Home Security part II
Securing Your PC

- Wireless Networking
- Internet Browsers and
- Managing User Accounts

Cyber Security Month Presentation,
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Your Home Network

The Internet or The New Wild Wild West

Internet Service Provider

Your ISP is providing a valid internet Address to your Modem

Internet Provider Modem

Home Multifunction Wireless Access Point (WAP)

All of these devices are getting Internal (IP) addresses

IP Phone

Wireless Printer

Windows PC

Android or IOS Tablet

IMAC

IOS or Android Smartphone

Apple or Windows Laptop

Wireless Storage Device
Mitigating Risk: What Can You Do

- Migrate to a Modern Operating System and Hardware
  - Windows 7 or latest Mac OS X build
  - 64 bit OS on hardware that supports 64 bit
- Install a comprehensive Host-Based Security Suite
  - Firewall, Host Intrusion Prevent, and Antivirus
- Secure the internet browser that you use
  - Managing plugins and scripts
- Limit Use of the Administrator Account - Create a standard user account and use it for most of what you do
Account & Password Management

- Use a secure password
  - Length first, then complexity
    - At least 10 characters,
    - Mixed alphanumeric, upper/lower and special characters
- Use a password safe to store your passwords.
- Use different passwords for different accounts
  - Mitigates threat of chain link attacks
Wireless Network Security

- **Wireless Access Point (WAP) or Wireless Router**
  - Provided to you with Verizon
  - With Cox, you will have purchased this.

- **Wi-Fi Protected Access II Personal (WPA2)**
  - Protocol or language your wireless network uses

- **Network Name** *(SSID, short for service set identifier)*
  - Logical label that you name your home wireless network.

- **Using Network Address Translation (NAT)**
  - hides your internal network from the world. This is the default setting for your wireless router.
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Wireless Storage Device
Network Name (SSID)
Do not use identifying name.

Use WPA2 Personal
On both PC and Wireless Router
Web Browser Security

- Understand what risky behavior is
  - What is an untrusted web sites
  - Don’t click that button - FakeAV
  - Downloading plugins and add-ons without consideration.
- Learn how to secure your internet browser
  - Manage plugins
  - Keep plugins patched
    - 40% of drive-by-downloads exploit unpatched vulnerabilities in Adobe Flash and PDF reader
  - Disable Java, JavaScript and ActiveX
    - Or, for browsers that support it, enable for web sites that you trust
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Wireless Storage Device
FireFox Security Settings

Select Tools

Then, Select Add-ons.
FireFox – Managing Extensions

Select Extensions.

Then, Search for “NOSCRIP”.
Firefox-Installing NoScript

Select "Install" for "NoScript".

Firefox Add-ons Manager showing NoScript add-on available for installation.
Firefox- NoScript Install Confirmed

Restart Firefox and it’s installed!
FireFox – What Success Looks like

Success!
Options for controlling scripts
Chrome Security Settings

1. Access Controls
2. Select Tools
3. Choose Extensions
Chrome - Managing Extensions

Select get more extensions
Chrome - Installing NotScripts

Search for “NotScripts”

Select “Add to Chrome” for NotScripts for Crome OS
Chrome-NotScripts: Instructions to Set Password

Setting your NotScripts password is simple?. Simply follow these steps:

**Step 1: Navigate to the NotScripts Folder**
Open the NotScripts Google Chrome extension folder. The location of this folder is shown below. You can go there by directly copying and pasting the appropriate address below into the location bar of a folder:

*Windows XP:* `%userprofile%\Local Settings\Application Data\Google\Chrome\User Data\Default\Extensions\odjhifogjcknbahlpidsmdajjppkkcfn

*Windows Vista or 7:* `%userprofile%\AppData\Local\Google\Chrome\User Data\Default\Extensions\odjhifogjcknbahlpidsmdajjppkkcfn

*Mac OS X:* `~/Library/Application Support/Google/Chrome/Default/Extensions/odjhifogjcknbahlpidsmdajjppkkcfn

*Linux:* `~/.config/google-chrome/Default/Extensions/odjhifogjcknbahlpidsmdajjppkkcfn

Note: For Windows users, change **YOUR_USER_NAME** to the user name to you are logged onto under Windows. If you're using Windows Explorer to navigate to the folder, you might need to set **Show hidden files and folders** in **Tools > Folder Options... > View**.

For convenience, it is recommended that you make a shortcut to this folder on your desktop or somewhere handy so that you can quickly reset the NotScripts password after an update.
Chrome – NotScripts Install

Simple Steps? Continued...

**Step 2: Open the NotScripts Password File**
Open the file `CHANGE_PASSWORD_HERE.js` for editing. For Windows users, do this by right-clicking on the file and selecting *Edit* from the right-click menu. This will open up the file in NotePad for you to enter your NotScripts password.

**Step 3: Set the NotScripts Password**
Choose a password for NotScripts with the following restrictions:
- **Length:** 20 minimum, 100 maximum
- **Allowed Characters:** `abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ_1234567890`
- **Spaces:** Allowed

Put the password in between the quotes of the line that reads:

```javascript
const ENCRYPTION_PASSWORD = "";
```

Example: `FNqzJmJBA1GQFhuXBmEg20MqEgbn55w3MtT`

It should look like this after (except with your own password):

```javascript
const ENCRYPTION_PASSWORD = "FNqzJmJBA1GQFhuXBmEg20MqEgbn55w3MtT";
```

Save the file and close it when finished.

**Step 4: Restart Google Chrome**
Close and restart Google Chrome for the new password to take effect in NotScripts. You are done!
Chrome- What Success Looks Like

Success!

Manage scripts for each site
Internet Explorer

Select Tools

Select Internet Options
Unpredictable Behavior

Site was in “Trusted list”. Imbedded content was from another site.
IE – Privacy Settings

Settings Level

Privacy Access For individual Sites
Other IE Security Settings

ActiveX, SmartScreen and other controls

Select Safety

Access Configuration
Safari Security Settings

Web content:
- Enable plug-ins
- Enable Java
- Enable JavaScript
- Block pop-up windows

Accept cookies:
- Always
- Never
- Only from sites you navigate to
  For example, not from advertisers on those sites.

Default database maximum size: 5 MB

Ask before sending a non-secure form to a secure website
Managing User Accounts

- Consider creating and using an account with limited privileges instead of an 'administrator' or 'root' level account for everyday tasks.
- Depending on the operating system, administrator level access is only needed when installing new software, changing system configurations, etc.
- Malware (e.g., viruses, Trojan horses) is executed with the privileges of the user that runs them —making it far more risky to be logged in as an administrator all the time.
- A default user account does not have the permissions to install malware or make system changes.
Managing your Windows PC

Find “Computer”

Select Manage
Managing Users and Groups

Find Local Users and Groups
Adding a New User

Right Click on Users and Select “New User”
Fill it out. Use a strong password

Select Create
“New User” in users group
Elevating Your Permissions

When logged on as “NewUser” select an application, right click and choose “Run as administrator”
Questions? Thanks!

- Securing your home network Part II,
  - How to actually put the controls in place and
  - How to recover from an event.