Outline

- About BSA
- The Cyber Landscape of Today
- What is Spyware?
- The Spyware Challenge
- Combating Cyber Threats
About BSA

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Our View

• Target criminals, not technology
  • BSA supports legislation that criminalizes rogue activities, rather than the technology itself
  • Targeting technology might lead to the stifling legitimate online services and future innovations
The Cyber Landscape of Today

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Cyber Landscape

• Global networks of connected computers
• Communication & Collaboration
• New environment of organized crime of fraud, theft and extortion
• Cyber Security vital to secure systems, protect computers and sensitive information
Cyber Threats

- Spyware & Adware **
- Phishing (website spoofing) and Pharming
- Trojans (program that masks malicious purpose)
- Worms and Viruses
- Cross Site Scripting
- Rootkits
- Spam Scams
What is Spyware?

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Spyware

- *Tracking Software* deployed without adequate notice, consent and control for the user
- ‘Infection’ occurs when user clicks a button on a dialogue box and is directed to a rogue website
  - Changes registry key and browser settings
- Potentially sends out information to other sites for tracking purposes
  - Monitors user’s browsing habits
  - Records keystrokes
  - Performs screen captures in real-time
  - Information sent to third party with malicious intent
- Often by parties looking to make money out of unsuspecting user
The Fine Line with Adware

- A type of *Advertising Software*
  - Applications that deliver advertising in a manner or context unexpected and unwanted by users

- Pop-up ads sent to user based on web surfing habits
  - Pop-up windows or through a bar that appears on the computer screen

- Helps recover programming development cost and helps hold down cost for the user
Adware / Spyware

When searching for a flight at an airline website, adware pops-up an ad (Expedia) which nearly completely covers the requested website (Delta).

A typical user experience with competing adware programs installed, often through software bundles—this has led at least one adware company to delete other adware programs on user machines.

Source: http://www.pcpitstop.com/spycheck/kids.asp

Source: http://www.benedelman.com/
The Spyware Challenge

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How does Spyware intrude?

- Shipped with other applications
- Clicking on links or attachments in email messages, or via “chat” programs
- Unknowingly downloaded from a web site via exploits
- Carried as part of malicious code – viruses, worms
Where does Adware come from?

- Usually bundled and installed with “free” applications
  - Consumer receives series of applications, including new icons for other services on desktop
  - Installed at websites targeting young audiences
  - Installed through web browser “drive-bys” or trick pop-ups
Targeting Young Audiences

1. At “website for kids”, free smiley icons are offered to children for download

Source: Ben Edelman
http://www.benedelman.org/spyware/installations/kidzpage-hotbar/

2. The install has a broken link leading to the EULA and lacks a “cancel” button during key steps of the install process
3. The program embeds itself into Internet Explorer, Windows Explorer and Outlook—substantially hindering performance

4. Further unexpected behavior is the placement of 2 new icons and the appearance of a new toolbar not only above but also on the side of the web browser.

Source: Ben Edelman
http://www.benedelman.org/spyware/installations/kidzpage-hotbar/
Installed through browsers by trickery

1. Consumer visiting wrestling website automatically prompted to accept “free browser enhancements”

2. Clicking yes installs 2 new toolbars in their web browser and places 6 new icons on their desktop, all promoting adware content & products

Source: Ben Edelman
http://www.benedelman.org/spyware/installations/pacerd/
Other Tactics

Instead of stating a company name, this publisher urges you to “Click Yes” to continue.

This may look like a Windows dialog box, but it is an advertisement. Even if hit “Cancel”, it will proceed. Click the Close (x) button at upper right instead.

Source: http://www.pcpitstop.com/spycheck/safesurfing.asp
Anti-Spyware Software

• Identifies, prevents and safely eliminates potentially unwanted programs
  • Including spyware, adware, pop-ups, dialers, keyloggers and remote-control programs

• Provided for free by Internet Service Providers (ISPs) or bundled with software
Combating Cyber Threats

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Target Criminals, Not Technology

- Legislate to criminalize illicit activities that use technology
- Avoid targeting the technology that facilitates
  - So as not to stifle legitimate online services and future innovations
Law Enforcement Funding

- Enforcement authorities
- Ensure sufficient funding and resources
  - To keep pace with criminal counterparts
  - Adequately sized team, with technical training and equipment for investigation, forensics, etc.
Penalties

• Increase penalties to deter illegal activity
  • Fraud, theft and extortion

• Punish worst offenders and discourage future acts

• Penalties
  • Typical ones are fine and imprisonment
  • Making penalties commensurate with crime
  • Potential difficulty in assessing damages and imposing appropriate penalty
Market Solutions

• Private sector solutions
  • Play important part in an effective overall spyware protection regime and defense against cyber threats
  • Understand scope and capability of available tools

• National policies should build upon and encourage the market-driven framework that is already in place
  • Including technological tools
CONCLUSION

• Importance of ensuring a free flow across networks
  • Ideas, information, communication and commerce

• Maximize online trust
  • Through adoption and deployment of trust-enabling technologies, as well as implementation of policies

• Ensure the continued success of the Internet and the world of business
THANK YOU

Questions? Comments? Clarifications?

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