

Computer Security: Best Practices for Home Computing

Presented by
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Merced Community College

Defining the Problem

- Symantec documented 2,636 new vulnerabilities in 2003, an average of seven per day.
- In 2003, 70% of vulnerabilities were classified as easy to exploit.
- Threats to privacy and confidentiality were the fastest growing threat, with 519% growth in volume of submissions within the top ten.
- The average un-patched computer lasts less than 20 min. before being compromised

Presentation Topics

- Home PC Security
- Home Network Security
- Email Security
- Windows XP Service Pack 2
- Q and A



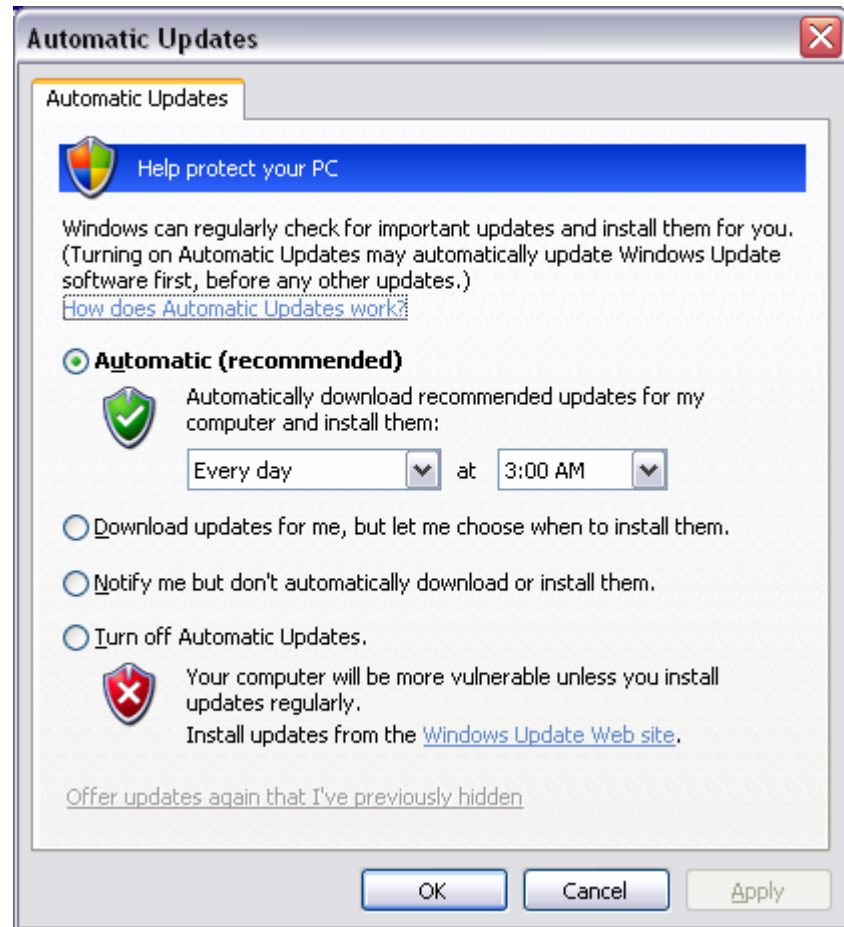
Best Practices for Securing your Home Windows Computer

Step 1: Antivirus

- Each computer should have an antivirus product installed on it and configured to auto update
- We recommend Norton AntiVirus 2006/7 for home machines, not the Internet Security Package
- Many ISP's provide customers with Antivirus software as a part of their services
- Free alternative: AVG from Grisoft
 - <http://www.grisoft.com>

Step 2: Windows Update

- Windows Update fixes security holes in your operating system
- It should be set to automatically download and install updates
- Found in Control Panel / System, or by right clicking My Computer and selecting Properties



Step 3: Install Malware Protection

- Malware tracks your web surfing, causes pop-up windows, slows down your computer, and other evil deeds.
- Common ways on to your computer:
 - Web ActiveX pop ups (Internet Explorer ONLY)
 - Kazaa and other file sharing applications
 - Many other free “utilities”
- Two Free Scanners:
 - Lavasoft Ad-Aware SE: <http://www.lavasoft.de>
 - Spybot Search and Destroy: <http://www.safer-networking.org>

Step 4: Use a Safer Email Client

- Most viruses target Microsoft Outlook Express
- Using a different email client avoids most of those threats
- Mozilla Thunderbird
 - <http://www.mozilla.org>
 - Imports mail and addresses from OE
 - Excellent Spam controls
 - Plugins and Themes
- It's Free!!



Step 5: Use a Safer Web Browser

- Internet Explorer has many unpatched vulnerabilities
- Mozilla Firefox:

<http://www.mozilla.org>

Not vulnerable to ActiveX
Malware

Tabbed Browsing

Pop up Blocking

Many excellent extensions
and themes

Fast and Free!!



- Only use IE for sites that require it, like the windows update web site



Best Practices for Securing your Home Network

Step 1: Install Router or Gateway



- Protects your PC: Makes it unseen on the Internet
- Wired Internet Only:
Linksys BEFSR41



- 4 port 10/100 Ethernet
- Wired/Wireless Internet:
Linksys WRT54G
 - 4 port 10/100, Wireless 802.11g (54Mbps)

Step 2: Software Firewall

- If you are using a router / gateway this is not essential
- Can be intrusive and take a while to train it, frequently very cryptic in its questions
- Firewall Options:
 - Built-in Windows Firewall (SP2 version recommended)
 - Only stops inbound traffic, does not check outbound
 - Zone Alarm: <http://www.zonelabs.com>
 - Free version available, checks inbound and outbound traffic
 - Sygate Personal Firewall: <http://smb.sygate.com/>
 - Free version available, checks inbound and outbound traffic

Step 3: Wireless Security

- You should change the password on your router
- Enable Wireless Encryption (WEP and WPA)
 - Encrypts transmissions between PC and router
 - Makes the wireless network non-public
 - Not foolproof, you should change your key every 3-4 mos.
- Change your SSID (Wireless Network Name)
- Additional security steps are to enable MAC based authentication and turn off SSID broadcasting (advanced)

Overview of Best Practices

- PC Security

- Anti-Virus should be installed and current
- Windows updates should download & install automatically
- Malware checking and removal
- Use a more secure email client
- Use a more secure web browser

- Home Network Security

- Broadband-connected PC's should be behind a gateway/router, even if there is only one computer
- Software Firewall
- Use Wireless Encryption (WEP/WPA)

General Email Security

- Use a Spam Filter in your Email Program
 - Built in to Thunderbird
 - Outlook Express: Norton AntiSpam
- Do not open attachments you are not expecting
- Do not notify people that they sent you a virus, it was most likely forged anyway
- Do not use HTML email
 - It can contain hidden tracking information
- Be Very Cautious when clicking on web links in emails

Phishing / Email Scams

- No reputable company will ask you for passwords, credit cards, or any personal info via email
- If it sounds too good to be true, it probably is
- You cannot get the money out of Nigeria, period.

From	"aw-confirm@ebay.com" <aw-confirm@ebay.com>
Sent	Saturday, August 28, 2004 2:01 pm
To	sjbauer@wisc.edu
Cc	
Bcc	
Subject	Important Notice: Verification Required To Avoid Account Suspension

Dear eBay member,

Due to recent activity, we will suspend any activity on your account in order to please provide additional informations and we will work with you to resolve this i:

To avoid account suspension you must go to the link below and provide requirec

<http://cgi1.ebay.com/aw-cgi/eBayISAPI.php?MfcISAPICommand=SignInFPP>

If you received this notice and you are not the authorized account holder, please action may also be in violation of local, national, and/or international law. eBay personal information with the intent to commit fraud or theft. Information will be to the fullest extent of the law.

Do not respond to this email, as your reply will not be received.

Regards,

SafeHarbor Department,

eBay Inc

 <http://200.171.91.43/update/eBayISAPI.php?MfcISAPICommand=SignInFPP&CurrentPa>

Windows XP Service Pack 2 Overview



WinXP Service Pack 2



Windows Update

- Generally has been trouble free for home users
- Availability (270mb download):
 - Windows Update web site



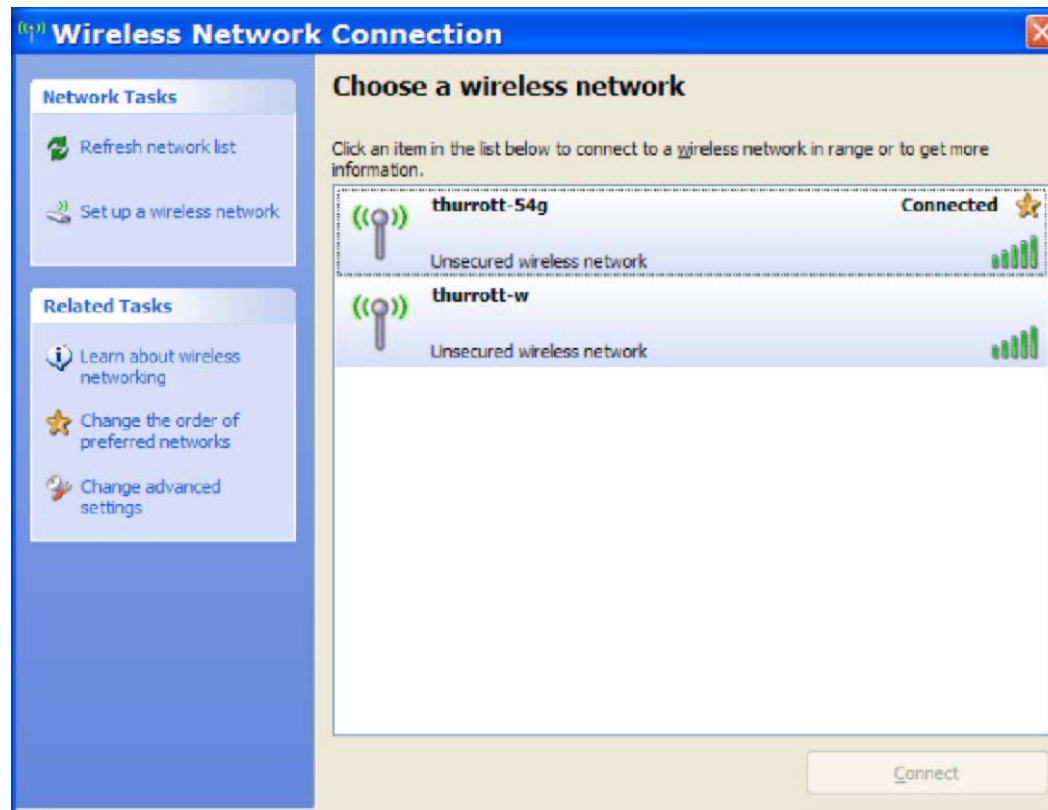
Windows XP Security Center

- Security Center: PC Security Status at a glance
- Gives status of Firewall, Auto Updates, Virus Protection



New Wireless Interface

- Wireless Connections are much easier to set up



Internet Explorer Improvements

- Pop-up Blocking now standard
- Improved plug-in handling and security
- Improved browsing security
- We still recommend Firefox



Outlook Express Improvements

- More secure default settings and isolation of potentially unsafe attachments
- Won't download images in HTML email by default
- Bug fixes
- We still recommend Thunderbird

Questions?

- Call Student Help Desk at Merced Community College
209 381 6565
- Email: myhelp@mccd.edu
- Website: Click on the Help Link on the bottom of any page at www.mccd.edu and go to Student Help Desk

