Aula 1

14 de outubro de 2020   11:39
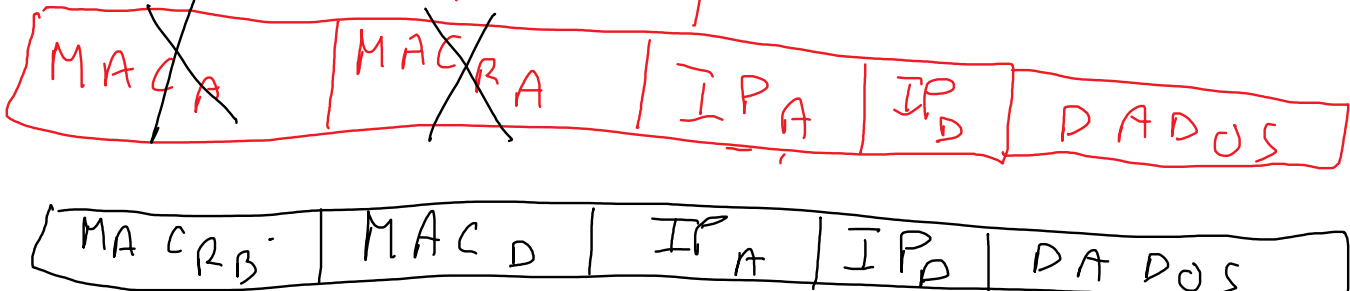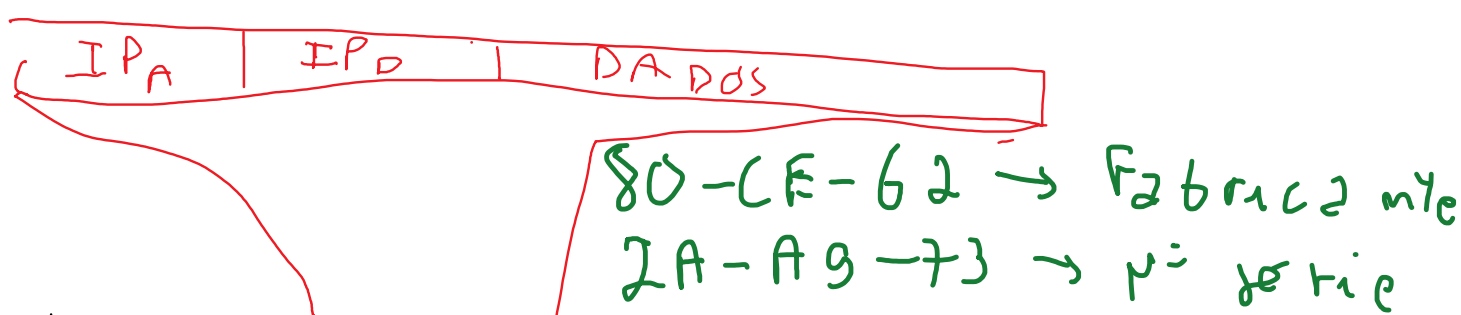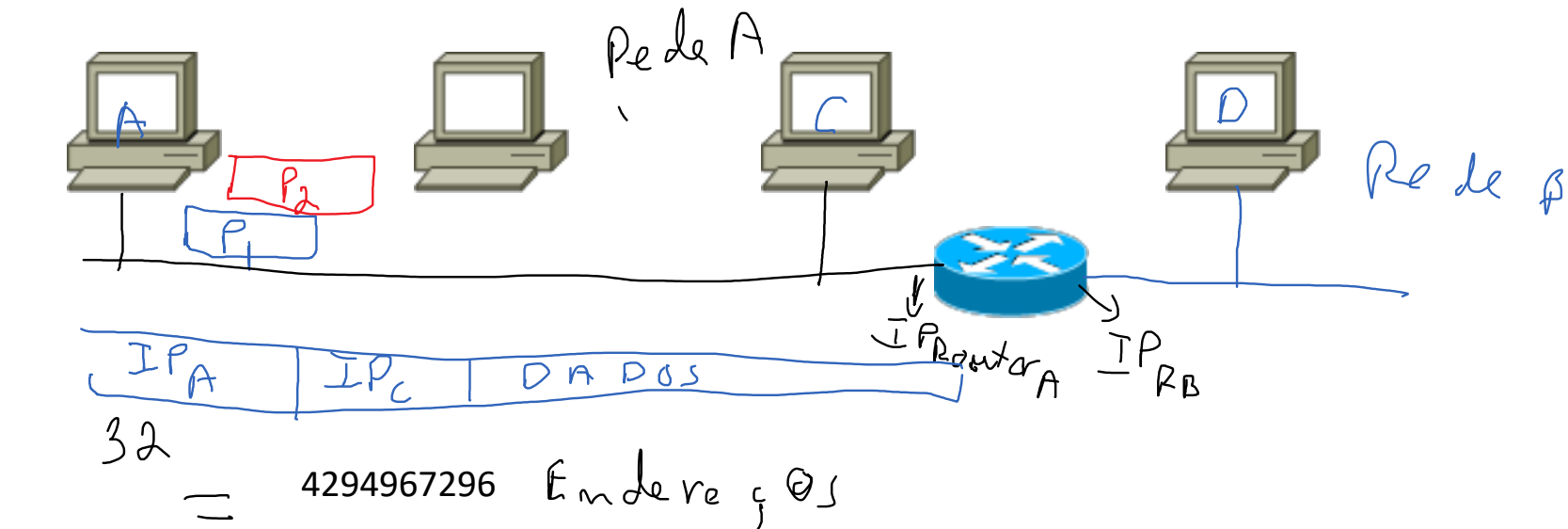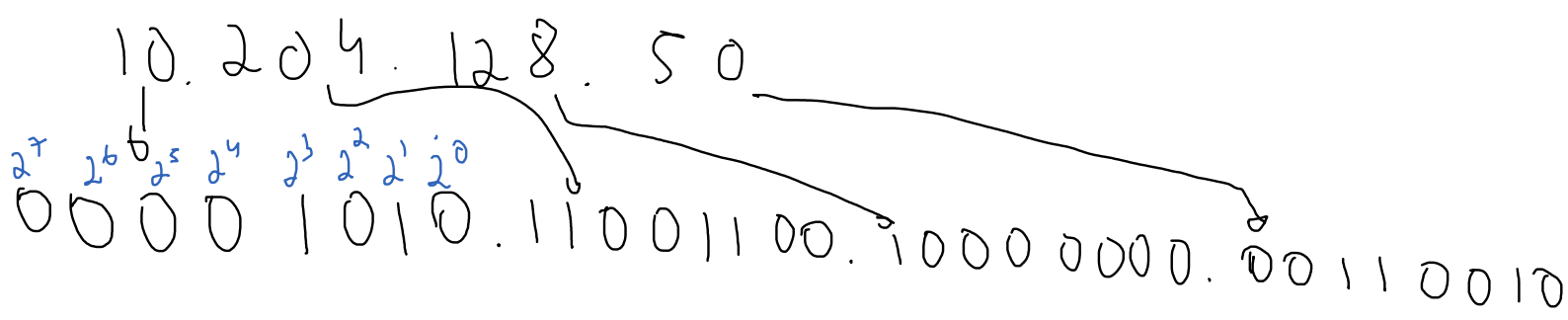


```
Command Prompt                                          _  □  ×
   DNS Suffix Search List. . . . . . : isec.pt

Ethernet adapter Ethernet:

   Connection-specific DNS Suffix  . : isec.pt
   Description . . . . . . . . . . . : Intel(R) Ethernet Connection (4) I219-V
   Physical Address. . . . . . . . . : 80-CE-62-2A-A9-73
   DHCP Enabled. . . . . . . . . . . : Yes
   Autoconfiguration Enabled . . . . : Yes
   IPv4 Address. . . . . . . . . . . : 10.204.128.50(Preferred)
   Subnet Mask . . . . . . . . . . . : 255.255.0.0
   Lease Obtained. . . . . . . . . . : 14 de outubro de 2020 09:31:31
   Lease Expires . . . . . . . . . . : 12 de janeiro de 2021 11:31:19
   Default Gateway . . . . . . . . . : 10.204.0.254
   DHCP Server . . . . . . . . . . . : 10.47.0.8
   DNS Servers . . . . . . . . . . . : 10.47.0.17
                                       10.47.0.18
   NetBIOS over Tcpip. . . . . . . . : Enabled

Ethernet adapter Npcap Loopback Adapter:

   Connection-specific DNS Suffix  . :
   Description . . . . . . . . . . . : Npcap Loopback Adapter
```
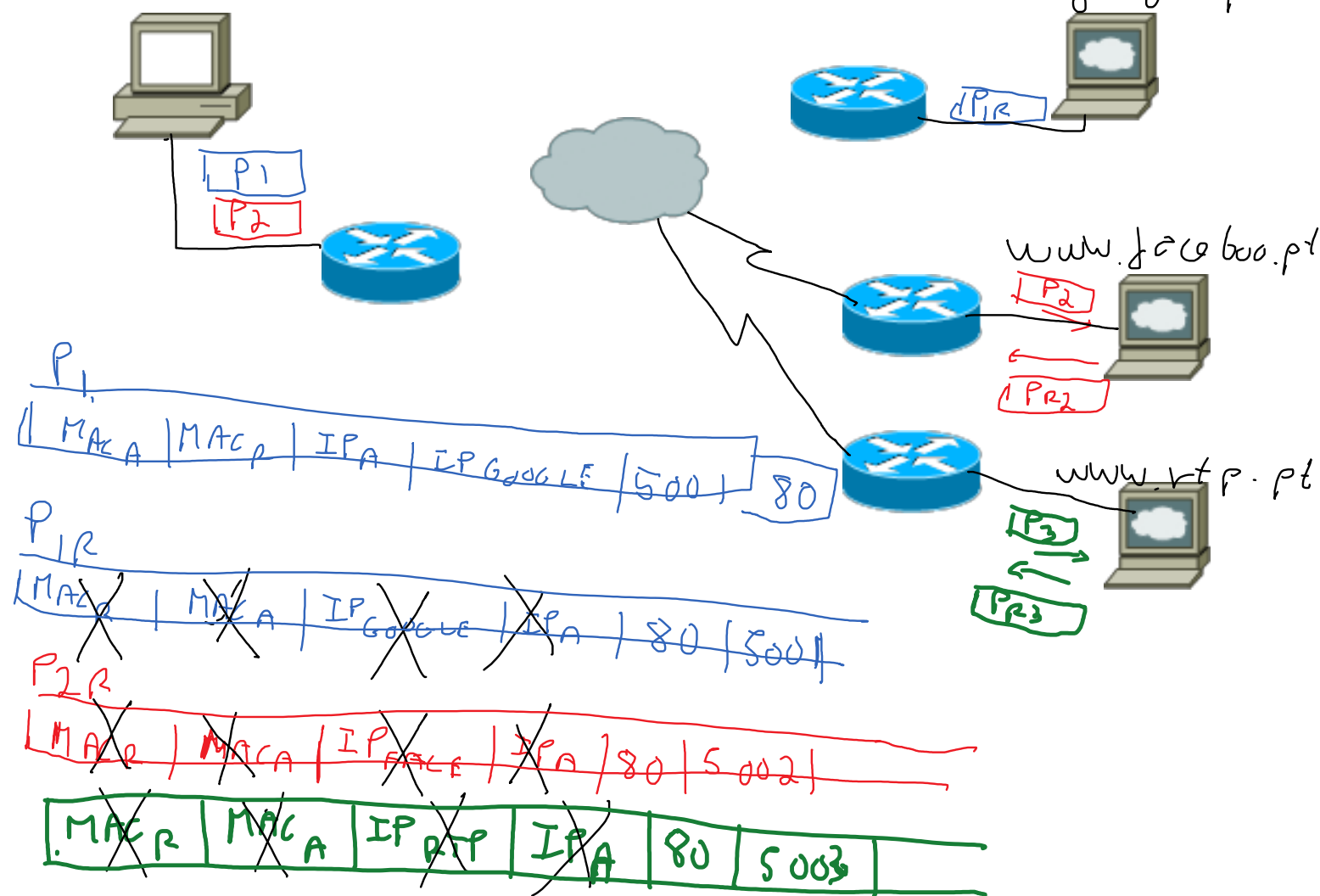
10.204.128.50

$2^7\ 2^6\ 2^5\ 2^4\ 2^3\ 2^2\ 2^1\ 2^0$

0000 1010 . 1100 1100 . 1000 0000 . 0011 0010

Rede A   Rede B

IP_A | IP_C | DADOS

IP_RouterA   IP_RB

$32 = 4294967296$ Endereços

IP_A | IP_D | DADOS

80-CE-62 → Fabricante
2A-A9-73 → nº série

~~MAC_A~~ | ~~MAC_RA~~ | IP_A | IP_D | DADOS

MAC_RB | MAC_D | IP_A | IP_D | DADOS

Resposta Computador D:

MAC_D | MAC_RB | IP_D | IP_A | DADOS

MAC_RA = DD-67-E5-D1-A1-BE

www.google.pt

dP_1R

www.facebook.pt

IP_2
IP_R2

www.rtp.pt

IP_3
IP_R3

P_1
MAC_A | MAC_P | IP_A | IP_GOOGLE | 5001 | 80

P_1R
~~MAC_P~~ | ~~MAC_A~~ | ~~IP_GOOGLE~~ | ~~IP_A~~ | 80 | 5001

P_2R
~~MAC_P~~ | ~~MAC_A~~ | ~~IP_FACE~~ | ~~IP_A~~ | 80 | 5002

MAC_P | MAC_A | IP_RTP | IP_A | 80 | 5003

$(\text{Protocolo} , (\text{IP}_{orig}, \text{IP}_{Dest}) , (\text{Porto}_{or.} , \text{Porto}_{des}))$

UDP, TCP