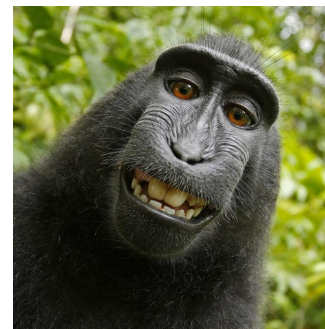


Becco



Mapmo



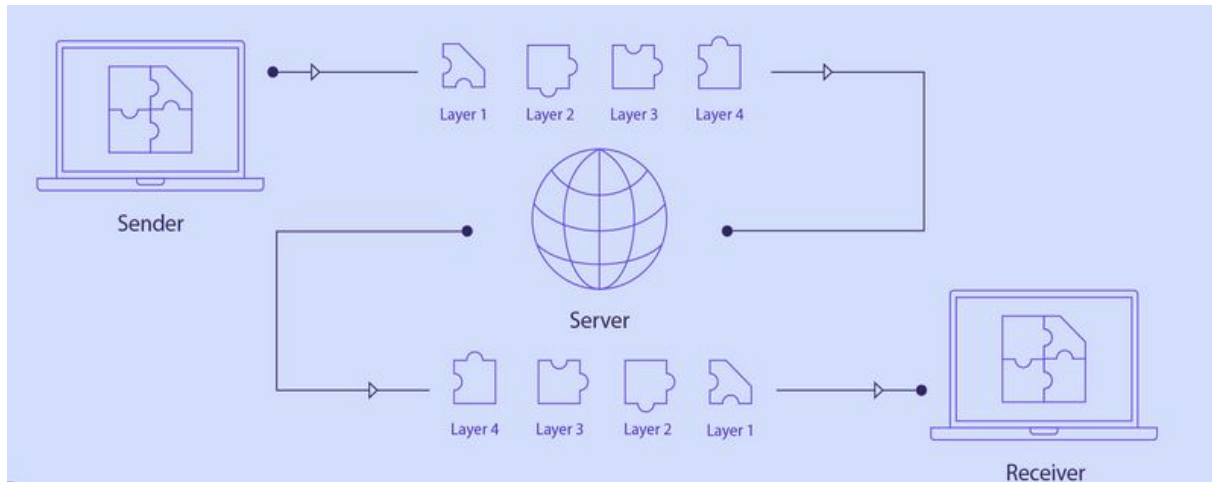
Muxu



Kamu



Какво е TCP?



"Hi, I'd like to hear a TCP joke."
"Hello, would you like to hear a TCP joke?"
"Yes, I'd like to hear a TCP joke."
"OK, I'll tell you a TCP joke."
"Ok, I will hear a TCP joke."
"Are you ready to hear a TCP joke?"
"Yes, I am ready to hear a TCP joke."
"Ok, I am about to send the TCP joke. It will last 10 seconds, it has two characters, it does not have a setting, it ends with a punchline."
"Ok, I am ready to get your TCP joke that will last 10 seconds, has two characters, does not have an explicit setting, and ends with a punchline."
"I'm sorry, your connection has timed out. ...
Hello, would you like to hear a TCP joke?"

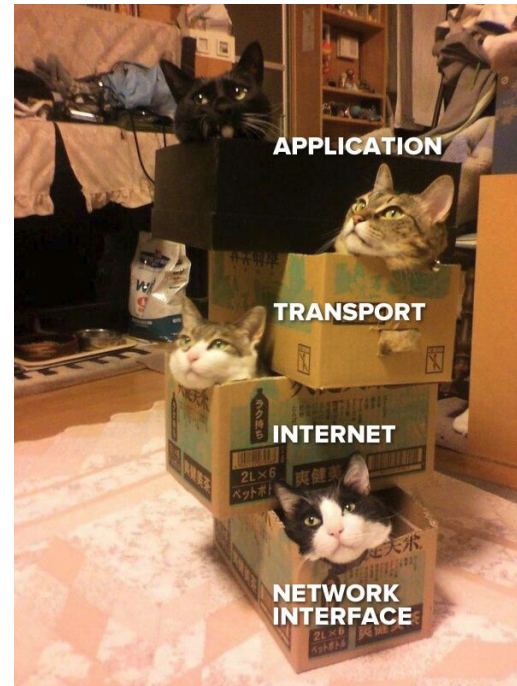
- Надеждност
- Контрол на потока
- Пълен дуплекс

The TCP Stack Model

OSI Model

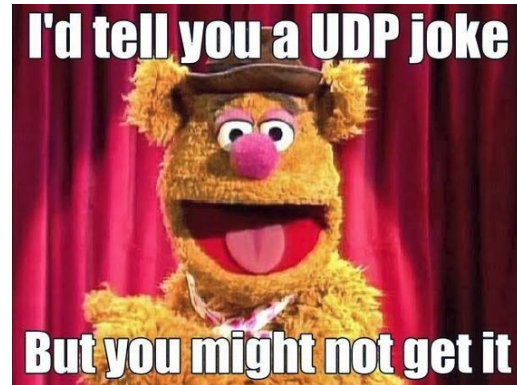
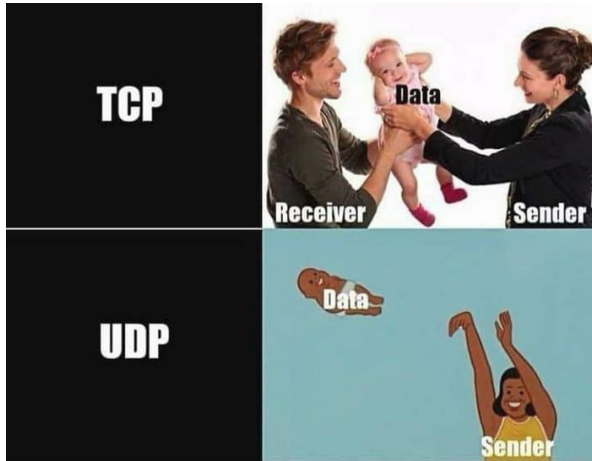
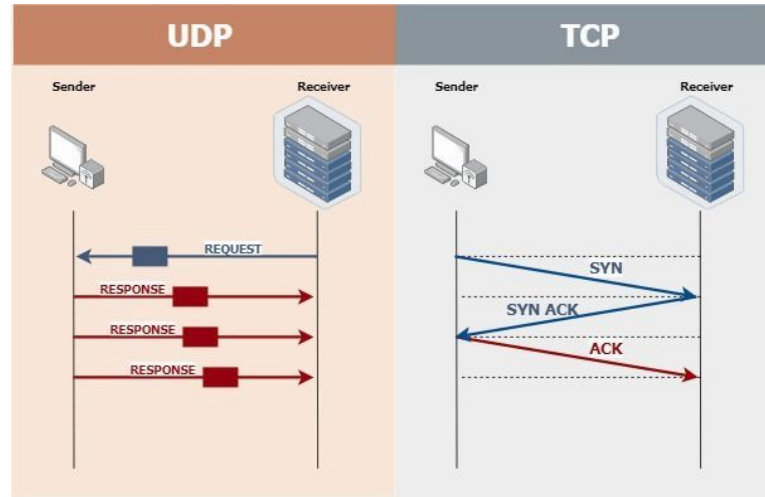


TCP/IP Model



TCP vs UDP

- Проверка за грешки
- Предаване на данни
- Контрол на потока
- Дължина на header



Wireshark фильтри



Display
filter

Apply a display filter ... <Ctrl-/>

No.	Time	Source	Destination	Protocol	Length	Info
11...	454.610432	2a03:2880:f201:...	2601:1c0:cf00:...	TLSv1.2	105	Encrypted Alert
11...	454.610432	2a03:2880:f201:...	2601:1c0:cf00:...	TCP	74	443 → 60522 [FIN, ACK] Seq=...
11...	454.610477	2601:1c0:cf00:8...	2a03:2880:f20...	TCP	74	60522 → 443 [RST, ACK] Seq=...
11...	454.616387	AsustekC_35:e4:...	IntelCor_38:b...	ARP	42	Who has 192.168.29.250? Tel...
11...	454.616412	IntelCor_38:be:...	AsustekC_35:e...	ARP	42	192.168.29.250 is at 7c:5c:...
11...	454.629407	2a03:2880:f201:...	2601:1c0:cf00:...	TLSv1.2	660	Application Data
11...	454.629604	2601:1c0:cf00:8...	2a03:2880:f20...	TLSv1.2	105	Encrypted Alert
11...	454.629865	2601:1c0:cf00:8...	2a03:2880:f20...	TCP	74	60533 → 443 [FIN, ACK] Seq=...
11...	454.649158	2a03:2880:f201:...	2601:1c0:cf00:...	TLSv1.2	105	Encrypted Alert

> Frame 4650: 54 bytes on wire (432 bits), 54 bytes captured (432 bits) on interface 0
 > Ethernet II, Src: IntelCor_38:be:bd (7c:5c:f8:38:be:bd), Dst: AsustekC_35:e4:c8 (1c:87:2c...
 > Internet Protocol Version 4, Src: 192.168.29.250, Dst: 23.92.23.135
 > Transmission Control Protocol, Src Port: 60424, Dst Port: 443, Seq: 2428, Ack: 931, Len:

traffic-for-wireshark-column-setup.pcap

Apply a display filter ... <Ctrl-/>

Time	Src	Port	Dst	Port	Host	Server Name
2018-08-03 19:06:20	192.168.10.195	62006	192.168.10.1	53		
2018-08-03 19:06:20	192.168.10.1	53	192.168.10.195	62006		
2018-08-03 19:06:20	192.168.10.195	49714	192.0.79.32	80		
2018-08-03 19:06:20	192.0.79.32	80	192.168.10.195	49714		
2018-08-03 19:06:20	192.168.10.195	49714	192.0.79.32	80		
2018-08-03 19:06:20	192.168.10.195	49714	192.0.79.32	80	college.usatoday.com	

> Frame 1: 80 bytes on wire (640 bits), 80 bytes captured (640 bits)
 > Ethernet II, Src: HewlettP_1c:47:ae (00:08:02:1c:47:ae), Dst: Netgear_b6:93:f1 (20:e5:2a:b6:93:f1)
 > Internet Protocol Version 4, Src: 192.168.10.195, Dst: 192.168.10.1
 > User Datagram Protocol, Src Port: 62006, Dst Port: 53
 > Domain Name System (query)

0000 20 e5 2a b6 93 f1 00 08 02 1c 47 ae 08 00 45 00 ...*.....G...E.
 0010 00 42 77 31 00 00 80 11 2d 65 c0 a8 0a c3 c0 a8 ...Bw1.....-e.....
 0020 0a 01 f2 36 00 35 00 2e ae 31 df 27 01 00 00 01 ...:6.5...1.....
 0030 00 00 00 00 00 00 07 63 6f 6c 6c 65 67 65 08 75 ...:c college u
 0040 73 61 74 6f 64 61 79 03 63 6f 6d 00 01 00 01 ...saturday.com.....

traffic-for-wireshark-column-setup.pcap | Packets: 4448 | Displayed: 4448 (100.0%) | Profile: Default

Using-Wireshark-diplay-filters-spambot.pcap

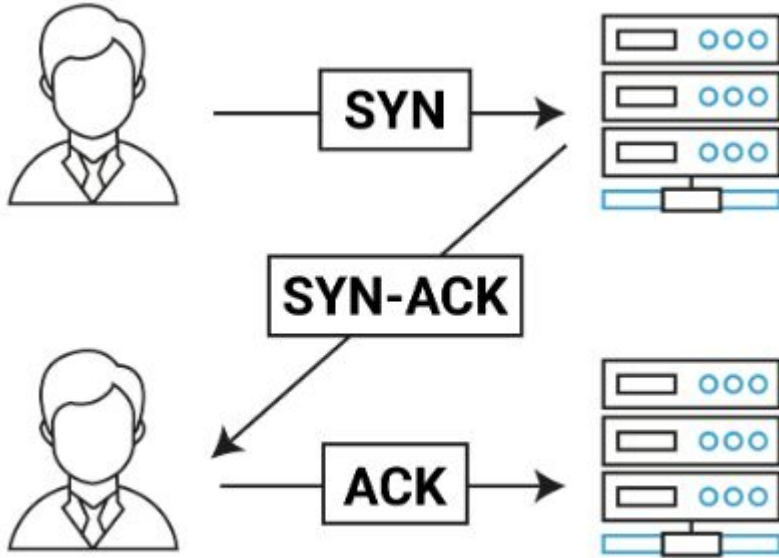
(http.request or ssl.handshake.type == 1) and !(udp.port eq 1900)

Filter Buttons Preferences... Label: basic Filter: dp.port eq 1900 OK Cancel

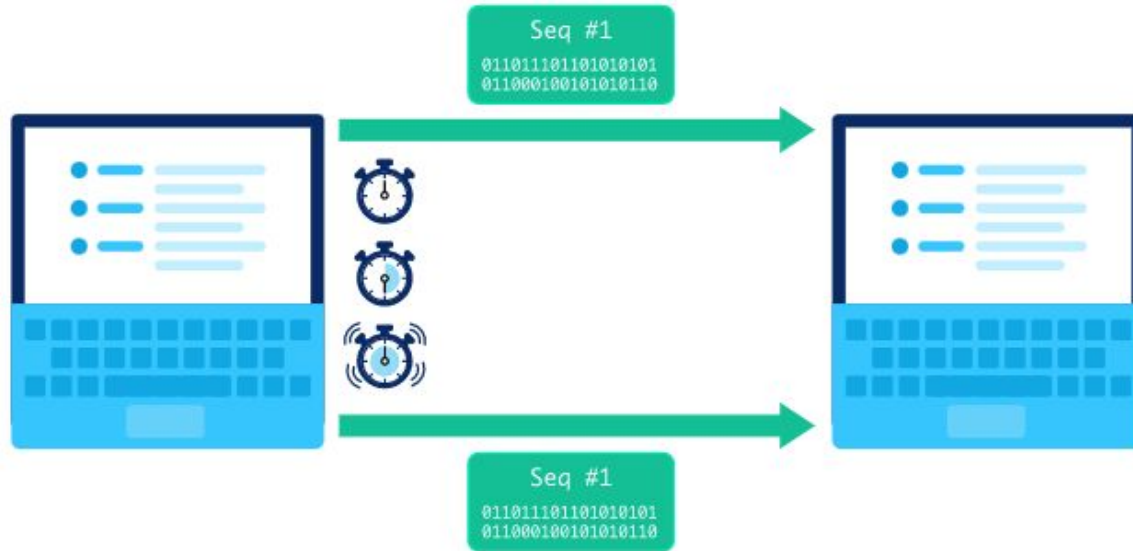
Comment: Enter comment for the filter button

Time	Src	Dst	Port	Info
2018-06-05 18:30...	10.6.5.102	17	52.98.64.2	587 Client H
2018-06-05 18:30...	10.6.5.102	4219	64.233.188.109	465 Client H
2018-06-05 18:30...	10.6.5.102	49221	64.233.188.109	465 Client H

Three-Way Handshake



Detecting lost packets



It's better to have the data twice than not at all!

HTTP OVER TCP

- HTTP
- HTTPS
- WHY HTTP IS BUILD OVER TCP



Carla Notarobot
@CarlaNotarobot

You know what screams "I'm insecure"?

http://

11:10 AM · Nov 22, 2020 · Twitter Web App

1,398 Retweets 154 Quote Tweets 10.9K Likes



memes-arcade.tv

HTTP status codes in a nutshell:

Or, what a 404 error & all of its friends mean in simple human words.

- 1xx Hold on.
- 2xx Here you go.
- 3xx Go away.
- 4xx You screwed up.
- 5xx I screwed up.

TCP



UDP



THANK YOU

FOR YOUR ATTENTION

