

April 2005 Volume 21 Number 4

PPCUG NEWS

A PUBLICATION OF THE PRINCETON PC USERS GROUP

VoIP for Dummies! How to choose the best VoIP Plan

Joe Budelis

Monday, April 11, 2005

Many think that VoIP is the future of voice phone service. The presentation will discuss what VoIP offers and, practically speaking, what it can do for you. A little history will be given and pros and cons of some current implementations will be indicated. At the very least, from this presentation, you will learn many of the things that you might wish to consider when you decide to go with VoIP service.

Joe primarily consults on, and sells, such services as T1 and DS3 voice and data, high speed internet access and VoIP phone service. For more comprehensive info, see [Joe Budelis's blog](#).

Joe has a BES in both Electrical Engineering and Mechanics from The Johns Hopkins University, a MS in Engineering and Applied Physics from Harvard, and a Ph.D. in Decision and Control also from Harvard.

Lawrence Library
Meeting Rooms 1 & 2

US Alternate Route 1 South & Darrah Lane, Lawrenceville, NJ

*Meetings of an organization at any of the facilities of the Mercer County Library System
in no way imply endorsement of its programs.*

In this issue:

Meeting Minutes	2
President's Message	3
Ports and Security	3
Princeton Wireless Hot Spots	4
Link of the Month.....	5
Google's Gmail	6
Computer Tip	8

Coming Events:

April 16, 17—Trenton Computer Festival (www.tcf-nj.org)
May 9 —Vic Laurie on his Favorite **Free** Programs.
June 13 —Doug Dixon on TV In Your Pocket: Portable
Media Players and Phones
July 11 —Amber Coffin from Smart Computing
August 8 —Sol Libes on Creating an Animated Slide
Show

About PPCUG

General Meetings

Second Monday of the month at the Lawrenceville Library, Alternate Route 1 and Darrah Lane.

7:00 PM: Social Time / Tech Corner

7:30 PM: Meeting comes to Order

7:45 PM: Featured presentation

For information about upcoming meetings or joining PPCUG, see:

<http://www.ppcug-nj.org>

or email us at:

ppcug.nj@gmail.com

(Please include "OK" in the subject line.)

Board Meetings

Board meetings are open to all members. Notice of an upcoming meeting will be posted on the web site.

Board Members

President:

Clarke Walker 609-883-5262

Vice-President:

Tom Carman 732-828-6055

Secretary:

Joe Budelis 609-921-3867

Treasurer:

Paul Kurivchack 908-218-0778

Members-At-Large:

Al Axelrod 609-737-2827

Vic Laurie 609-924-1220

Kim Goldenberg 609-631-9140

Sol Libes 609-520-9024

Chairpersons

Hospitality:

Bill Hawryluk 609-655-0923

Member Records:

Paul Kurivchack 908-218-0778

Newsletter Editor:

Clarke Walker 609-883-5262

Program Coordinator:

Sol Libes 609-520-9024

Web Master:

Joe Budelis 609-921-3867

2005 Annual Dues

Dues are \$40 per calendar year with a mailed newsletter or \$20 per year with online access to the newsletter. New members pay \$3.25 or \$1.75 per month times the number of months remaining in the current year.

Minutes of the March Meeting

Clarke requested that if we happen to hear a good presentation that might be of interest to other club members, let Clarke or Sol know. Some audience questions that were discussed follow.

Q: What program can be used to send out bulk E-Mails? Suggestion: First call your ISP and discuss rules with them. Otherwise, you may be banned. Fifty at a time worked for a member. Once the rules are known, Outlook or Outlook Express could be used. Another option that is probably safer is to set up a Yahoo group or msn group.

Q: Links from the PPCUG newsletter don't work. They work if you use Adobe 7.1.

Q: What program will read a file ending in .min? Go to Google, put in .min extensions and it'll send you to a link that'll convert it. Clarke did so and found a description.

Paul started his OnTrack Disk Recovery presentation at 7:49. His presentation is at http://www.ppcug-nj.org/EasyRecovery_PresentationMar05.ppt He showed us that he is using an IBM X40 1.4 GHz machine with a gig of ram and built in wireless capabilities. Paul does a lot of disaster recovery work. For IBM he looks over about 2000 machines. Most problems occur when someone shuts a machine down during a download. This often screws up DLLs, etc. If you have a backup plan, disaster recovery will not be a big deal. Backup data on CD_ROM or DVD data disks or use a second hard drive for data. Use auto backup. There is lots of commercial software available.

Imaging: Ghosts from Symantec is a cloning product – it makes a complete image of a hard drive. It compresses about 5 GB to about 2 GB. If the machine goes out, you take the disk out, put it in a similar machine and it starts up the machine just as it was when you made the ghost copy. Incremental backups are not available in Norton Ghost. Ghost Explorer allows you to pull down one file out of a Ghost image. Ghost costs around \$60.

ThinkVantage is a free IBM tool. It does incremental backups. It takes about 5 to 10 Gig of backup space. ThinkVantage rapid restore can take incremental backups. You want to find it's text file and change backups from 5 to 2 or it will use up all hard drive space quickly. Rapid Restore works by hitting F11 during the boot up process. On an IBM machine, it's simply a button on the machine.

They create a hidden service file on the hard drive. About 90% of problems people have are related to the OS. This simply replaces the OS and everything else. It's a little more robust than XP restore and recovery. This makes an entire backup and then on a weekly basis does an incremental. Paul said that you can download ThinkVantage from www.pc.ibm.com/us/think/ by putting ThinkVantage in the search box.

He recommends you run ghost once a month since it's so time consuming then Rapid Recovery every week.



Picture of Paul K. by Clarke Walker

- Submitted by Joe Budelis





President's Message

With this issue we inaugurate a new column "Computer Tip". Member Bob Weinberg has submitted material for this new column. If you have a 'computer tip' please send it to me for inclusion in future newsletters.

For our April meeting another member, Joe Budelis, will be giving the presentation. Please let Sol know if you would like to give a talk or know some one you would like us to invite.

See you on April 11th when we will learn about VoIP. Because the Library now has public Internet access we plan to have a live demonstration.

- Clarke Walker



Ports and the Security of Your Internet Connection

by Vic Laurie, PPCUG
Member of the Princeton PC User Group

In order to provide more efficient transfer of data, computers interact with the Internet through a variety of pathways known as "ports". Keeping these ports or doorways on your computer closed to intruders and to malware is an essential part of Internet security.

What are Internet ports?

Although your computer has a single IP address (<http://vlaurie.com/computers2/Articles/Name.htm>) on the Internet, a variety of functions and software are involved in an Internet connection. For example, receiving email, sending email, viewing a Web page, using a newsgroup, and uploading files are all different processes, with each using different software methods. In order to carry out these various functions in a systematic way, use is made of numbered "ports" as local addresses. (These ports have no physical existence and are not to be confused with actual things such as USB or parallel ports.) These local addresses are used to direct the various types of Internet activity to the appropriate software on the local computer.

Think of your computer as an office building, with different rooms used to carry out various functions. The usual IP address would correspond to the street address of the building and the ports would correspond to room numbers. In fact, the standard form of an URL (the human-friendly equivalent of the numerical IP address) has a section for designating a port. (More details are at <http://vlaurie.com/computers2/Articles/Name.htm> .) The port number is almost never necessary in an URL, however, since port number 80 is assigned by convention to the Internet protocol *http*.

Ports are numbered from 0 to 65536. However, port numbers are not assigned haphazardly but conform to standards from the Internet Assigned Numbers Authority or IANA (<http://www.iana.org/>). Ports 0-1023 (designated as "well known ports") are assigned by IANA and are generally reserved for system processes. For example, as mentioned above, the protocol *http* is assigned port 80. Ports 1024- 49151 are called "registered ports"; their assignments are coordinated and approved by IANA. A list of these is published so that conflicts in the use of ports do not arise. (Malware writers, of course, do not observe these rules.) The remaining ports 49152-65535 are called "dynamic" and/or "private ports". These are unregulated. Some common processes and their standard port assignments are given in the table below.

A few common port assignments		
Port no.	Process	Purpose
20	FTP	File transfer
22	SSH	Secure shell
25	SMTP	Sending email
53	DNS	Domain name service
80	HTTP	Reading Web pages
110	POP3	Receiving email
119	NNTP	News groups



For more information on port number assignments, see the references given at <http://www.vlaurie.com/computers2/Articles/ports.htm>.

Making ports secure

Since ports are used to exchange information between a computer and the Internet, they are also a pathway for intruders to gain access to your computer or for malware to use your computer for unauthorized activity on the Internet. Applications or services monitor ("listen" to) the port that they are assigned. If this listening action is done without taking security steps, the port will be open to incoming signals and may be vulnerable to intruders. This is where a firewall comes in. A firewall will monitor incoming signals and will block any that your system has not specifically requested. Most software firewalls (but not the built-in Windows XP version) also watch for outgoing traffic and will block any that is not authorized. This protects against Trojan horses and any unwanted activity by spyware or adware.

Crackers are constantly using scanning software to probe many thousands of IPs, looking for a computer with open ports. Today no unprotected computer is safe on the Internet. Estimates vary from a few minutes on up as to how long it takes an unprotected computer to get infected. SANS, a security firm, shows (<http://isc.sans.org/survivalhistory.php>) a chart of the average time between attacks for its clients and recent times are 20-30 minutes. All PCs, therefore, need to have some kind of firewall protection.

Even if you have a firewall installed, it is wise to have your ports scanned to see if they appear invisible to the outside world. There are a number of Web sites that provide a free scan of the "well known" ports. Two are Steve Gibson's site at <https://www.grc.com/x/ne.dll?bh0bkyd2> and the Sygate site at <http://scan.sygatetech.com/pretcpscan.html>. Other references on port safety are at <http://www.vlaurie.com/computers2/Articles/ports.htm>.

Princeton Area Wireless Hot Spots

By Sol Libes

Member of the Princeton PC User Group

Having trouble connecting to the Internet with your regular Internet Service Provider? Then consider using one of the many wireless hot spots in the area. Many are free, but a few have charges associated with them.

Free Hot Spots

The **Mercer County Library**, on Darrah Lane, in Lawrenceville, where the Princeton PC Users Group holds its monthly meetings now has wireless Internet access. You can now expect to be seeing presentations at our future meetings with Internet access. Also, if you bring a laptop with a wireless adapter, to a meeting you will be able to access the Internet.

The Wireless network is free for anyone to use. The only limitation is that the library can only handle 16 users at one time. Since few library users, as yet know of this new service, there currently is no limit on how long someone can use it.

The free wireless Internet service is also now available at all of the libraries in the Mercer County system with the exception of the branch in the Community Center on Hollowbrook Road in Ewing.

Princeton Public Library,

65 Witherspoon Street, Princeton.

The library allows users free access to both their wired and wireless networks to gain to the Internet. Instructions on how to do this and what their policy is can be found at <http://www.princeton.lib.nj.us/about/internet/wireless.html>

Flemington Public Library - 118 Main St

The library has wireless Internet access on the second floor in their Mediatech room.

Panera Bread Stores

**130 Nassau Street
and 510 Nassau Park Boulevard**
Most of the Panera stores currently have free wireless Internet access for customers. For information go to <http://www.panerabread.com/wifi.asp>

Atlanta Bread Company **370 Rt 130 South, Unit 3, East Windsor**

This store currently has free wireless access for customers. For more information go to <http://www.atlantabread.com/wifi/>

Trenton Computer Festival

April 16-17, 2005
Attendees at TCF2005, at the College of New Jersey will have free access to the Internet, via a wireless network that will be set up for both days of the show. For information on the show go to <http://www.tcf-nj.org/>

Princeton University

PU has wired and wireless networks. Details about their networks can be found at <http://www.net.princeton.edu/index.html> . Information on their wireless networks can be found at <http://www.net.princeton.edu/wireless.html>

Wireless Internet access in the Firestone Library and in their Book Store is free. There is also a network named TVWNA, otherwise referred to as "Tuna", that provides short-term Internet access for visitors to the University. It is available in several locations. There is a map on the website showing areas of coverage. For example there is coverage in the Frist Student center, the West College, and in the areas just outside of the buildings. These areas change from time to time and their passwords change periodically. Currently the password is 1122334455.

Rider University

RU has both wired and wireless networks. Information about them can be found at http://www.rider.edu/technology/net_comm_srv/nowires/

Hot Spots for a Fee

Starbucks Coffee Shops

Starbucks users can connect to the Internet via a wireless network operated by T-Mobile. The user must have an account with T-mobile and the user will be charged an access fee (\$6/hour, \$9.99/day, or \$29.99/month).

Borders Book Stores

Uses T-Mobile, see Starbucks for information for charges.

Barnes & Noble Book Stores

B&N has linked up with SBC Communications to provide wireless Internet access. The charge is \$3.95 for a two-hours session or \$19.95/month based on a one-year contract. For those who already subscribe to SBC Yahoo DSL the charge for using their wireless access is only \$1.99/year.

Conclusions

More and more wireless hot spots are being added each month. For example, check fast food eateries (e.g. some McDonalds have them) and Hotel lobbies (e.g. Doral Forrestal Hotel, Plainsboro, and Ramada Inn, East Windsor, have free access in their lobbies). To locate wireless hot spots try a Google search with the subject "free wifi" or "wifi hotspots."



Link of the Month

Suggested by Joel May and Sol Libes is this PC Magazine article about disinfecting your computer: <http://www.pcmag.com/article2/0%2C1759%2C1625175%2C00.asp>.

Have you discovered a useful link. Then share it with the members of the P PC UG.



An Examination of Google's Gmail

By Richard Johnson
Member of the TUGNET, CA
www.tugnet.org

The two most useful features of Gmail are (1) its huge storage capacity, which essentially eliminates the need to delete messages, and (2) a lightning-quick search facility, allowing the user to retrieve any message almost instantly.

Gmail also touts its unique labeling system, that replaces other email services' folders (for filing incoming messages), its "conversation" grouping of messages, and its lack of banner ads or pop-ups. In this writer's opinion, the value of the labels is overblown. To label incoming messages is time-consuming and on the whole not particularly helpful. Unlabeled messages may be retrieved easily either from the main window (with the "Search Mail" button) or with Gmail's advanced search (accessible via "Show search options" on the main window). This writer uses the advanced search routinely, for finding messages.

It should be noted that Gmail is not ad-free. It's just that the ads are text ads (similar to the ads on Google's search pages).

At this time a Gmail user can receive HTML mail but send in plain text only. For security purposes, graphics are excluded by default from incoming messages, and you can vary this instruction on a message-by-message basis only.

Spam control

Gmail features its own rudimentary spam filtering system, discussed in greater detail below. While impressive, this system cannot be turned off. Although you can create your own additional filters, the only way to stop Gmail from diverting legitimate mail to its spam folder is to add the sender to your contact list. (You can do so either directly or by marking a "Spam" message "Not spam.") At this writing Gmail still follows a quirky protocol under which bounce messages are diverted to the spam folder.

Should You Switch?

Gmail is not for everyone. You should *not* switch to Gmail:

- if you find Web-based email just too slow,
- if you want pictures on your incoming messages, and don't want to have to bother with Gmail's one-click instruction (to include graphics) for each such message,
- if you need to be able to compose messages in HTML,
- if you don't want to have to periodically check the spam folder for legitimate mail or bounced messages,
- if you prefer to read in your inbox all incoming mail, even mail that might be spam, or if you're happy with what you have, and feel it's not worth the trouble to notify folks of your new address.

You *should* consider switching to Gmail

- if you'd rather not fuss with setting up folders for messages that you've read and want to keep, but still want to be able to retrieve such messages speedily,
- if you like Web-based email such as Yahoo Mail or Hotmail, but are fed up with the banner ads and popups you encounter,
- if you don't want to have to decide which incoming messages to keep and which to delete,
- if you've ever wanted to view an old incoming message only to realize that you'd permanently deleted it,
- if you presently use a disk-based system like Outlook or Outlook Express, and don't want the hassle of backing up your messages to protect against their loss in a disk crash,
- if you find your present email filtering scheme too complicated, or if you like the idea of grouping related messages in "conversations," for easier reference.

Gmail Compared to Outlook Express

Nearly all new Windows computers come bundled with Microsoft's Outlook Express. This fact may explain the overwhelming preponderance of that program among users. Both Gmail and Outlook express are free. But although price is not one of them, there are various reasons for choosing one over the other

Storage

There are pluses and minuses to using a Web-based email system like Gmail, with respect to storage. A

plus is that since messages are stored on the Web, they'll always be accessible to the user, regardless of any hard disk catastrophes. Moreover, an accumulation of large numbers of stored messages will not affect either the available disk space or speed of access. (However, Internet access—especially dial-up—can be uncomfortably slow, compared to disk access.)

One **minus** with a Web-based system is that the provider's server will accommodate only a limited amount of storage—typically much less than will easily fit on a user's hard drive. So the user may find older messages simply *gone*. This distinction is *turned around* by Gmail—which allows a **gigabyte** of storage, and in fact discourages the user from deleting *any* messages.

Filing

With any email system, *sent* messages may be retained in their own mailbox. The conventional way of filing an *incoming* message for later reference is to move it from the inbox to another mailbox of the user's choice. This is the filing system used by Outlook Express. The user may need to create anywhere from a few new mailboxes to dozens, with names like "Purchases," "Events," "Subscriptions," "Bills," "Software reference," "Confirmations," etc. A simpler choice might be to send *all* such saved messages to a "Hold" mailbox.

Gmail has revolutionized email filing. (In its terminology, it doesn't even offer filing!) Rather than send it to a particular mailbox, the user simply "archives" the message. Archived messages in Gmail go to "All Mail," which is just like the "Hold" mailbox referenced above, except that it includes outgoing as well as incoming messages. A Gmail quirk is that while a user's *draft* will be found in All Mail, messages that Gmail considers *spam* will not.

Gmail's "labels" or keywords, can at least in theory facilitate a message search, in addition to the usual search criteria (sender, subject, date range, etc.). Multiple labels may be assigned to one message.

As would be expected with a system created by Google, searching for messages is lightning-fast. This rapid retrieval of messages actually renders Gmail's labeling system largely unnecessary, in this writer's view.

Spam Diversion

Gmail has been criticized for having an insufficiently

sophisticated spam blocking system. It's actually miles ahead of that of Outlook Express—but OE users often can use spam controls supplied by the Internet Service Provider. For this writer, Gmail's system is more than adequate.

Gmail controls spam by means of (1) message filtering—similar to that of Outlook Express, and (2) spam blocking.

With either Gmail or Outlook Express, the user can set up filters to bypass the inbox and send the subject messages directly to "Trash" [Gmail] or "Deleted Items" [Outlook Express]. Outlook Express also has a "Block sender" option to keep those senders' messages from reaching *any* mailbox.

Using its own criteria, Gmail will divert incoming messages to its "Spam" folder. This criteria can be overridden by the user's action either manually to *add* messages to the spam folder or to *remove* them. This action by the user will continue to affect all messages from the same sender.

Further Considerations

Any retrieved Gmail message will be accompanied by other messages in the same "conversation." You can think of this as your girlfriend's bringing her female cousins along with her on every date. It may be convenient if you want to relate to a cousin, but you need to remember who is the girlfriend and who is the cousin. Whether Gmail's "conversation view" is a positive or a negative is a call you'll have to make.

Gmail out of the box will not notify you when you have a new message. Keeping your Gmail window open won't tell you anything unless you refresh the page. And even with a fast connection, refreshing can be tediously slow. You can download the **Gmail Notifier**, but only if you use Windows 2000 or XP (or a later Windows version).

Additional points will become apparent with use. For example, a minor annoyance is Gmail's closing your history/favorites/search sidebar whenever you click on a link in a message. The best way to make up your mind about Gmail is to try it.

Computer Tip: Copying Portions of PDF files to Word Documents *By Bob Weinberg, Princeton PC UG*

At the last meeting the question arose about the inability to use the links imbedded in PDF files. It was stated that we probably needed to update our copies of the Adobe reader. I did so and made the following observation, which I have been sharing with others who use PDF readers and feel frustrated because they had not been able to **copy and paste** with the Adobe Reader version they had been using.

Problem:

Word documents allow the selection of portions of a document and then being able to copy that portion to another document. This procedure is known in Microsoft Windows as “copy and paste”. However, until recently, if you were using the free Acrobat Reader, to read a document created in Adobe Acrobat in the PDF format, it was not possible to perform a copy and paste. That was true in Version 5.0. In version 7.0 it is now possible to do so. That is useful if you see something in a PDF file that you want to copy to a Word file, Internet explorer or an e-mail.

To obtain the free Adobe 7.0 Reader:

1. Create a folder on your computer to receive the file, and name the folder: Downloaded Adobe 7.0 Reader.
2. Go to <http://www.adobe.com> and locate their page with the Adobe Reader download.
3. Download the Adobe 7.0 Reader file to your computer in a folder that you have created to receive that file.
4. Then, double click on the file to install the program.

To copy and paste from a PDF file:

1. Open the PDF file.
2. Right click on the page from which you want to copy a portion (rather than the entire file).
3. Select “Allow Hand Tools to Select Text” and left click.
4. Then select (highlight) the portion of the page you wish to copy.
5. Right click and select Copy to Clipboard.
6. Then open a word processor program, point at an insertion point on a word document, right click and select “Paste”.

*** There is no restriction against any non-profit group using these articles as long as they are kept in context with proper credit given the author. The Editorial Committee of the Association of Personal Computer User Groups (APCUG), an international organization of which this group is a member, brings this article to you. ***

All unattributed articles are solely the fault of the editor.

Princeton PC Users Group
PO Box 291
Rocky Hill, NJ 08553