

Cyber-Security - Everyone's Responsibility

Probus

Western Ottawa

June 2013

Good Evening

- J-F Sauriol (www.phirelight.com)
 - Canadian Forces, Foreign Affairs
 - Phirelight, Partner and Chief Security Consultant
 - Information Security consultant since 1993
- Small Survey
 - Are you « techies »?
 - Number of computers at home?
 - Types of Smart Phone?
 - External Backup disk?
 - Wireless network at home? Protected?

Our Hour (almost) Together

- Security 101
 - Main Threats
 - Essential safeguards at home
- Guided tour of some essential websites
- Tips:
 - What to do?
 - What not to do?
- Resource websites

Internet – Really Cool ... BUT!

- Almost infinite number of amazing resources
- With the arrival of home high-speed Internet, we see an explosion of corporate and personal attacks
- Since 5 or 6 years, attacks are aimed at relieving you of your money! (Sophos Threat Report)
 - <http://www.sophos.com/en-us/security-news-trends/reports/security-threat-report.aspx>
- Hackers now target applications instead of the OS (Windows)
- Most common attacks:
 - Hackers and Malware (virus, Trojan horses, computer worms)
 - Offensive material and hurtful content
 - Frauds (identity theft, phishing), threats, cyber-bullying, etc. Traditional attacks (fraud, threats, harassment, etc.)
 - SPAM, Botnet infections, etc.
 - <http://www.rcmp-grc.gc.ca/qc/pub/cybercrime/cybercrime-eng.htm>



The Internet Jungle

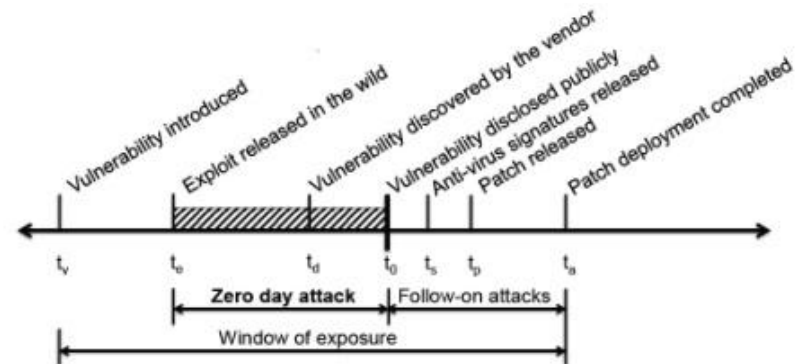
- Phishing
 - Spear phishing
 - Whaling
- Botnets
- Scripts
 - Javascripts, ActiveX, ...
- Zero-day exploit
- Drive-by Attacks
 - Parent surfing
 - Kids surfing!
- Exploit Kits
 - Blackhole, Metasploit, ...



Bamital botnet dismantled, as Microsoft seizes control of malware servers



Malware injected into legitimate JavaScript code on legitimate websites



Adobe investigates PDF Reader zero-day vulnerability reports



Java flaws already included in Blackhole exploit kit

Our Kids on the Internet

- Facebook (Tumblr, ...)

- Trolls
- Pedophiles
- Blackmail



Top 10 tips to keep your kids and teens safe online



Hacker blackmailed 350 women into stripping on their webcams, FBI says

- Twitter

- Child Pornography



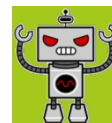
Twitter Is Being Used By Pedophiles To Target Victims

- Webcam

- Remote Control

- Cell/Smartphones

- iPhone vs Android
- Cameras - GeoTags



Trojan Android games send expensive SMS messages

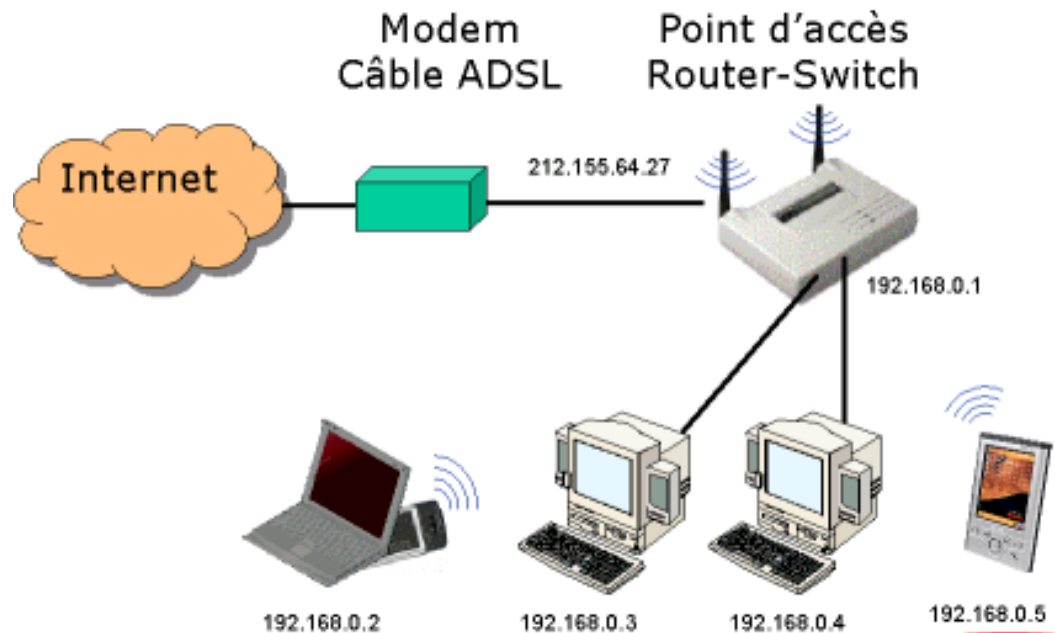
Essential Safeguards at Home

1. Install a firewall/router

- Buy a new router if older than 2 yrs old
- Choose 192.168.x.1 (where x is NOT 0 (zero) or 1)
- If you use the wireless networking – enable encryption



Anatomy of an exploit -
Linksys router



How To - Secure Wireless Router Set Up



Essential Safeguards at Home

2. Use a “standard user” account instead of an “administrator” account

3. Regularly update your OS (windows update) and applications (iTunes, firefox, etc.)

4. Purchase a good anti-virus software suite with a firewall and preventing malicious scripts



SOPHOS

Sophos Mobile Security Free Edition

Protect and secure your Android devices



Norton Power Eraser

Élimine les logiciels criminels profondément intégrés et difficiles à supprimer qu'une analyse antivirus traditionnelle ne détecte pas toujours.

5. Save attachments in emails before opening them (automatic anti-virus check). Never follow a link in an email (instead copy the hyperlink into a new browser page to see if the link is good)



Mac backdoor Trojan embedded inside boobytrapped Word documents



Essential Safeguards at Home

6. Choose Firefox with the “No-Script” add-on to prevent the automatic execution of scripts from each visited page (prevent drive-by hacking)



SOPHOS

Firefox hit by critical zero-day vulnerability – Use NoScript

7. Uninstall or Deactivate Java

- Java is different from Javascript
- Java is the primary source of “drive-by attacks”



How to turn off Java on your browser - and why you should do it now

8. Choose strong passwords

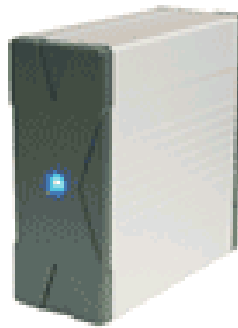
- Cat48dog ← - not very strong at all!
- ILTFBIHTWFAL
- On the Web: ILTBTAOBYBB-Facebook, ILTBTAOBYBB-gmail, etc or use KeyPass



How to choose a strong password

Essential Safeguards at Home

9. Back-up your important files to an external hard drive to prevent losing pictures and financial information



10. Be careful when shopping online. If the session is not secure – NO PURCHASE! And provide only the minimum info required. If they don't need your name, stay anonymous!



Risks to our Children

- Risks associated to persons
 - On the Internet, and more particularly in chat rooms, nothing is easier than to pretend to be someone else. Some people take advantage of the relative anonymity offered by the Net to lie about their age, sex, occupation and... intentions. For instance, sexual predators and pedophiles regularly participate in chat room discussions to find their victims. Ripoff artists are also very common.
- Risks associated to obscene or inappropriate material
 - Protecting your children is of the utmost importance. Active protection is essential.



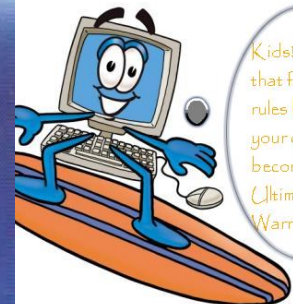
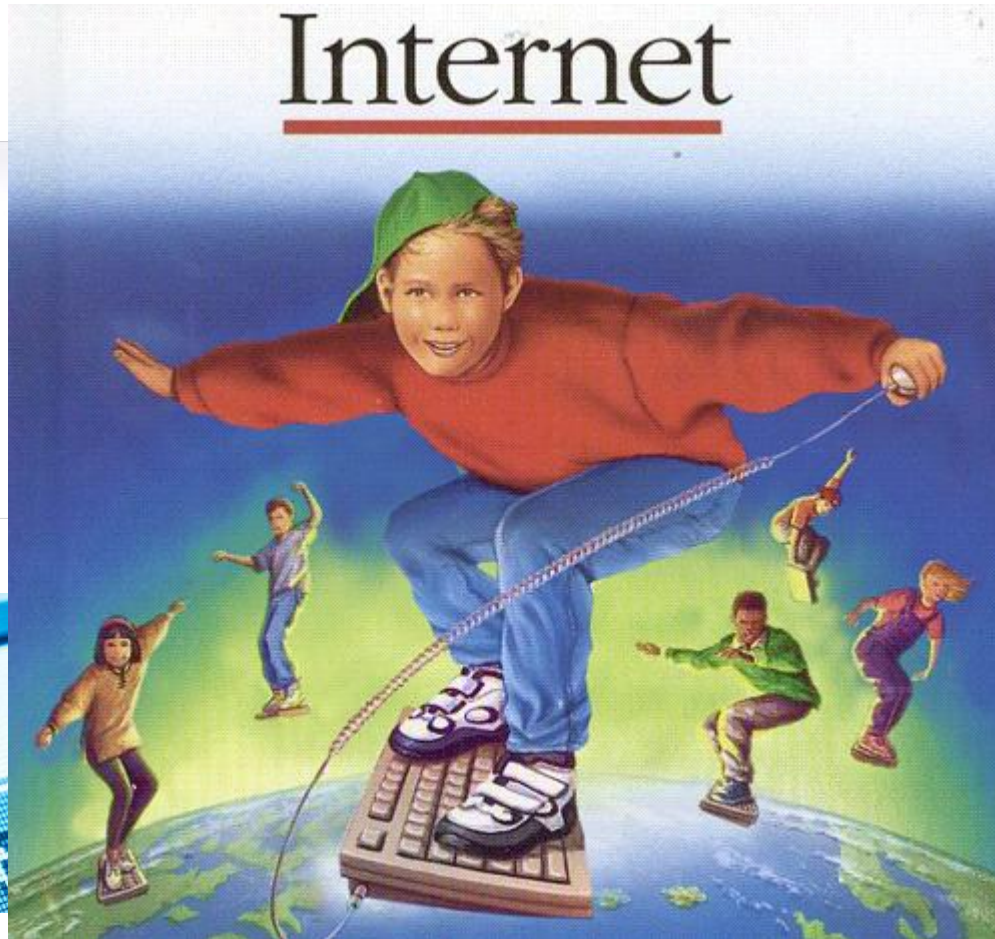
Hentai – Child Pornography

pedophiles on life virtual prog

Let's visit a few good Websites



Hey! Don't click that



Kids! Remember that following the rules help you on your quest to becoming the Ultimate Cyber Warrior!



- <http://mediasmarts.ca/>



<http://mediasmarts.ca/sites/default/files/tutorials/parenting-digital-generation/index.html>



<http://www.webaverti.ca/english/default.html>

What Kids do Online

Research and homework
Instant messaging
Cell phones and texting
Social networking
Blogging
Virtual worlds
File sharing
Video sharing

Know the Challenges

Sexual risk and harm
Cyberbullying
Privacy
Pornography
Violent and hateful content
Gaming
Excessive Internet use
Marketing aimed at kids

Safety Tips by Age

Ages 2-4
Ages 5-7
Ages 8-10
Ages 11-13
Ages 14-17



Select a Module

5 modules, 5 important subjects!

Module 1 Online Research and Homework	Module 2 Online Relationships	Module 3 Inappropriate Content	Module 4 Online Marketing	Module 5 Too Much Time Online
Finding and authenticating information online	From virtual friends to cyberbullying	What are kids encountering online?	Our children through the eyes of online advertisers	When is too much, too much?



Office of the
Privacy Commissioner
of Canada

- http://www.priv.gc.ca/youth-jeunes/index_e.asp



http://www.priv.gc.ca/youth-jeunes/t-v/videos/rep_e.asp

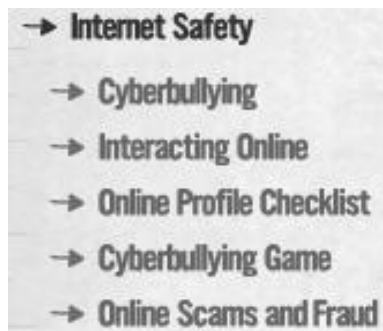


http://www.priv.gc.ca/youth-jeunes/fs-fi/res/gn_index_e.asp

Other sites



<http://deal.org/the-knowzone/internet-safety/>



<http://www.cyberaide.ca/app/en/home>



CANADIAN CENTRE for CHILD PROTECTION™
Helping families. Protecting children.

<http://mobility.protectchildren.ca/app/en/home>



<https://www.cyberaide.ca/app/en/outgoing?url=http://respect-yourself.ca/>



Internet Security

<http://www.rcmp-grc.gc.ca/is-si/index-eng.htm>

<http://www.rcmp-grc.gc.ca/qc/pub/cybercrime/cybercrime-eng.htm#4>

Cyber Security Tips

<http://www.rcmp-grc.gc.ca/tops-opst/tc-ct/cyber-tips-conseils-eng.htm>

Counter Cyber-Bullying



OnlineFamily.Norton.com

OnlineFamily.Norton

- Allows you to manage/monitor your kids Internet activities
 - Very small agent installed on each computer
 - Configure the access rules for each child
 - Allows to tighten or relax controls for each child independently
 - Receive alerts for specific events
 - Allows monitoring of MSN, Skype, Facebook, etc.



Free

ReturNil



Free
11.11

- Combines virus protection with powerful system restore feature
 - Enter seamless virtual environment and do “whatever” to your PC. Test new products, browse dark corners of the Internet with no harm.
 - Restart your PC and "poof", all the bad stuff including any malicious files are gone. Your PC stays nice and clean.
 - If all fails and your system is still giving you trouble, just choose a point in time to restore your system to and enjoy a virus free PC (\$39.99) .

<http://www.returnilvirtualsystem.com/>

PixelGarde



Free

- Examine, modify or eliminate GeoTags (or other personal details) from your pictures without changing the pictures themselves!
 - Share your pictures without divulging where they were taken!
 - Eliminate the purchase requests and the pixelgarde logo by buying the tool (\$9.99)

<http://pixelgarde.com/>



iPod, iPhone, iPad



iWONDER

<http://www.iwondersurf.com/>

Free

- Allows the monitoring/control of your kids Internet activities
 - Each visited site is logged on your web account. Simply consult the logs where and when you want
 - Allows the management of filters for each user as well as the usage timeslot
 - Allows remote de-activation of the device and the remote management of the device's filters

Recommended by

Dr.
Phil

iPod, iPhone, iPad



TimeLock

Free

- Allows the control of usage time for each device
 - Protected by a 4 digit code known only by parents
 - Deactivates the device when the time limit is reached
 - Can be deactivated by a parent by entering the code

<http://itunes.apple.com/ca/app/timelock-time-limit-for-parents/id440218332?mt=8>

Merci - Thank you!



<http://www.rcmp-grc.gc.ca/qc/pub/cybercrime/cybercrime-eng.htm>

- Protect your home environment
 - Unfortunately, there are people on the Web who definitely want to enter your environment and steal your money
 - Implement the 10 steps protection recommendations
 - Trust your instinct
 - If it's too good to be true – IT IS!!
 - If you are not sure about a link or an attachment – Turn on Returnil or call the sender and ask if he/she really did send you this email
 - Ask permission from everyone on a picture you want to post before posting (you never know what people find embarrassing)
 - Protect your mobile devices – don't keep sensitive details on these unless necessary.

Bonne journée
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Good afternoon

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