Welcome

ANTI-VIRUS

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What is a computer virus?

- Computer viruses are small software programs that are designed to spread from one computer to another and to interfere with computer operation.

- A virus might corrupt or delete data on your computer, use your e-mail program to spread itself to other computers, or even erase everything on your hard disk.

- Viruses can be disguised as attachments of funny images, greeting cards, or audio and video files.

What is a computer virus?

- Viruses are most easily spread by attachments in e-mail messages or instant messaging messages. That is why it is essential that you never open e-mail attachments unless you know who it's from and you are expecting it.

- Viruses also spread through downloads on the Internet. They can be hidden in illicit software or other files or programs you might download.

Types of Viruses

1. Boot sector viruses

2. Program viruses

3. Macro

Types other than Viruses

- **Virus Hoaxes**
- **Trojan Horses**
- **Worms**
- **Spam**
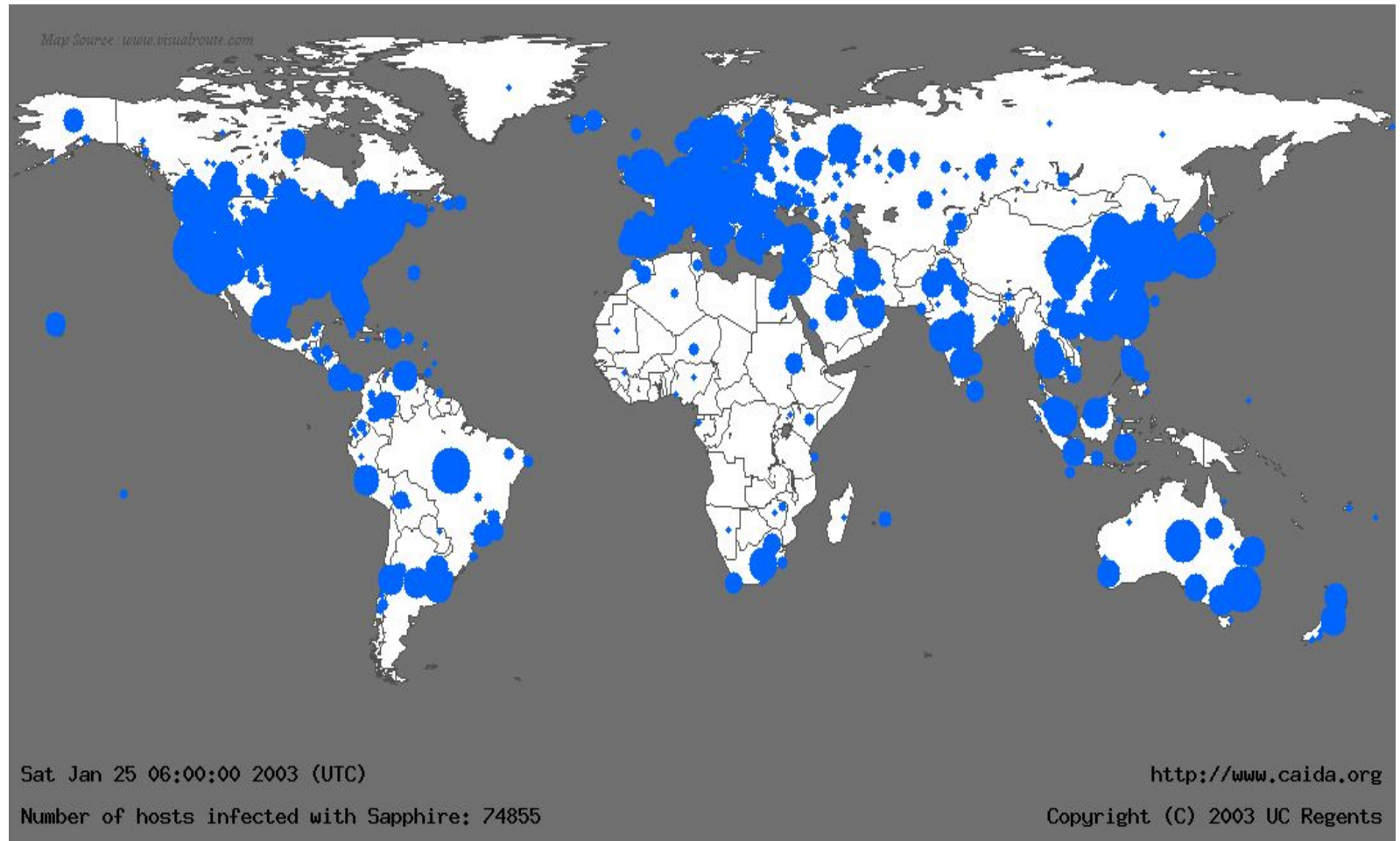- **Adware**
- **Spyware**
- **Malware**

What Should I do if I have a Virus?

- Clean your computer with *anti-virus* software. If your computer is still not functioning and you have data you are concerned about recovering, consider hiring a trusted expert. Often data can be successfully extracted from an injured hard drive, but the process is complex and will involve another computer, special software, and a technician with a lot of experience in data recovery.

Virus

Infection of more than 75,000 vulnerable computers in 10 minutes

Map Source : www.visualroute.com

Sat Jan 25 06:00:00 2003 (UTC)

Number of hosts infected with Sapphire: 74855

http://www.caida.org

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What is AntiVirus Software?

computer programs intended to Identify and Eliminate Computer Viruses.

What is an Anti-Virus?

- **Antivirus software is a class of program that searches a hard drive and floppy disk for any known or potential viruses.**
- **Antivirus program runs in the Random Accesses Memory of a computer.**
- <u>**Anti-virus software typically uses two different techniques to accomplish this**</u>**:**

    Examining files to look for known viruses by means of a virus dictionary.

    Identifying suspicious behavior from any computer program which might indicate infection.

    Most commercial anti-virus software uses both of these approaches, with an emphasis on the virus dictionary approach.

What is an Anti-Virus?

- Anti-virus is a software (computer program) that scans files or your computer's memory for certain patterns that may indicate an infection. The patterns it looks for are based on the signatures, or fingerprints, of known viruses. Once a virus is detected in the wild, the Anti-Virus companies then release these new patterns for your Anti-virus software to use. These updates come out daily by some vendors. Virus authors are continually releasing new and updated viruses, so it is important that you have the latest definitions installed on your computer.

What is an Anti-Virus?

- Once you have installed an anti-virus package, you should scan your entire computer periodically. Always leave your Anti-virus software running so it can provide constant protection.
- **Automatic scans-** Depending what software you choose, you may be able to configure it to automatically scan specific files or directories and prompt you at set intervals to perform complete scans.

What is an Anti-Virus?

- **Manual scans-** It is also a good idea to manually scan files you receive from an outside source before opening them.

   This includes: Saving and scanning email attachments or web downloads rather than selecting the option to open them directly from the source. Scanning floppy disks, CDs, or DVDs for viruses before opening any of the files

Two main types

- There are different types of antivirus software for different computers

  1. Some are designed for personal computers.

  2. Some are for servers and others for enterprises

- There are mainly two types of antivirus software: specific and generic

Types of Anti-virus product:

- Depending on the installation method of the Anti-Virus these can be in the following forms: *On-Access*, *On-Demand*, and *hardware*.

- Depending on the way they fix viruses these can be in the following forms: *Anti-Virus*, *Anti-spyware*, and *Anti-spam* Applications.

How does an Anti-Virus works?

- Anti-virus applications maintain a database of known viruses and compare scanned files that match the characteristics of known viruses. If a scanned files matches those characteristics of known viruses. If a scanned file matches those characteristics, it is quarantined (which means moved to a new, presumably safe location on disk and renamed, so you can find it should you ever need it) so that it cannot affect other files on your system.

How does an Anti-Virus works?

- Signature detection is just one way of identifying viruses and is only effective if the virus database is up-to-date and contains the signature of a virus. Anti-virus programs also attempt to identify suspicious behavior include an application attempting to write to an executable file, altering needed system files, making suspicious registry entrees, or adding to the list of items that execute automatically upon system start up.

How does an Anti-Virus works?

- Once the file is quarantined, the application can attempt to repair it, delete it, or prompt you for a decision on what to do about the file infected.

- This approach helps protect against unidentified or encrypted viruses and can alert you to suspicious behavior happening on your computer. This interesting is an area where anti-spyware/anti-adware and anti-virus software often notice the same kinds of activities, because they are typical for adware and spyware as well as malware

How Antivirus Software

Source System

Destination System

Interception

Disinfection

Alert
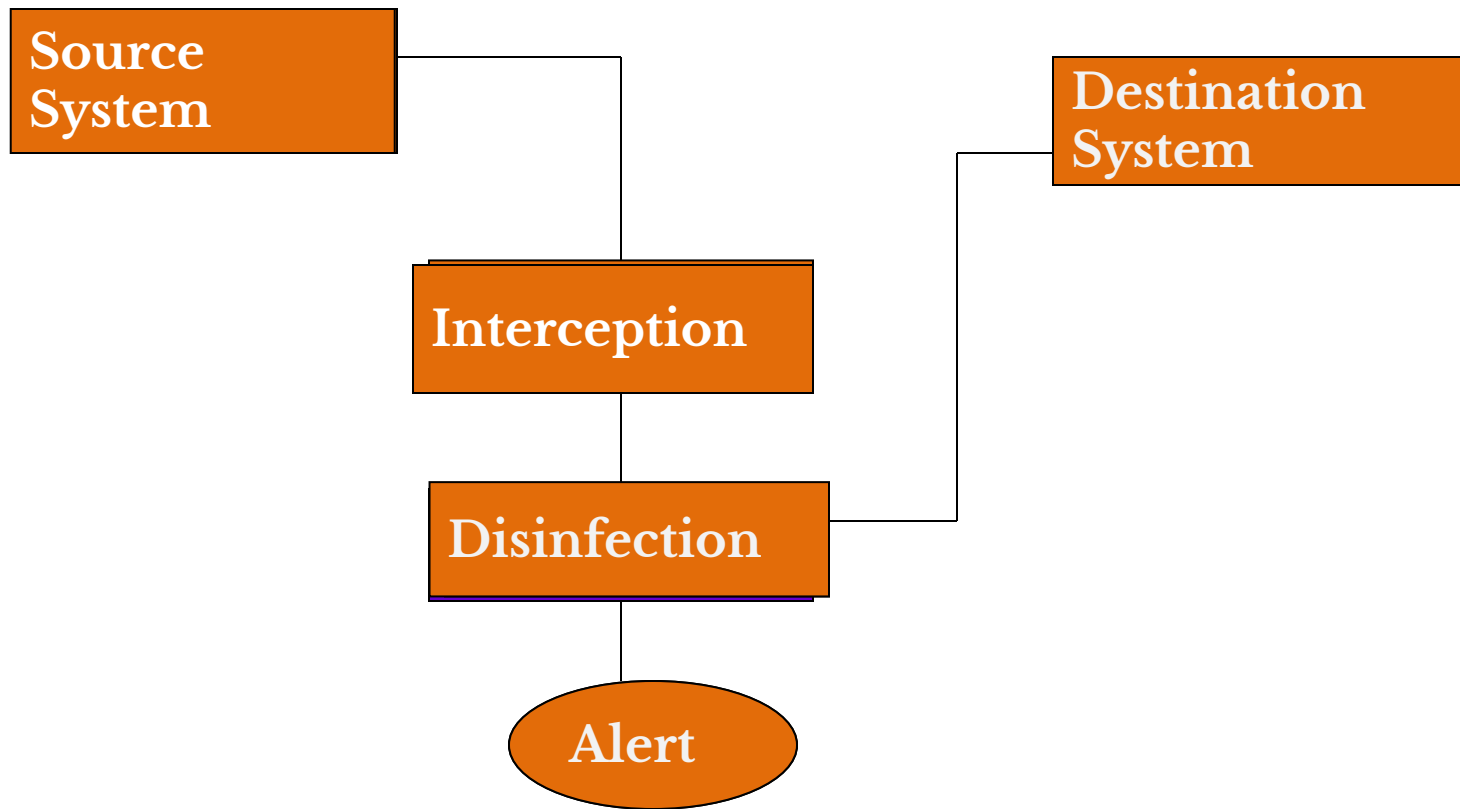
Why didn't my antivirus software work?

- It's crucial to keep your antivirus software current with the latest updates (usually called definition files) that help the tool identify and remove the latest threats.

- In addition, not all antivirus tools are the same; if you find that the one you use isn't working to your satisfaction, you should do some research and try an alternative.

How do I install and updates antivirus software if I can't use my computer?

- It might be difficult to download tools or update your computer if your computer has a virus. In this case, use a friend's or other computer to download the tools to a disk

History of

Back in 1988 viruses grabbed the mass media attention and some of the best researchers in
the antivirus world begun their work before 1989. So 1988 was the year
n which antivirus
comerciants emerged.

- Antivirus Plus (Iris)
- Certus (Certus International)
- Data Physician (Digital Dispatch)
- Turbo Antivirus (Carmel)
- Thunder Byte (ESaSS)
- Vaccine (Sophos)
- Vaccine (World Wide Data)
- Virex-PC (Microcom)
- Virucide (McAfee's

- ViruScan (McAfee)
- Prot (Frisk Software)
- V-Analyst (BRM)
- Dr. Solomon's Anti-Virus Toolkit (S&S)
- Vet (Cybec)
- Virus Buster (Hunix)
- Virscan (IBM)
- Vi-Spy (RG Software

Some Examples of Antivirus Software's…

[Bit Defender](): Easy to install and download processes, Real-time protection from spyware, malware and viruses, automatic hourly updates, Minimal use of system resources, Anti-phishing tools.

[Kaspersky Antivirus](): Kaspersky includes important anti-virus software functions such as real-time email, file and web scanning, as well as the ability to remove spyware
[NOD32](): The NOD32 anti-virus software by ESET is a novel virus program that provides real-time protection against worms, Trojans, spyware, malware, phishing and hackers.

[Panda Antivirus](): Download and install process is smooth and fast. Panda's Antivirus software comes with an virus and spyware protection. Panda allows you to block, delete, clean, and quarantine infected files and does not slow your pc down during virus scans which is helpful to those constantly on your PC.
[Trend Micro](): It is anti-virus plus Anti-spyware now gives its customers the tools it needs to battle malicious spyware, amongst things like trojans, hackers, worms, and adware.

The Best Defense

- This years best defense against computer viruses, spyware, hackers and spam is an antivirus program called BitDefender.

- Has a user-friendly interface that scans all existing files on your computer, all incoming and outgoing emails, and even IM transfers.

- Features include privacy protection and web scanning for internet use. a years subscription is about $24.99.
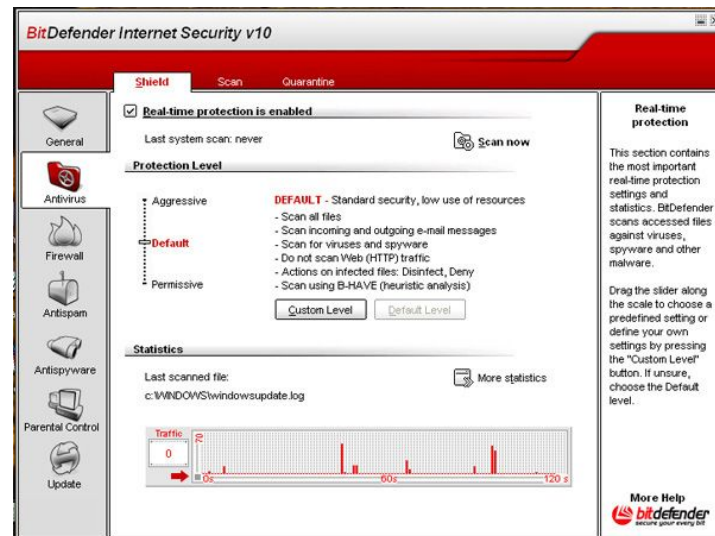
NAV
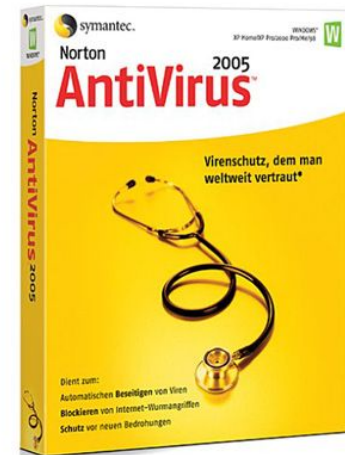
- The most widely used software is the Norton Antivirus. (NAV)
- Since its release in 1990, over 100 million people around the world have used it.
- It's a free program but in order to receive live updates, a valid subscription is needed.
- A yearly subscription is only $29.99.

McAfee

- McAfee Virus Scan is another popular antivirus program.
- It's designed for home and home-office use.
- It's used specifically on a Microsoft Windows platform.
- The 2007 edition includes a number of features including on access file sharing, inbound and outbound firewall protection, and daily definition updates.

Sophos

- Sophos Antivirus is an antivirus and anti-spyware program that is primarily aimed at corporate environments or businesses.
- Includes a number of security tools and advice.
- Also includes 24/7 support including upgrade alerts.
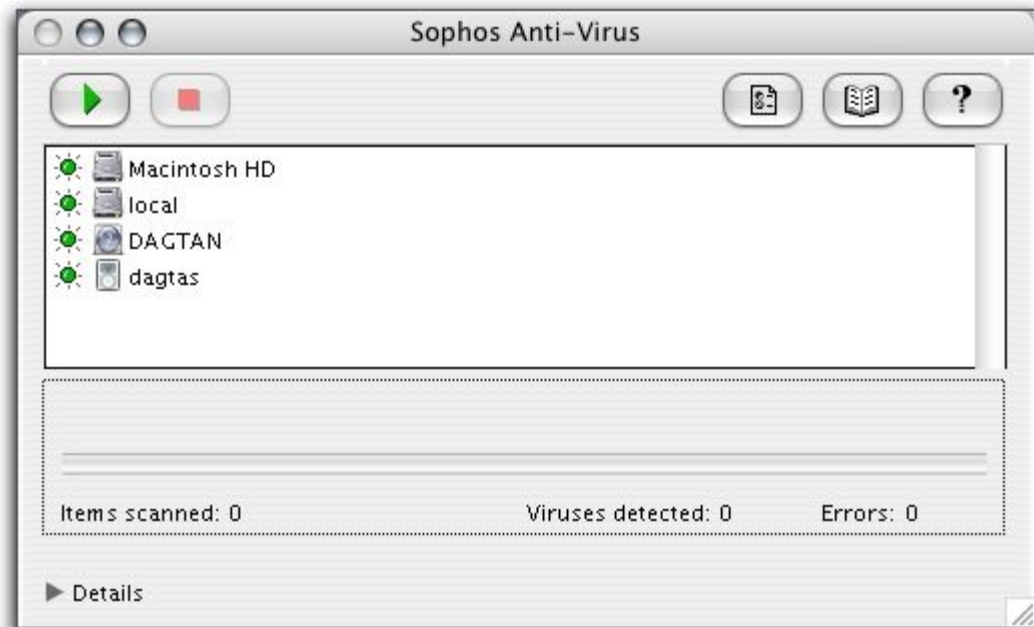
Kaspersky

- For the average home user and advanced users the Kaspersky antivirus software has an easy to use interface.

- The program uses 3 tabs for protection, settings and support.

- It updates itself on an hourly basis and is one of the fastest antivirus programs available.

- However, quality comes at a price and year subscription is $49.99.
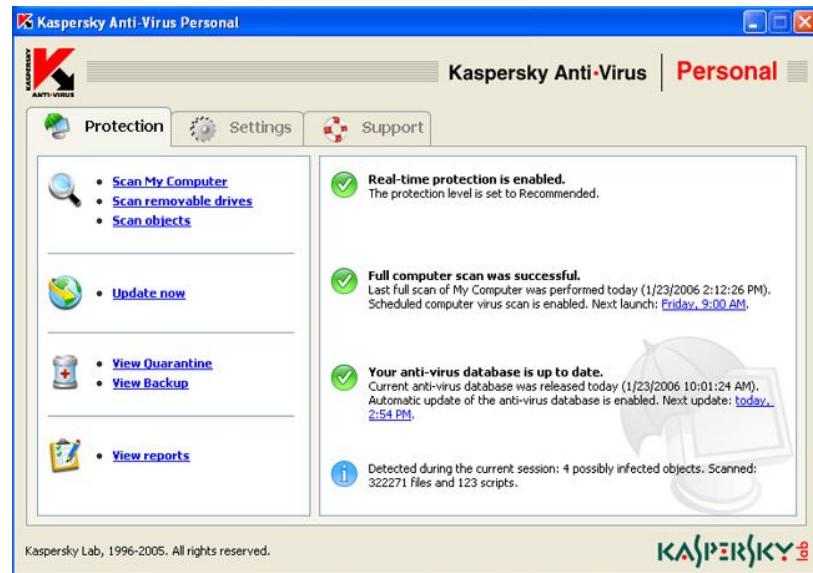
In Summary:

- If it sounds to good to be true….It probably is!
- Never let your guard down!
- Treat your password and like a toothbrush…

   change it every 3 months and don't let anyone else use it.!

- Don't be paranoid…Just aware!

Sources:

http://www.antivirusworld.com/articles/history.php

http://www.articlesbase.com/information-technology-articles/antivirus-history-277310.html

http://videos.howstuffworks.com/harvard-extension-schools-computer-science-e-1-understand/2736-desktop-firewalls-video.htm

Useful Links

http://www.ftc.gov/index.html

http://www.antiphishing.org

http://www.bbb.org

http://www.microsoft.com/security

http://search.aladdin.com

http://www.privacyrights.org

Thanks

Q