



# LESSON 5

## E-LEARNING

# POINT 1. THE INTERNET STRUCTURE

The main stages of Internet development:

ARPANET (Advanced Research Projects Agency net)

NFSNET (National Fond for Science net)

NFSNET Backboon - INTERNET  
Internet is a global net.

# POINT 1. THE INTERNET STRUCTURE

Structure:

Internet consists of local nets.

There are 3 categories of computers:

Hosts (nodes) handle the client access.

Servers provide information.

Clients use information.

# POINT 1. THE INTERNET STRUCTURE

Every host or host group of Internet is served by some organization (provider).

## Servers

WEB (World Wide Web)- for work with WWW

Mail – for receiving and transmitting the mail

FTP (file transfer protocol) – for file storage which are used for client download

NNTP (network news transfer protocol) – for teleconferencing- and news service

DNS (domain name system) – for converting the letter (domain) addresses into IP-addresses

## POINT 2. THE MAIN PRINCIPLES OF NETWORK

- ◆ No rules and limits to presentation of information
- ◆ Information interchange between all the computers
- ◆ No limits to computer type and OS
- ◆ No hierarchy between PC connected to the Internet



## POINT 2. THE MAIN PRINCIPLES OF NETWORK

### IP-addressing

Every computer connected has its IP-address.

IP-address is a group of numbers (dotted decimal or octat). A dotted decimal is 1 byte of 32-bits address and cannot be more then 255.

The 32-bits address has 2 parts: net number and host number.

## POINT 2. THE MAIN PRINCIPLES OF NETWORK

Dynamic address is an IP-address given automatic and used during limited time period.

For example, 108.25.17.100

## POINT 2. THE MAIN PRINCIPLES OF NETWORK

### Domain addressing

Domain address (URL – uniform resource locator) is a symbol (letter) group of domains with points.

There is a hierarchy. The 1.st level domain is the last one. It is an organization type or country. The 2.nd level domain is often an organization activity character. The 3.d level domain is a computer name (gov, mil, edu, com, org, net)



## POINT 2. THE MAIN PRINCIPLES OF NETWORK

DNS is a method of address hierarchy construction in the net and a mechanism of getting an IP-address.

IP-address ↔ DNS ↔ URL

*85.156.231.62*

*<http://www.vedu.ru>*