Cyber Security for the Home

Or

How to Keep the Bad Guys/Gals from your Home Computers



Cyber Security

- What is Cyber Security for the Home?
 - Protecting your WIFI Network from unwanted "users"
 - Protecting your Personal Computers/Tablets from external attack
 - Insertion of programs that use your computers
 - Protect from hard drive corruption or wipe
 - Preventing Hackers from obtaining your personal information, including Credit Card information

Protecting your WIFI Network

- If you have Internet from Verizon, Comcast, Cox or other provider, you probably have a broadcasting network!
- Comes with a Router

- Routers are "traffic cops" that "route" network packets to the correct computer using TCP/IP
- You connect via hard wire (network [Ethernet] cable) or using wireless (WI-FI)
- Even if you are totally "hard wired", your Router may be broadcasting!!



Home Networks









Router Setup

 <u>http://192.168.1.1</u> gets you to the Router Login page ("password")

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| | Login | |
| | User Name: admin | |
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Create a new SSID using random upper case/lower case letters and numerals and write it down! (do not use special characters)

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| Main | | Basic Security Security Security | ettings | | | |
| Vireless Status | Instructions for setting up a wirel | ess network using basic WEP wirele | ess security are set out below. However, v | we | | |
| Basic Security Settings | | Onger security using the Advanced PLY and then go to Advanced Secu | Security Settings. To establish stronger rity Settings to setup security. | security, | | |
| Advanced Security ettings | | | | | | |
| Logout | 1.Turn Wireless ON | | | | | |
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| | Wireless: On Off | | | | | |
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| | 2.Change the SSID setting to a | any name or code you want | | | | 8 |
| | (SSID is the same thing as the na | ame of your Wireless Network.) | | | | |
| | SSID: RI61Ksz98 | | | | | |
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| | 3.Channel | | | | | |
| | To change the channel of the freq apply to save your settings: | juency band at which the Router co | mmunicates, please enter it below. Then | click | | |
| | | standard channels. Selecting any o | ther channel may degrade performance. | | | 1 |
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| | Channel: Automatic * | | | | | 1 |
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| | 4.Click on the button next to V | VEP | | | | |
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| | security breaches, see Advanced | Security Settings. | | | | |
| | WEP Off | | | | | |
| April 4, 2014 | | | | | | |
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5.Select a WEP Key

use Wi-Fi Protected Access version 2 (WPA2) encryption with Advanced Encryption Standard (AES)



Setting WPA2 with AES using a 10 character or more random key (write it down!)

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Getting Your Devices on the new Network

- You will need to go thru the network setup of any wireless devices you use
 - Laptops/Desktops
 - Network Printers
 - Games like WII, Xbox, Nintendo ...
 - Smart Phones
 - Any other device that depends on your network
- Keep your SSID and WPA2 Key in a safe place
 - You will need it to reconnect or add any network device



PROTECTING YOUR PERSONAL COMPUTERS/TABLETS

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Primary Sources of Attack

- Network: unprotected wireless
 - Protect with WPA2 or turn wireless off
 - Your Router has a good "firewall"
 - Network Address Translation (NAT): Does NOT accept incoming connection attempts
- eMail
 - Beware of attachments, especially .zip files, but including .exe, .vbs, .com, and .bat
 - Imbedded Web Links
 - Hover mouse over "link" to see actual web address!
 - Hoax emails
 - Unbelievable stories (probably not true!) "chain" letters
 - Offers to make money quick and "Hook up" offers
- Hacker web sites
- Watch carefully the root of a web site (mail.<u>verizon.net</u> is different than verizon.<u>mail.net</u>!)

Restrict the Use of Administrator!

- Never surf the net or read email when you are an Administrator
 - Have at least 2 IDs on your computer

- One normal ID that you use every day for most functions like surfing the net or email
- One Administrator ID you use to install programs/applications or perform privileged functions



eMails with .zip files!

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If you do not want to sign it, please just forward it to everyone you know.

Thank you!

To add your name, click on 'forward'. Address it to all of your email correspondents, add your name to the list and send it on.

When the petition hits 1,000, send it to <u>http://us.mc1126.mail.yahoo.com/mc/compose?to=comment@whitehouse.gov</u>

PETITION for President Obama:

Dear Mr. President:

We, the undersigned, protest the bill that the Senate voted on recently which would allow illegal aliens to access our Social Security. We demand that you and all Congressional representatives require citizenship as a pre-requisite for social services in the United States.

We further demand that there not be any amnesty given to illegal aliens, NO free services, no funding, no payments to and for illegal immigrants.

A. Mary Takami, Calif.
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Use <u>www.snopes.com</u> to check Hoax

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Origins: This item is a textbook example of the worst aspects of Internet petitions: It's an outdated exhortation that suggests dealing with a non-existent issue in a largely ineffective manner, yet it is regularly updated to make it appear as if it is addressing a real and current issue.

This petition is an updating of one which first began circulating in mid-2006 (with "President Obama" since substituted for "President Bush"), and thus the referenced Senate action took place not "last week" but back in May 2006. Moreover, the Senate did <u>not</u> vote in May 2006 to "grant Social Security benefits to illegal aliens" — as we covered in a separate <u>article</u>, back then the Senate tabled a prospective amendment that would have prohibited *former* illegals who *had since gained legal status* from being given credit for payments they had previously made into the Social Security system. Not only has Congress enacted no recent legislation granting Social Security benefits to illegal aliens, but Social Security officials themselves have noted that undocumented immigrants have a positive net effect on the Social Security system:

In its 2008 annual report, Social Security officials said undocumented immigrants actual benefit the Social Security trust fund. One reason is that many of them pay Social Security taxes but never collect benefits. In previously published reports, Social Security officials have said undocumented immigrants paid about \$7 billion into the trust fund in 2005, the latest year for which numbers are available.

Moreover, regardless of the validity of the issue addressed, the mechanics of this e-petition are rather poor:

As with all petitions sent via e-mail, the process of circulating them poses a number of problems. Forwarding a petition through e-mail duplicates the names of hundreds and thousands of earlier signatories as each recipient adds his name and then fans out his copy to multiple acquaintances. Moreover, there is no verification or validation process to ensure that completed copies were actually "signed" by the persons listed (rather than having their names added by

Make Money Fast! BREAKING NEWS: Real story of success - Message (Plain Text) 1 2 3 4 5 Message F Potential Jokes 🔁 Mark Unread a Ignore Meeting 🛋 To Manager Categorize * 🗞 Junk + Delete Forward bore -Reply Reply Move Franslate Zoom Actions Team E-mail Ŧ Y Follow Up 7 All Delete Quick Steps Respond 14 Move Tags Editing Zoom Unks and other functionality have been disabled in this message. To restore functionality, move this message to the Inbox. This message was converted to plain text. FoxNews <john@armsid.net> From: Sent: Tue 2/11/2014 1:51 AM To: john@knueven.net Cc: Subject: BREAKING NEWS: Real story of success a e a fa e e 1 a e e 1 a e e 2 a e e 1 a e e 3 a e e 1 a e e 4 e e e 1 a e e 5 e e e 1 e e e 6 a e e 1 e e e 7 a e e 1 Co I just wanted to tell everyone I got my first check today for \$6800! FoxNews interviewed me about my story of success. Read full story here <http://krawkamel.ru/? << This URL may uniquely 39DC165DC8=BF04BD54B1&196A17C38C=5D69DD1219> identify you to the hacker!!! For more news, please go to FoxNews.com <http://krawkamel.ru/? 52C5F1C478=F35866F6C0&E11C08DF6B=540A9A5730> and watch Fox News Channel. Ŧ CApril aph20104ee social network updates and email messages from this person. N Y

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Block Sender (Outlook)



Block Sender (Verizon)

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PROTECTING YOUR PERSONAL INFORMATION



Internet Quiz

- If it is on the Internet, it must be true?
- No one can see my emails except the person(s) I send it to?
- The Internet is free?
- If I use secure web (https://) I am safe?
- Where does my browser store IDs and Passwords I save?
- How does a store know who I am and what I bought previously?

Internet Quiz Answers

- If it is on the Internet, it must be true?
 - Wrong! Anyone can post anything! Learn which sites to trust.
- No one can see my emails except the person(s) I send it to?
 - Wrong, unless you send encrypted! And emails can be forwarded!
- The Internet is free?
 - Almost true. You pay your ISP and many sites use advertising.
- If I use secure web (https://) I am safe?
 - Not totally, but it's the best you can do.
- Where does my browser store IDs and Passwords I save? How does a store know who I am and what I bought previously?
 - -- Cookies stored by your browser.

Recommendations

- Secure your Wireless Router with WPA2
- Never allow your browser to "remember" your ID or Password
- ALWAYS use secure web (https://) when entering an ID/Password, or any other financial or personal data
- Set your search page to secure https:
 - <u>https://www.google.com/</u>
- Beware of eMails that sound too good to be true: it probably isn't true!
- Never open an attachment or click a link unless you are positive it came from someone you trust!
 - Don't trust the return email address
 - If not sure, call them by phone to verify (don't reply)

Presentation Provided By

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