Cyber Security

MVK





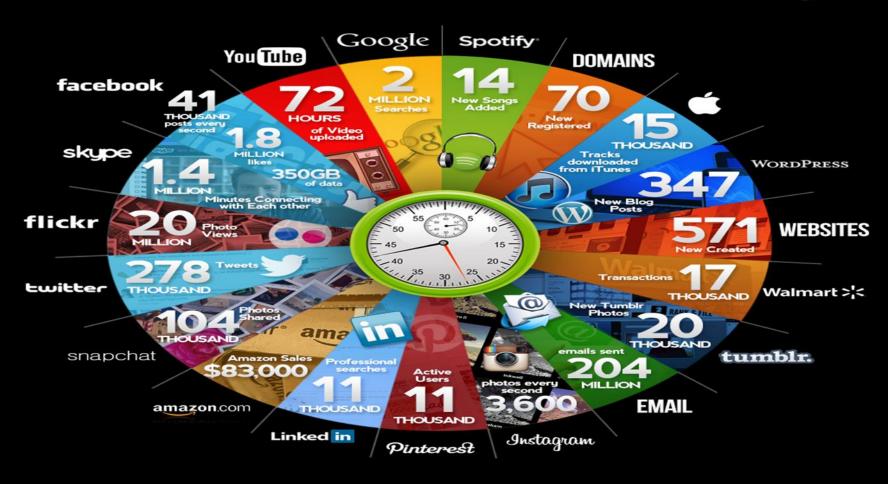




ON THE INTERNET, WE ALL KNOW THINGS CAN MOVE AT A LIGHTNING-FAST PACE.

IN JUST A MINUTE, YOU CAN READ THROUGH AND COMPOSE A FEW TWEETS ALONG WITH LOOK AT DOZENS OF FACEBOOK PHOTOS. THAT SAID, WE'VE PULLED TOGETHER THIS INFOGRAPHIC TO GIVE YOU AN UPDATED VIEW OF EVERYTHING THAT HAPPENS ONLINE IN 60 SECONDS DURING 2013.









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Computer security (also known as cyber security or IT security) is information security as applied to computing devices such as computers and smartphones, as well as computer networks such as private and public networks, including the whole Internet.

The field covers all the processes and mechanisms by which computer-based equipment, information and services are **protected from unintended or unauthorized access, change or destruction**, and is of growing importance in line with the increasing reliance on computer systems of most societies worldwide.

To understand the techniques for securing a computer system, it is important to first understand the various types of "attacks" that can be made against it.

These threats can typically be classified into one of these seven categories:

- 1. Backdoors;
- 2. Denial-of-service attack;
- 3. Direct access attacks;
- 4. Eavesdropping;
- 5. Exploits;
- 6. Indirect attacks; and
- 7. Social engineering and human error

A computer system is no more secure than the persons responsible for its operation. Malicious individuals have regularly penetrated well-designed, secure computer systems by taking advantage of the carelessness of trusted individuals, or by deliberately deceiving them, for example sending messages that they are the System Administrator and asking for passwords. This deception is known as "Social Engineering". The main target is to convince the user by means of

psychological ways to disclose his or her personal information such as passwords, card numbers, etc. by, for example, impersonating the Services Company or the Bank.

Computer security is critical in almost any technology-driven industry which operates on computer systems. The issues of computer based systems and addressing their countless vulnerabilities are an integral part of maintaining an operational industry.

Lightning, power fluctuations, surges, brownouts, blown fuses, and various other power outages instantly disable all computer systems, since they are dependent on an electrical source. Other accidental and intentional faults have caused significant disruption. Dependence on unreliable communication and electrical power jeopardizes computer safety.

Firewalls are an important method for control and security on the Internet and other networks. A network firewall can be a communications processor, typically a router, or a dedicated server, along with firewall software. A firewall serves as a gatekeeper system that protects a company's intranets and other computer networks from intrusion by providing a filter and safe transfer point for access to and from the Internet and other networks. It screens all network traffic for proper passwords or other security codes and only allows authorized transmission in and out of the network.

Firewalls can deter, but not completely prevent, unauthorized access (hacking) into computer networks; they can also provide some protection from online intrusion.

Definition of Cyber warfare

"Actions by a nation-state to penetrate another nation's computers or networks for the purposes of causing damage or disruption".

"It is a new domain in warfare"

Malware Terminology

Worms – software that spreads on own with harmful consequences

Virus – malware attached to other software (e.g. email attachment)

Trojan Horse – software that appears to be positive but have harmful effects

Logic bomb – software planted to activate at a later date/time with harmful consequences

2007 cyber attacks on Estonia (Cyber War 1)

Cyber attacks on Estonia are a series of cyber attacks that began on 27 April 2007 and swamped websites of Estonian organizations, including Estonian parliament, banks, ministries, newspapers and broadcasters, amid the country's disagreement with Russia.

Most of the attacks that had any influence on the general public were **denial of service type attacks** ranging from single individuals to spamming of bigger news portals, commentaries, and defacements including that of the Estonian Reform Party website .