



Favorite Bits & Pieces

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Expiration of Microsoft Windows Support

From Microsoft:

“An unsupported version of Windows will **no longer receive software updates** from Windows Update. **These include security updates that can help protect your PC from harmful viruses, spyware, and other malicious software**, which can steal your personal information. Windows Update also installs the latest software updates to improve the reliability of Windows—new drivers for your hardware and more.”



Expiration of Microsoft Windows Support



Version of Windows	Latest Service Pack	End of Mainstream Support	Extended Support
Windows XP	SP-3	April 14, 2009	April 8, 2014
Windows Vista	SP-2	April 10, 2012	April 11, 2017
Windows 7	SP-1	January 12, 2015	January 14, 2020
Windows 8	8.1	2017?	2022?



For more information see   [← Click here](#)

A Interesting Piece of History...

How did Microsoft Windows became the market leader?

- See  for a 9 minute video (part 1)
- See  for a 10 minute video (part 2)



E-mail security is a myth... Sorry, sorry, sorry

- The digital equivalent to a postcard
- E-mail can be easily intercepted, stored and analyzed
- “From” and “To” addresses are difficult to disguise*
- Content of messages can be made reasonably secure
- Numerous views of privacy and security; much controversy








*See  &  on how to mask sender using Outlook and Outlook Express

Encrypting the Contents of E-Mail

TrueCrypt





- A TrueCrypt “vault” or “safe” as an attachment
- The password can be made known to the recipient by phone or independent e-mail message(s)
- The TrueCrypt “vault” should be small, <<20 MB for Outlook
- 200 pages text = ~100,000 words = ~0.5 MB*



- For information and to download TrueCrypt see 
- See  for FAQs about TrueCrypt
- OS:   
- Useful tool for Cloud storage

*Tolstoy's *War and Peace* is ~570,000 words or 2.85 MB

Steganography

- Hiding messages in plain sight, see  & 
- OpenPuff 4.0 inserts encrypted text into objects, see 
- Messages can be imbedded in photos, music, video, etc.
- OS: 
- Message encrypted/decrypted using three passwords



- Only practical for short messages

- See  for SilentEye. OS:   

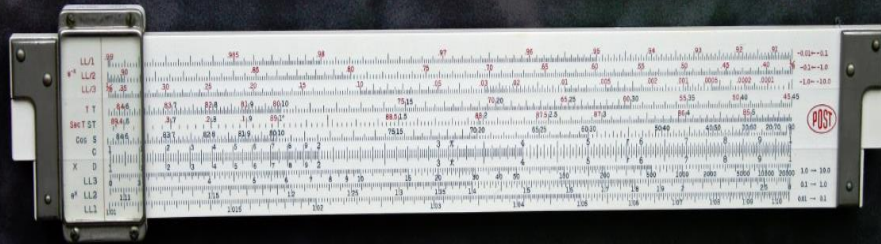
- See  for iSteg (what else!) 

Hiding Messages (cont.)

Can you see the secret message*?

“This message is for Zogg on planet Krypton 212. We are sending you a shipment of DDT which you should add liberally to any food purchased at fast food restaurants. This will considerably enhance the flavor. Keep in touch. “

(signed) Polly Styrene



*Disguised by OpenPuff 4.0

How Secure Is Encrypted E-Mail?

The people who work here can probably figure it out...



How Secure Is Encrypted E-Mail? (cont.)

This guy or his friends might figure it out...



How Secure Is Encrypted E-Mail? (cont.)

Not to worry!



Passwords: First Bulwark of Defense







Characteristics of Good Passwords

- Easy to remember: use pass phrases not words
- Hard to guess or crack: 10-30 characters (A, a, 2, \$)
- 29 character example: ;;;MyWifeNancylsCute362436!!!
- Avoid multiple use of passwords
- Don't tell anyone your passwords
- For information on picking good passwords, see ⓘ
 - For good password checkers, see ⓘ ⓘ ⓘ
 - See ⓘ for the 10,000 most used passwords
 - 10 most frequent: password, 123456, 12345678, 1234, qwerty, 12345, dragon, *****, baseball, football



Biometrics: An Alternative to Passwords

Electrocardiogram identification

- A wristband called Nymi monitors your heart and communicates with your computer, car, etc. See  & 
- OS:    
- <\$100
- Stay tuned...



Sources of Security Information

Where to look...

- Sophos Threat Center: Good source of information & tools, see ⓘ
- Computer Crime Information Center: General information, see ⓘ
- Security News Portal: General information including Microsoft, see ⓘ
- Microsoft Security TechCenter: Microsoft specific (technical), see ⓘ
- Lonerunners.net: Security documents, rather esoteric, see ⓘ & ⓘ



Information From Security Software Vendors

- Kaspersky: ⓘ
- McAfee: ⓘ
- Symantec: ⓘ


Makes for somber reading!

Computers in Cars



2014 Mercedes-Benz S-Class: 30 million lines of code



Nokia's Navigation System "Here Auto"

- Embedded navigation
- Shown at Frankfurt Auto Show September 10th
- In urban areas auto zoom-in (restaurants, parking lots, parks, etc.)
- In rural areas auto zoom-out (long distance image)
- Updates on road closures, inclement weather, detours...
 - ...trip planning, fuel prices, traffic, etc.
 - Companion app offered on Android and Windows smart phones
 - For more information see 
 - On September 3, 2013 Microsoft bought Nokia for \$7.2 billion






Analgesics for Ailing Disk Drives

Chkdsk

- Symptoms: Application won't run, saved file inaccessible, etc.
- For information and instructions see . Read instructions before using. Use with caution.
- OS: 
- Displays file system integrity status and fixes logical system errors.
- Can take considerable time to complete.








Fsck

- For Linux see 
- For Macintosh OS X see 
- Disk Utility for Macintosh see 



Analgesics for Ailing Disk Drives (cont.)

More disk analysis/repair tools for Windows...

Source	Tool	Information and/or Download
CrystalDiskInfo		
DiskCheckup		
Fujitsu/Toshiba		
HD Tune		
HDDScan		
Seagate/Samsung	SeaTool	
Western Digital	Lifeguard	



The 10 Worst Countries For Spam

Country	Number of Current Spam Issues*
United States	3,224
China	1,477
Russia	999
Ukraine	577
United Kingdom	554
Japan	501
Brazil	424
Italy	364
Germany	364
India	324



*As of August 31, 2013; updated every 24 Hours
From Spamhaus, see 

Microsoft Surface Tablets



Surface RT
Oct 26, 2012



Surface Pro
Feb 9, 2013

Microsoft Surface 2 Coming

- To be unveiled September 23rd in New York City
- As before, two devices
 - ✓ Haswell Core processor (upscale, Pro?)
 - ✓ Nvidia Tegra 4 processor (cheaper model, RT?)
- Battery duration of 8 hours
- Both versions with Microsoft Office (Word, Excel, OneNote, Outlook and PowerPoint)
- Compatible with Surface Touch and Type Cover keyboards
- Better display (1080p)
- Smaller sizes?
- Pricing?



Apple Mac Pro 2013



Mac Pro

Apple Mac Pro 2013 (cont.)

Fan →




Showing 4 memory cards

← Fan



Showing two GPUs

Specifications:

- CPU: Haswell Intel Xeon E5, up to 12 cores
- GPU: Dual GPUs; 7 teraflops/sec
- Memory: ECC 4-channel DDR3 1866 MHz, 60 GB/sec
- Storage: Solid state PCI Express, 1250 MB/sec
- Thunderbolt 2 (20GB/sec), USB 3 & Ethernet 10/100/1000
- Wireless 802.11ac & Bluetooth 4.0
- Support for 4K video
- Release date: October 2013 (?)
- Price: \$3,000 to \$13,000 (personal guess)
- For more information, see 



World's Most Powerful Computer

IBM Sequoia—2012

- 1,572,864 cores
- 15.32 PFLOPS*
- 6 MW
- Located in Livermore, Calif.

Tianhe-2—2013

- 3,120,000 cores
- 33.86 PFLOPS*
- 17.6 MW + 24 MW cooling
- Located in Guangzhou, China











- 1 PFLOP = 1 thousand trillion floating point operations/second; 10^{15}
- Distance to the sun = 92,960,000 miles = 5.89×10^{12} inches [X170] 25

Backup and Recovery for Home Computers

Any backup is better than no backup



Some starting points...

- See  for Cloud backup   
- For  see 
- For  see 
- For  see 





- Backup stratagems require thoughtful planning
- Using two methodologies much better than one
- Periodic “fire drills” are essential





SurDoc Cloud Backup

- Cloud backup using SurDoc desktop client
- Aggressive pricing:
 - a. 100 GB free (1st year); view & annotate 30 docs/month
 - b. 100 GB at \$30/year; view & annotate 300 docs/month
 - c. Unlimited storage at \$100/year; unlimited view & annotate
- No file size limit
- OS:  



- Does not backup OS or applications
- Access files using a Web browser
- File sharing using a link
- For more information see  

Time Machine

- Runs hourly backups to external disk drive or Apple's Time Capsule.
For more information see  
- OS: 
- Very easy to set up and recover files or the whole system
- Time Machine is bootable (?); see  for recovery information
- Older backups automatically deleted when running out of space
- Alternating backup drives can be used
- For information on other backup software, see



A Phone Call To My Neighbor

- “Good morning! I’m calling from Microsoft...”
- “We have detected a problem with your hard drive”
- “Are you having problems turning off your computer?”
- “I need to access your computer to fix the problem”
- My neighbor helped “the man from Microsoft” gain access



A Phone Call To My Neighbor (cont.)

After gaining access...

- On his monitor my neighbor observed numerous things being done
- After 15-20 minutes he became suspicious!
- He phoned me using his cell phone...
- In a panic stricken voice “What should I do?”



A Phone Call To My Neighbor (cont.)

My response...

- Unplug your computer from the router immediately. [He didn't know how.]
- Shut down your computer right away. [He did.]
- Change all your user passwords. [He did]
- Norton Antivirus didn't turn up anything
- Malwarebytes didn't discover any malware
- Micro Center in Fairfax didn't find any problem (\$70)
- The villain called back on two successive days offering to help



A Phone Call To My Neighbor (cont.)

Where things stand...

- His Outlook data (contacts, e-mail, calendar, tasks) could have been downloaded
- Sensitive, personal information could have been downloaded
- Undetected malware could have been installed
- His computer ran normally for several days, but...
- The computer is back at Micro Center



If You Get a Suspicious Phone Call...

Some suggestions

- Hang up and take the phone off the hook for awhile
- Set down the phone and have lunch
- “Send me a letter explaining what you want to do”
- “Ich kann kein English” ...
- ...and hope the caller doesn't understand German
- Reply “You've reached the Internet Crime Complaint Center. How may I help you?”



Thanks for Your Attention!



Fortuna Bay, South Georgia Islands