



Internet qanday ishlaydi

4-oy 2- dars



Kalit so'zlar

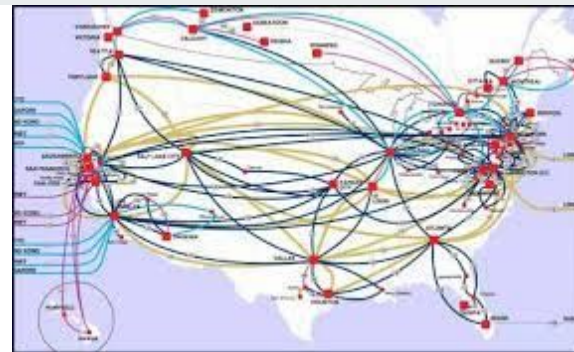
- 1) Internet tushunchasi
- 2) IP address
- 3) DNS

INTERNET TUSHUNCHASI?

INTERNET(INTER NET) - inter connected networks(o'zaro bog'langan tarmoqlar)

“the network of networks”

Internet - bu duynoning turli burchaklarida joylashgan va ma'lumot olish uchun mo'ljallangan aloqa kanallari orqali bir-biriga ulangan ko'plab kompyuterlardir, qisqa qilib aytganda server va mijozdan(client) iborat global tarmoq



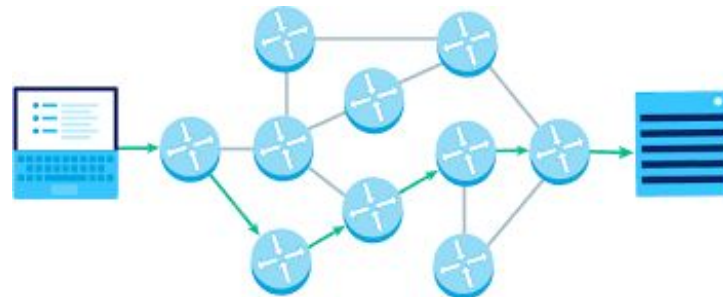
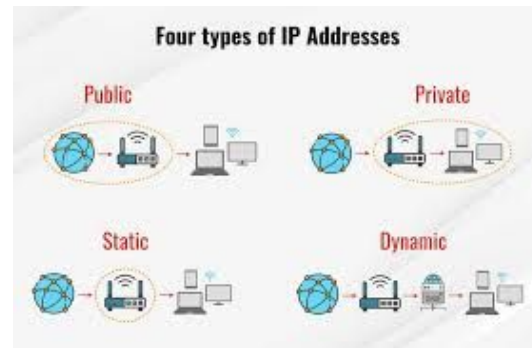
IP - internet protocol

ip - internet protocol

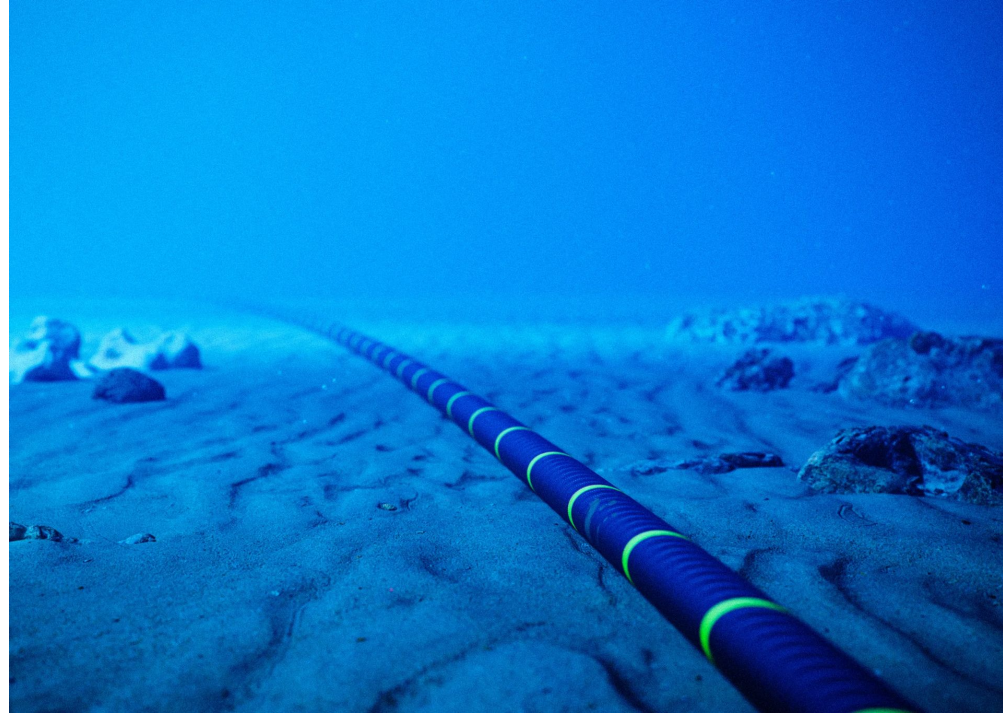
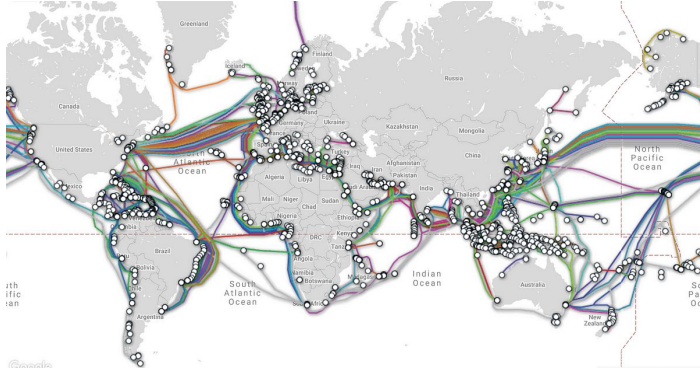
ip address - har bir qurilma uchun alohida unique bo'lgan manzili hisoblanadi(tarmoq manzili)

###.

#>>> (0, 255) oraliqda sonlar qabul qiladi

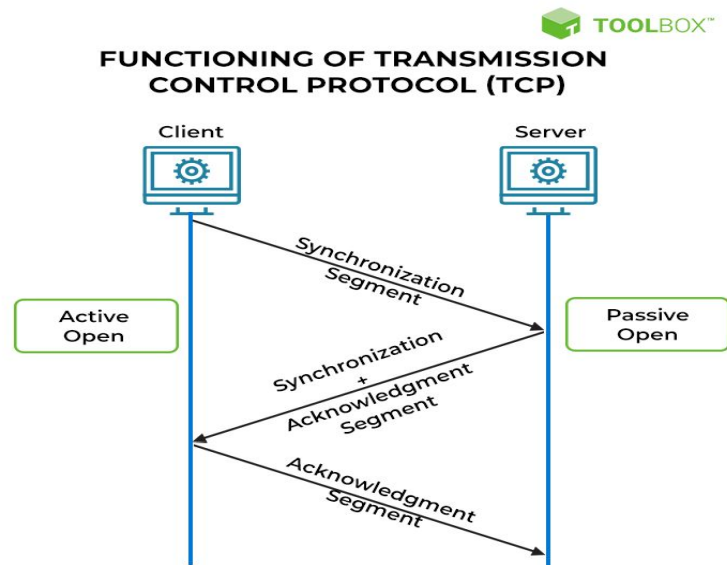


Optik tolali simlar



TCP - Transmission Control Protocol

TCP - ma'lumotlarimizni yetib borishini ta'minlovchi protocol





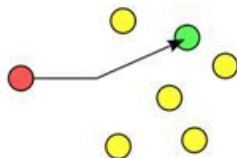
TCP

- **Slower but reliable transfers**
- **Typical applications:**
 - Email
 - Web browsing

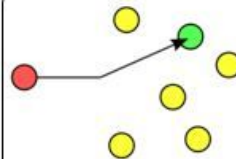


UDP

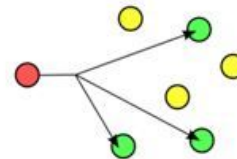
- **Fast but non-guaranteed transfers (“best effort”)**
- **Typical applications:**
 - VoIP
 - Music streaming



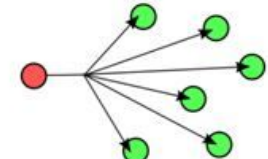
unicast



unicast



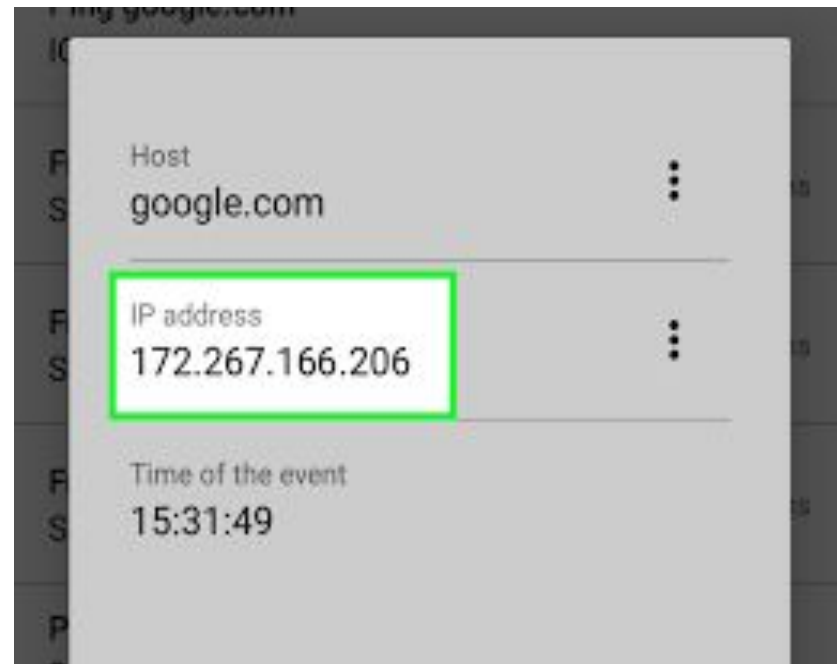
multicast



broadcast

DNS - Domain Name System

IP address bu tarmoqlar uchun bo'lsa DNS biz ya'ni insonlar uchun kerak bo'ladigan nom hisoblanadi, ya'ni biz sonlardan ko'ra qisqa va tushunarli so'zlarni eslab qo'lishimiz oson bo'lganligi uchun Domain name lardan foydalanamiz





nslookup

nslookup - bu sizga domain namelarizni e'lon qilish orqali sizga ip address qaytaradi

>>> **nslookup google.com**



Network Ports

bitta computerda bir nechta service ishlab turishi mumkin bunday holatda kelayotgan ma'lumot qaysi qaysi bir service ga borish kerakligini aytish kerak bo'ladi bunda bizga port lar kerak bo'ladi

Port #	Application Layer Protocol	Type	Description
20	FTP	TCP	File Transfer Protocol - data
21	FTP	TCP	File Transfer Protocol - control
22	SSH	TCP/UDP	Secure Shell for secure login
23	Telnet	TCP	Unencrypted login
25	SMTP	TCP	Simple Mail Transfer Protocol
53	DNS	TCP/UDP	Domain Name Server
67/68	DHCP	UDP	Dynamic Host
80	HTTP	TCP	HyperText Transfer Protocol
123	NTP	UDP	Network Time Protocol
161,162	SNMP	TCP/UDP	Simple Network Management Protocol
389	LDAP	TCP/UDP	Lightweight Directory Authentication Protocol
443	HTTPS	TCP/UDP	HTTP with Secure Socket Layer

HTTP REQUEST

Method URL Protocol Version



Headers

```
GET /index.html HTTP/1.1
Host: www.example.com
User-Agent: Mozilla/5.0
Accept: text/html, */*
Accept-Language: en-us
Accept-Charset: ISO-8859-1, utf-8
Connection: keep-alive
```

Body
(optional)

blank line



Http Response

```
tbbloncar ~ $ curl -I -L www.google.com
HTTP/1.1 200 OK
Date: Mon, 05 Aug 2013 05:24:07 GMT
Expires: -1
Cache-Control: private, max-age=0
Content-Type: text/html; charset=ISO-8859-1
Set-Cookie: PREF=ID=5084975cad717484:FF=0:TM=1375680247:LM=1375680247:S=xu54T3Db
RLjnLPmW; expires=Wed, 05-Aug-2015 05:24:07 GMT; path=/; domain=.google.com
Set-Cookie: NID=67=q8LoulouULr0e-MJAD2njBnAPPoaWGxTTia-sPafoZBkL5h0_09uvsxxTsTLRc
dYnIkbJS3Gv4jM3N0DkVFFdGkJomIc9F3BXH9W2ZT7bM91Z8-i7KKc5Ah2bDLXpKNBs; expires=Tue
, 04-Feb-2014 05:24:07 GMT; path=/; domain=.google.com; HttpOnly
P3P: CP="This is not a P3P policy! See http://www.google.com/support/accounts/bi
n/answer.py?hl=en&answer=151657 for more info."
Server: gws
X-XSS-Protection: 1; mode=block
X-Frame-Options: SAMEORIGIN
Transfer-Encoding: chunked
```

HTTP Status Codes



1XX
INFORMATIONAL

2XX
SUCCESS

3XX
REDIRECTION

4XX
CLIENT ERROR

5XX
SERVER ERROR



netcat- netcat orqali web sahifaga http request jo'natishda foydalanamiz

>>> netcat -v host port

GET /HTTP/1.1

Host: host

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