and I was ready for combat. After receiving permission to install the software on my office unit, I got set up and ready to rock. I attended three meetings that day.

On the big plus side, it was very nice to have my notes appear in e-form without having to transcribe them at all. This made putting them into agenda form a breeze.

On the problem side of using the scribe, a major drawback is the mobile unit clips are made to only grab a few pages of paper at a time. Unless you are intending to take one page's worth of notes, you have to remove the mobile unit to turn

continued on page 9

Hard Drive Recovery

Moving on to Vista

continued from page 6

HARD DRIVE RECOVERY

My Stuff. Cut and paste from 'My Documents' on 'C' items that were sent there without asking you where to send. Documents that you want to keep.

Using Acronis *True Image*

Use Acronis *True Image* to backup to your USB drive. Make a full backup the first time.

This is going to be pretty easy because all your data is in one folder on 'D:' called **DATA**. If you want to backup your downloaded items, back up the 'D/L' folder. E-Mail is not something I backup but you may want to. Once again it should all be in the 'E-MAIL' folder.

***SPEAKING OF ACRONIS
GENE BARLOW WHO REPRESENTS
THAT COMPANY WILL REPRISE HIS
VISIT TO OUR GROUP WHICH HE
MADE IN MARCH 1999 BY RETURN-
ING IN MARCH 2009 TO HELP US
CELEBRATE OUR 25TH
ANNIVERSARY
WHAT GOES AROUND COMES
AROUND - THANKS GENE***

You already loaded the Acronis program and made a rescue CD that is bootable. Right?

Now open your CD drive and insert the

CD. Do not close the drive. Shut down your computer. Close the CD drive. Wait a minute and then reboot.

If you have your BIOS set to boot from a CD first, you are good to go. If not you will need to enter into your setup screen at boot-up and change the boot order.

After booting up with Acronis, follow the prompts to select what you want backed up. Practice this before you need to use it. Acronis will not do anything until you give it the final OK.

Make notes on how to select each step.

Continued from page 5 MOVING ON TO VISTA

a local network or the Internet. This kind of record can be useful if you suspect a hacker has been visiting your computer in the middle of the night. Actually, there is a way that you can modify Vista's firewall to create a log and examine outbound traffic. The process to set this up is probably more complicated than most of us would like to deal with so I offer a much easier solution. Turn off Vista's firewall and install a third party firewall program. Do not try to use two or more firewall programs at the same time. They do not play well together. There are a number of firewall programs that you can purchase as well as some that are free. I've been using the free version of Zone Alarm for many years and I'm satisfied with its protection. It also creates a log that I can use to examine attempts to connect to my computer. You can find it on the Internet at www.zonealarm.com

IOGEAR Digital Scribe

CONTINUED FROM PAGE 7

pages to take more notes. This proved to be distracting and inconvenient in one of my meetings. And I found it to be very unwieldy when I was standing to take note as the mobile unit added weight to the top of the paper pad.

The pen, which is thicker than I'm used to (standard stationary pens) felt unwieldy in my hand to begin with. The button that allows you to switch between pen mode and mouse mode is located in the lower part of the pen, towards where it writes on the paper and I kept inadvertently clicking it as I was writing. So some of my notes from the first meeting resembled a word game puzzle.

Another problem, though a lesser one, is the quick reference guide itself. The print is so small, I had to borrow a friend's magnifying glass to read some of it. Keith Renty was correct when he said at our meeting that the user information was not written well.



Nowhere in the users guide, or quick reference material is a description of everything that was to come with the kit (the graphic that points to everything in the kit to make sure you know the stylus is actually the pen cartridge). There is no

technical support information listed in the users guide, but contact information is listed in the back of quick start guide.

Overall, I'm pleased with the performance, and not so-pleased with the customer support.

Need a Ride?

Have you been not able to come to our monthly meetings because you have no way to get to them? We have a solution for you!

Able to Provide a Ride?

Are you willing to pick up, transport and drive another member to one meeting a month? We have an opportunity for you!

PPCUG's Ride Sharing Program

Bill Aulepp, long time group member has volunteered to coordinate member communication for those who need rides and those who can provide them.

To join the program for either side, email Bill at bill@aulepp.com. Provide your name, your address, a way to contact you, and whether you can give or need a ride.

Bill will gather the information from everyone who responds and connect up drivers with riders. It will be the responsibility of the individual members to organize the actual rides, dates, and pick up information.

As an added bonus, any driver participating will receive one extra raffle ticket each time they drive a member to a meeting.

Rootkits

Rootkits - A continuing Security Problem
by Brian K. Lewis, Ph.D., Member of the
Sarasota Personal Computer Users
Group, Inc., Florida
www.spcug.org
bwsail at yahoo.com

Obtained from APCUG with the author's
permission for publication by APCUG
member groups.

By now I suspect everyone reading this
article is familiar with most malware:
viruses, botnets, Trojans, etc. These are
becoming less of a problem because of
the efforts of the security companies to
provide software solutions. More and
more users are also becoming aware of
the need to have some means of
protecting their computer. As a result,
hackers are turning to a more effective
method of controlling your computer –
rootkits. Although these have been
around more than ten years, like other
malware, their numbers seem to be
increasing.

Probably the most dangerous form of the
rootkit is the "kernel mode Trojan". This
is a program that inserts itself into the
"kernel" of the operating system. The
kernel is the central component of the
operating system – its heart or brain to
put it in more common terms. It
manages the communication between the
operating system, the hardware and the
software applications.

Most viruses operate as applications and
can be readily found in memory or in the
file system. Rootkits, however, can hide
themselves in such a way that it is very
difficult to find them. In order for a
rootkit to alter the normal execution path

of the operating system, one of the
techniques it may employ is "hooking". In
modern operating systems, there are
many places to hook because the system
was designed to be flexible, extendable,
and backward compatible. For example, a
rootkit can "hook" itself into the
Application Programming Interface (API)
which allows it to intercept the system
calls that other programs use to perform
basic functions, like accessing files on the
computer's hard drive. If an application
tries to list the contents of a directory
containing one of the root kit's files, the
rootkit will censor its filename from the
list. It'll do the same thing with the
system registry and the list of running
processes.

A rootkit is a collection of tools an
intruder brings along to a victim
computer after gaining initial access. A
rootkit may contain network sniffers, log-
cleaning scripts, key-loggers and
trojaned replacements of core system
utilities. Although the intruders still need
to break into a victim system before they
can install their rootkits, the ease-of-use
and the amount of destruction they cause
make rootkits a considerable threat. One
main purpose of a rootkit is to allow the
intruder to come back to the
compromised system later and access it
without being detected. A rootkit makes
this very easy by installing a remote-
access backdoor. A rootkit can also allow
the intruder to use the compromised
computer as part of a botnet (see
Botnets, SPCUG Monitor, January, 2008).

Another mechanism for hiding a rootkit is
to add it to a system driver file. Windows
XP and Vista store driver files in the
System32/drivers folder. Many of these

CONTINUED ON PAGE 11

Rootkits

CONTINUED FROM PAGE 10

system files load early in the boot process. These files have boot or system flags in the registry and load before any of the malware-prevention software. That means they are very difficult to find. Although the file size for the driver will be increased, the rootkit may report the original file size to any query, not the infected file size. All of this means that once a rootkit has been installed and activated on your computer, it is difficult to find by any of the usual malware prevention software.

Rootkits do not require large software applications to carry out their function. We are accustomed to commercial applications that are many megabytes in size. Even the anti-virus software may be 40-50 megabytes in size. In 2003 a rootkit was identified that required only 7 kilobytes for its cloaking routine and 27 kilobytes for maintaining the open backdoor.

Anti-malware programs depend on two main means of identifying malware. One is the signature method and the other is heuristics. The signature method requires that the malware be identified and reverse engineered to determine a code sequence which can be used to identify the application in the wild. This code sequence is referred to as the signature and is used by the anti-virus database. This signature is then compared to code sequences in applications to determine if they are malware. This method is of no value when dealing with new or unreported malware.

So the next option is heuristic signatures. Their primary advantage lies in their ability to identify new, previously unidentified malware. The heuristics technique assumes that malware will display certain characteristics or attributes. They also attempt to recognize deviations in "normal" system patterns or behaviors. Using these predicted patterns, the anti-malware application will attempt to determine if the target application is malware. This has been a successful approach for identifying viruses, but it is less successful for active rootkits.

The April 2008 Virus Bulletin (www.virusbtn.com) reported the results of testing a number of popular commercial A-V programs, Internet security suites, web-based scanners and specialized anti-rootkit tools. The testing involved 30 known rootkits. The testing categories were detection of: (1) inactive rootkits; (2) active rootkits; and (3) malware hidden by rootkits. Then they tested removal of (1) inactive rootkits; (2) malware hidden by rootkits; and (3) active rootkits. The results were not encouraging.

The seven Internet Security Suites used in the test were able to detect 95% of the inactive rootkits. (Remember, these were known samples that had already been identified and their signatures incorporated into the anti-malware applications.) These suites were also able to remove 95% of the inactive rootkits. However, when it came to active rootkits the story was very different. The Internet

CONTINUED ON PAGE 12

Rootkits

Continued from page 12

Security Suites detected only 65% of the active rootkits and were able to remove only 48%. They also were able to remove only 48% of the hidden malware. All of the versions of the Internet Security Suites were the latest available at the time of the test.

There were fourteen specialized anti-rootkit tools tested using the same thirty rootkits. They were not tested against the inactive rootkits, only the active rootkits and the hidden malware. Again, the results were anything but satisfying. These tools detected 83% of the active rootkits and 80% of the hidden malware. The anti-rootkit tools removed only 60% of the active rootkits and 67% of the hidden malware.

The web-based scanners did a far poorer job of identification of the rootkits. They also were uniformly unsuccessful in removing rootkits. The detection rate was 53% and the removal was around 32%.

In reviewing these tests it is obvious that successful detection and removal of rootkits depends on their being inactivated. This can be done by running the computer in "SAFE" mode which does not allow the rootkit to load from the hard drive. However, it would be expected that if detection/removal tools were developed for this specific purpose, then rootkits would appear that would load in "SAFE" mode. Another alternative would be to develop rootkit scanning software that would run from a CD. The computer would boot from the CD and the operating system for the scan would load from the CD. This should improve

the detection and removal rates considerably. However, it then depends on the user running the CD application periodically to scan the entire computer. Considering how few users backup their hard drives on a regular basis, this CD system might be less than universally successful.

Given the current difficulty of detecting and removing rootkits from your computer, what is a user to do for protection? The only answer to this is to prevent the rootkit from getting access to your computer. That means using every tool you have available to prevent the malware from gaining access to your system. Your firewall is the first line of defense, followed by your anti-virus, then your anti-spyware. Also, when you are surfing the web, make sure you aren't your own worst enemy. Be careful and check out links before you click on them. It just like getting spam in your e-mail. Check where the link will take you before you click on it. Social engineering techniques are also used to propagate everything from viruses to rootkits. These are techniques that encourage the user to take some action which allows the malware to be downloaded and installed on the users computer. A very interesting analysis on these techniques is contained in this article from the University of Cambridge (U.K.); <http://www.cl.cam.ac.uk/techreports/UCAM-CL-TR-666.pdf>. Although this is written specifically about virus propagation, similar techniques are used to gain entry for rootkits. This paper illustrates many of the "carrot & stick" methods used by malware to gain access to computer systems. Microsoft has also published a

Continued on page 15

Cloud Computing

Cloud Computing - The Future of Personal Computing?

By Brian K. Lewis, Ph.D., Member and Contributing Columnist, Sarasota PCUG, Florida

www.spcug.org
bwsail(at)yahoo.com

Obtained from APCUG with the author's permission for publication by APCUG member groups.

You may not have heard of it, but "Cloud Computing" is the latest buzz-word in computing circles. The question is, just what does it mean? The problem is that at this point, there is no really solid definition for this term. You can search for it and you'll find a number of interpretations. So, from all that I have encountered, I'll try to synthesize one for you.

Cloud computing is being able to access files, data, programs and services all via the Internet. You would have little or nothing stored on your computer, in fact, your computer might simply be a device, desktop or handheld, that can access the web and all of its services. In addition, cloud computing offers the services of enormous computer networks that function as if they were components of a supercomputer. These networks can process tens of trillions of operations per second compared to three billion operations per second for the most powerful desktop computer. This kind of computing power can be used for analysis of risk in financial portfolios, delivering personalized medical information, and powering immersive computer games. These networks use hundreds or thousands of network servers using PC related technology.

I think this excerpt aptly describes the computer

cloud. *"What is Google's cloud? It's a network made of hundreds of thousands, or by some estimates 1 million, cheap servers, each not much more powerful than the PCs we have in our homes. It stores staggering amounts of data, including numerous copies of the World Wide Web. This makes search faster, helping ferret out answers to billions of queries in a fraction of a second. Unlike many traditional supercomputers, Google's system never ages. When its individual pieces die, usually after about three years, engineers pluck them out and replace them with new, faster boxes. This means the cloud regenerates as it grows, almost like a living thing."* (Quotation is taken from a Business Week article dated 12-13-2007 by Stephen Baker.)

Although some of these services may appear to be only of interest for corporations and their IT departments, services are also being made available for home and small business users. As you might expect, the availability of this Internet computer access depends on fast broadband access. An area where the U.S. lags behind many other countries. In this country we think that having 10-15 megabits/sec on our broadband is really fast. However, in Japan, 50 megabits/sec is closer to the norm, even for home users.

CLOUD COMPUTING MAY BE THE FUTURE FOR YOUR COMPUTER AND IPOD. IT CAN PROVIDE STORAGE AND SPEED NOT OBTAINABLE IN ANY OTHER WAY. GOOGLE, AMAZON AND MANY OTHER SERVICES ALREADY USE IT AND YOU CAN TOO. IN THE FUTURE IT COULD PROVIDE YOU WITH INFINITE STORAGE AND UNBELIEABLE SPEED.

So who would be providing these cloud computing services? Actually, they already exist in the form of Google Apps, Amazon Elastic Compute (EC2), Sapotek's Desktop2 (www.desktoptwo.com), Zim Desk (www.zimdesk.com) and Zoho Office (www.zoho.com). (There are also a number of companies providing these services and more

Continued on page 14

Cloud Computing

Continued from page 13

to large corporations only.) Sapotek claims to have 175,000 users of their Desktop2 and their servers can handle 8 - 10,000 of them at the same time. They have a partnership with Sun that will provide the equipment to handle as many as 350,000 users. Every time I look for more information on Cloud Computing I find new companies listed that are offering these services. It is a very rapidly growing industry.

So, if you wanted to take advantage of the services in the cloud, what could you expect to find? Let's take a look at Desktop2. This is a free service that provides normal office applications: writer, spreadsheets, presentations, notepad, and a calendar. It also provides hard drive storage, e-mail, instant messaging, blogs, MP3 player, RSS service and a web site editor. The free version does come with ads as you would expect.

Zimdesks is very similar to Desktop2. Its web applications includes pop3email, file manager, sidebar, RSS, browser, word processor, spreadsheet, calendar, tasks manager, accessories/widgets, web messenger, video conference, media player, Internet radio, web TV, games, zimcommunity, zimblog, and much more. It is also a free service that incorporates advertising. Like everyone else they have to support themselves somehow.

The third of these services is Zoho Office. On their home page you not only find a list of the services they provide, they are all available for trial simply by clicking on a icon. As with the previous services, the list of applications is quite extensive.

Google Apps is very similar in its offerings to the preceding services. However, it is more oriented towards business users. It does have a free version which might be useful for the individual user.

Zoho uses Java to run its applications on the web. Other services may use Flash or Java.

Either of these allow the applications to run in your browser and to operate at reasonable speeds. I have tried out the word processing and found it to be no different than using a word processor on my computer. This is true even though the speed of my Internet connection is usually only 500 - 750 kilobits/sec. When you are using a wireless card modem it is only on very rare occasions that you can match fast DSL speeds. I'm sure that those of you on cable or fast DSL would have no problem using a web-based application, at least with regard to the speed of the applications response. However, if you are preparing a graphic loaded presentation, then you might experience some slow down depending on the speed of your connection.

The idea of relying on Web-based applications and storing data in the "cloud" of the Internet has long been pushed as a way to do business on the road. Now software companies are making entire Web-based operating systems. They present themselves as a complete computer in the cloud and are aimed at a wider audience. These browser-based services could help those who can't afford their own computer.

There are also those who are convinced that this is the future of computing. However, some security concerns should be considered. Unless you know how secure your data is when you use a cloud system, you should be cautious about what you share with the on-line servers. You need to know how your data is protected from other users of the "cloud". As a service provider they should be willing to undergo external audits and/or security certifications. Also you need to know what kind of data protection and data recovery procedures are provided. As has been demonstrated many times, computers do fail. Finally, you need to know what happens to your data in case the company fails or is sold to another entity. This is also not uncommon in the high tech industry. As is always the case,

Continued on page 15

Continued from page 12

paper detailing many of the common methods used to trick users into installing malware. These can be found in the paper "Behavioral Modeling of Social Engineering-Based Malicious Software" on the Microsoft web site.

So to all of you reading this paper, I would suggest that "caution is the watchword" when it comes to using your computer. I'm afraid that the situation will only get worse when it comes to new forms of malware.

Update Note: In my article on iFrame attacks (SPCUG Monitor, May 2008), I listed a number of portals that had been affected by iFrame attacks. One of these was the eHawaii.gov portal. I have received information from the site manager that the problem has been corrected (removal of the iFrame) and actually only affected one page on their site. Thanks to Russell Castagnaro for correcting this problem and notifying me.

Dr. Lewis is a former university and medical school professor of physiology. He has been working with personal computers for over thirty years, developing software and assembling systems.

This article has been provided to APCUG by the author solely for publication by APCUG member groups. All other uses require the permission of the author (see e-mail address above).

Continued from page 14

Lastly, consider what computing might be like should the "cloud" become the method of choice. Certainly there would be no need for computers to have all the bells and whistles we now associate with them. Just think about the possible design of a system destined for use solely with cloud computing. It would only need a minimal operating system that would allow the computer

to boot, then start the web browser which would connect to the Internet. Your cloud page would be your home page and display your chosen desktop.

As for a hard drive, a 10 - 20 gigabyte solid state drive would probably be adequate.

for viewing videos. It is possible that the graphics processing unit (GPU) would be more powerful than the CPU (central processing unit) or it might even incorporate the CPU. This could all be contained in a 1-2 pound laptop or compressed further into a handheld computer/cell phone. Although some of these characteristics are found now in smart phones, the spread of cloud computing would enhance the features of these phones. For most of us, the available screen size on these smart phones is not large enough, leaving a market opening for inexpensive laptops such as the ASUS Eee PC or the OLPC (One laptop per child). In neither case would we need an operating system as massive as Microsoft Windows.

One thing is certain, anytime you try to predict the future you usually miss the mark by a mile. So it will be interesting to see what reality brings about over the next few years.

Dr. Lewis is a former university and medical school professor of physiology. He has been working with personal computers for over 35 years, developing software and assembling

The Official Policy of the Phoenix PC Users Group is that we do not condone software piracy in any form.

MEMBERSHIP DUES

\$18 will pay up to Jan 1, 2009

or

\$54 will pay up to Dec 31, 2009

Phoenix PC Users Group Membership Application

First: _____ Initial: _____ Last: _____

Address: _____

City, State: _____ Zip Code: _____

Home Phone: _____ Work Phone: _____ Ext: _____

Please note: We DO-NOT share phone numbers outside the club, and will generally only use your phone information, if we cannot contact you in timely fashion, via e-mail, or the club web-site

Release my address to vendors? Yes No Note: Phone numbers **will not** be listed.

E-mail address: _____

May the club share your e-mail address with other members only? Yes No

With club approved vendors? Yes No

Please do not share my e-mail address

Receive Electronic newsletter ONLY

Yes No

Mail this completed form with payment to:

Phoenix PC Users Group
5555 N. 7th Street, Suite 5
PMB101
Phoenix, AZ 85014

Newsletter Policies

This newsletter is a publication of the Phoenix PC Users Group, Inc. All rights reserved except as specifically permitted.

Articles, programs, reviews, artwork, photographs and any advertisements are compiled without verification of accuracy, or suitability to a specific task or computer. Any comments, or claims, made within this publication are solely the responsibility of the author and do not express the views of any other group member, the Board of Directors, nor the Phoenix PC Users Group, Inc. We reserve the right to refuse any advertising for any reason.

The Phoenix PC Users Group News, a newsletter, is published monthly, with article submission deadlines occurring the 29th of each month. This publication is mailed with the intention of reaching members before the monthly meeting of issue date. The Group is not responsible for lost or destroyed newsletters, other than replacing an issue lost in the mail. Notify the group Membership Coordinator at least four weeks in advance of change of address when moving.

Copyright 2008 by the Phoenix PC Users Group, Inc. This publication may not be photocopied, reproduced in whole or in part, by any means,

without specific written consent of the Phoenix PC Users Group, Inc.

Other computer user groups currently exchanging newsletters with the Phoenix PC Users Group, Inc. are granted permission to copy, redistribute, and use this publication as needed, providing that articles, authors and this publication are credited. If the author of an article is not a member of PPCUG the author should be contacted for permission.

Submissions to the "News" should be in MS Word, RTF or unformatted text.

Articles, photos, screen shots may be e-mailed over the Internet directly to the editor at:

editor@PhoenixPCUG.org

Please include the author's name, address, phone number and e-mail address on the first lines of the article.

All materials submitted will be considered for inclusion in the "News", but the Editor reserves the right to edit as necessary, to maintain standards of literacy, grammar, and length requirements. No materials will be returned unless arrangements are made in advance.

Did you know that you can get your newsletter electronically each month?

Did you expect to get a copy electronically and still received a paper copy or wish to get a paper copy and did not get one ?

Just send an email to — *members@phoenixpcug.org* — or check the box on your membership application if you are a new member. You will get a notice each month when the newsletter is available .

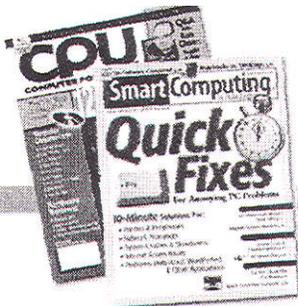
Make sure to include your email address. At least one member who requested an electronic copy did not include the email address and since our mind reader is on a years sabbatical we were unable provide the members wish.

Smart Computing Magazine

There is a way you can support your user group. Smart Computing Magazine will give a gift subscription to the Phoenix PC Users Group to be used as a door prize, raffle, etc., for each five subscriptions received from our group. Subscriptions can be applied for with the subscription coupon below or by phone as long as you use our group's unique source code number (8305) when beginning the subscription.

For each paid subscription using the source code 8305, our user group will be credited one credit. Results are calculated each quarter, and credits will accumulate until the group reaches five paid subscriptions, at which time they will contact the PPCUG.

In the event our group does not reach the five paid subscription mark by the end of the quarter, credits will be carried over into the following quarter until the amount reaches five paid subscriptions, at which time a free subscription will be issued.



USER GROUP PROGRAM

1 Year\$29 2 Years\$48 3 Years\$64

Name _____

Company _____

Address _____

City _____ ST _____ Zip _____

Phone (____) _____

E-mail _____

Payment Options (Check One)

- Visa Mastercard Payment Enclosed
- Discover American Express Bill Me

Account Number _____ Expiration _____

Signature _____

SmartComputing.com/groups

Phoenix PC Users Group

Be Sure to use the Phoenix PCUG Numbers:

SC: 8305
CPU: 513
PC Today: 197

Mail to:
Smart Computing; PO Box 85380
Lincoln, NE 68501-9807

Fax:
402-479-2193

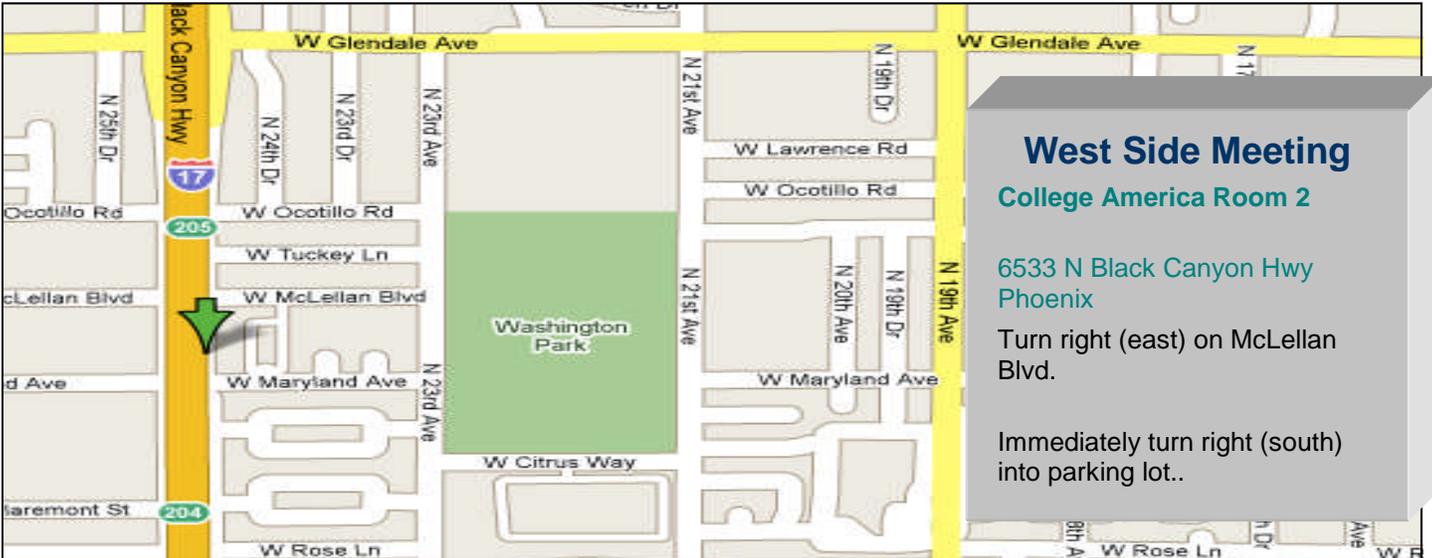
Call to Order:
800-733-3809 • 402-479-2136

Smart Computing or CPU?

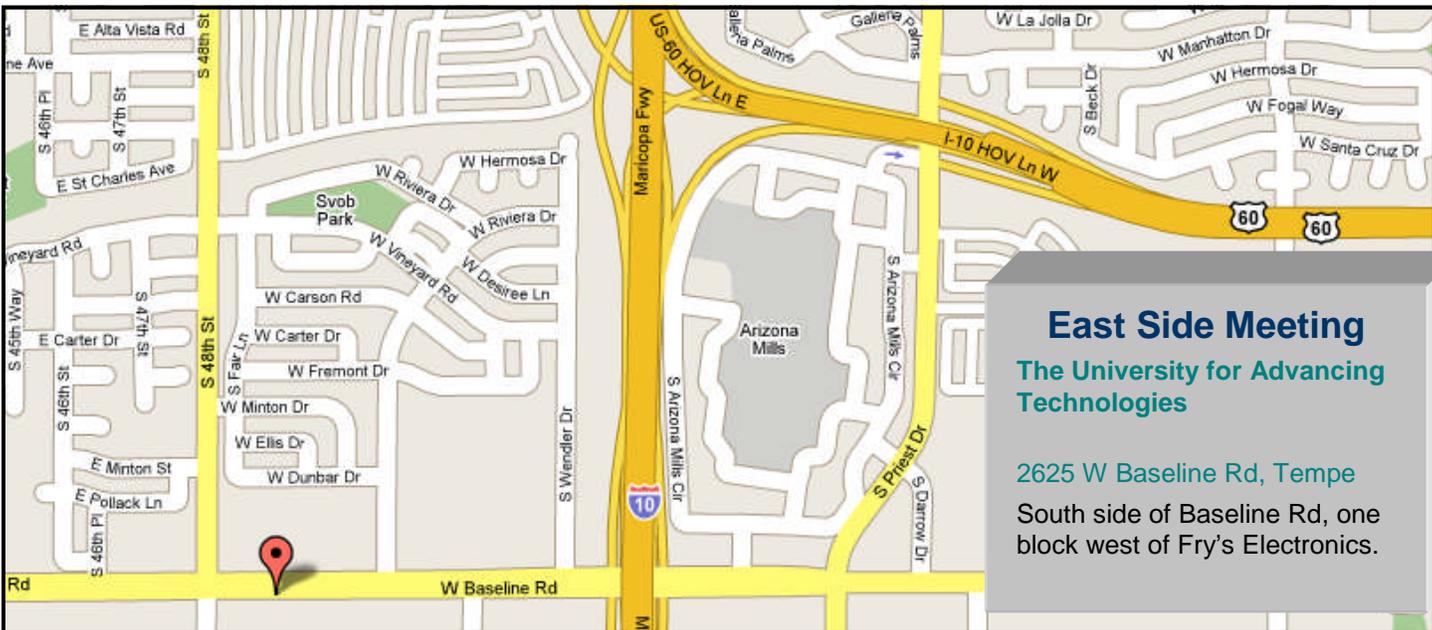


10-Minute Solutions For:
• Printer Problems
• Network Troubleshooting
• System Setup & Optimization
• Internet Security Risks
• Hardware Upgrade/Replacement
• E-Mail Applications

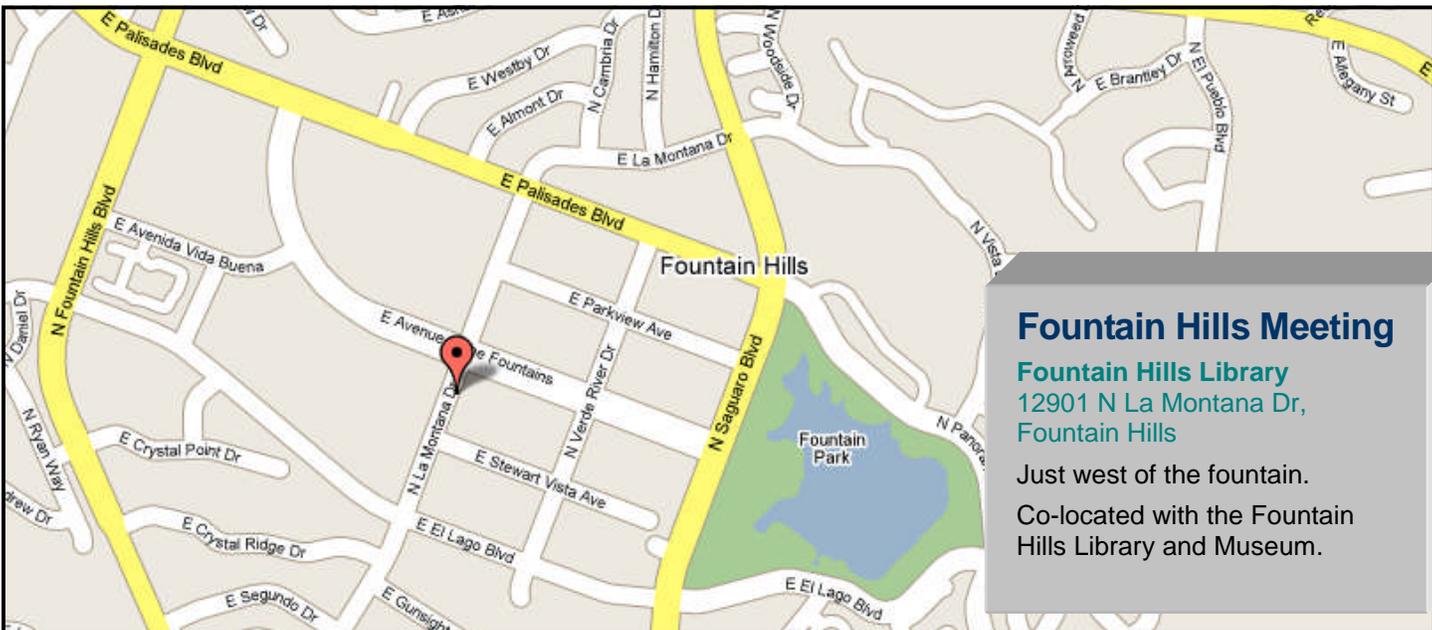




West Side Meeting
College America Room 2
6533 N Black Canyon Hwy
Phoenix
Turn right (east) on McLellan Blvd.
Immediately turn right (south) into parking lot..



East Side Meeting
The University for Advancing Technologies
2625 W Baseline Rd, Tempe
South side of Baseline Rd, one block west of Fry's Electronics.



Fountain Hills Meeting
Fountain Hills Library
12901 N La Montana Dr,
Fountain Hills
Just west of the fountain.
Co-located with the Fountain Hills Library and Museum.



*The Best Accessory
for your PC!*

Web address:
phoenixpcug.org

October 2008

The Newsletter of the Phoenix Personal Computer Users Group
"Users helping users to understand computers"

PHOENIX PC USERS GROUP
5555 N 7TH ST STE 5 PMB 101
PHOENIX AZ 85014-2575