# Computer security software​

Computer security software is any computer program designed to influence information security.​

The defense of computers againts unauthorized use is called computer security. But defense of computer networks is called network security.​

# Types of computer security software​

To prevent access​

To regulate access ​

To monitor access ​

To block or remove malware

To prevent access

## Cryptography

* is synonymous with encryption.
* Cryptography has been used for many millennia to hide the meaning of information from those to whom it is not addressed.
* Cryptography is experiencing a major boom due to modern communication technologies, which require great emphasis on the security of data such as passwords of users of Internet services, payment and credit card numbers, and sensitive personal data.

Steganography

* is the practice of concealing a message withni another message or a physical Steganography (Greek: steganós-concealed, gráphein-psát) is a discipline (a subfield of cryptography) dealing with the concealment of communication by hiding a message.
* The message is hidden so that the observer is unaware that the communication is even taking place.
* The strength of this communication stands and falls on its secrecy (this is called security through obscurity), and therefore intercepting a hidden message is effectively breaking it.
* To ensure that even then the content of the message is not disclosed, it is usually combined with other encryption methods.

To regulate access

* Access control is any kind of authentication or authorization.

## Firewall

* Firewalls are software programs or hardware devices that filter and examine information coming through an Internet connection.
* They are the first line of defense because they can prevent a malicious program or attacker from gaining access to the network and information before any damage is done.
* However, there are multiple types of firewalls.
* To best protect yourself at home and on the go, it's important to understand the difference between hardware and software firewalls.

# To monitor access​

* ​**Diagnostic program** is and automatic computer program sequence that determines the operational status within the software, hardware etc.
* Diagnostic programs provide user with any issues or problems found during the diagnosis.
* **Log managament** software deals with large amount of computer-generated log messages.

# To block or remove malware

* Any antivirus (Windows Defender, BitDefender, Avast, ESET)

Antivirus software

* was, in its early days, simple software that detected and eventually removed computer viruses from an infected device.
* This helped to stop the further spread of malicious code.
* Today, antivirus programs incorporate modern technology and have many layers of security to protect against different types of threats.
* This is the only way they can provide the highest security to the user.

## Malware

* Malware is an umbrella term for any type of malicious software that aims to damage or misuse any programmable device, service or network.
* It is usually used by cybercriminals to extract data and thereby put pressure on victims for financial gain.
* This data can include financial data, medical records, personal emails and passwords - the possibilities are endless when it comes to what kind of information can be compromised.

# WHAT ARE THE MOST COMMON COMPUTER SECURITY THREATS?

* Installing Unverified Software
* When people don't understand the ramifications of installing unverified software, they open their computer up to potential attacks. For example, they might download a free desktop application, which unknowingly installs spyware or a browser toolbar along with the application.

# UNKNOWN AND DANGEROUS APPLICATIONS​

* + Instalací neověřeného softwaru se vystavujete nebezpečí:
  + Trojské koně
  + Spyware
  + virům
  + a mnoho dalšího

# Trojan Horse

* A Trojan horse is a user-hidden part of a program or application with a feature that the computer owner disagrees with (typically malicious activity).
* The name Trojan Horse comes from the ancient story of the conquest of Troy.
* A Trojan horse can be a standalone program that pretends to be useful - for example, a game, a screensaver, or some simple utility. Screensavers with erotica or pornography are common.
* Sometimes the Trojan masquerades as a malware removal program (it may even work as such, removing competing malware).
* However, this functionality serves only as a disguise for the malicious activity that the Trojan hides.

# Spyware

* Spyware is a type of malware that is very difficult to detect. It surreptitiously collects information about your online behaviour, browsing history or other personal information (such as credit card numbers).
* It also often sends this information to third parties over the Internet without your knowledge.
* A keylogger is a type of spyware that allows you to eavesdrop on everything you type on your keyboard.