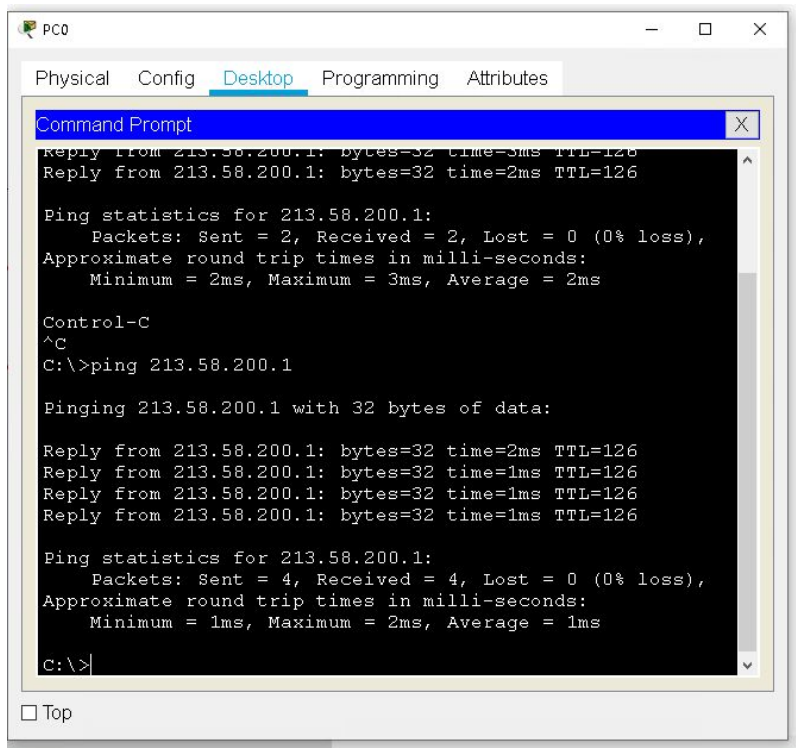


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a2019100036

Parte A



PC0

Physical Config Desktop Programming Attributes

Command Prompt

```
Reply from 213.58.200.1: bytes=32 time=3ms TTL=126
Reply from 213.58.200.1: bytes=32 time=2ms TTL=126

Ping statistics for 213.58.200.1:
    Packets: Sent = 2, Received = 2, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 3ms, Average = 2ms

Control-C
^C
C:\>ping 213.58.200.1

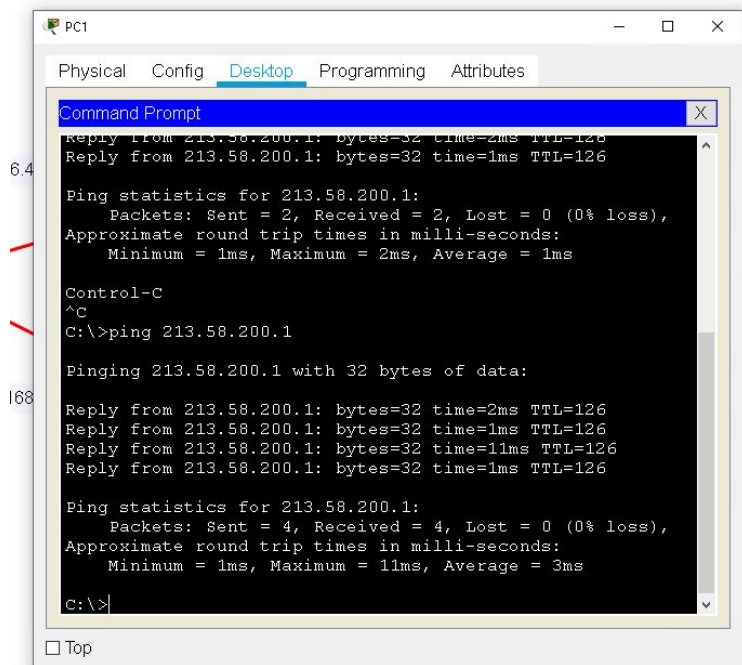
Pinging 213.58.200.1 with 32 bytes of data:

Reply from 213.58.200.1: bytes=32 time=2ms TTL=126
Reply from 213.58.200.1: bytes=32 time=1ms TTL=126
Reply from 213.58.200.1: bytes=32 time=1ms TTL=126
Reply from 213.58.200.1: bytes=32 time=1ms TTL=126

Ping statistics for 213.58.200.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 2ms, Average = 1ms

C:\>
```

☐ Top



PC1

Physical Config Desktop Programming Attributes

Command Prompt

```
Reply from 213.58.200.1: bytes=32 time=2ms TTL=126
Reply from 213.58.200.1: bytes=32 time=1ms TTL=126

Ping statistics for 213.58.200.1:
    Packets: Sent = 2, Received = 2, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 2ms, Average = 1ms

Control-C
^C
C:\>ping 213.58.200.1

Pinging 213.58.200.1 with 32 bytes of data:

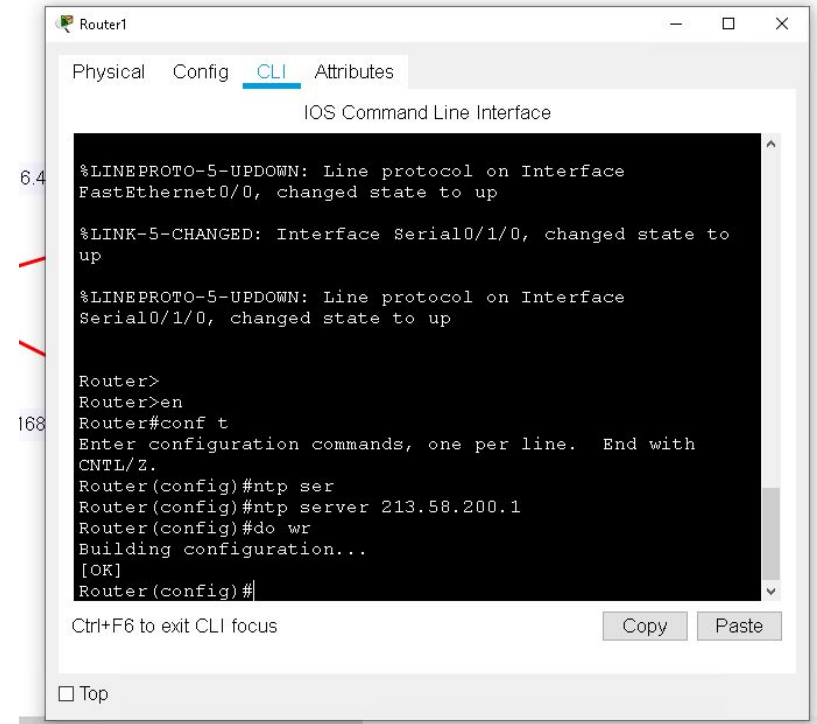
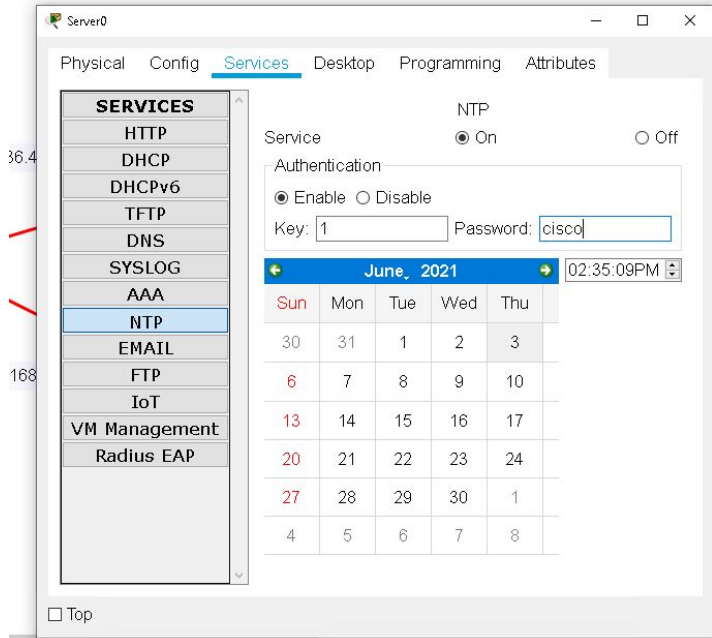
Reply from 213.58.200.1: bytes=32 time=2ms TTL=126
Reply from 213.58.200.1: bytes=32 time=1ms TTL=126
Reply from 213.58.200.1: bytes=32 time=11ms TTL=126
Reply from 213.58.200.1: bytes=32 time=1ms TTL=126

Ping statistics for 213.58.200.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 11ms, Average = 3ms

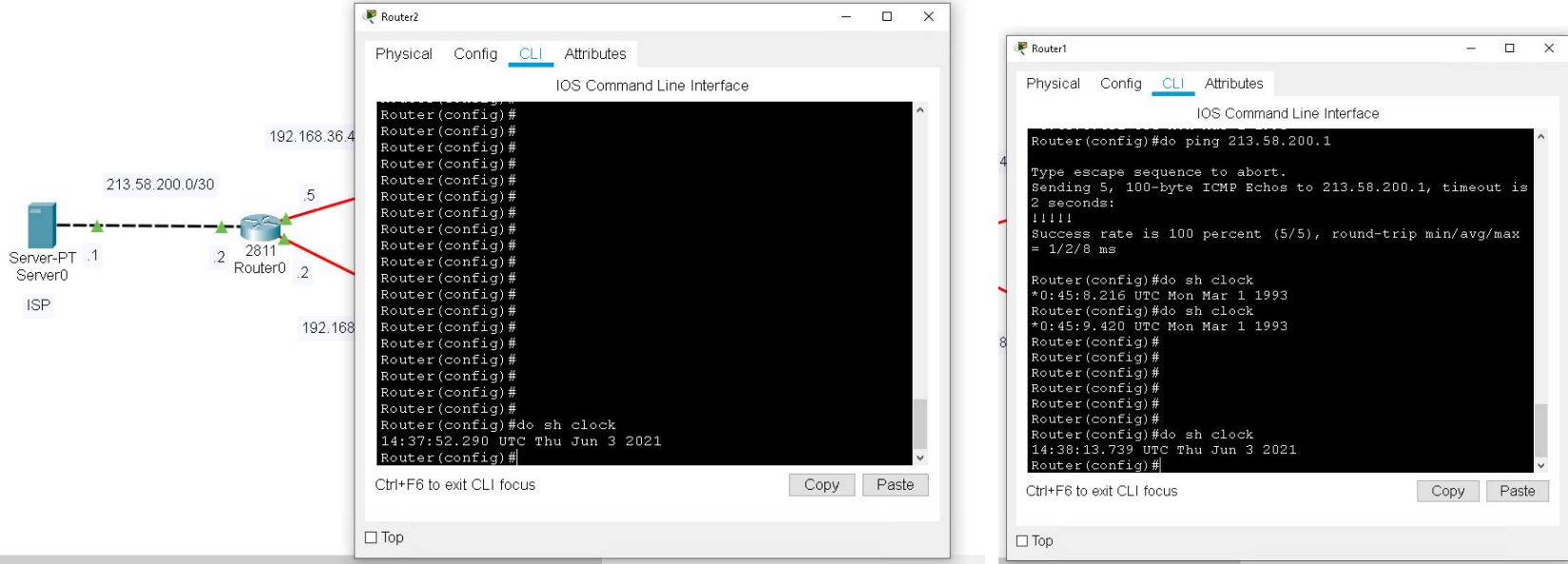
C:\>
```

☐ Top

Pergunta 1



Pergunta 1



Pergunta 2

PC1

Physical Config Desktop Programming Attributes

Command Prompt

```
C:\>ping 192.168.30.1

Pinging 192.168.30.1 with 32 bytes of data:

Ping statistics for 192.168.30.1:
    Packets: Sent = 1, Received = 0, Lost = 1 (100% loss),

Control-C
^C
C:\>ping 192.168.30.1

Pinging 192.168.30.1 with 32 bytes of data:

Reply from 192.168.30.1: bytes=32 time=3ms TTL=126
Reply from 192.168.30.1: bytes=32 time=23ms TTL=126
Reply from 192.168.30.1: bytes=32 time=2ms TTL=126
Reply from 192.168.30.1: bytes=32 time=2ms TTL=126

Ping statistics for 192.168.30.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 23ms, Average = 7ms
C:\>
```

Rede Lisboa
192.168.30.0/24

Rede de Coimbra
192.168.20.0/24

Top

Router1

Physical Config CLI Attributes

IOS Command Line Interface

```
protected vrf: (none)
local ident (addr/mask/prot/port):
(192.168.20.0/255.255.255.0/0/0)
remote ident (addr/mask/prot/port):
(192.168.30.0/255.255.255.0/0/0)
current_peer 192.168.36.6 port 500
--More--
#pkts encaps: 4, #pkts encrypt: 4, #pkts digest: 0
#pkts decaps: 4, #pkts decrypt: 4, #pkts verify: 0
#pkts compressed: 0, #pkts decompressed: 0
#pkts not compressed: 0, #pkts compr. failed: 0
#pkts not decompressed: 0, #pkts decompress failed: 0
#send errors 1, #recv errors 0

local crypto endpt.: 192.168.36.1, remote crypto
endpt.: 192.168.36.6
path mtu 1500, ip mtu 1500, ip idb Serial0/1/0
current outbound spi: 0x91f6c888(2448869608)

inbound esp sas:
spi: 0x602d3d85(1613577605)
--More--
```

Ctrl+F6 to exit CLI focus

Copy Paste

Top

Rede Lisboa
192.168.30.0/24

Rede de Coimbra
192.168.20.0/24

Pergunta 2 - Do PC1 para o ISP sem passar pelo tunel

The image displays a network simulation environment with three main components: a Router1 CLI window, a network topology diagram, and a PC1 Command Prompt window.

Router1 CLI Window: The CLI shows the configuration of the serial interface Se0/1/0 on Router1. The configuration includes IP address 192.168.20.0/24, a remote peer at 192.168.36.6, and various crypto settings for an IPsec tunnel. The output of the 'show crypto ipsec sa' command is also visible, showing the tunnel's status and statistics.

Network Topology Diagram: The diagram illustrates a network topology. It shows two routers, Router1 and Router2, connected via a 2950T-24 switch. Router1 is connected to PC1 (PC-PT PC1) and Router2 is connected to PC0 (PC-PT PC0). The diagram also shows a 2950T-24 switch connected to Router2. The network is labeled 'Rede Lisboa' and 'Rede de Coimbra'.

PC1 Command Prompt Window: The Command Prompt shows the execution of a ping command from PC1 to the ISP (213.58.200.1). The output indicates that the ping was successful, with 4 packets sent and 4 received, and a round trip time of approximately 2ms.

Pergunta 2 - De lisboa para coimbra pelo tunel

The diagram illustrates a network topology with two routers, Router1 and Router2, connected via two switches, Switch0 and Switch1. Router1 is connected to Switch1, which is connected to Router2. Router2 is connected to Switch0, which is connected to Router1. The network is divided into two segments: 'Rede Lisboa' (192.168.30.0/24) and 'Rede de Coimbra' (192.168.20.0/24). The physical connection between the routers is labeled 'Se0/1/0 4'.

Logical View (Left Window):

Physical Config Desktop Programming Attributes

Command Prompt

```
Reply from 213.58.200.1: bytes=32 time=2ms TTL=126
Reply from 213.58.200.1: bytes=32 time=1ms TTL=126
Reply from 213.58.200.1: bytes=32 time=1ms TTL=126
Reply from 213.58.200.1: bytes=32 time=1ms TTL=126

Ping statistics for 213.58.200.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 2ms, Average = 1ms

C:\>ping 192.168.20.1

Pinging 192.168.20.1 with 32 bytes of data:

Reply from 192.168.20.1: bytes=32 time=3ms TTL=126
Reply from 192.168.20.1: bytes=32 time=2ms TTL=126
Reply from 192.168.20.1: bytes=32 time=3ms TTL=126
Reply from 192.168.20.1: bytes=32 time=2ms TTL=126

Ping statistics for 192.168.20.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 3ms, Average = 2ms

C:\>
```

Router2 (Right Window):

Physical Config CLI Attributes

IOS Command Line Interface

```
protected vrf: (none)
local ident (addr/mask/prot/port):
(192.168.30.0/255.255.255.0/0/0)
remote ident (addr/mask/prot/port):
(192.168.20.0/255.255.255.0/0/0)
current_peer 192.168.36.1 port 500
  PBRMIT, flags=(origin is acl,)
#pkts encaps: 8, #pkts encrypt: 8, #pkts digest: 0
#pkts decaps: 8, #pkts decrypt: 8, #pkts verify: 0
#pkts compressed: 0, #pkts decompressed: 0
#pkts not compressed: 0, #pkts compr. failed: 0
#pkts not decompressed: 0, #pkts decompress failed: 0
#send errors 0, #recv errors 0

local crypto endpt.: 192.168.36.6, remote crypto
endpt.:192.168.36.1
path mtu 1500, ip mtu 1500, ip idb Serial0/3/0
current outbound spi: 0x602D3D85(1613577605)


inbound esp sas:
  spi: 0x91F6C8E8(2448869608)

--More--
```


Ctrl+F6 to exit CLI focus

Copy Paste

Parte B



Recycle Bin



Google Chrome

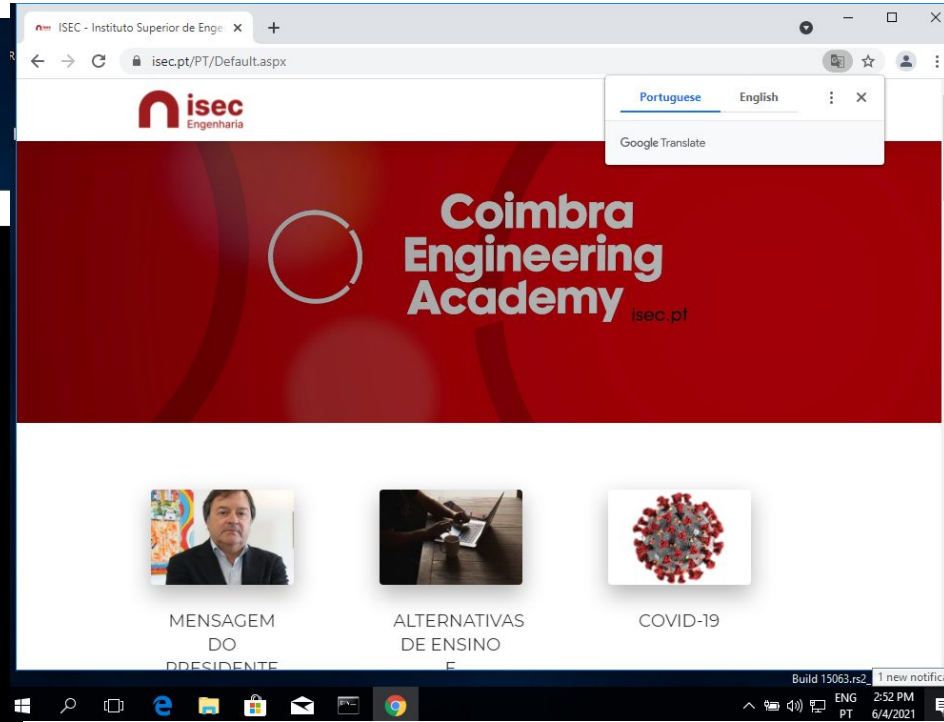
```
Microsoft Windows [Version 10.0.15063]
(c) 2017 Microsoft Corporation. All rights reserved.

C:\Users\WK01>ping 192.168.0.1

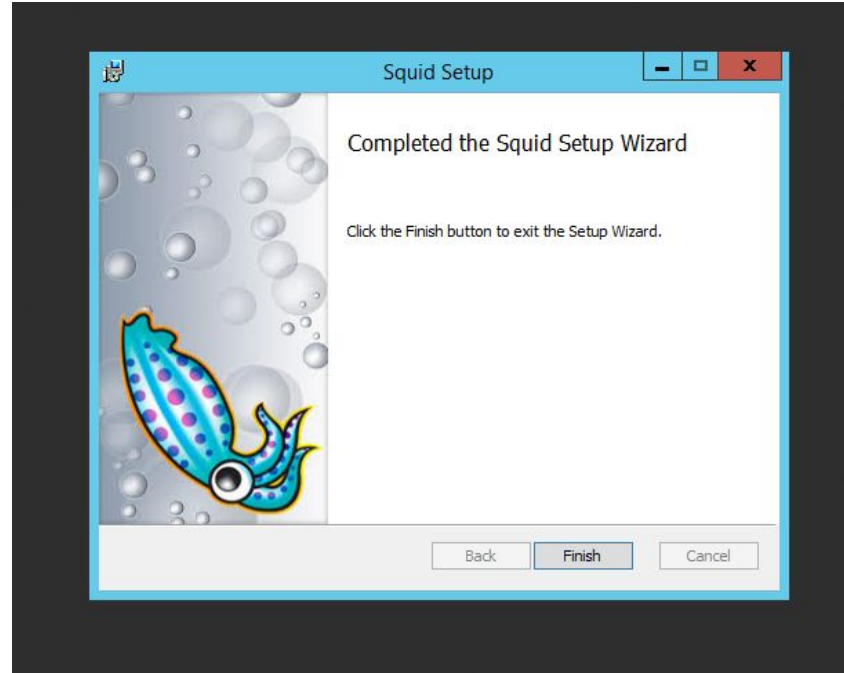
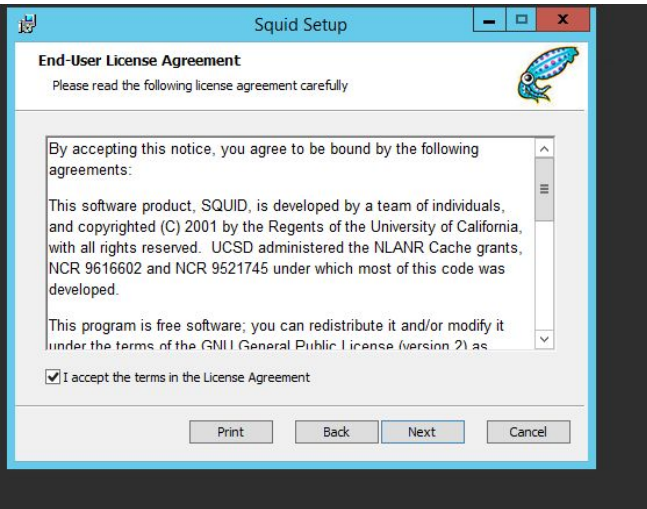
Pinging 192.168.0.1 with 32 bytes of data:
Reply from 192.168.0.1: bytes=32 time<1ms TTL=128
Reply from 192.168.0.1: bytes=32 time=2ms TTL=128
Reply from 192.168.0.1: bytes=32 time<1ms TTL=128
Reply from 192.168.0.1: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 2ms, Average = 0ms

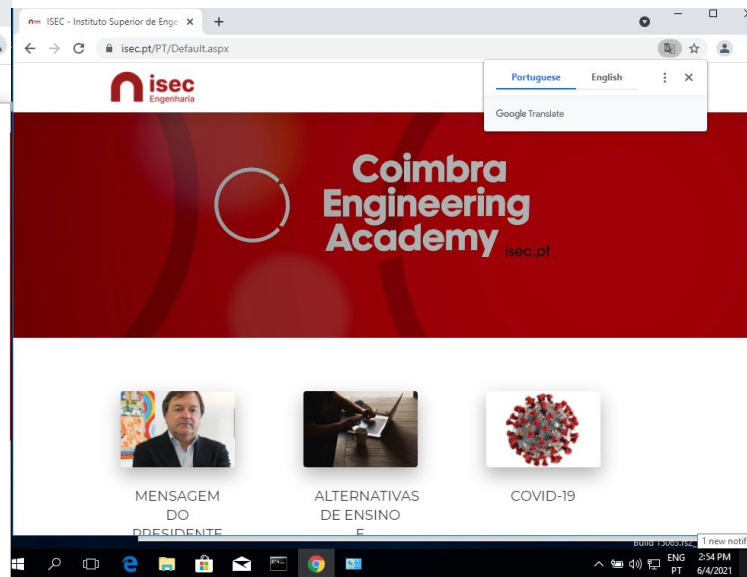
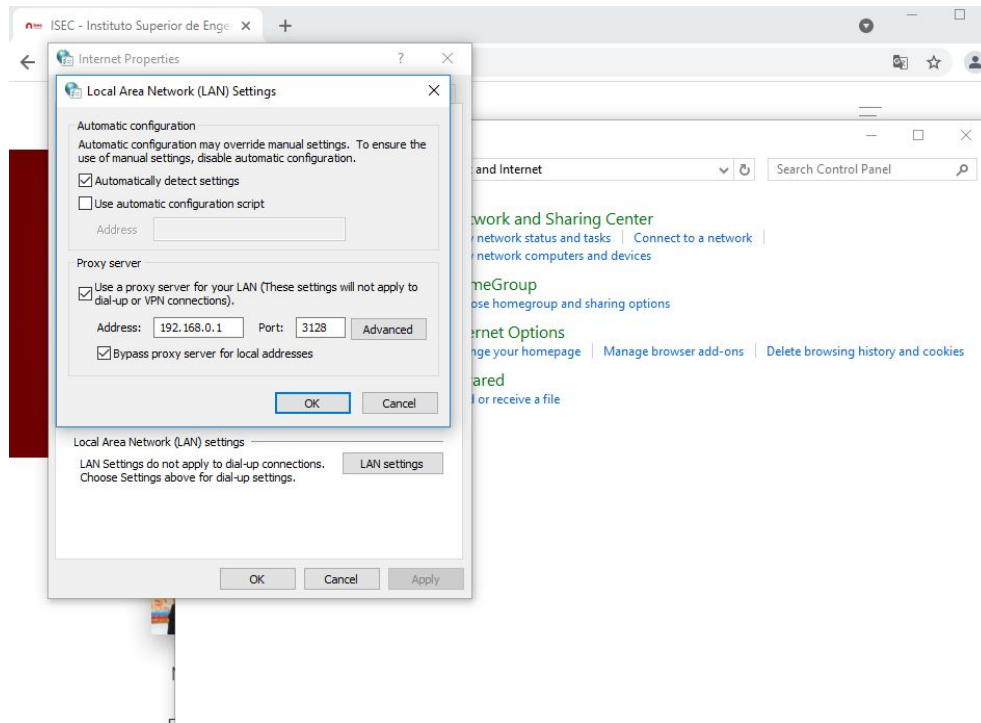
C:\Users\WK01>
```



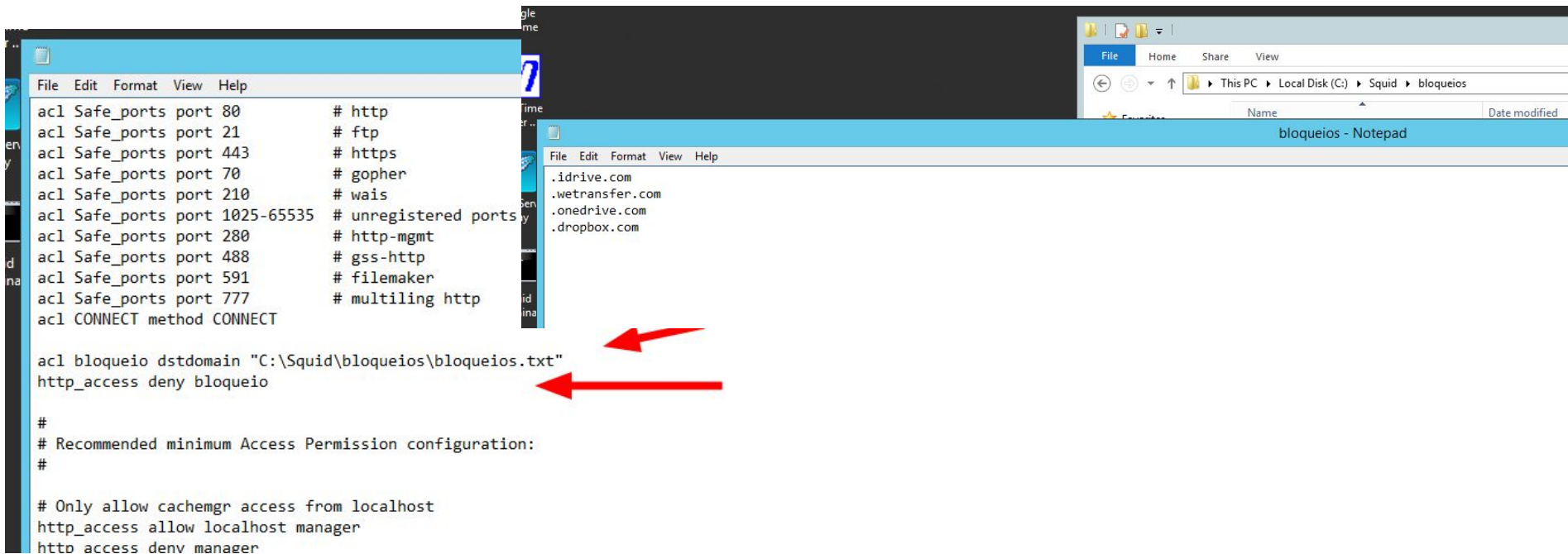
Pergunta 3 - Instalação do Squid



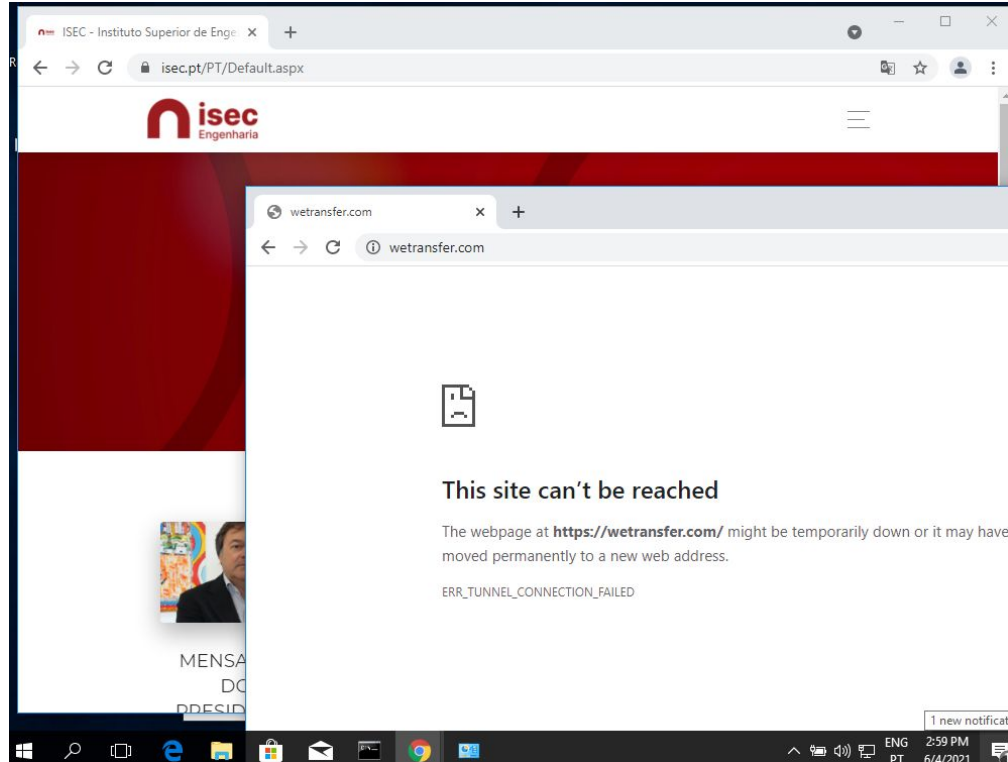
Pergunta 3



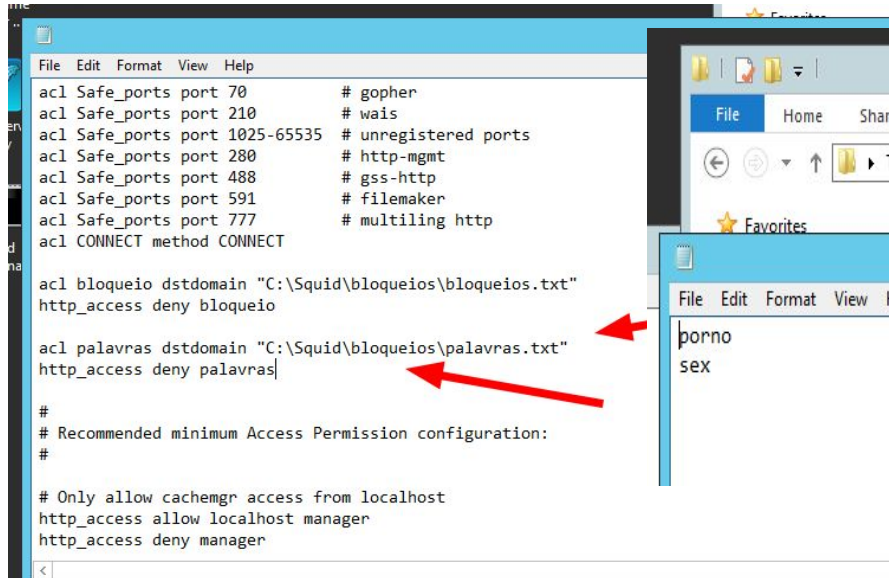
Pergunta 3 - Bloquear idrive, wetransfer, onedrivee dropbox



Pergunta 3 - Bloquear idrive, wetransfer, onedrivee dropbox



Pergunta 3 - bloquear palavras



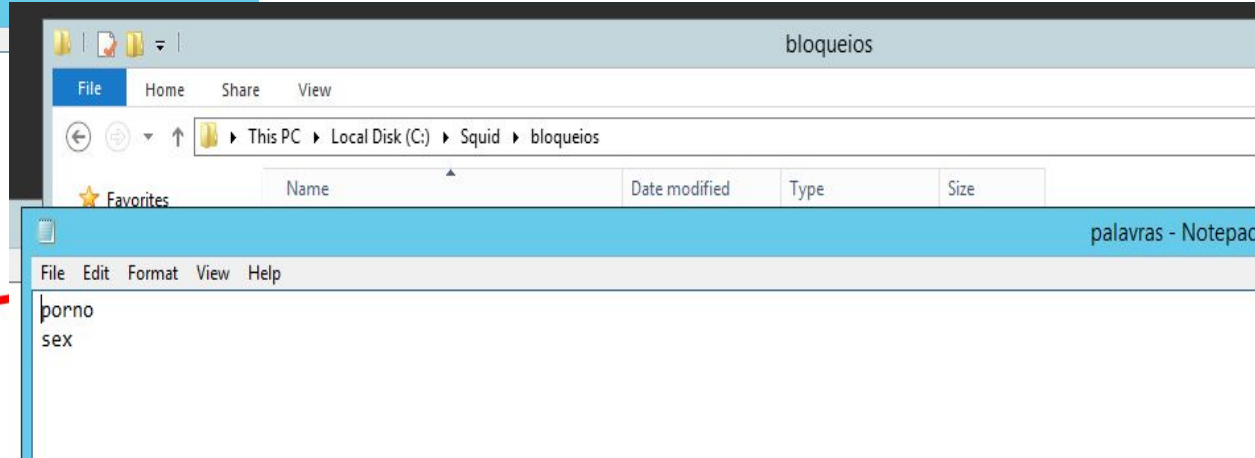
```
File Edit Format View Help
acl Safe_ports port 70      # gopher
acl Safe_ports port 210     # wais
acl Safe_ports port 1025-65535 # unregistered ports
acl Safe_ports port 280     # http-mgmt
acl Safe_ports port 488     # gss-http
acl Safe_ports port 591     # filemaker
acl Safe_ports port 777     # multiling http
acl CONNECT method CONNECT

acl bloqueio dstdomain "C:\Squid\bloqueios\bloqueios.txt"
http_access deny bloqueio

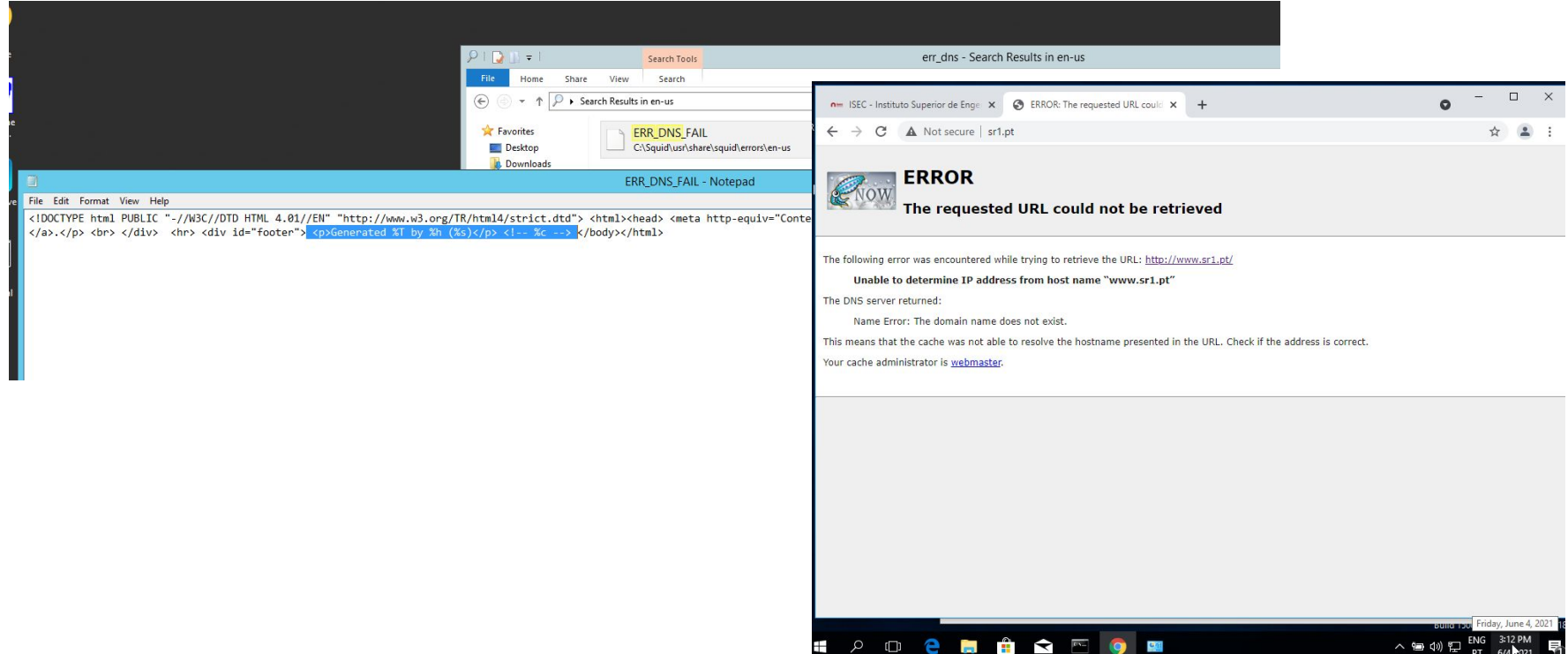
acl palavras dstdomain "C:\Squid\bloqueios\palavras.txt"
http_access deny palavras

#
# Recommended minimum Access Permission configuration:
#

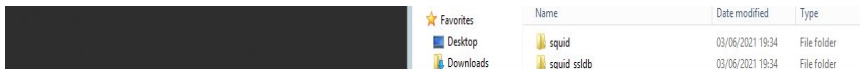
# Only allow cachemgr access from localhost
http_access allow localhost manager
http_access deny manager
```



Pergunta 3 - versão do squid



Pergunta 3



Windows File Explorer window showing the 'Downloads' folder. It contains two items: 'squad' (File folder) and 'squad_sstdb' (File folder), both modified on 03/06/2021 19:34.

```
squid.conf - Notepad
File Edit Format View Help

# Squid normally listens to port 3128
http_port 3128

# Uncomment the line below to enable disk caching - path format is /cygdrive/<full path to cache folder>, i.e.
#cache_dir aufs /cygdrive/d/squid/cache 3000 16 256

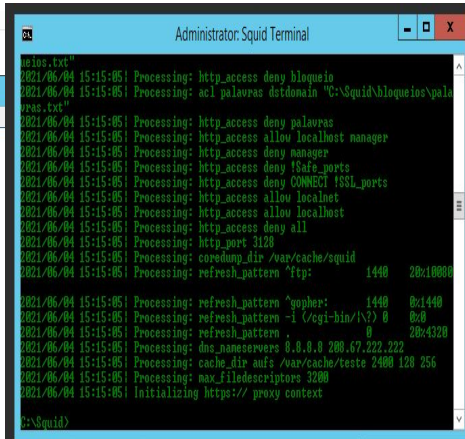
# Leave coredumps in the first cache dir
coredump_dir /var/cache/squid

# Add any of your refresh_pattern entries above these.
refresh_pattern ^ftp:      1440  20%  10080
refresh_pattern ^gopher:  1440  0%   1440
refresh_pattern -i (/cgi-bin/|\?) 0    0%   0
refresh_pattern .         0      20%  4320

dns_nameservers 8.8.8.8 208.67.222.222

cache_dir aufs /var/cache/teste 2400 128 256

max_filedescriptors 3200
```




Administrator: Squid Terminal

```

2021/06/04 15:15:05 Processing: http_access deny bloqueio
2021/06/04 15:15:05 Processing: acl palavras dstdomain "C:\Squid\bloqueio\palavras.txt"
2021/06/04 15:15:05 Processing: http_access deny palavras
2021/06/04 15:15:05 Processing: http_access allow localhost manager
2021/06/04 15:15:05 Processing: http_access deny manager
2021/06/04 15:15:05 Processing: http_access deny !Safe_ports
2021/06/04 15:15:05 Processing: http_access deny CONNECT !SSL_ports
2021/06/04 15:15:05 Processing: http_access allow localhost
2021/06/04 15:15:05 Processing: http_access allow localhost
2021/06/04 15:15:05 Processing: http_access deny all
2021/06/04 15:15:05 Processing: http_port 3128
2021/06/04 15:15:05 Processing: coredump_dir /var/cache/squid
2021/06/04 15:15:05 Processing: refresh_pattern ^ftp:      1440  20%  10080
2021/06/04 15:15:05 Processing: refresh_pattern ^gopher:  1440  0%  1440
2021/06/04 15:15:05 Processing: refresh_pattern -i (/cgi-bin/|\?) 0    0%   0
2021/06/04 15:15:05 Processing: refresh_pattern .         0      20%  4320
2021/06/04 15:15:05 Processing: dns_nameservers 8.8.8.8 208.67.222.222
2021/06/04 15:15:05 Processing: cache_dir aufs /var/cache/teste 2400 128 256
2021/06/04 15:15:05 Processing: max_filedescriptors 3200
2021/06/04 15:15:05 Initializing https:// proxy context

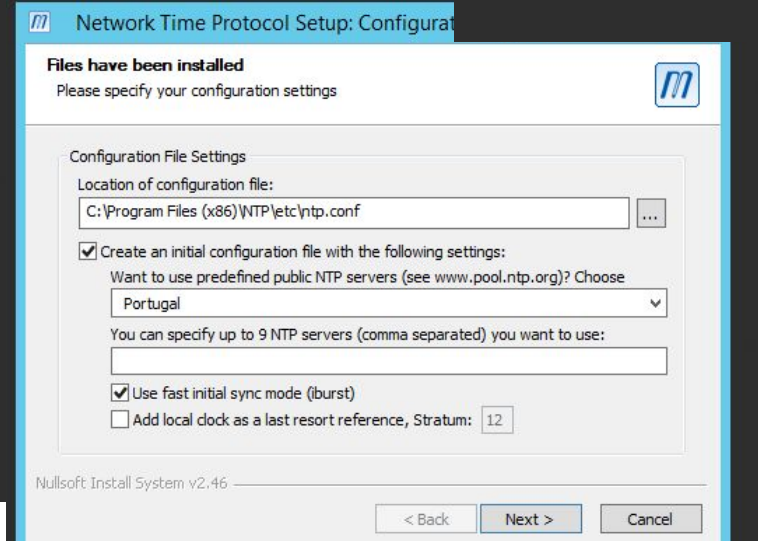
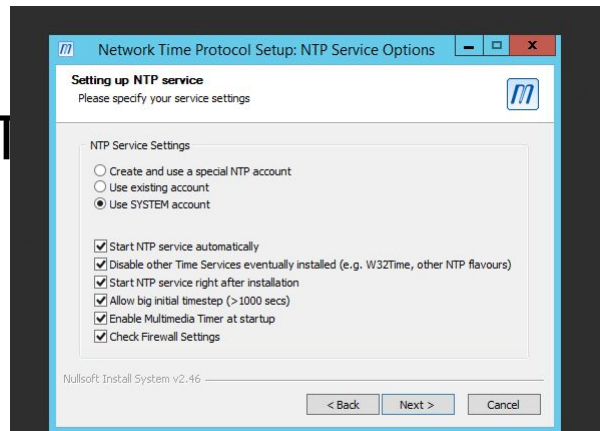
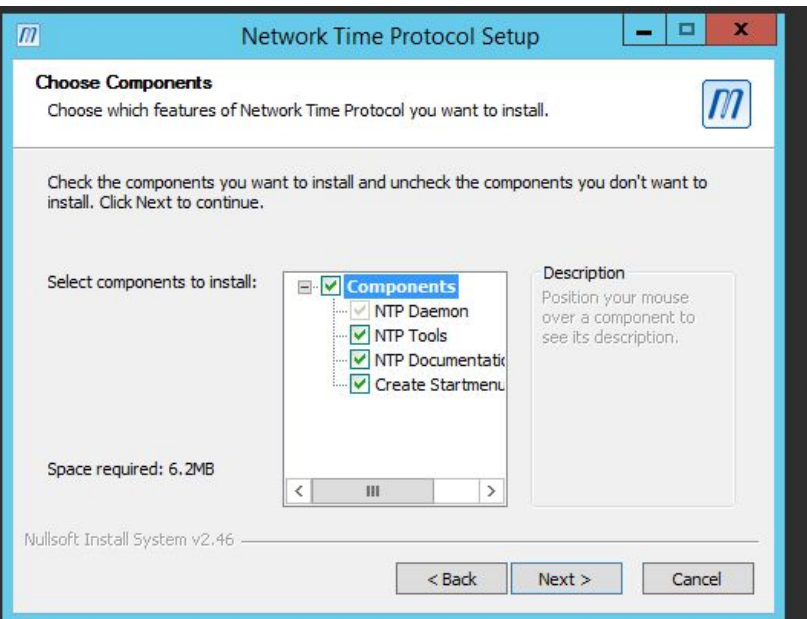
C:\Squid>
```



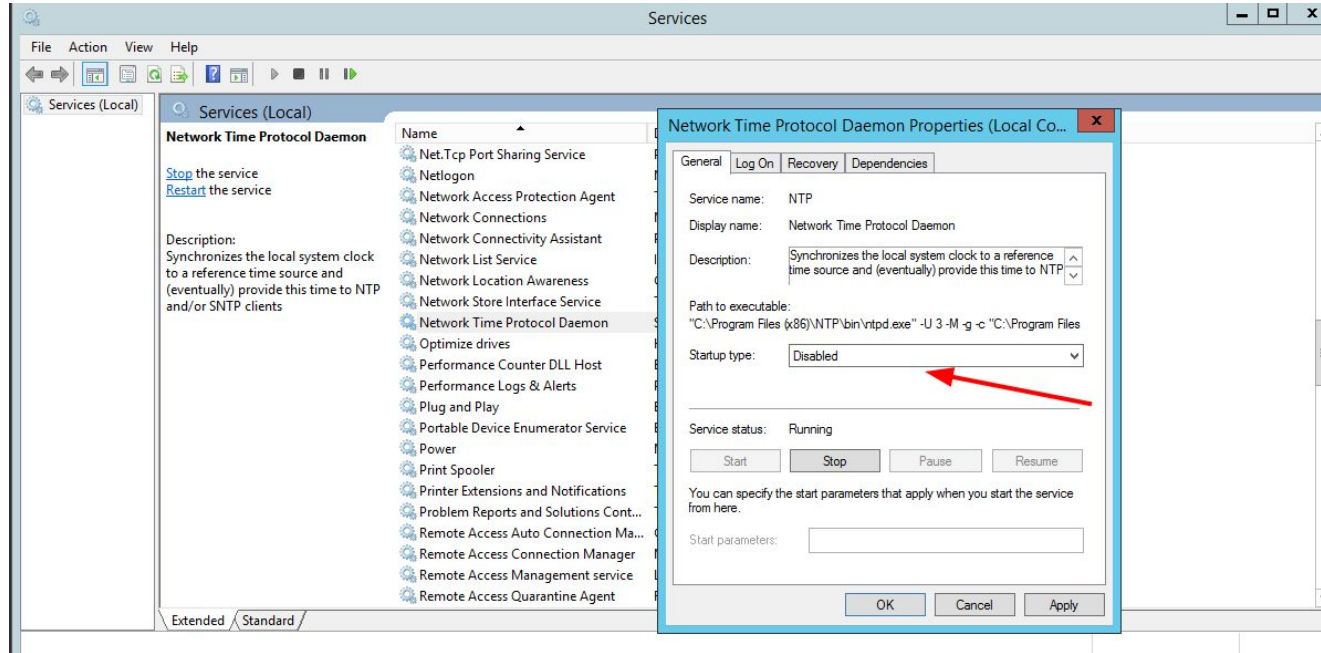
Windows File Explorer window showing the 'cache' folder. It contains three items: 'squad' (File folder), 'squad_sstdb' (File folder), and 'teste' (File folder), all modified on 04/06/2021 15:12.

Name	Date modified	Type	Size
squad	03/06/2021 19:34	File folder	
squad_sstdb	03/06/2021 19:34	File folder	
teste	04/06/2021 15:12	File folder	

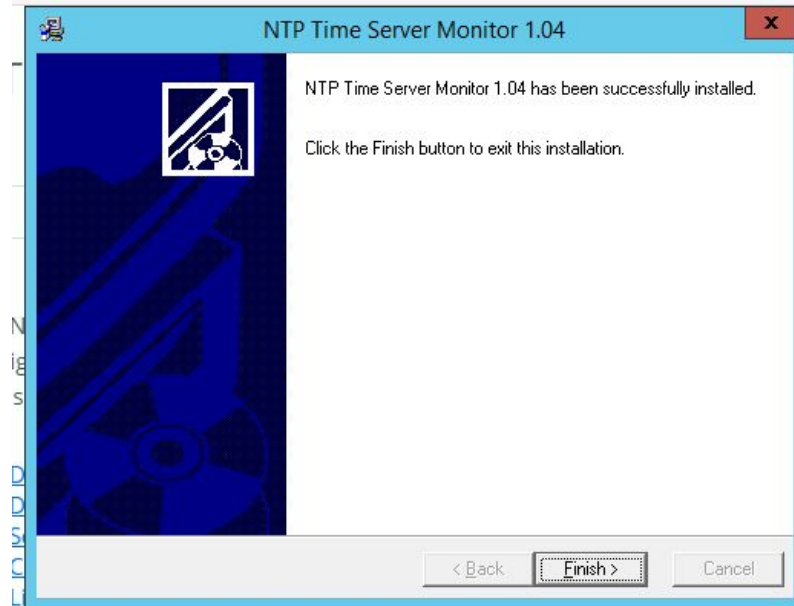
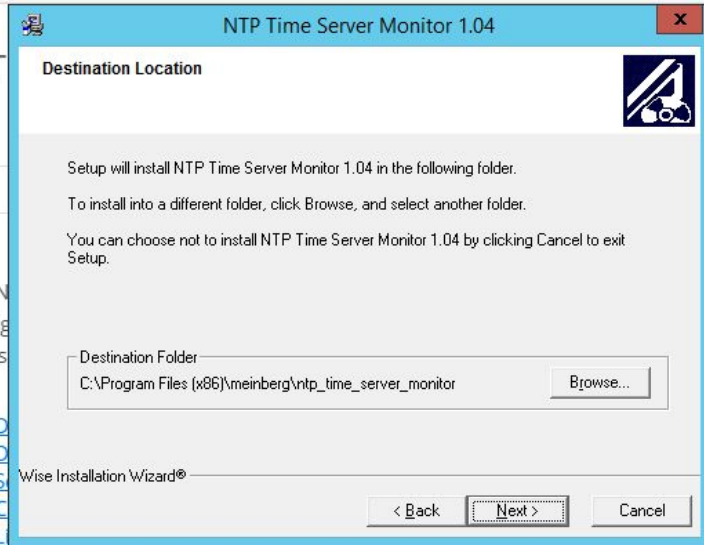
Pergunta 4 - Instalação do The Meinberg NTP



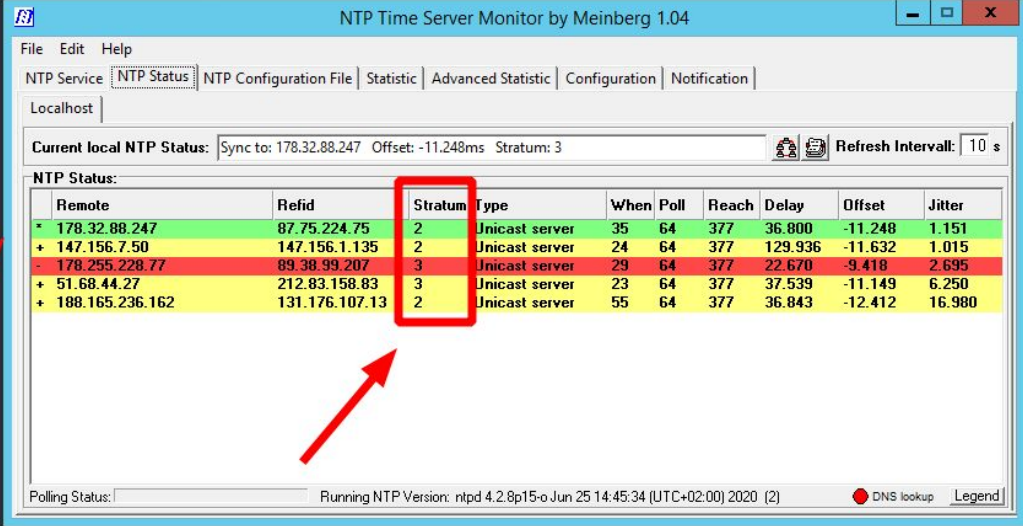
Pergunta 4 - Desabilitar o W32 Time



Pergunta 4 - Instalação do NTP Time Server Monitor



Pergunta 4 - system peer e stratum



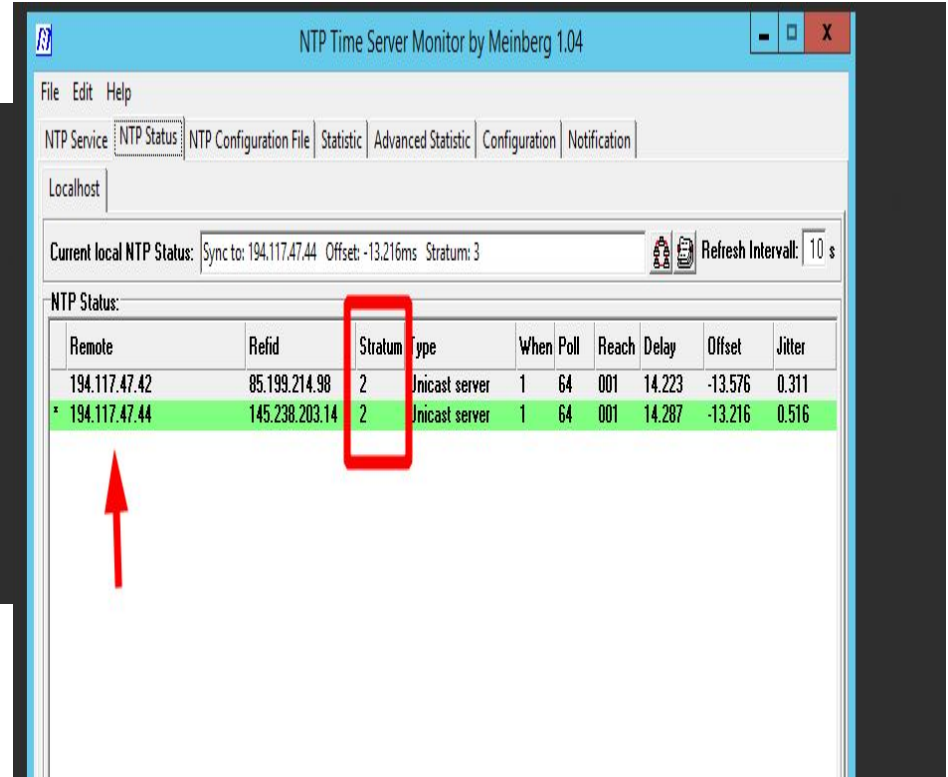
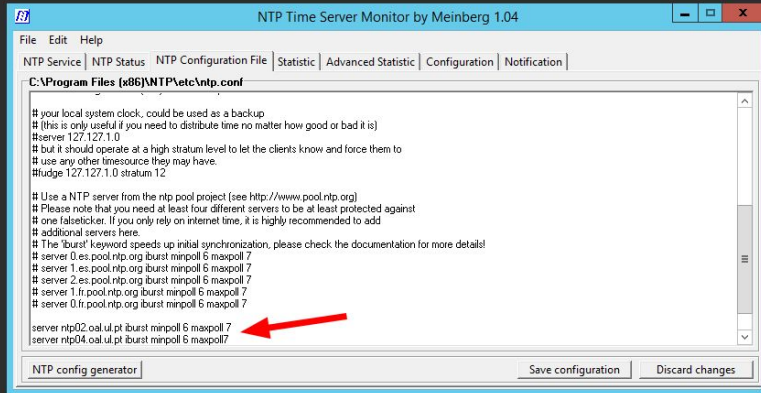
The screenshot displays the 'NTP Time Server Monitor by Meinberg 1.04' application window. The 'NTP Status' tab is active, showing a table of NTP servers. The 'Stratum' column is highlighted with a red box, and two red arrows point to it from the left. The table lists five servers with their respective Stratum values: 2, 2, 3, 3, and 2. The status bar at the bottom indicates the running NTP version and time.

Current local NTP Status: Sync to: 178.32.88.247 Offset: -11.248ms Stratum: 3 Refresh Interval: 10 s

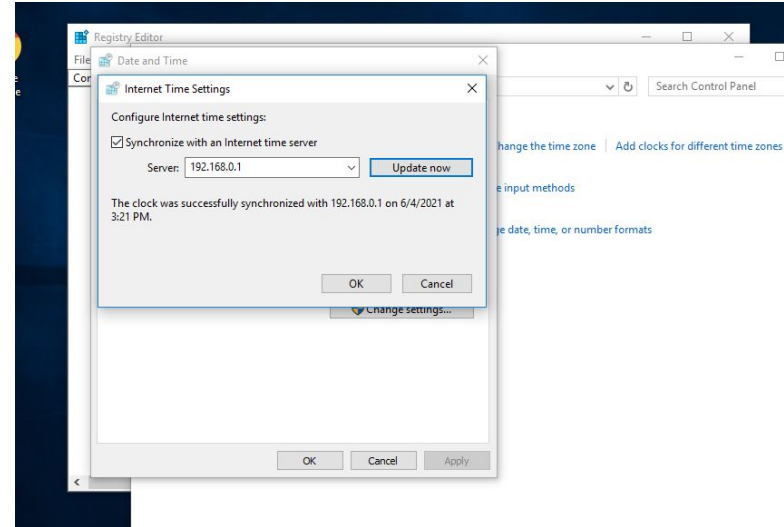
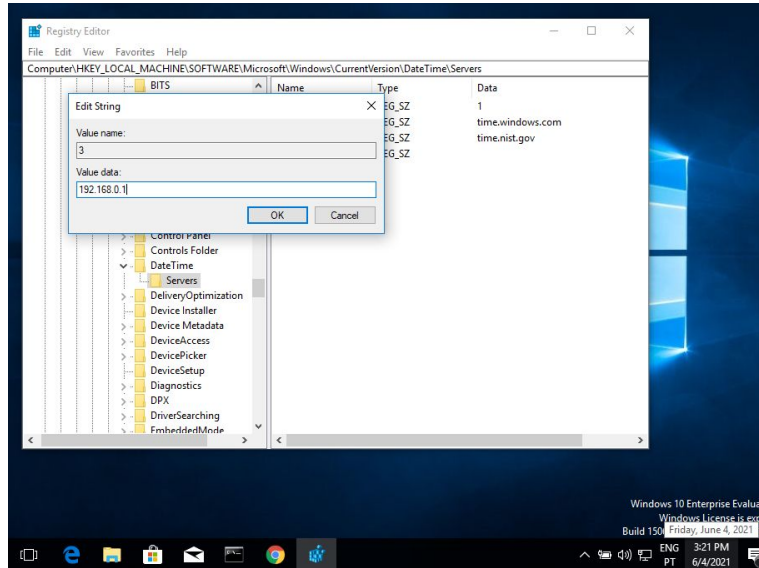
Remote	Refid	Stratum	Type	When	Poll	Reach	Delay	Offset	Jitter
* 178.32.88.247	87.75.224.75	2	Unicast server	35	64	377	36.800	-11.248	1.151
+ 147.156.7.50	147.156.1.135	2	Unicast server	24	64	377	129.936	-11.632	1.015
- 178.255.228.77	89.38.99.207	3	Unicast server	29	64	377	22.670	-9.418	2.695
+ 51.68.44.27	212.83.158.83	3	Unicast server	23	64	377	37.539	-11.149	6.250
+ 188.165.236.162	131.176.107.13	2	Unicast server	55	64	377	36.843	-12.412	16.980

Running NTP Version: ntpd 4.2.8p15-o Jun 25 14:45:34 (UTC+02:00) 2020 (2) DNS lookup Legend

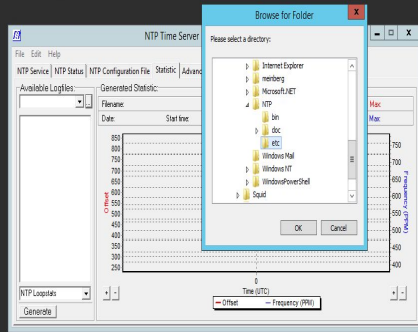
Pergunta 4 - OAL



Pergunta 4 - NTP Cliente



Pergunta 4 - Cliente



Windows Server 2012 R2



Windows Server 2012 R2 Standard Eval
License valid for 16
Built
15
04/16

