

PATACS Membership Dues Increase

Beginning in January 2016, PATACS membership dues will be \$30 per twelve month period.

The PATACS Board of Directors approved the dues change after considering several options to defray increased newsletter production costs.

Upcoming Meetings

Refer to the PATACS Event Calendar on the back cover or <http://patacs.org/mtgdetpat.html> for meeting time and location.

January 16, 2016 (Fairfax)

Learn 30: Highlights from the Consumer Electronics Show

Presented by Geof Goodrum

Geof will summarize the latest consumer technology trends and gadgets in photos fresh from his trip to the International Consumer Electronics Show held in Las Vegas, 6-9 January 2016.



PC Clinic

The semi-annual PC Clinic was rescheduled to January this time only to avoid conflicts with the December meeting program.

Get hands-on help from PATACS experts with your computer problems. Bring in your

computer, and we'll help you lose the 'blues'—system slow-downs, unwanted programs, viruses and malware. We can help install hardware and software. Be sure to review the Clinic Rules (<http://www.patacs.org/clinicpat.html>) and request support before the meeting.

Presentation: Apple Devices and Ecosystem

Presented by Aaron Davis, Apple Computer

Details will be provided via email and the PATACS web site.

January 27, 2016 (Arlington)

Technology & PC Help Desk

Extended Question and Answer session; discuss topics of interest, share knowledge and get help with technology issues.

February 20, 2016 (Fairfax)

Learn 30: Raspberry Pi

Presented by Alan Day

Presentation: Fairfax County Police Technology

Presented by Kathleen O'Leary

Snow or Ice on Meeting Day?

Before leaving for the meeting, check the PATACS web site and email announcements for the latest meeting status.



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If You Missed It

by Geof Goodrum

Director, Potomac Area Technology and Computer Society
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If you can't make a meeting in person, remember that members can participate in meetings remotely and for free via Zoom teleconferencing (see <http://zoom.us/>, for Apple® OS X® and iOS, GNU/Linux®, Google Android™ and Microsoft® Windows®). Details are provided in e-mailed meeting announcements.

Remember: you must be physically present at the end of the meeting to be eligible for door prizes.

November 21, 2015 (Fairfax)

The slides for the Learn 30 and main presentations are downloadable as PDF files from the PATACS Recent Meetings web page (<http://patacs.org/recmtgspat.html>).

Learn 30: Backup Your Computer – with Emphasis on Macs by Lorrin Garson

PATACS member and newsletter columnist Lorrin Garson gave an excellent talk about making backup copies of important digital files.

Lorrin emphasized the importance of backups by listing several things that can go wrong: lost files and folders, corrupt applications, corrupt disk drives, disk drive failures, theft or loss of a computer, and disasters. The failure rate for hard disk drives is 5% per year, and is affected by temperature, physical trauma, manufacturer issues, and usage. Lorrin provided a chart showing that disk drive failures increase after four years. With respect to Solid State Drives (SSDs), studies support that their useful life is longer than most people will own a computer, but Lorrin had an SSD that failed after only two years.

Lorrin's briefing summarizes popular backup software for Microsoft Windows, Apple OS X, and GNU/Linux, and touched on backup for smartphone files and settings. Lorrin explained the difference between file and disk image

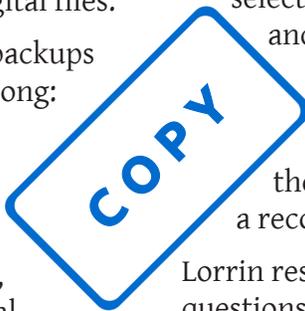
backups, and local backups vs Cloud-based backups services. The briefing also provides a useful price/feature comparison table for Cloud services, which can be more expensive and slower to recover files than local backup solutions. There are also security items (e.g., are files stored encrypted?) to consider when storing backups in the "Cloud."

The first step is to devise a backup plan. Decide what software or service to use and how frequently to make backups. Keep a backup log. Regardless, any backup is better than none.

The next step is implementation. Begin by testing recovery of files to ensure that your chosen backup solution works before you really need it. For local backup software, apply vendor software updates when they become available. Continue to test file recovery periodically.

Lorrin demonstrated backing up and restoring a folder of files using Apple's Time Machine backup software included in OS X, and described the available preference settings. Time Machine creates a chronological view of backup files, so selected files and folders from a specific date and time can be restored. Lorrin's strategy is to swap backups between two external USB 3.0 hard disk drives (2 TB capacity). If the computer fails to boot the operating system, Apple also provides a recovery boot option via the Internet.

Lorrin responded to a number of audience questions with the following replies. Time Machine backup can be running while you use other applications. Lorrin uses Apple's iCloud only to backup contacts, calendars, and sync items between Apple devices, but not to backup files. Files backed up by Time Machine can be accessed like any other files and can be copied from one external drive to another, regardless of whether they are system files or user data files. SSDs are still expensive to use as backup drives, so Lorrin recommends swapping between external hard disks. When asked whether Time Machine backs up only files changed since the



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last backup (a.k.a. incremental backup), Lorrin didn't know how Time Machine tracks backups, but the speed of the backup implies only the changes are backed up. A complete system restore replaces files including the most recent backup. If an external backup drive fails, you can create a new backup on a replacement drive (presumably the previous chronological backups are lost, one reason to adopt Lorrin's dual backup drive approach). If files on your other Apple devices (e.g., iPhone, iPad) are sync'd with your Apple OS X computer, Time Machine will backup the sync'd files from those devices, too. iPhones usually have only 16 to 32 GB of storage to backup, which is not much compared to the storage of a desktop computer.

There were also some discussions not directly related to Time Machine nor backups.

Apparently, the backup/restore system utility included in Microsoft Windows 7 has an option checkbox to do both file and image backups, but the image backup option does not work for multi-Terabyte drives. If an iPhone is hacked, change the password via Apple iCloud. There is a wide variety of Apple information in blogs and books (The specific question was whether there are "Annoyances" books for Apple products like there are for Windows. O'Reilly publishes Mac Annoyances <http://goo.gl/7gKxRg>, but it dates from 2004. A web search turns up "annoyance" articles for iOS, iPad and iPhone). While the Apple store will replace an iMac drive, there are online instructions for do-it-yourself drive replacement (e.g., <http://goo.gl/Cfo6xl>), but it can be tricky and you must be careful.

Although Lorrin gave a presentation about his transition to Apple OS X previously, he answered some audience questions about that. Lorrin was very comfortable transitioning from Microsoft Windows to Apple (Apple OS X is a Unix-based operating system, and Lorrin had Unix experience). Lorrin's trigger to make the change was the release of Microsoft Windows 8. Lorrin worked easily in Apple OS X after an initial learning curve of three to four weeks.

Q&A Session

These are some of the audience Questions and Answers during the meeting.



Q: Is a black ink-only printer available?

A: There are inexpensive monochrome laser printers available [and laser toner is much less expensive than ink on a per page basis, e.g., <http://goo.gl/wm2JFc>].

Q: Any ideas on how to recover a Samsung Android smartphone that locked up when the memory [storage?] was full? The owner cleared the cache storage and tried to delete stored photos when it locked up.

A: No one could suggest a solution beyond doing a web search for others reporting the same problem [the PC Clinic might be able to help if not fixed by then].

Lesson Learned: An audience member upgraded a computer from Windows 7 to Windows 10, but had problems with an HP inkjet printer. HP Tech Support was helpful and able to install the correct device driver for Windows 10. On the other hand, another audience member reported that a Canon printer worked after a Windows 10 upgrade. [This should not be taken as a recommendation of Canon over HP printers; individual upgrade experiences vary.]

Q: Can you use Windows 10 on a computer without touchscreen capability?

A: Yes, you can use a mouse and keyboard, but recommend getting a touchscreen if you are upgrading a computer (particularly a laptop).

Q: Is Microsoft Office 365 compatible with Windows 10?

A: Yes, but Microsoft recommends upgrading to Office 365, then performing the Windows 10 upgrade.

Presentation: Identity Theft, Practical Tips to Do Your Best by David L. Haase

Guest speaker David Haase, former investigative reporter and digital consultant, gave us the

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benefit of his real-world experience with identity theft. In the last two years, his information was compromised three times, he has three credit monitoring service accounts paid for by the targeted companies, and he has “lived to tell about it.”

David’s message is that everybody is a target for identify theft. The thieves steal your information to get your money. You cannot prevent identity theft, but don’t make it easy for the thieves. Protect your identity like your wallet. Even if you do everything right, your information can be stolen. It is unrealistic to “go off the grid” and only use cash instead of credit cards. A lot of this is out of your hands, so don’t worry about it. Focus on what YOU can control.

- Protect your Social Security Number (SSN), and challenge any requests for it. Handle your Passport the same way.
- Protect your physical mailbox. Ask your mail carrier about a lockbox. Regardless, don’t leave mail where others can get to it, and use digital delivery if available for bills and other sensitive mail.
- Prevent “dumpster diving” for sensitive information in your trash (e.g., credit card offers, account statements, etc). Buy and use a cross-cut shredder.
- Protect your cell phone. Use a password or thumb print login, and don’t store personal information.
- Avoid using free public WiFi, which is not secure. If you must use public WiFi, use Virtual Private Networks (VPN) and Secure Socket Layer (SSL) connections, and turn off file and printer sharing options. “Forget” the network settings after disconnecting.
- Protect your computer. Use a password on all PC user accounts and lock your session when you aren’t present, even at home—people break into houses and steal PCs. Use a network firewall, and update your software.



- Protect your email. Email is not secure. Use a password, and delete email from unknown senders.
- Protect your social media accounts. Use secure passwords and protect your information. “Be mean about whom you friend.”
- The “Cloud” is not secure. You don’t control anything.
- Be careful entering Personal Identification Numbers (PINs). Watch over your shoulder at ATMs, etc..
- Use secure passwords of 12 to 16 characters minimum. Use character combinations but not words in the dictionary. Don’t use your user name, personal information, keyboard sequence, or previous passwords. David suggests using multiple passwords, but not a different one for every account. How many can you remember? Write down hints, but not the actual password. Keep two copies in different, secure places. Do NOT use sticky notes for passwords. Password Generators may create secure passwords but they are not memorable. Password Managers are somewhat controversial, since all the passwords are compromised if the master password or manager software itself is compromised.
- If an organization offers an identity theft service to you after a compromise, take it. ID theft services do NOT prevent identity theft, but notify you quickly when something changes in your credit report. However, David said he would never pay for the service himself.
- Be prepared to recover your identity. Call the police. Have your proof of identity ready. [see a checklist at <https://www.identitytheft.gov/>]
- Balance paranoia against the effort required to stay safe.

Q: An audience member received one year of identity theft services after a compromise, and

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requested a new credit card after one questioned charge. What happened?

A: David said it only takes one purchase from a company that gets compromised for card account information to be stolen. Calling the credit card company about the questioned charge is the right response.

Gabe Goldberg recommended reviewing free credit reports from the three credit reporting companies every year, spread out over year [see <https://www.annualcreditreport.com/>].

Q: Don't doctors and hospitals request the patient's SSN?

A: Always ask why they need it. Just because it is requested on a form or it has always been that way is not enough. Insurance information may be all that is required.

Q: Do you recommend against being on LinkedIn or other social media sites?

A: It is okay to be listed, but do not put personal information, such as correct birthdates, on social media sites.

Q: Is credit notification for two years the only service that the US Government Office of Personnel Management provides after their information was compromised?

A: Yes. The included \$1 million of insurance coverage is only for the value of identity recovery services, not financial loss. Read the fine print.

Q: Are Radio Frequency Identification (RFID) shielded wallets worthwhile?

A: RFID-equipped cards in regular wallets can be scanned by thieves nearby, but how paranoid are you?

Q: What about credit freezes?

A: There are credit freeze and fraud alert options [see <https://goo.gl/gbCR8t>]. The Fairfax County web site also has tips [see <http://goo.gl/3zEYnX>]. After an incident, get a police report and request a free seven year credit fraud alert. You will be notified about any request for credit under your name.

Q: Have you had any experience with tax refund fraud?

A: No, David uses electronic filing and Electronic Funds Transfer (EFT). [However, see <https://goo.gl/UDDlzl>].

Musings of an Apple Tyro

by Lorrin R. Garson
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Microsoft Ends Unlimited Free Storage on OneDrive

Microsoft announced on November 2nd (2015) that it would no longer provide unlimited OneDrive storage to Office 365 home subscribers and that it was slashing the amount of free OneDrive storage it provides by two-thirds. The reason given by Microsoft for this action is that a small number of users abused the offer by storing up to 75 TB of data. The amount of free storage is now 5 GB, down from 15 GB. Office 365 customers will have 1 TB of free storage. For more information see <http://bit.ly/1kTb2FI>. Also see <http://bit.ly/1PGkqbu>.

Erasing Data on SSDs

Solid-state disk drives (SSDs or flash storage) offer enormous improvement over hard drives (HDD), particularly in performance, but SSDs are not without drawbacks. One of those drawbacks is, in practice, you cannot securely erase data (files and folders). With traditional disk drives, secure erasure is accomplished by repeatedly over-writing that area on the drive where the erased information was stored with a new pattern of bits. This cannot be done on SSDs because repeatedly writing to the same areas on an SSD will lead to premature failure of the storage device. SSDs deteriorate by repeated writing; they have a finite number of write cycles.

Controllers for SSDs spread writing around and minimize over-writing previously used loci, a process called "wear leveling". Eventually

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deleted data on SSDs gets over-written but there is no way to predict when and fragments of data may persist for a very long time.

So how do you deal with this problem? Probably the most practical way is to create and store sensitive information in an encrypted environment such as an encrypted dmg file on a Mac (created with Disk Utility) or using VeraCrypt on Macs, PCs or Linux machines. Of course an SSD or HDD drive can be rendered unreadable by drilling holes in the media or smashing it with repeated blows with a hammer. Incineration works too.

By the way, defragmentation is useless on an SSD and such action decreases the lifespan of the device. The “Secure Empty Trash” function has been eliminated from the most recent version of OS X for Macs (OS X El Capitan) probably because most buyers are opting for SSDs rather than HDDs. See <http://bit.ly/1WRaQrY> for details on how SSDs work.

Finally, you should ask yourself the question “How secure do I really need to make my computer?” Most of us are not dealing with State secrets on our home computers. The explanation given above should provide adequate protection for medical, financial and other sensitive information. Keep in mind (1) there is much more to security than protecting data on our storage devices and (2) there is no such thing as absolute security. See the following for sage advice.

See <http://bit.ly/1RUjMpV> for “10 Important Computer Security Practices You Should Follow”.

See <http://zd.net/107u4SE> for “10 [more] Security Best Practice Guidelines for Consumers”.

And from the U.S. Department of Homeland Security (US-Cert) see <http://1.usa.gov/1kTcV5k>.

Malwarebytes for Macs

Many (most?) users of Apple computers do not use anti-virus/malware software. However, in October (2015) I installed Malwarebytes for Mac.

This free application is designed to detect and remove malware, adware and potentially other unwanted programs. Malwarebytes has been available for PCs for many years and is widely used. Malwarebytes for Mac can be downloaded from <http://bit.ly/1Ps31oh>. The application (Figure 1) is straightforward to use and on my iMac executes in about four seconds (7 seconds on a MacBook Pro) and so far has only returned the message “Malwarebytes did not find any malware or adware on your system”.



Figure 1

It appears that attacks and penetrations of Apple computers and other Apple devices are becoming more prevalent, although not yet widespread. Mac users may want to consider using products more robust than Malwarebytes. For example, see <http://bit.ly/1H0ZV81> for suggestions.

See <http://bit.ly/1Nvsp6N> for “Do Apple Macs need antivirus? OS X security explained”. The conclusion is “...Macs don’t need security software”

See <http://bit.ly/1WRbCFq> for “Anti Virus Software for Macs”. Here the conclusion is “increasingly more and more Macs are being affected by viruses and malware.”

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Microsoft's Cortana on iPhone

By the time you read this, Microsoft's virtual assistant Cortana should be available on your iPhone. It will first be available in November (2015) as a beta test to a limited number of users in the U.S. and China and subsequently to everyone else. It will be interesting to see how Cortana stacks up against Apple's Siri. See <http://bit.ly/1NvsJ5o>.

Open Source Software of the Month

by Geof Goodrum

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Double Commander – v0.6.6. <http://doublecmd.sourceforge.net/>. Free GNU General Public License source code with executables for Microsoft® Windows®, Apple® OS X® and GNU/Linux® by Alexx2000. Double Commander is a cross platform open source file manager with two panels side by side. It is inspired by Total Commander and features some new ideas:

- Unicode support
- All operations work in background
- Multi-rename tool
- Tabbed interface
- Custom columns
- Internal text editor (F4) with syntax highlighting
- Built in file viewer (F3) to view files of in hex, binary or text format
- Archives are handled like subdirectories. You can easily copy files to and from archives. Supported archive types: ZIP, TAR GZ, TGZ, LZMA and also BZ2, RPM, CPIO, DEB, RAR.
- Extended search function with full text search in any files
- Configurable button bar to start external programs or internal menu commands
- Total Commander WCX, WDX and WLX plugin support
- File operations logging

Kernel Source – v4.3. <http://www.kernel.org/>. Free GNU General Public License source code for GNU/Linux by Linus Torvalds et al.

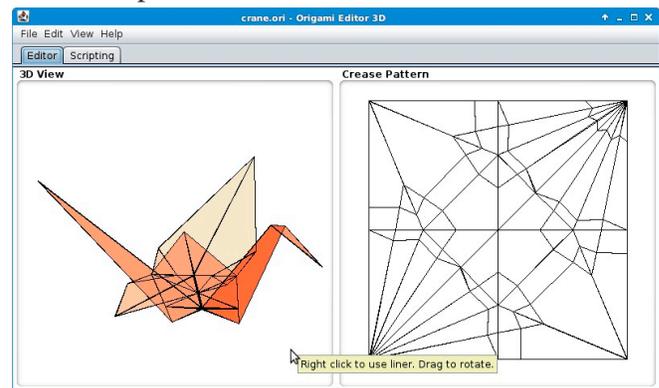
Origami Editor 3D – v1.2.7. <http://sourceforge.net/projects/origamieditor3d/>. Free GNU General Public License source code with executables for Microsoft® Windows®, Apple® OS X® and GNU/Linux® by Attila Bágyoni. Origami Editor 3D is a lightweight application for modeling the mechanism of three-dimensional paper folding. It can reproduce every operation in the Yoshizawa-Randlett system, with the exception of inflating (there still is a workaround to fold a water bomb with it).

The finished works can be exported to 3D files, animated GIF files or PDF documents containing auto-generated folding instructions for the model in a somewhat human-readable form.

Please note that this program was created mainly for fun and still is a work in progress. If you encounter a bug or have a suggestion, please post it on the Discussion forum.

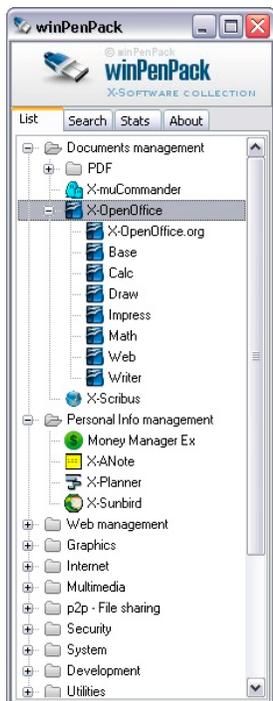
Newest features:

- A more intelligent PDF generation
- Export as self-displaying origami: an origami file wrapped in a portable, minimalistic viewer
- Difficulty level calculator
- CTM export now works with textures!



SmallBASIC – v0.12.1. <http://smallbasic.sourceforge.net/>. Free GNU General Public License source code with executables for Microsoft® Windows®, Apple® OS X®, Google Android™ and GNU/Linux® by Nicholas

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Left: winPenPack Tree Menu

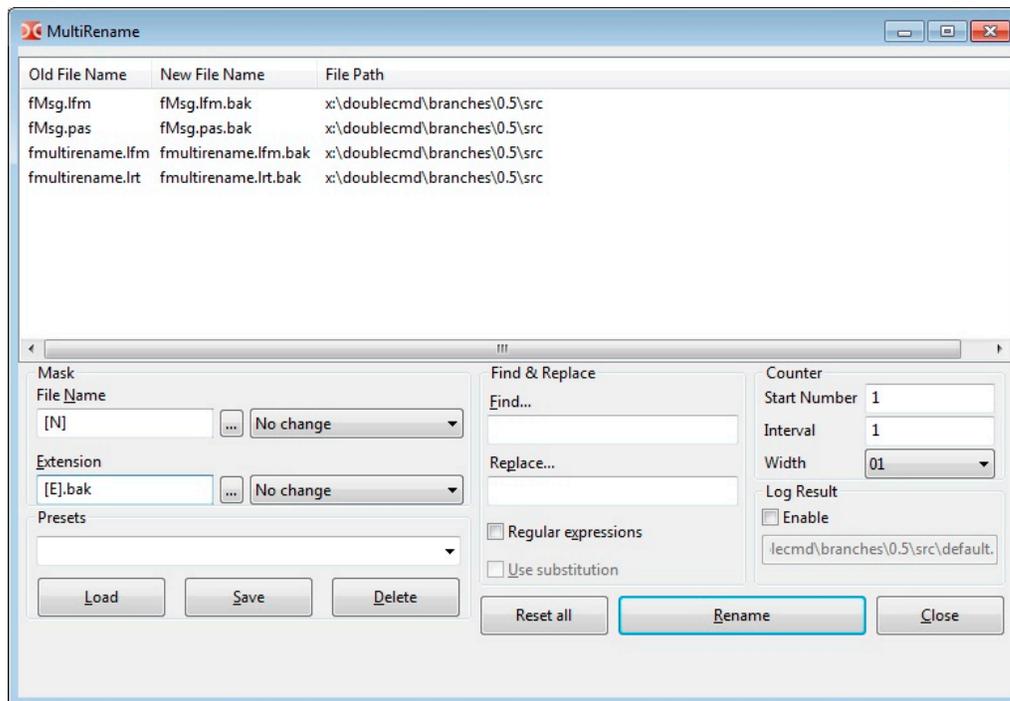
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Christopoulos and Chris Warren-Smith. SmallBASIC is a fast and easy to learn BASIC programming language interpreter ideal for everyday calculations, scripts and prototypes.

winPenPack – v4.3. <http://www.winpenpack.com/en/news.php>. Free Open Source licensed executables for Microsoft® Windows® by various authors. winPenPack is an open source software environment comprising several portable applications grouped into suites (portable applications are applications that are modified to be executed directly from a USB flash drive, without prior installation). With winPenPack, any USB flash drive ceases to be a simple data storage device and becomes a self-contained environment, within which programs and files are homogeneously integrated.

Portable applications included in the winPenPack suites do not require any installation, do not leave their files or settings on the host computer, and can be easily transferred to another computer through any external device, such as a removable hard disk drive or a USB flash drive.

All you have to do is connect a USB flash drive to any free USB port on your host PC, and you will



Right: Double Commander File MultiRename Dialog

have your collection of pre-configured and ready-to-use programs instantly available, grouped in categories and executable through a user-friendly menu interface similar to the Start Menu, the winPenPack Menu. It will be exactly as if you are working on your own PC, with web browsers, email clients, image and drawing editors, chat clients, multimedia tools, PC maintenance and security tools, school and development tools, etc. Everything you need, completely free! All these features make winPenPack extremely useful in any situation.

Depending on your USB flash drive capacity, you can choose between winPenPack Essential and winPenPack Full, containing a collection of the best Open Source software available on the Internet, modified to achieve perfect software portability and divided into categories: Graphics, Multimedia, Internet, Office, System, Security and Utilities. You can also create your own winPenPack Personal by following our Tutorial, an option that allows you to integrate into the winPenPack package your favorite software programs, and to customize wPP to suit your needs.



Press Releases

Cox Communications Launching Gigabit Internet Service in Northern Virginia

G1GABLAST(SM) is first gigabit internet service available in the DC Metro Area

ATLANTA, Dec. 3, 2015 /PRNewswire/ -- Cox Communications today announced that it has started deploying gigabit Internet service for residential customers in Northern Virginia -- the first gigabit service in the DC Metro area -- allowing customers to seamlessly connect all their new gadgets this holiday. Cox announced that G1GABLASTSM, which offers speeds 100 times faster than the average speed in the U.S. today, is being deployed to homes in Fairfax County. Cox is the first national telecommunications company to deploy gigabit Internet service to residential customers in Virginia.

Cox is expanding the availability of residential gigabit internet speeds to new developments across Northern Virginia and in Cox locations across the country. The company has already launched G1GABLAST service in 10 states and will have gigabit speeds in all of its markets by the end of 2016.

“We are excited to deliver the choice of gigabit speeds to our customers,” said Cox Communications President Pat Esser. “Coupled with our 2,400 employees throughout Cox Virginia and more than 24,000 nationwide, our latest investments and the deployment of the fastest speeds available are powering economic growth and development for businesses and residents of the communities we serve.”

Joined by Fairfax County Board of Supervisors Chairman Sharon Bulova, Fairfax County Economic Development Authority President and CEO Dr. Jerry Gordon and other community leaders, Cox Virginia Senior Vice President and Region Manager J.D. Myers, II, announced G1GABLAST is currently available for residents at Timber Ridge at Discovery Square, in Fairfax County just in time for the gift-giving season.

“Cox has invested \$1.33 billion in our network in Virginia in the last ten years to meet the growing demands of our customers,” said Myers. “We are committed to keeping our residential and businesses customers in Northern Virginia connected to the things they care about most, today and in the years to come.”

G1GABLAST will be available in the Northern Virginia region for \$99.99 per month when combined with Cox’s most popular service bundles. The service offers speeds as fast as 1,000 megabits per second. It will deliver more speed, a powerful home network and rich broadband enabled services to customers. The service also includes the latest high-speed Wi-Fi router, one terabyte of cloud storage, Cox Security Suite and Family Protection, and 10 email boxes each with 15 gigabytes of storage.

“Fairfax County is one of the top technology hubs in the country. Making this kind of technology available to residents encourages entrepreneurship and drives our economy,” said Gordon. “We commend Cox for their continued investment fueling growth in Northern Virginia and across the state.”

Cox has provided gigabit speeds to businesses for more than 10 years. While focused on bringing gigabit speeds to its residential customers, Cox also increased Internet speeds again this year, making our Starter package five times faster and the Essential package three times faster, offering choice and access to meet all customers’ individual needs. In 2014, Cox doubled the speeds of its most popular internet service tiers – Preferred and Premier- benefiting more than 75% of its customers. Also, Cox customers with the Ultimate Internet package saw their speeds increase from 150 megabits per second to 200 megabits per second in October. Committed to offering access and choice, Cox has increased broadband speeds more than 1,000 percent over the past 14 years.

In the last 10 years, Cox has invested more than \$15 billion in its communities through

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infrastructure upgrades to deliver video, phone and high-speed Internet and home security and automation service to homes and businesses in the company's service area. Additionally, the company gives tens of millions of dollars annually in cash and in-kind contributions to support the communities in which it operates.

Consumers can learn more and sign-up for G1GABLAST service at www.cox.com/gigliflife.

About Cox Communications

Cox Communications is a broadband communications and entertainment company, providing advanced digital video, Internet, telephone and home security and automation services over its own nationwide IP network. The third-largest U.S. cable TV company, Cox serves approximately 6 million residences and businesses. Cox Business is a facilities-based provider of voice, video and data solutions for commercial customers, and Cox Media is a full-service provider of national and local cable spot and new media advertising. Cox is known for its pioneering efforts in cable telephone and commercial services, industry-leading customer care and its outstanding workplaces. For eight years, Cox has been recognized as the top operator for women by Women in Cable Telecommunications; Cox has ranked among DiversityInc's Top 50 Companies for Diversity nine times, including the last eight years. More information about Cox Communications, a wholly owned subsidiary of Cox Enterprises, is available at www.cox.com and www.coxmedia.com.

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<http://newsroom.cox.com/index.php?s=34171&item=122432>

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Google Deceptively Tracks Students' Internet Browsing, EFF Says in FTC Complaint

EFF Launches 'Spying on Students' Campaign to Raise Awareness About Privacy Risks of School Technology Tools

December 1, 2015, San Francisco—The Electronic Frontier Foundation (EFF) filed a complaint today with the Federal Trade Commission (FTC) against Google for collecting and data mining school children's personal information, including their Internet searches—a practice EFF uncovered while researching its "Spying on Students" campaign, which launched today.

The campaign was created to raise awareness about the privacy risks of school-supplied electronic devices and software. EFF examined Google's Chromebook and Google Apps for Education (GAPE), a suite of educational cloud-based software programs used in many schools across the country by students as young as seven years old.

While Google does not use student data for targeted advertising within a subset of Google sites, EFF found that Google's "Sync" feature for the Chrome browser is enabled by default on Chromebooks sold to schools. This allows Google to track, store on its servers, and data mine for non-advertising purposes, records of every Internet site students visit, every search term they use, the results they click on, videos they look for and watch on YouTube, and their saved passwords. Google doesn't first obtain permission from students or their parents and since some schools require students to use Chromebooks, many parents are unable to prevent Google's data collection.

Google's practices fly in the face of commitments made when it signed the Student Privacy Pledge, a legally enforceable document whereby companies promise to refrain from collecting, using, or sharing students' personal information except when needed for legitimate educational purposes or if parents provide permission.

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“Despite publicly promising not to, Google mines students’ browsing data and other information, and uses it for the company’s own purposes. Making such promises and failing to live up to them is a violation of FTC rules against unfair and deceptive business practices,” said EFF Staff Attorney Nate Cardozo. “Minors shouldn’t be tracked or used as guinea pigs, with their data treated as a profit center. If Google wants to use students’ data to ‘improve Google products,’ then it needs to get express consent from parents.”

Google told EFF that it will soon disable a setting on school Chromebooks that allows Chrome Sync data, such as browsing history, to be shared with other Google services. While that is a small step in the right direction, it doesn’t go nearly far enough to correct the violations of the Student Privacy Pledge currently inherent in Chromebooks being distributed to schools.

EFF’s filing with the FTC also reveals that the administrative settings Google provides to schools allow student personal information to be shared with third-party websites in violation of the Student Privacy Pledge. The ability to collect and potentially share student information follows children whenever they use Chrome to log into their Google accounts, whether on a parents’ Apple iPad, friend’s smartphone or home computer.

“We commend schools for bringing technology into the classroom. Chromebooks and Google Apps for Education have enormous benefits for teaching and preparing students for the future. But devices and cloud services used in schools must, without compromise or loopholes, protect student privacy,” said EFF Staff Attorney Sophia Cope. “We are calling on the FTC to investigate Google’s conduct, stop the company from using student personal information for its own purposes, and order the company to destroy all information it has collected that’s not for educational purposes.”

EFF’s “Spying on Students” project aims to educate parents and school administrators to the

risks of data collection by companies supplying technology tools used by students. The website provides facts on how data is collected, a case study, links to resources for parents and school officials, and tips for improving privacy.

Michael Godbe, a Fall 2015 EFF Legal Intern, helped prepare the FTC complaint, and Annelise Gelman, EFF activist intern, helped prepare education material for the project.

To view the FTC complaint:

<https://www.eff.org/document/ftc-complaint-google-education>

For more information on EFF’s “Spying on Students” project:

<https://www.eff.org/issues/student-privacy/>

Related Issues:

Privacy, Student Privacy

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Google’s New Spam-Fighting Tools

by Bob Rankin

Ask Bob Rankin July 23, 2015 Column

http://askbobrankin.com/googles_new_spamfighting_tools.html

[bob \(at\) rankin.org](mailto:bob@rankin.org)

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Google estimates that nearly 60 percent of all email it processes is spam. But like most Gmail users, I rarely see any spam in my inbox. Google claims that Gmail now blocks 99.9 percent of all spam. Read on to learn how you can get near-perfect spam filtering, even if you don’t use Gmail...

Machine learning, an application of artificial intelligence, has been part of Gmail’s spam filter program since Gmail’s inception. On July 9, Google announced three new improvements to Gmail’s spam filter.

Every time a user clicks the “Report Spam” or “Not Spam” button on a message, Gmail learns

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something that helps it filter spam better. But now, Gmail is attempting to learn on its own, without the user's clicks.

The spam filter now uses the same artificial neural network that Google Now and Google Search use to detect and block the "especially sneaky" spam that sometimes slips past users' radar.

What's an "artificial neural network," you ask? The oversimplified answer is, a lot of computers connected to each other in an attempt to simulate the interconnections of human brain cells. It's expensive to build an artificial neural network (ANN); most are tiny, with 1 to 10 million connections.

Google has built an ANN with over one billion connections using the processors in its vast and far-flung empire of data centers. That sounds awesome, until you learn that the human brain contains several trillion connections! None the less, Google's ANN is capable of rudimentary human-like self-learning. That means you don't have to teach it what spam is.

In one experiment, Google's ANN was fed millions of still images of cats culled from YouTube videos. The images were not labeled as "cats" and programmers did not tell the ANN what a "cat" is. The ANN figured it out for itself, learning to recognize cats in virtually any image. If it can do that, it can recognize spam with greater accuracy than most humans can.

You don't have to do anything to use Gmail's spam filtering - it's automatic. But you can add your own filters to funnel messages into folders, forward to another address, and other actions. See my article [Tame Your Email With Filters](http://askbobrankin.com/tame_your_email_with_filters.html) for help adding filters to Gmail, Yahoo, Outlook.com, iCloud Mail, or AOL webmail (http://askbobrankin.com/tame_your_email_with_filters.html).

But the ANN is still not perfect. Just as humans see UFOs in pictures of streetlights, Google's ANN sometimes sees spam in legitimate messages and

mistakenly consigns them to the spam folder. Google claims that only about 0.01 percent (1 in 10,000) of legitimate emails are falsely labeled as spam these days. As the ANN learns more about email, that figure should fall even further.

Take a look in your Gmail spam folder, and see how it's working. If you do find certain messages are being incorrectly flagged as spam, you can create a Gmail filter for them, with a "Never send to Spam" action, so they'll be delivered to your inbox.

How does Gmail's spam filter compare to other free Webmail services, such as Microsoft's Hotmail/Outlook.com and Yahoo? I haven't been able to find any independent, rigorous studies of this question. I'll just note that Microsoft seems to think it's acceptable if less than 3 percent of the messages that reach your inbox are spam (<https://www.microsoft.com/en-us/outlook-com/compare/>).

Another new spam-fighting technique that Gmail is introducing doesn't really tackle spam, in my opinion. Gmail now attempts to learn individual users' reading preferences and filter out even legitimate mail that goes unread. The company gives the example of email newsletters. One user reads them assiduously while another just lets them pile up unread, or deletes them without reading. Why people don't just unsubscribe from newsletters is one of life's mysteries. Hopefully, Gmail can distinguish between legit opt-in email newsletters and the ones that just arrive without your consent.

Finally, Gmail is providing help for legitimate, large-volume email publishers whose communications are sometimes wrongly condemned as spam. The Gmail Postmaster Tools will help airlines, banks, credit card companies, and other well-known firms analyze the fate of their emails and improve their delivery and reading rates (<https://gmail.com/postmaster/>).

Even if you don't use or like Gmail, you can still use it to filter spam. Here's one technique that some people use to "pre-filter" their incoming

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emails. Instead of providing your actual email address when asked, give out a Gmail address that you've created. Configure that Gmail account to simply forward everything to your actual address. Gmail does spam-filtering BEFORE forwarding, so the messages that do get forwarded are virtually spam-free.

Gmail's spam filter is so reliable and accurate that I hardly ever check my spam filter for false positives anymore. I get hundreds of emails daily, and in 2015, I estimate I've clicked on the "Report Spam" or "Not Spam" button less than a dozen times. The spam filter just works.

Do you use Gmail? How is the spam filtering working for you? Your thoughts on this topic are welcome.

Help Wanted: Meeting Speakers

Finding presenters for our meeting programs is difficult—your help in the effort to enhance the value we all receive from PATACS membership would be greatly appreciated!

Please consider speaking to your friends at an Arlington or Fairfax meeting. We'd love to feature your take on a smart phone or tablet app. A presentation on these or other topics of interest to you would undoubtedly be welcomed by your PATACS colleagues. We have space in our schedule for 15, 30, 60 and 75 minute discussions—what are you waiting for?

We also have ready-made paragraphs you could use in e-mail communications to help us find speakers. Contact: [director2\(at\)patacs.org](mailto:director2@patacs.org)



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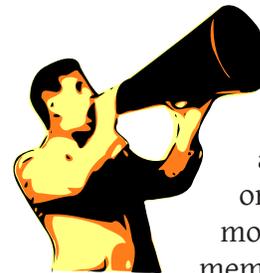
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JCA SeniorTech Computer Centers offer diverse senior-friendly (50+) technology classes (personal computers, tablets, smartphones, online security, etc.). Offerings include beginner and intermediate computer classes in Windows 7, Windows 8, Excel, iPad and iPhone, email, photos, and social media.

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Washington DC Area Training Locations

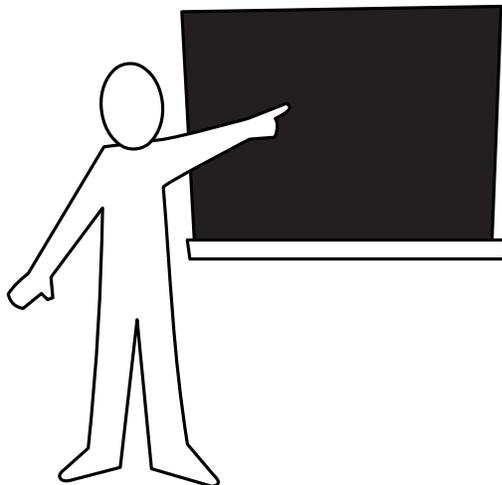
Asbury Methodist Village, 409 Russell Ave,
Gaithersburg, MD, 301-987-6291

JCA Bronfman Center, 12320 Parklawn Drive,
Rockville, MD, 301-255-4200

Microsoft at Westfield Montgomery Mall, 7101
Democracy Blvd, Bethesda, MD, 301-765-3080

Microsoft at Tysons Corner, 1961 Chain Bridge
Rd, McLean, VA 22102, 703-336-8480

Crystal City Shops, 1750 Crystal Drive, Suite
1638B, Arlington, VA, 703-941-1007
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Micro Center stores host free events called “In Store Clinics.” The clinics cover a wide range of topics. All Micro Center store locations follow the same schedule of topics.

A link for store locations is at the top center of the home page, www.microcenter.com. For those in the Washington, D.C. area, the only store in Virginia is in the Pan Am Plaza at 3089 Nutley Street, Fairfax, VA 22031, phone (703) 204-8400, and the only store in Maryland is in the Federal Plaza at 1776 E. Jefferson #203, Rockville, MD 20852, phone (301) 692-2130.

Micro Center Clinics are held on most weekends, except during holidays. The same topic is usually presented on both Saturday and Sunday. Topics may change and clinics may be cancelled without notice. Please verify the schedule with the store before leaving and register online for e-mail updates (<http://www.microcenter.com/site/stores/instore-clinics.aspx>).

Signing up in advance reserves a seat, recommended as space is limited. This can only be done at a store, either at the Tech Support or Customer Support area.

January 2016 Schedule

Micro Center suspended clinics over the holidays. At Press Time, the January schedule has not been posted. Please visit the Clinic web site above for the latest schedule.



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Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1 New Year's Day 2016	2
3	4	5	6 7-9pm Arlington General Meeting	7	8	9
10	11	12	13 7-9pm Online Zoom Meeting	14	15 National Hat Day 	16 12:30-3:30pm Fairfax General Meeting
17	18 Martin L King Day 7-9pm Arlington Board Meeting	19	20	21	22	23 March Newsletter Articles Due
24	25	26 Lotus 1-2-3 Day 	27 7-9pm Arlington Technology & PC Help Desk	28 Data Privacy Day 	29	30
31						

Arlington: Carlin Hall Community Center
 5711 4th Street South
 Arlington VA 22204

Fairfax: Osher Lifelong Learning Institute
 4210 Roberts Road
 Fairfax VA 22032