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Computer Security Threats

Quick Heal Technologies Private Limited

Topics Of Today's Discussion

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- Basics Of Computer Security
- Consequences Of Ignoring Your Computer Security
- Threats that can Harm Your Computer
- How Do Bad Guys Compromise Your Computer Security
- Computer Security Actions
- How Quick Heal Takes Care Of Your Computer Security

Computer Security Basics

- **What is Computer Security?**
  - Computer Security is the protection of computing systems and the data that they store or access.

- **Very little in computing is inherently secure, you must protect yourself!**
  - Software cannot protect itself
  - Networks can be protected better than software

Computer Security Basics

Primary Reasons To Secure Your Computer

- To prevent theft of or damage to the hardware
- To prevent theft of or damage to information
- To prevent disruption of service

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Computer Security Basics

Key Areas Of Concern of Computer Security

- **Confidentiality -** Only authorized users can access the data resources and information.
- **Integrity -** Only authorized users should be able to modify the data when needed.
- **Availability -** Data should be available to users when needed.
- **Authentication -** The computer system should be able to verify the identity of a user.

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Consequences Of Ignoring Computer Security

Consequences Of Ignoring Computer Security

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- Loss Of Confidential Data
- Loss In Productivity
- Identity Theft
- Compromised Data Integrity
- Unavailability Of Access To Data Or Computer Network
- Lawsuits & Judicial Actions
- Termination Of Employment

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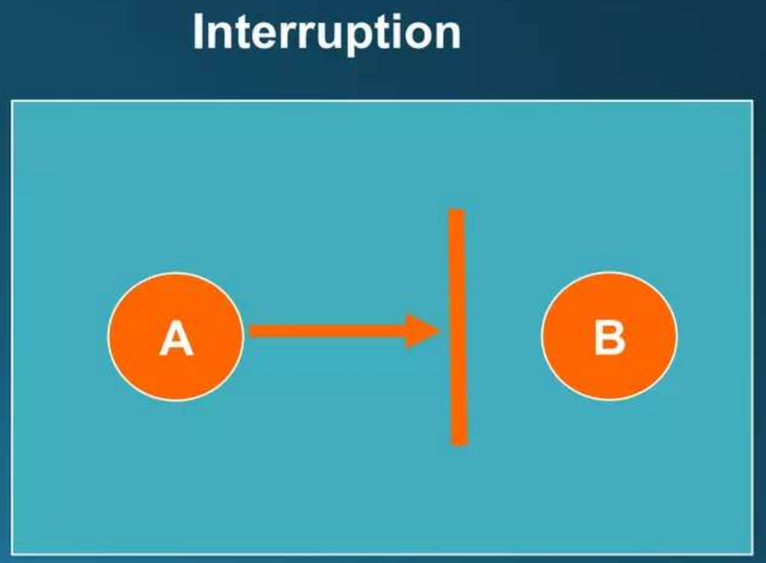
Types Of Computer Security Threats

Types Of Computer Security Threats

Interruption

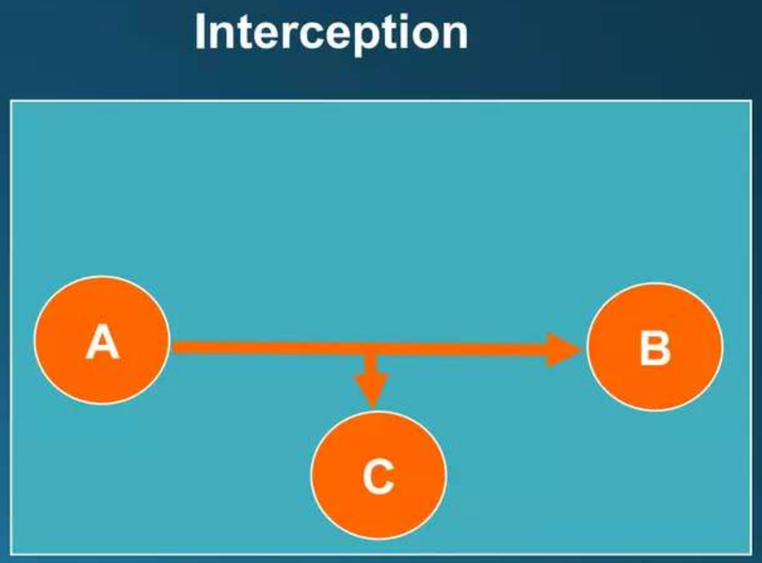
- An asset of the system becomes lost, unavailable, or unusable
- Attack on availability
- Destruction of hardware
- Cutting of a communication line
- Disabling the file management system



Types Of Computer Security Threats

Interception

- An unauthorized party gains access to an asset
- Attack on confidentiality
- Wiretapping to capture data in a network
- Illicit copying of files or programs



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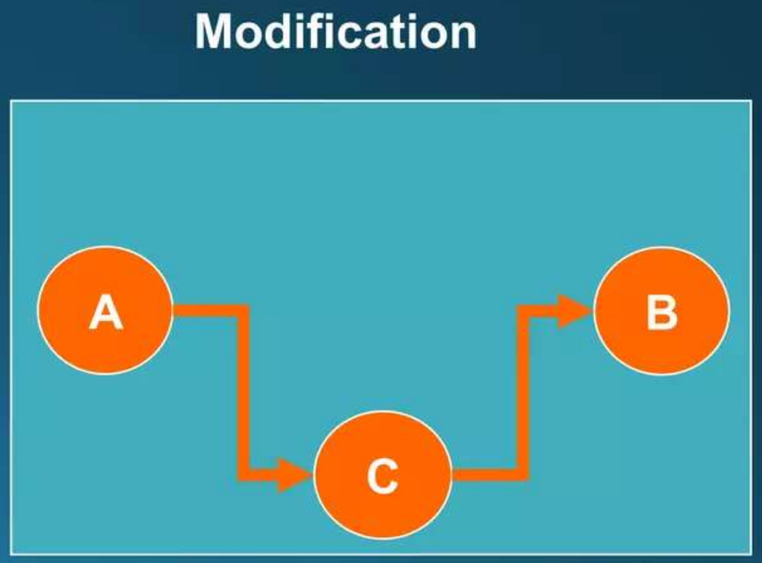
Types Of Computer Security Threats

Modification

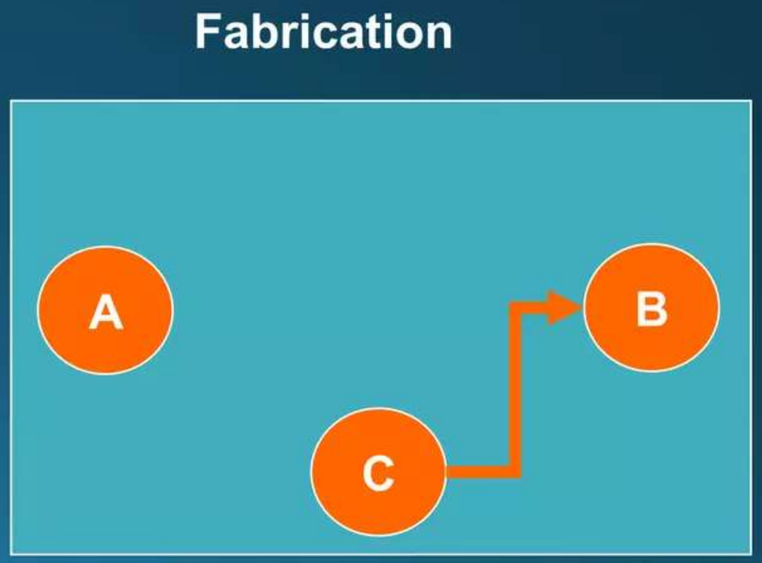
- An unauthorized party not only gains access but tampers with an asset
- Attack on integrity
- Changing values in a data file
- Altering a program so that it performs differently
- Modifying the content of messages being transmitted in a network



Types Of Computer Security Threats

Fabrication

- An unauthorized party inserts counterfeit objects into the system
- Attack on authenticity
- Insertion of spurious messages in a network
- Addition of records to a file



Types Of Computer Security Threats

Hardware

- Threats include accidental and deliberate damage

Software

- Threats include deletion, alteration, & damage
- Backups of the most recent versions can maintain high availability

Types Of Computer Security Threats

Data

- Involves files
- Security concerns for availability, secrecy, and integrity
- Statistical analysis can lead to determination of individual in formation which threatens privacy

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How Do Bad Guys Compromise Your Computer Security

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1. Social Engineering

Social engineering is a non-technical method of intrusion hackers use that relies heavily on human interaction and often involves tricking people into breaking normal security procedures.

Types Of Social Engineering

- Baiting
- Phishing
- Pretexting

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2. Reverse Social Engineering Attack

In this kind of cyberattack, the attacker convinces a user that they have a problem and that the attacker has a solution to the problem.

3. **Virus**

Virus is a program that replicates. It spreads from file to file on your system infecting them.

4. **Worm**

A worm is a standalone program that doesn't require user intervention to spread. Worms don't infect existing files – they spread copies of themselves instead.

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5. **Trojan**

Trojan horses pose as useful software, such as a legitimate program. Instead of being well-behaved software, a Trojan opens a backdoor on your system.

6. Ransomware

- Ransomware is a malicious program that performs the following malicious activities after infecting a computer.
  - Makes the system non-functional unless the victim agrees to pay a ransom.
  - Encrypts the computer's data and demands a ransom to release it to the victim.

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7. Spyware

A common computer security threat, spyware is a class of malicious program that secretly steals your personal information and sends it to advertisers or hackers.

8. Rogue Antivirus

A rogue antivirus, also known as scareware, is a fake program that disguises itself as a genuine software but performs malicious activities in user's machine.

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9.Rootkit

A rootkit is a program (or a collection of programs) that in itself is not harmful, but helps viruses and malware hide from antivirus software.

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Top Computer Security Actions

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Top Computer Security Actions

1. **Patch, Patch, Patch!**

   Set up your computer for automatic software and operating system updates. An unpatched machine is more likely to have software vulnerabilities that can be exploited.

2. **Install Security Software**

   When installed, the software should be set to scan your files and update your virus definitions on a regular basis.

3. **Choose Strong Passwords**

   Choose strong passwords with letters, numbers, and special characters to create a mental image or an acronym that is easy for you to remember. Create a different password for each important account, and change passwords regularly.

Top Computer Security Actions

4. Backup, Backup, Backup!

Backing up your machine regularly can protect you from the unexpected. Keep a few months' worth of backups and make sure the files can be retrieved if needed.

5. Control access to your machine

Don't leave your computer in an unsecured area, or unattended and logged on, especially in public places. The physical security of your machine is just as important as its technical security

6. Use email and the Internet safely

Ignore unsolicited emails, and be wary of attachments, links and forms in emails that come from people you don't know, or which seem "phishy." Avoid untrustworthy (often free) downloads from freeware or shareware sites.

Top Computer Security Actions

7. **Protect sensitive data**

   Reduce the risk of identity theft. Securely remove sensitive data files from your hard drive, which is also recommended when recycling or repurposing your computer. Use the encryption tools built into your operating system to protect sensitive files you need to retain.

8. **Use desktop firewalls**

   Macintosh and Windows computers have basic desktop firewalls as part of their operating systems. When set up properly, these firewalls protect your computer files from being scanned

9. **Use secure connections.**

   When connected to the Internet, your data can be vulnerable while in transit. Use remote connectivity and secure file transfer options when off campus

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How Quick Heal Takes Care Of Your Computer Security

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How Can Quick Heal Help

- Advanced DNAScan
- Safe Banking
- Core Protection
- Firewall
- Browser Sandbox
- Web Security
- Email Security
- Vulnerability Scanner

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