



Types of Malware and Spyware

“Malware” is the shortened form for malicious software, which is intrusive software, used to perform actions such as interrupting computer operations and obtaining sensitive information. Acquiring access to private computer systems and brandishing unsolicited advertising, are also characteristic of Malware.

Worms

A computer worm is an independent malware program that reproduces itself to infect other computers. It can spread to other computers without having to attach to an existing program, but still causes some form of damage to the network.

Damage done by worms includes:

- Bandwidth consumption
- Stopping active anti-malware service
- Immobilizing Safe Mode
- Hindering Windows auto update

Viruses

A computer virus is a program that hides within a harmless program and reproduces itself to perform actions, such as destroying data. It can infect files, and when the file is opened, spread the virus throughout your computer. The virus will further spread if the infected file is shared with others.

Damage done by viruses includes:

- Corrupting files
- Computer slowdown
- Taking over basic functions of the operating system



Spyware

The main purpose of Spyware is to obtain information about an individual or company without their knowledge or consent. The data gathered from this act of “spying” is sometimes sent to another entity. It can also be used to gain control over one’s computer without the user realizing it. It is commonly used to track the user’s movements and bombard the user with pop-up ads.

Damage done by spyware includes:

- Collecting personal information
- Installing unsolicited software
- Redirecting web browsers
- Changing computer settings
- Slowing down Internet connection

Trojans

Trojans gain access into computers by misleading users as to what it is truly meant to do. They spread in sneaky ways. For example, a user may receive an email attachment that appears to be legitimate, but when they open it, it in fact, gives the attacker the opportunity to obtain the user’s personal information, such as banking details and passwords.

Damage done by Trojans includes:

- Crashing the computer
- Deleting files
- Corrupting data
- Logging keystrokes



Practical Illustration

Many employees at XYZ Company have noticed that their computers are moving slowly. Harry has complained that somehow the settings he previously had on his computer have changed. Also, when he types in a particular URL for a website, his browser takes him somewhere completely different. Tom notices that files that are supposed to be saved to his computer have been deleted. Harry and Tom go to their supervisor, Jerry, to inquire about what is going on. Jerry turns on his computer and observes similar issues.

Review Questions (Please watch video or listen to Audio for right answers)

1. How do worms work?
 - a. They are always downloaded as email attachments
 - b. They are automatically installed on every computer
 - c. They must attach themselves to existing programs in order to spread
 - d. They reproduce themselves to infect other computers

2. Which of the following does the lesson NOT list as damage that worms can cause?
 - a. Bandwidth consumption
 - b. Immobilizing Safe Mode
 - c. Corrupting files
 - d. Stopping active anti-malware service



3. When can infected files infect other computers?
 - a. When the file is shared with other computers
 - b. Whether or not the file is shared with other computers
 - c. They automatically infect other computers within the same network of the originally infected computer
 - d. Never

4. Which of the following does the lesson NOT list as damage that viruses can cause?
 - a. Computer slowdown
 - b. Corrupting files
 - c. Taking over basic functions of the operating system
 - d. Bandwidth consumption

5. Spyware is commonly used to bombard the user with:
 - a. Emails without attachments
 - b. Unsolicited text messages
 - c. Emails with attachments
 - d. Pop-up ads

6. Which of the following does the lesson NOT list as damage that Spyware can cause?
 - a. Crashing the computer
 - b. Collecting personal information
 - c. Installing unsolicited software
 - d. Redirecting web browsers



7. How do Trojans gain access to computers?
 - a. By being installed via a disk
 - b. By misleading the user of its true intention
 - c. By spreading via legitimate email attachments
 - d. None of the above

8. Which of the following does the lesson NOT list as damage that Trojans can cause?
 - a. Crashing the computer
 - b. Deleting files
 - c. Corrupting data
 - d. Redirecting web browsers

9. “Malware” is the shortened form of _____.
 - a. Malignant software
 - b. Malicious software
 - c. Maleficent software
 - d. None of the above

10. A computer _____ is an independent malware program that reproduces itself to infect other computers.
 - a. Virus
 - b. Worm
 - c. A and B
 - d. None of the above