Computer and Network Security

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1 Administrivia

Announcements

Assignment

Read: Chapter 7.

Turn in answers to these questions: 6, 9, 18.

From Last Time

Privacy.

Coming Up

Computer reliability.

2 Chapter Summary

1. "The most secure computer is one that's kept completely unplugged, locked away in a closet." It is, however, not very useful.

2. billg e-mail forgery.

3. University of Calgary CS courses:

   (a) Virus writing (2003).

   (b) Spam, spyware writing (2005).

   Labs will be run on a "closed" network. Ethics?

4. Viruses, worms, and trojans.

   (a) What is a buffer overflow attack?

   (b) The Nov. 2, 1988 Internet worm.

   (c) Trojan horses: nefarious code hidden within a useful program. Example: spyware distributed with Kazaa clients?

   Add-ons distributed with main program. "Phone home" software.

   "More" ethical if disclosed in EULA?

   (d) Zombie armies used to launch DOS attacks.

   What is a DOS attack?

   (e) Defense: authorization and authentication systems. (?)

   Weaknesses of password systems.

5. The hacker ethic:

   (a) Unlimited and total access to computers.

   (b) All information should be free.

   (c) Mistrust authority.

   (d) Hackers should be judged by their skill in hacking, not earned degrees, etc.

(e) Art and beauty can be created on a computer.

(f) Computers can change your life for the better.

The will of the hacker is to improve the situation; there is no malicious intent.

6. System security "tools:" Crack, John the Ripper, Satan, TripWire, Wireshark.

7. Online and electronic voting:

(a) Pentagon plan for online voting for 2004 election was canceled in Feb. 2004.

(b) Benefits, risks?

3 Discussion Questions

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