

# Computer Safety and Security

- **What's the difference between computer safety and computer security**
- **You do things to secure your computer and make it safe from attack**
- **You do things to keep your computer safe from attack so the information on your computer is secure**
- **What you need to know and do to protect yourself and your computer**
- **What is the difference between a virus and a antivirus program verses malware and a malicious software detection and removal program**

# COMPUTER SAFETY AND SECURITY

## ➤ Let's start with a quiz

**Q: Do you have anti-virus software installed on your computer to block email virus and worms?**

- Yes
- No

- Only one antivirus program
- Need to update the data base every time you start your computer
- How do you know the data base has been updated
- Occasionally check for a update to the program
- Make sure the program is configured to provide maximum security
- Occasionally scan your computer for viruses

# COMPUTER SAFETY AND SECURITY

## ➤ **What programs are available**

- **Free - Avast, AVG, Avira Free Antivirus, Windows Security Essentials**
- **Not free - BitDefender, G Data, Kaspersky**

## ➤ **Recommendation**

- **All you need is an antivirus program**
- **Don't purchase an Internet security suite**

# COMPUTER SAFETY AND SECURITY

## “Real World” Protection Test results from www.av-comparitives.org

### Summary Results (March-June)

Test period: March – June 2012 (2159 Test cases)

	Blocked	User dependent	Compromised	PROTECTION RATE [Blocked % + (User dependent %)/2] <sup>4</sup>	Cluster <sup>5</sup>
BitDefender	2150	-	9	99,6%	1
G DATA	2147	1	11	99,5%	1
Kaspersky	2146	2	11	99,4%	1
Qihoo	2143	6	10	99,4%	1
BullGuard	2131	21	7	99,2%	1
F-Secure	2135	10	14	99,1%	1
Avast	2110	28	21	98,4%	2
ESET	2117	1	41	98,1%	2
AVIRA	2107	13	39	97,9%	2
Sophos	2112	-	47	97,8%	2
Trend Micro	2108	-	51	97,6%	2
AVG	2103	6	50	97,5%	2
GFI	2102	-	57	97,4%	2
Panda	2097	-	62	97,1%	2
eScan	2094	-	65	97,0%	2
PC Tools	2024	126	9	96,7%	2
Tencent	2052	32	75	95,8%	3
Fortinet	2046	-	113	94,8%	3
McAfee	2041	6	112	94,7%	3
AhnLab	1999	-	160	92,6%	4
Webroot	1963	1	195	90,9%	4

# COMPUTER SAFETY AND SECURITY

**Q: Does your anti-virus software automatically update itself with current virus definitions?**

- Yes
- No

- **Does it update immediately when you start your computer**
- **How do you know the data files have been updated**

**Q: Do you have a policy of never opening an email attachment even if it is from someone you know?**

- Yes
- No

- **The *from information* in an email message can be changed**

# COMPUTER SAFETY AND SECURITY

**Q: Do you use strong passwords -- those which contain a combination of at least eight alpha and numeric characters?**

- Yes
- No

- **A strong password**
  - **Ten to twelve characters**
  - **Upper and lower case letters and numbers**
  - **A symbol (? @ & \*)**
- **Never use a word that can be found in the dictionary**
- **Don't use proper names**
- **Don't use numbers that represent your birth date, telephone number, street address, zip code**

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- **Use a pass phrase**
  - **I bought my last new car at Hendron Chevrolet in 08**
    - **!bmlnc@HCi08**
- **Use a program like LastPass that generates a random password for sites where a password is needed**

**Q: Do you regularly back up your important files on a removable disk or other removable media?**

- Yes
- No

- **Only copy information you have created and stored to the hard drive**
- **CD, DVD, or external USB hard drive is best**

# COMPUTER SAFETY AND SECURITY

**Q: Do you have a software program installed that can detect and remove spyware?**

- Yes
- No

- **This is the area of computer security that should be give the most attention**
- **Malicious software can be installed on your computer without your permission or knowledge**
- **It runs invisibly**
- **The program can be controlled by the person that owns the program**
- **Some malicious programs can turn your computer in to a “zombie” that can be used for malicious or illegal purposes**



# COMPUTER SAFETY AND SECURITY

## ➤ **Categories of malware**

- **Adware - generate ads for products**
- **Spyware - track your computer activity**
- **Spam - unsolicited email messages**
- **Fast flux - use your computer to hide the origin of phishing emails**
- **Click fraud - creating false web traffic on a web site**
- **Denial of Service attack - using compromised computers to shut down a web site**
- **Scareware - program the attempts to scare you in to buying software**

# COMPUTER SAFETY AND SECURITY

- **Malware detection and removal programs**
  - Malwarebytes Anti-Malware
  - Microsoft Security Essentials
  - Spybot Search and Destroy
  - SuperAntiSpyware
  - Windows Defender
- **You should use multiple programs**
  - Make sure you update the program before you run it
  - To completely remove a piece of malicious software the program might need to run at startup
  - The program can be run in the safe mode

# COMPUTER SAFETY AND SECURITY

**Q: Are you using the full capability of your browser's security and privacy features?**

- Yes
- No

- **For Internet Explorer, version 9**
  - **Have you checked the security settings for the Internet and Restricted sites zones**
  - **Is the Protected Mode enabled**
  - **Have you changed the Privacy setting to Medium High**
  - **Have you told the program to never allow a web site to request your physical location**
  - **Is the Pop-up Blocker turned on and properly configured**

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- **Have you turned off AutoComplete for user names and passwords**
- **Have you told the program to let you know if Internet Explorer is not the default browser**
- **Have you checked the Advanced security settings**
- **Do you use ActiveX Filtering**
- **Do you use InPrivate Browsing**
- **Do you use the SmartScreen Filter**
- **Do you frequently clear the browsing history**
- **Do you click on ads that appear around the edges of a web page**
- **Do you click on pop-up boxes**

# COMPUTER SAFETY AND SECURITY

**Q: Do you regularly delete cookies and remove temporary Internet files from your computer?**

- Yes
- No

## ➤ You need to do this

**Q: Do you turn off software features that you do not use, such as instant messenger type services and file-sharing?**

- Yes
- No

- **Uninstall the programs you don't use**
- **Disable all of the unnecessary things that start when you start your computer**
- **WinPatrol is an excellent free program for doing this**

# COMPUTER SAFETY AND SECURITY

**Q: Do you have a Firewall installed to block your computer from attacks from hackers?**

- Yes
- No

- **You have a firewall - is it turned on**
- **You can add an additional layer of protection between your computer and the Internet by installing a wired or wireless router**
- **More things to do**
  - **It's essential that you install the updates from Microsoft**
    - **Important**
    - **Recommended**
    - **Optional**

# COMPUTER SAFETY AND SECURITY

- **It's essential that you keep all of the programs you use updated**
  - **Adobe Reader**
  - **Adobe Flash**
  - **Adobe Shockwave**
  - **Java**
  - **Picasa**
  - **Google Earth**
  - **All of your malware detection and removal programs**
- **If the email program you use has a spam and phishing filter, make sure they are active**

# COMPUTER SAFETY AND SECURITY

- **The most valuable tools for keeping you and your computer safe**

**A little knowledge**

**Common sense**