

Christopher Wren Association

A42 Improve the Security of Your Computer



William
& Mary



September 18 and 25, October 2
Wightman Cup Room

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Introduction

- Version of Operating System
- Sources of Information
- Most Important steps to security
- Sources of security programs
- Advanced settings

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Version of Operating System

- Different Operating System have different security settings.
- How to determine your Operating System
 - Click [START]
 - Right Click [My Computer]
 - Click [Properties]

Sources of Information

- Microsoft
 - WWW.microsoft.com/security
- National Institute of Standards and Technology
 - <http://csrc.nist.gov/itsec>
- DEFCON
 - www.defcon.org/html/links/defcon-media-archives.html

Compare

- Microsoft lists four steps to protect your computer.
- The National Institute of Standards and Technology lists six essential security settings.
- The next slide compares these two lists.

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Appendix A— Essential Security Settings

“...using only the instructions in this section should provide the most essential security protection for a Windows XP Home Edition computer. “

Step 1: Set the Default View for Control Panel

Step 2: Ensure a Personal Firewall Is Enabled

Step 3: Apply Updates

Step 4: Configure the Computer for Automatic Updates

Step 5: Install and Configure Antivirus/Antispyware Software

Step 6: Set Up Limited User Accounts

<http://www.microsoft.com/security/pypc.aspx>

- 1. Keep your firewall turned on.**
- 2. Keep your operating system up-to-date.**
- 3. Keep your antivirus software up to date.**
- 4. Keep your antispyware technology up to date.**

NIST SP800-69

- Paragraph 1.3 Audience
 - This document has been created for IT professionals. Portions of the document are intended for Windows XP Home Edition users who have experience as Windows XP users.
- I am going to open SP800-69 and scroll down to Appendix A.
 - Notice the detailed instructions.
 - Notice the difference between Service Packs implemented.

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Source of firewall software

- Firewall support for Windows 2000
 - Norton/Symantic and McAfee are perhaps the best known.
 - Appendix c.3.2 of NIST SP800-69 discusses a freeware firewall. (Page 152)
- Windows XP comes with one way firewall
- Windows Vista has a two way firewall.
 - Why two way firewall?
 - Prevents a Trojan horse from accessing the internet

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Operating System Update

- Open Windows Explore, click on tools, click on Windows UPDATE
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Configure for Automatic Update

- From **Control Panel**, double-click **Automatic Updates**.
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Microsoft Antivirus software

- Microsoft has a free scan for virus. This is an on-demand (you go to Microsoft.com and request a one-time scan.)
 - <http://www.microsoft.com/protect/products/computer/safetyscanner.mspc>
- Microsoft Live ONECARE
www.microsoft.com/mscorp/safety/technologies/onecare/default.mspc (more discussion later)

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AntiVirus Freeware

- Appendix C.1 of NIST SP800-69 discusses three freeware antivirus programs. (Page 147) Aviva, Avast, and AVG 4.6
- PC World has reviewed free Antivirus software The top three were Aviva, Avast and Avg.

http://www.pcworld.com/article/170674/free_antivirus_software.html

Windows Live OneCare

- Windows Live™ OneCare® End of Sale
– http://onecare.live.com/standard/en-us/activation/oc_eol_guidance.htm
- Microsoft Security Essentials
<http://www.networkworld.com/reviews/2009/082509-microsoft-security-essentials.html>

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Anti-Spyware

- Section C.2 of NIST SP800-69 (page 150) discusses three freeware Ad-Aware 1.06, Microsoft Windows Defender (Beta), and Spybot - Search & Destroy 1.4.
- Windows Defender is out of beta version
 - <http://www.microsoft.com/windows/products/winfamily/defender/default.msp>

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Baseline Security Analyzer

- Microsoft Baseline Security Analyzer (MBSA) scans for missing security updates and common security misconfigurations.

<http://www.microsoft.com/downloads/details.aspx?FamilyID=F32921AF-9DBE-4DCE-889E-ECF997EB18E9&displaylang=en>

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Limited User Accounts

- Appendix A of NIST SP800-69 (page 139) discusses establishing User Accounts.
- Page 32 -- 3.1.2.4 Use a Limited User Account for Daily Tasks
 - If a computer is attacked while an administrative account is in use, the attack will be able to do more damage to the computer.