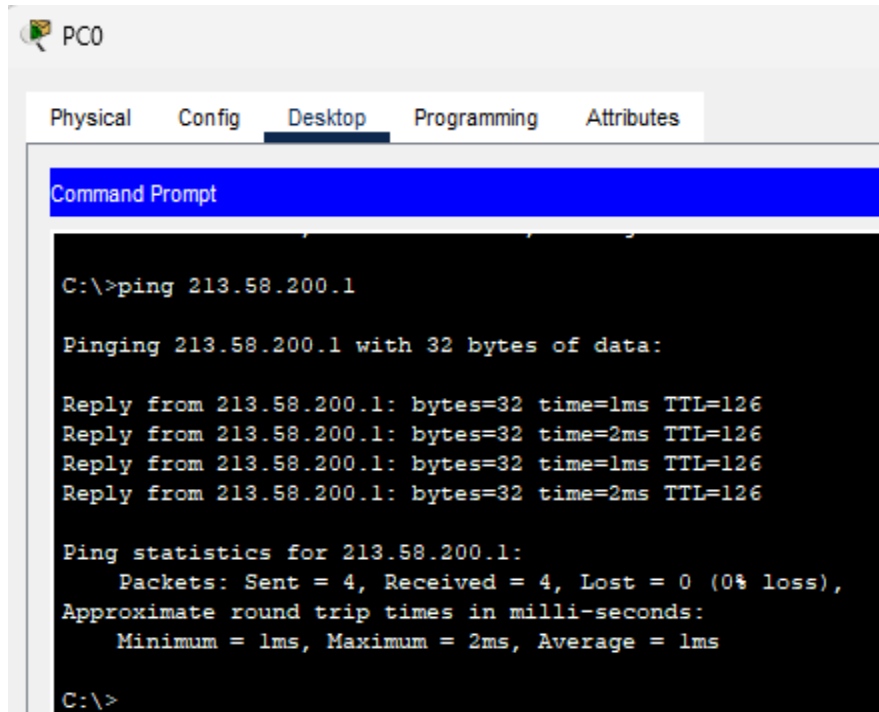


MIGUEL\_ROMA\_A2021138955

# PERGUNTA 1



PC0

Physical Config **Desktop** Programming Attributes

Command Prompt

```
C:\>ping 213.58.200.1

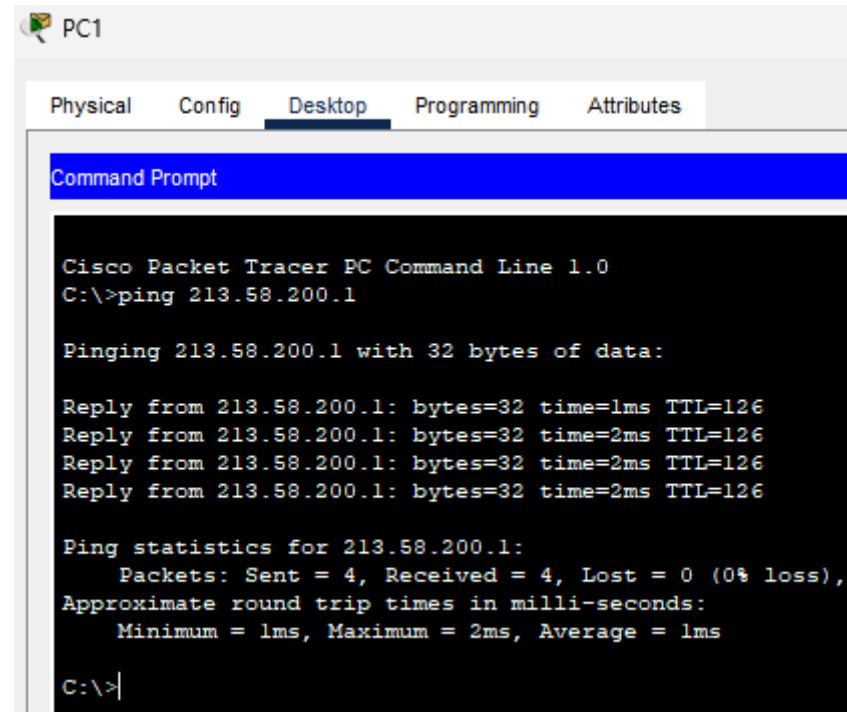
Pinging 213.58.200.1 with 32 bytes of data:

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

```
ip route 213.58.200.0 255.255.255.252 192.100.55.5
ip route 192.168.20.0 255.255.255.0 192.100.55.5
ip route 192.100.55.0 255.255.255.252 192.100.55.5
```



PC1

Physical Config **Desktop** Programming Attributes

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
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=1ms TTL=126
Reply from 213.58.200.1: bytes=32 time=2ms TTL=126
Reply from 213.58.200.1: bytes=32 time=2ms TTL=126
Reply from 213.58.200.1: bytes=32 time=2ms TTL=126
Reply from 213.58.200.1: bytes=32 time=2ms TTL=126

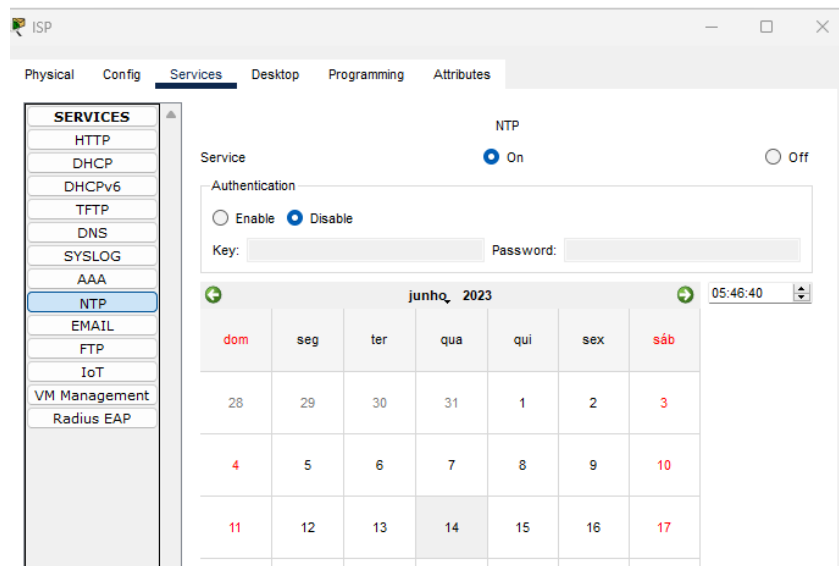
Ping statistics for 213.58.200.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 2ms, Average = 1ms

C:\>
```

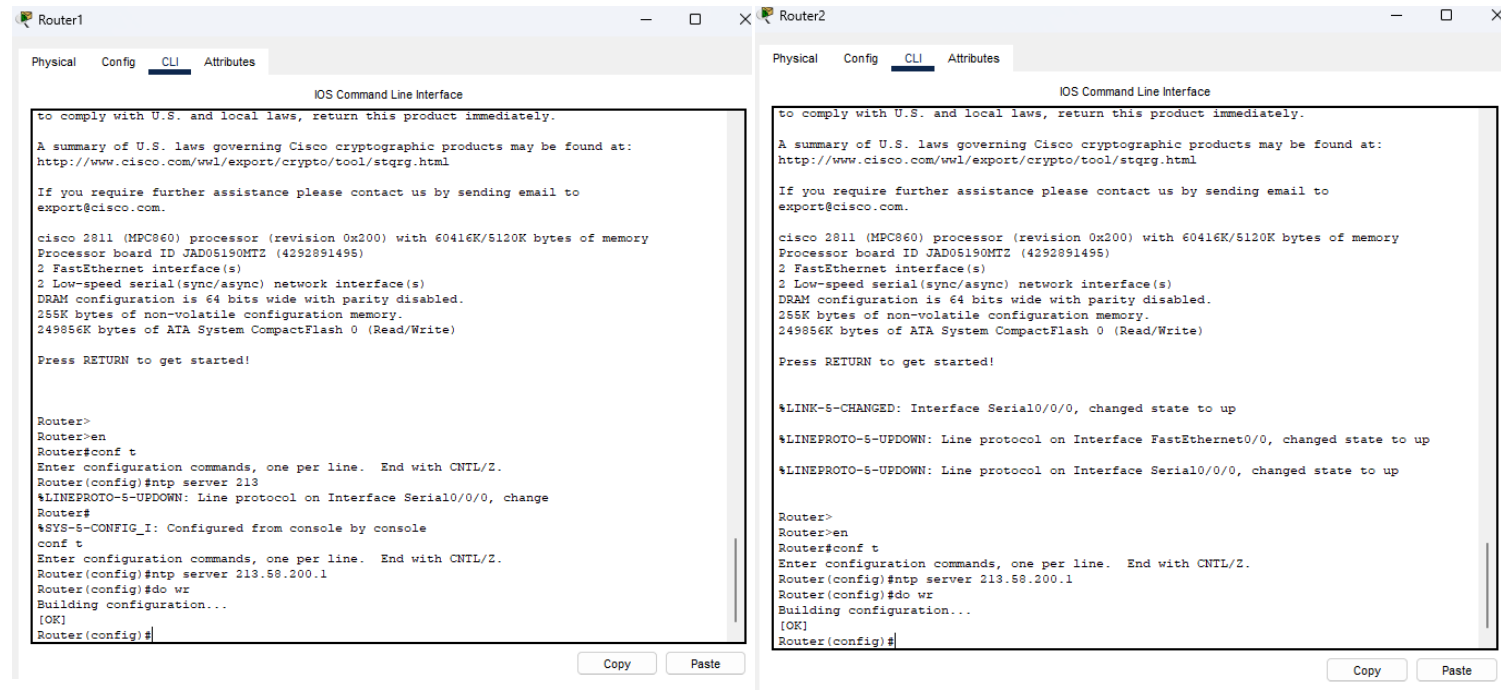
```
ip route 213.58.200.0 255.255.255.252 192.100.55.1
ip route 192.168.30.0 255.255.255.0 192.100.55.1
ip route 192.100.55.4 255.255.255.252 192.100.55.1
```

# PERGUNTA 1



Desligar todos os serviços com exceção do NTP



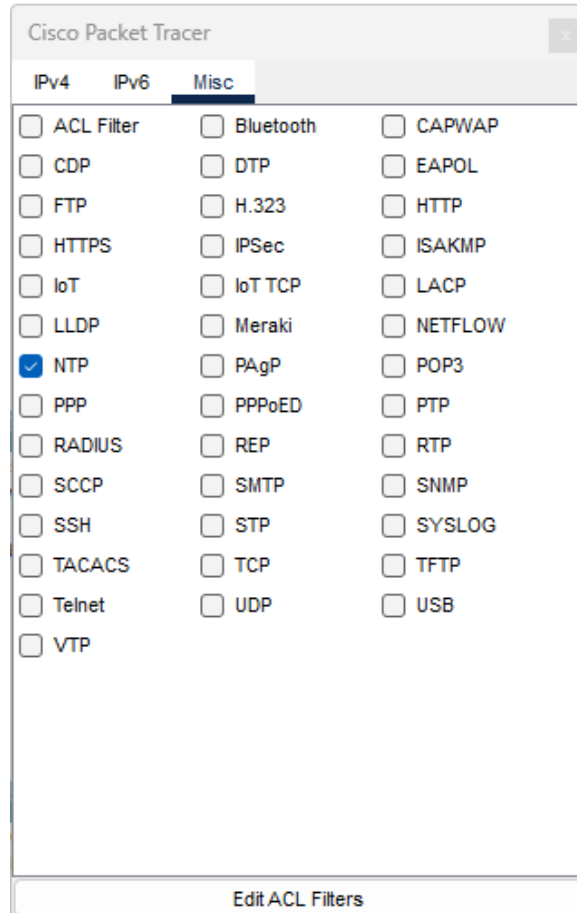
Definir o ISP como NTP server nos routers















# PERGUNTA 1

 Router2  
Physical Config CLI Attributes  
IOS Command Line Interface  
use. Delivery of Cisco cryptographic products does not imply third-party authority to import, export, distribute or use encryption. Importers, exporters, distributors and users are responsible for compliance with U.S. and local country laws. By using this product you agree to comply with applicable laws and regulations. If you are unable to comply with U.S. and local laws, return this product immediately.  
A summary of U.S. laws governing Cisco cryptographic products may be found at: <http://www.cisco.com/wwl/export/crypto/tool/stqrg.html>  
If you require further assistance please contact us by sending email to [export@cisco.com](mailto:export@cisco.com).  
cisco 2811 (MPC860) processor (revision 0x200) with 60416K/5120K bytes of memory  
Processor board ID JAD05190MTZ (4292891495)  
2 FastEthernet interface(s)  
2 Low-speed serial(sync/async) network interface(s)  
DRAM configuration is 64 bits wide with parity disabled.  
255K bytes of non-volatile configuration memory.  
249856K bytes of ATA System CompactFlash 0 (Read/Write)  
Press RETURN to get started!  
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/0, changed state to up  
Router>  
Router>  
Router>  
Router>  
Router>en  
Router#show clock  
17:45:44.999 UTC Wed Jun 14 2023  
Router# Router1  
Physical Config CLI Attributes  
IOS Command Line Interface  
Router#  
Router#  
Router#  
Router#  
Router#  
Router#show clock  
17:44:52.415 UTC Wed Jun 14 2023  
Router#

# PERGUNTA 1



Simulation Panel				
Event List				
Vis.	Time(sec)	Last Device	At Device	Type
	3.584	--	Router1	 NTP
	3.585	Router1	Router0	 NTP
	3.586	Router0	ISP	 NTP
	3.586	--	ISP	 NTP
	3.587	ISP	Router0	 NTP
	3.588	Router0	Router1	 NTP
	4.589	--	Router2	 NTP
	4.590	Router2	Router0	 NTP
	4.591	Router0	ISP	 NTP
	4.591	--	ISP	 NTP
	4.592	ISP	Router0	 NTP
	4.593	Router0	Router2	 NTP

# PERGUNTA 2

```
Router1
Physical Config CLI Attributes
IOS Command Line Interface
256K bytes of non-volatile configuration memory.
249856K bytes of ATA System CompactFlash 0 (Read/Write)

Press RETURN to get started!

Router>en
Router#show cr
Router#show crypto ipsec sa

interface: Serial0/0/0
  Crypto map tag: VPN-MAP, local addr 192.100.55.2

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 192.100.55.6 port 500
  PERMIT, flags={origin_is_acl,}
  #pkts encaps: 0, #pkts encrypt: 0, #pkts digest: 0
  #pkts decaps: 0, #pkts decrypt: 0, #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
```

```
PC1
Physical Config Desktop Programming Attributes
Command Prompt

Cisco Packet Tracer PC Command Line 1.0
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=2ms TTL=126
Reply from 192.168.30.1: bytes=32 time=21ms TTL=126
Reply from 192.168.30.1: bytes=32 time=3ms TTL=126
Reply from 192.168.30.1: bytes=32 time=18ms 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 = 21ms, Average = 11ms

C:\>
```

```
Router1
Physical Config CLI Attributes
IOS Command Line Interface

Press RETURN to get started!

Router>
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/0, changed state to up

Router>en
Router#show c
Router#show cr
Router#show crypto ip
Router#show crypto ipsec sa

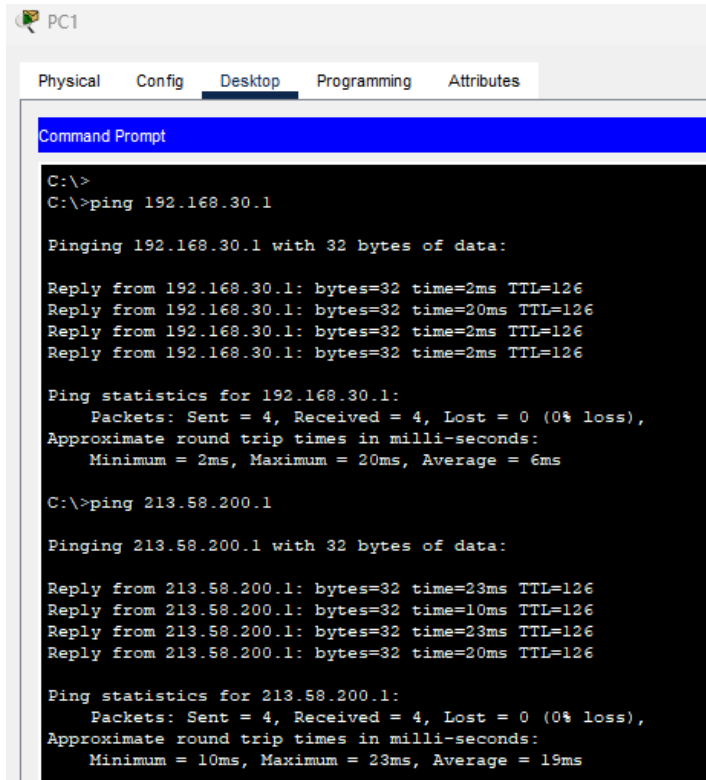
interface: Serial0/0/0
  Crypto map tag: VPN-MAP, local addr 192.100.55.2

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 192.100.55.6 port 500
  PERMIT, flags={origin_is_acl,}
  #pkts encaps: 7, #pkts encrypt: 7, #pkts digest: 0
  #pkts decaps: 7, #pkts decrypt: 7, #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.: 192.100.55.2, remote crypto endpt.: 192.100.55.6
```

O número de pacotes é 7 porque foi feito um ping anterior do PC1 para o PC0 mas em que a primeira resposta foi “Request Timed out” e as 3 respostas subsequentes foram bem sucedidas, juntando mais os 4 do ping da imagem

# PERGUNTA 2



PC1

Physical Config Desktop Programming Attributes

Command Prompt

```
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=2ms TTL=126
Reply from 192.168.30.1: bytes=32 time=20ms 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

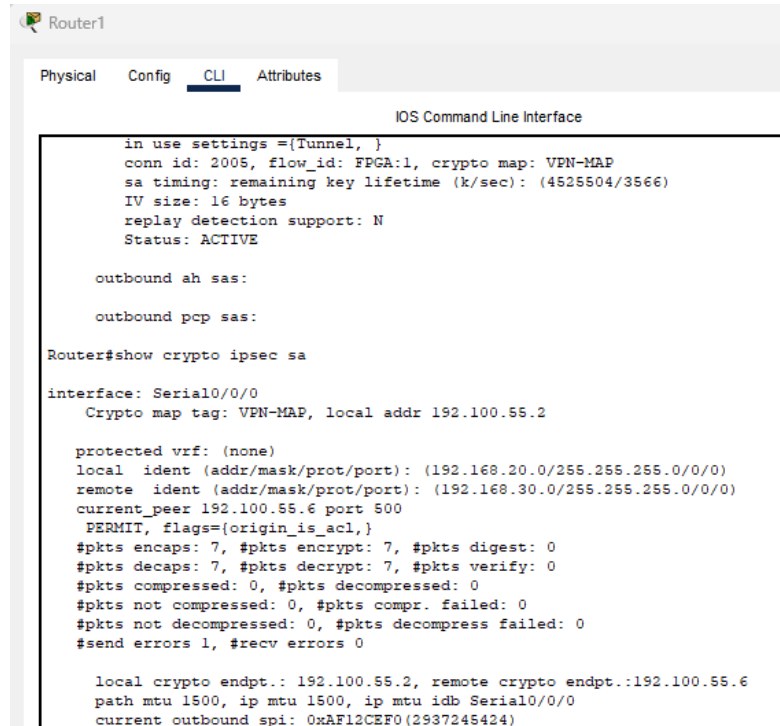
Ping statistics for 192.168.30.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 20ms, Average = 6ms

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=23ms TTL=126
Reply from 213.58.200.1: bytes=32 time=10ms TTL=126
Reply from 213.58.200.1: bytes=32 time=23ms TTL=126
Reply from 213.58.200.1: bytes=32 time=20ms 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 = 10ms, Maximum = 23ms, Average = 19ms
```



Router1

Physical Config CLI Attributes

IOS Command Line Interface

```
in use settings ={Tunnel, }
conn id: 2005, flow_id: FPGA:1, crypto map: VPN-MAP
sa timing: remaining key lifetime (k/sec): (4525504/3566)
IV size: 16 bytes
replay detection support: N
Status: ACTIVE

outbound ah sas:

outbound pcp sas:

Router#show crypto ipsec sa

interface: Serial0/0/0
    Crypto map tag: VPN-MAP, local addr 192.100.55.2

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 192.100.55.6 port 500
    PERMIT, flags={origin_is_acl,}
    #pkts encaps: 7, #pkts encrypt: 7, #pkts digest: 0
    #pkts decaps: 7, #pkts decrypt: 7, #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.: 192.100.55.2, remote crypto endpt.:192.100.55.6
    path mtu 1500, ip mtu 1500, ip mtu idb Serial0/0/0
    current outbound spi: 0xAF12CEF0(2937245424)
```

# PERGUNTA 2

## Router 1 - Coimbra

```
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int
Router(config)#interface tunnel 0

Router(config-if)#
%LINK-5-CHANGED: Interface Tunnel0, changed state to up

Router(config-if)#ip add
Router(config-if)#ip address 50.50.50.2 255.255.255.0
Router(config-if)#mt
Router(config-if)#tunn
Router(config-if)#tunnel sou
Router(config-if)#tunnel source 0/0/0
^
% Invalid input detected at '^' marker.

Router(config-if)#tunnel source s0/0/0
Router(config-if)#tunn
Router(config-if)#tunnel des
Router(config-if)#tunnel destination 192.100.55.6
Router(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Tunnel0, changed state to up

Router(config-if)#tunn
Router(config-if)#tunnel mod
Router(config-if)#tunnel mode gre ip

sh int tu 0
Tunnel0 is up, line protocol is up (connected)
  Hardware is Tunnel
  Internet address is 50.50.50.2/24
  MTU 17916 bytes, BW 100 Kbit/sec, DLY 50000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation TUNNEL, loopback not set
  Keepalive not set
  Tunnel source 192.100.55.2 (Serial0/0/0), destination 192.100.55.6
  Tunnel protocol/transport GRE/IP
```

## Router 2 - Lisboa

```
Router>en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int tunn
Router(config)#int tunnel 0

Router(config-if)#
%LINK-5-CHANGED: Interface Tunnel0, changed state to up
ip add
Router(config-if)#ip address 50.50.50.1 255.255.255.0
Router(config-if)#tunn
Router(config-if)#tunnel sour
Router(config-if)#tunnel source s0/0/0
Router(config-if)#tun
Router(config-if)#tunnel des
Router(config-if)#tunnel destination 192.100.55.2
Router(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Tunnel0, changed state to up
do wr
Building configuration...
[OK]
Router(config-if)#

Router#sh int tu 0
Tunnel0 is up, line protocol is up (connected)
  Hardware is Tunnel
  Internet address is 50.50.50.1/24
  MTU 17916 bytes, BW 100 Kbit/sec, DLY 50000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation TUNNEL, loopback not set
  Keepalive not set
  Tunnel source 192.100.55.6 (Serial0/0/0), destination 192.100.55.2
  Tunnel protocol/transport GRE/IP
```



# PERGUNTA 2

## Router 1

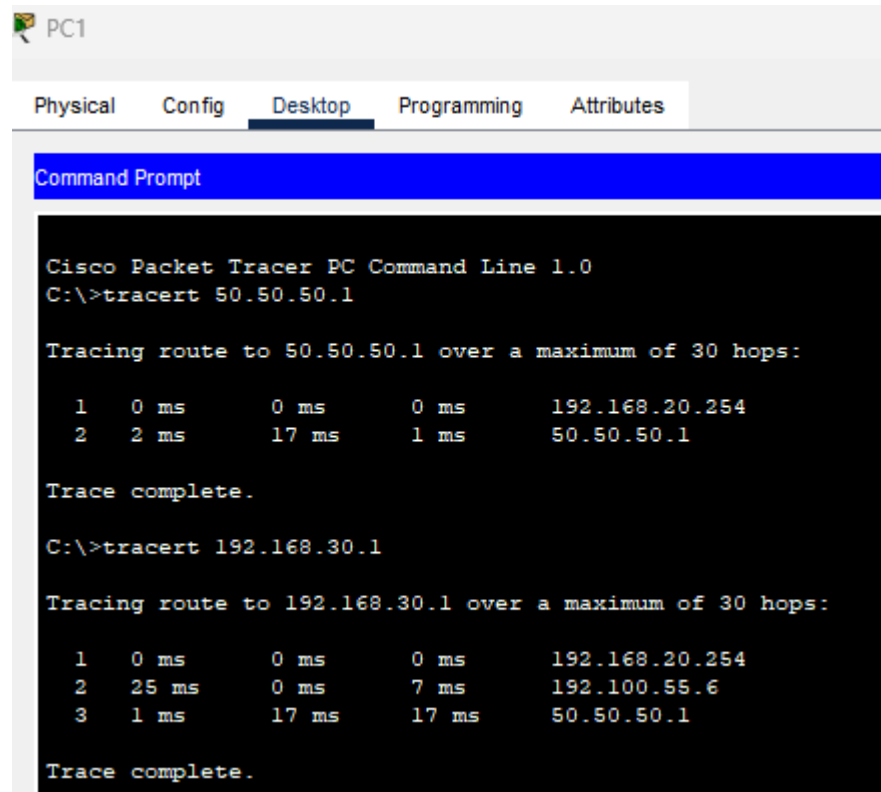
```
50.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C    50.50.50.0/24 is directly connected, Tunnel0
L    50.50.50.2/32 is directly connected, Tunnel0
192.100.55.0/24 is variably subnetted, 3 subnets, 2 masks
C    192.100.55.0/30 is directly connected, Serial0/0/0
L    192.100.55.2/32 is directly connected, Serial0/0/0
S    192.100.55.4/30 [1/0] via 192.100.55.1
192.168.20.0/24 is variably subnetted, 2 subnets, 2 masks
C    192.168.20.0/24 is directly connected, FastEthernet0/0
L    192.168.20.254/32 is directly connected, FastEthernet0/0
S    192.168.30.0/24 [1/0] via 192.100.55.1
        [1/0] via 50.50.50.1
213.58.200.0/30 is subnetted, 1 subnets
S    213.58.200.0/30 [1/0] via 192.100.55.1
```

Router(config)#

## Router 2

```
50.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C    50.50.50.0/24 is directly connected, Tunnel0
L    50.50.50.1/32 is directly connected, Tunnel0
192.100.55.0/24 is variably subnetted, 3 subnets, 2 masks
S    192.100.55.0/30 [1/0] via 192.100.55.5
C    192.100.55.4/30 is directly connected, Serial0/0/0
L    192.100.55.6/32 is directly connected, Serial0/0/0
S    192.168.20.0/24 [1/0] via 192.100.55.5
        [1/0] via 50.50.50.2
192.168.30.0/24 is variably subnetted, 2 subnets, 2 masks
C    192.168.30.0/24 is directly connected, FastEthernet0/0
L    192.168.30.254/32 is directly connected, FastEthernet0/0
213.58.200.0/30 is subnetted, 1 subnets
S    213.58.200.0/30 [1/0] via 192.100.55.5
```

# PERGUNTA 2



The screenshot shows the Cisco Packet Tracer PC Command Line interface for PC1. The 'Desktop' tab is selected. The Command Prompt displays the results of two traceroute commands. The first command, 'tracert 50.50.50.1', shows a two-hop path from 192.168.20.254 to 50.50.50.1. The second command, 'tracert 192.168.30.1', shows a three-hop path from 192.168.20.254 to 192.100.55.6 to 50.50.50.1.

```
PC1
Physical  Config  Desktop  Programming  Attributes
Command Prompt

Cisco Packet Tracer PC Command Line 1.0
C:\>tracert 50.50.50.1

Tracing route to 50.50.50.1 over a maximum of 30 hops:

  1  0 ms    0 ms    0 ms    192.168.20.254
  2  2 ms    17 ms   1 ms    50.50.50.1

Trace complete.

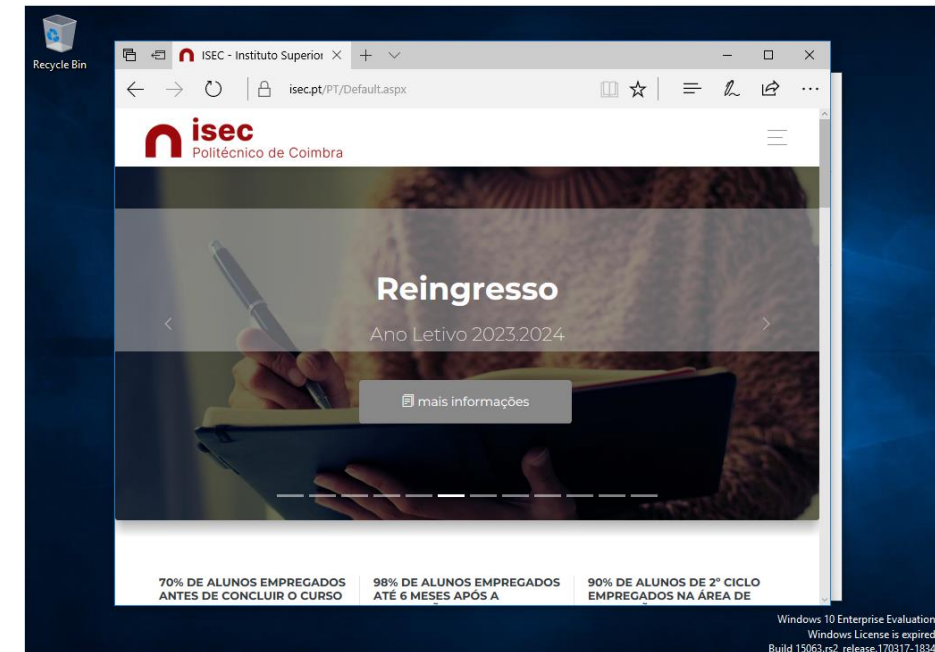
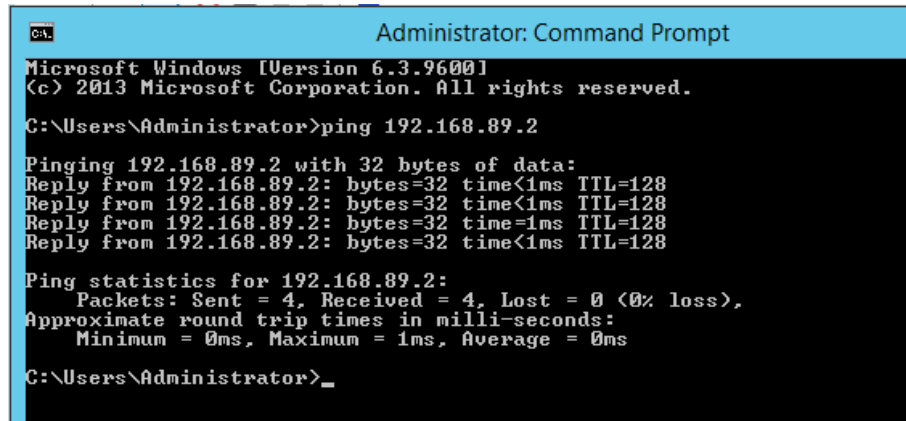
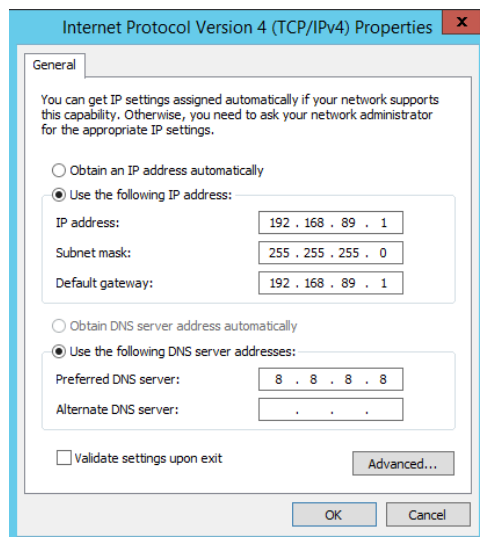
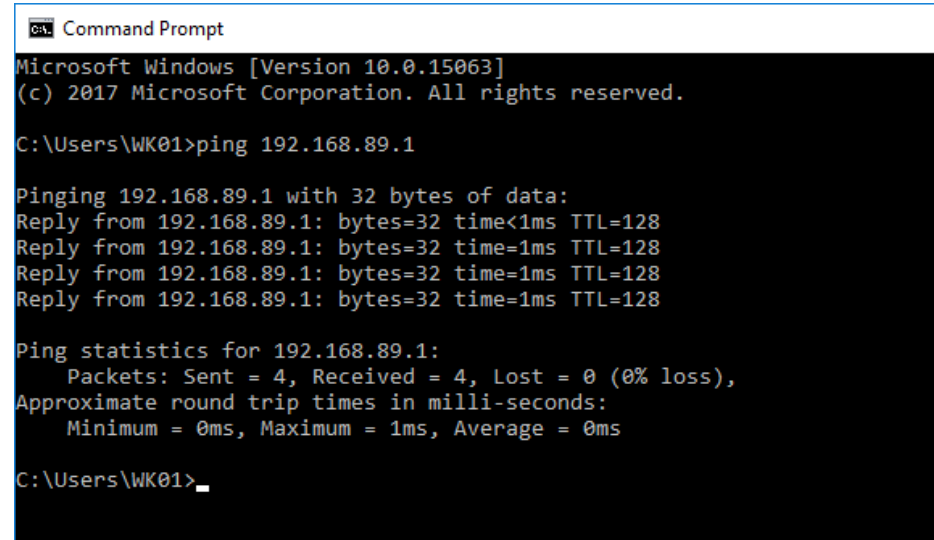
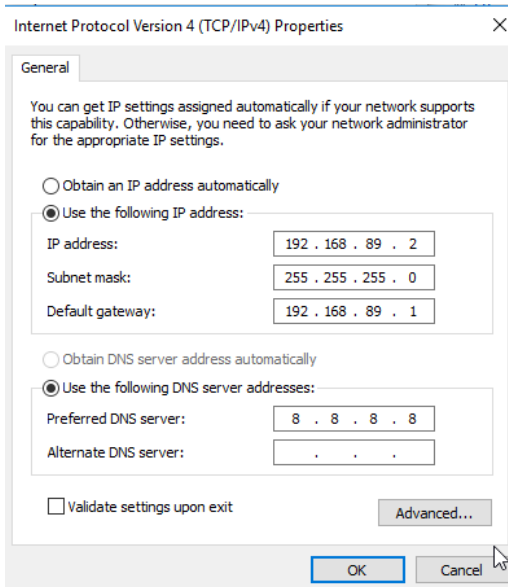
C:\>tracert 192.168.30.1

Tracing route to 192.168.30.1 over a maximum of 30 hops:

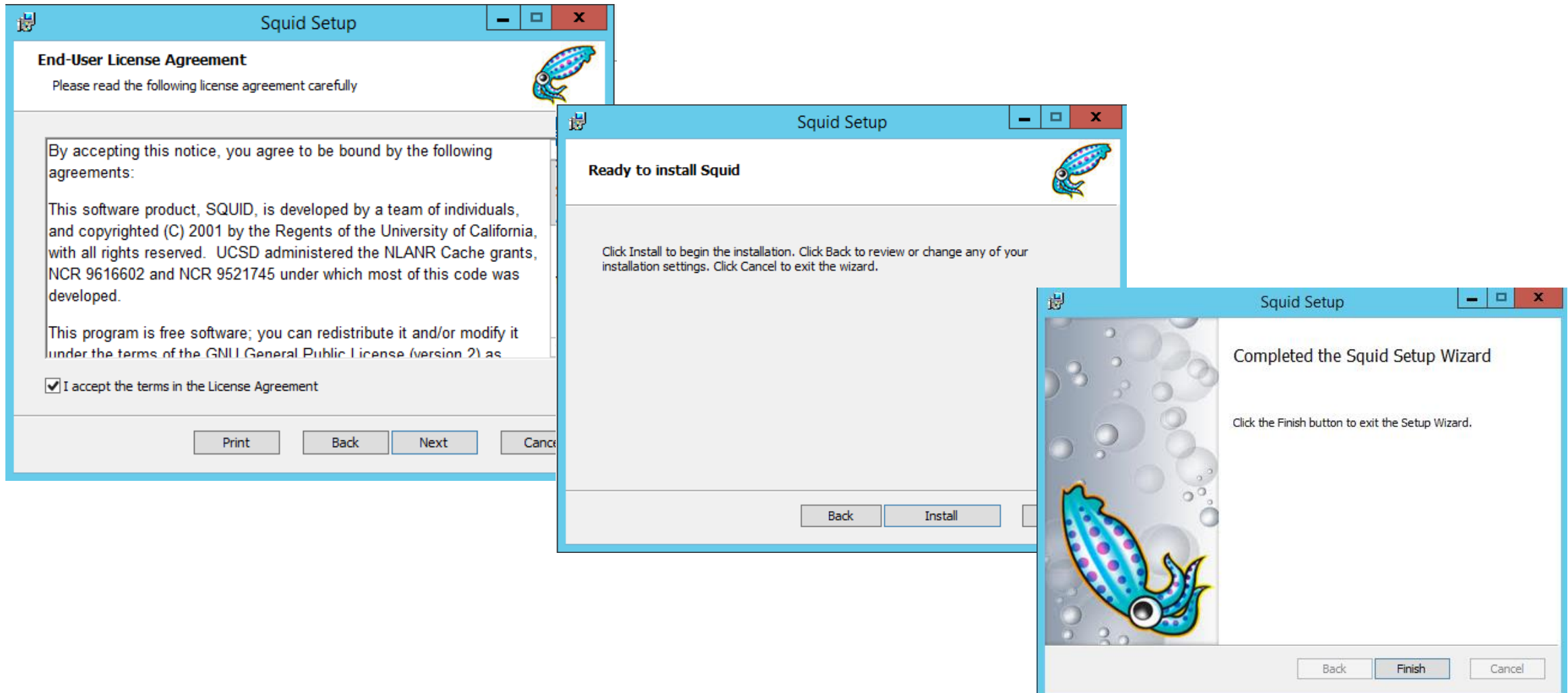
  1  0 ms    0 ms    0 ms    192.168.20.254
  2  25 ms   0 ms    7 ms    192.100.55.6
  3  1 ms    17 ms   17 ms   50.50.50.1

Trace complete.
```

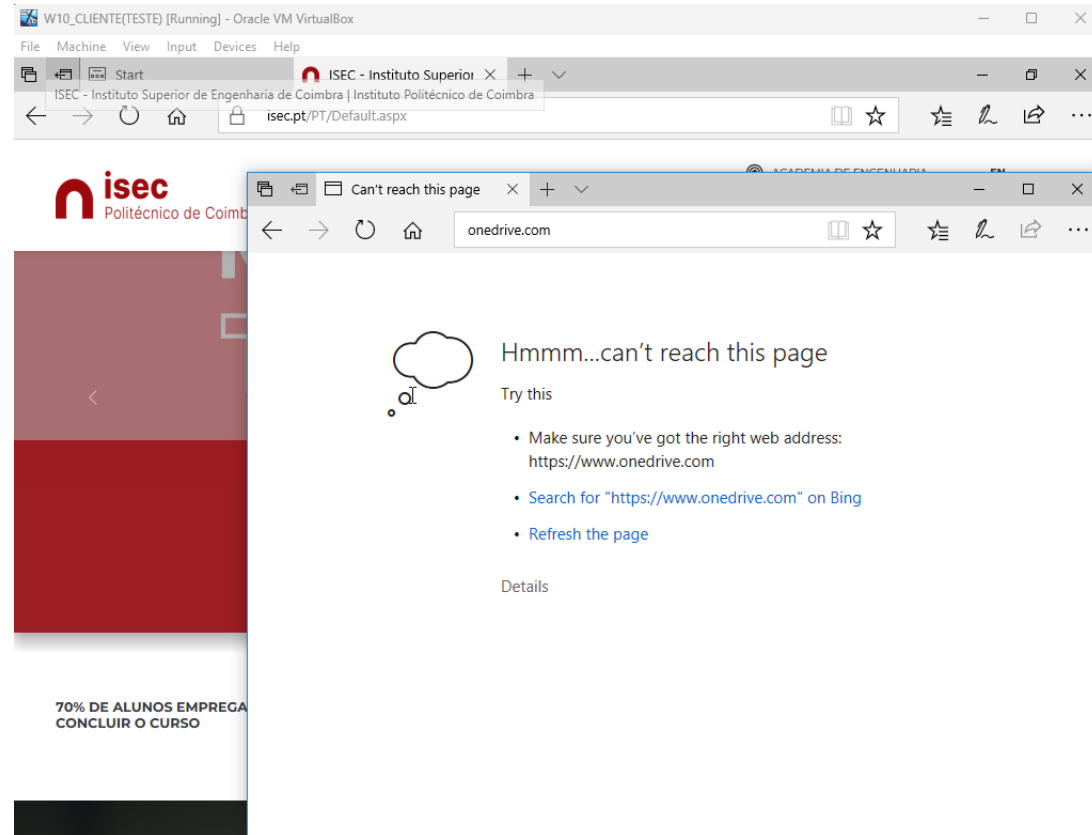
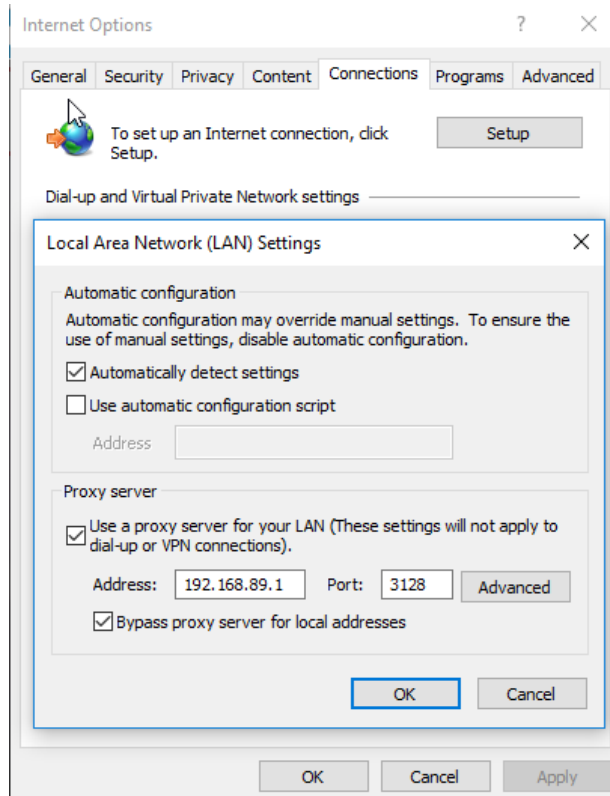
# PERGUNTA 3 – A)



# PERGUNTA 3 – A)



# PERGUNTA 3 – A)

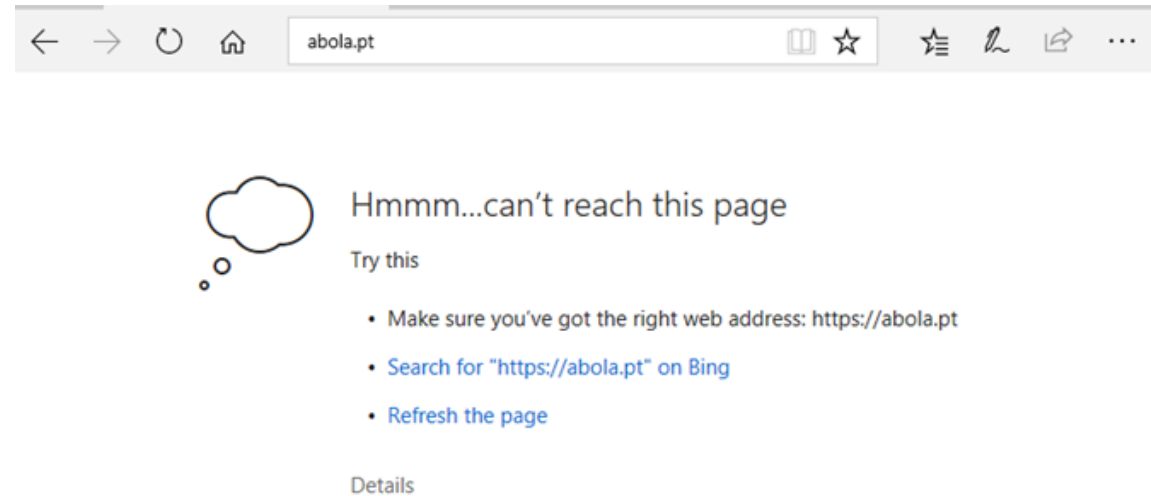


# PERGUNTA 3 – B)

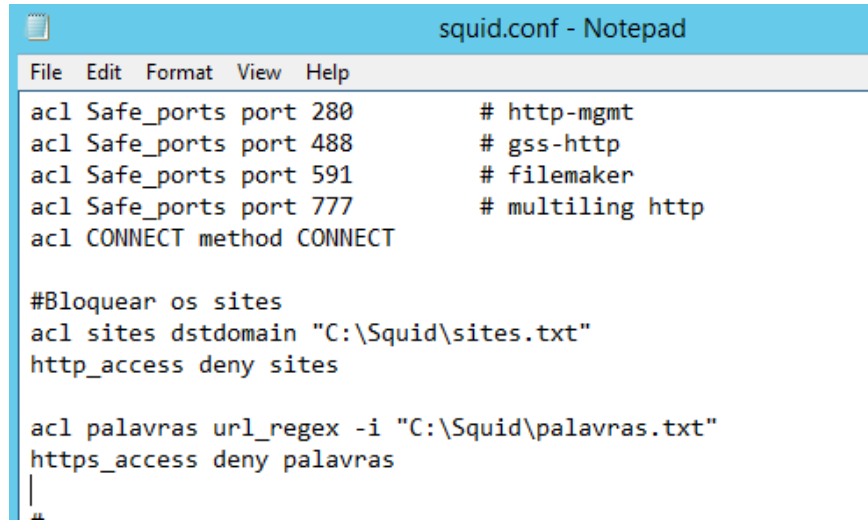
```
squid.conf - Notepad
File Edit Format View Help
acl Safe_ports port 280      # http-mgmt
acl Safe_ports port 488      # gss-http
acl Safe_ports port 591      # filemaker
acl Safe_ports port 777      # multiling http
acl CONNECT method CONNECT

#Bloquear os sites
acl sites dstdomain "C:\Squid\sites.txt"
http_access deny sites
```

```
sites - Notepad
File Edit Format View Help
.abola.pt
.record.pt
.ojogo.pt|
```



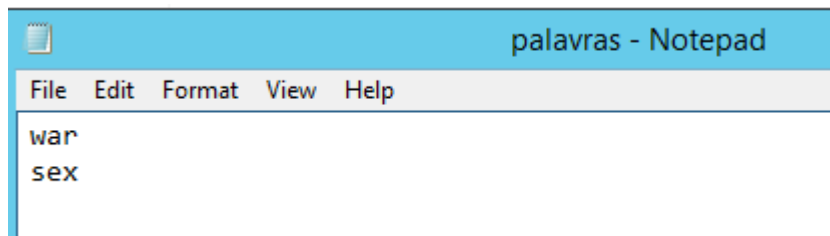
# PERGUNTA 3 – C)



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

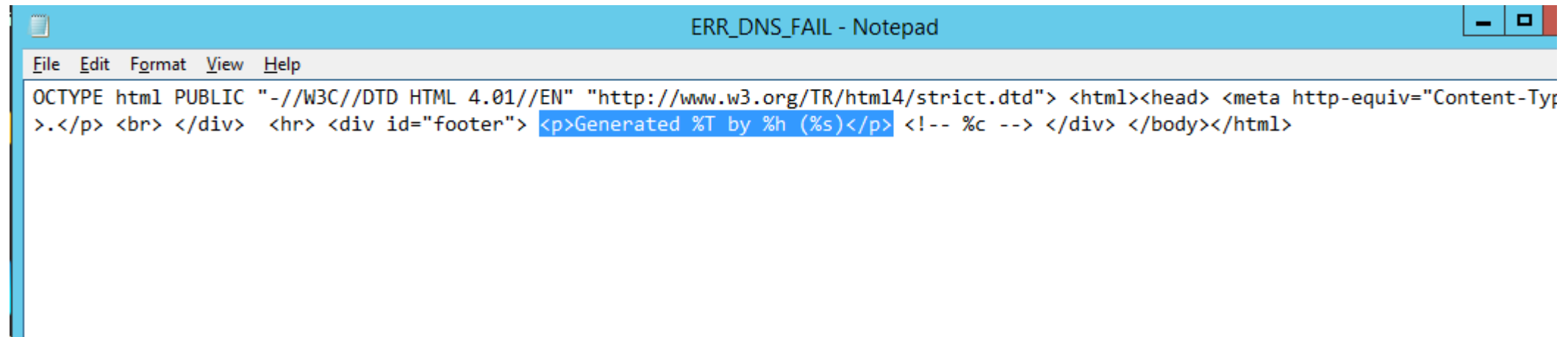
#Bloquear os sites
acl sites dstdomain "C:\Squid\sites.txt"
http_access deny sites

acl palavras url_regex -i "C:\Squid\palavras.txt"
https_access deny palavras
|
„
```



```
palavras - Notepad
File Edit Format View Help
war
sex
```

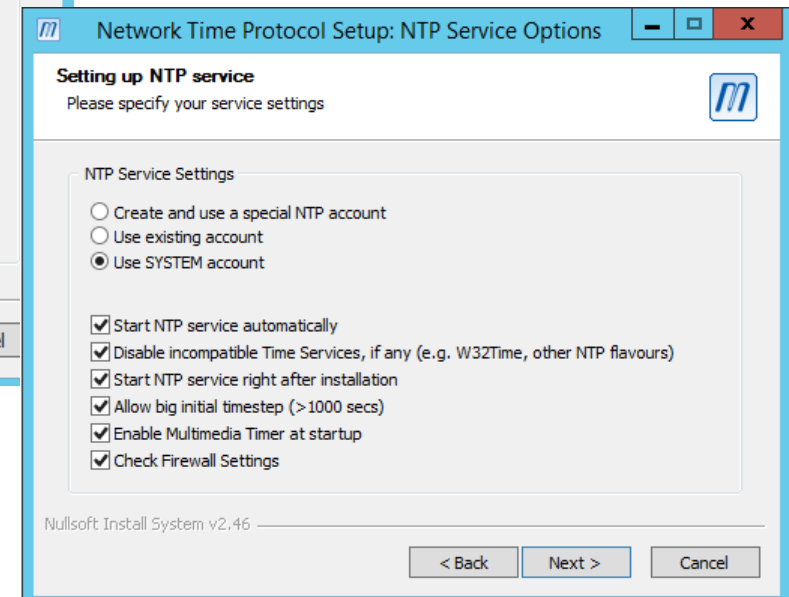
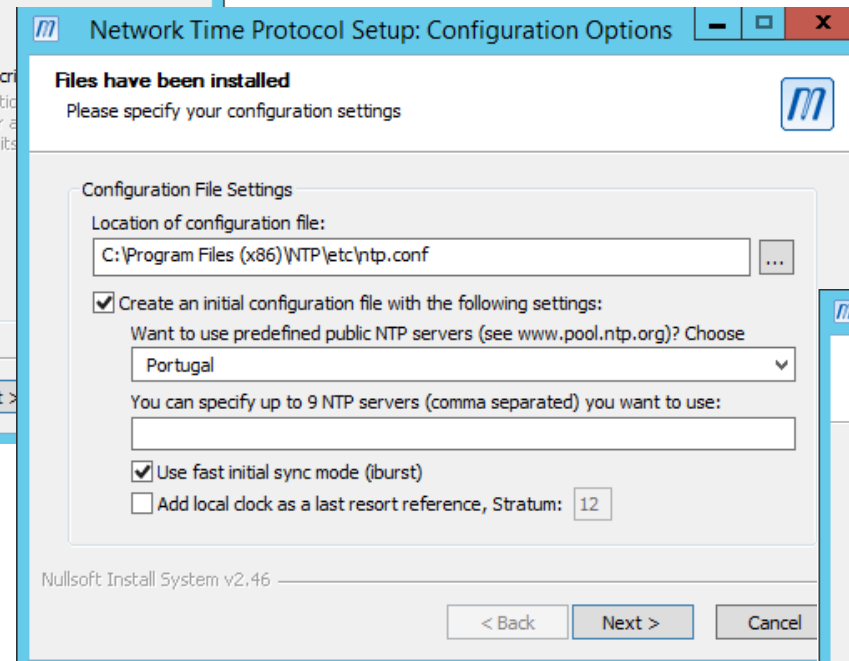
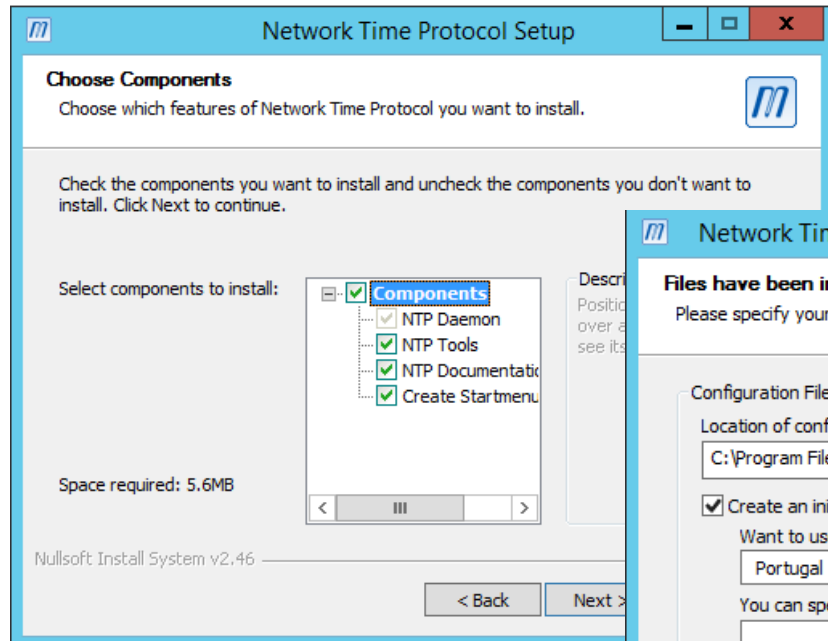
# PERGUNTA 3 – D)



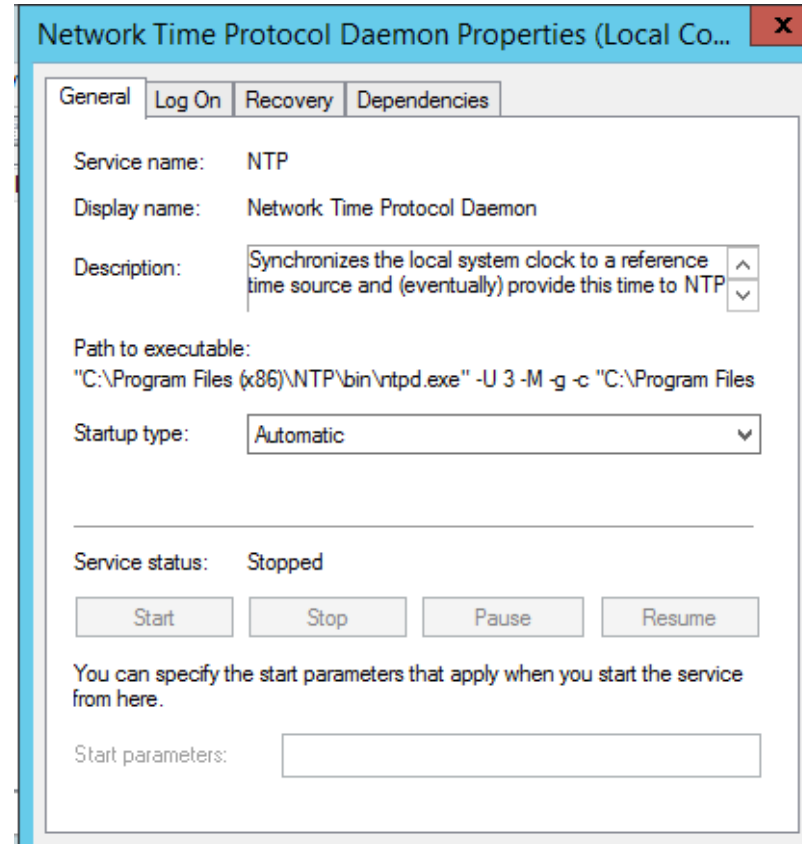
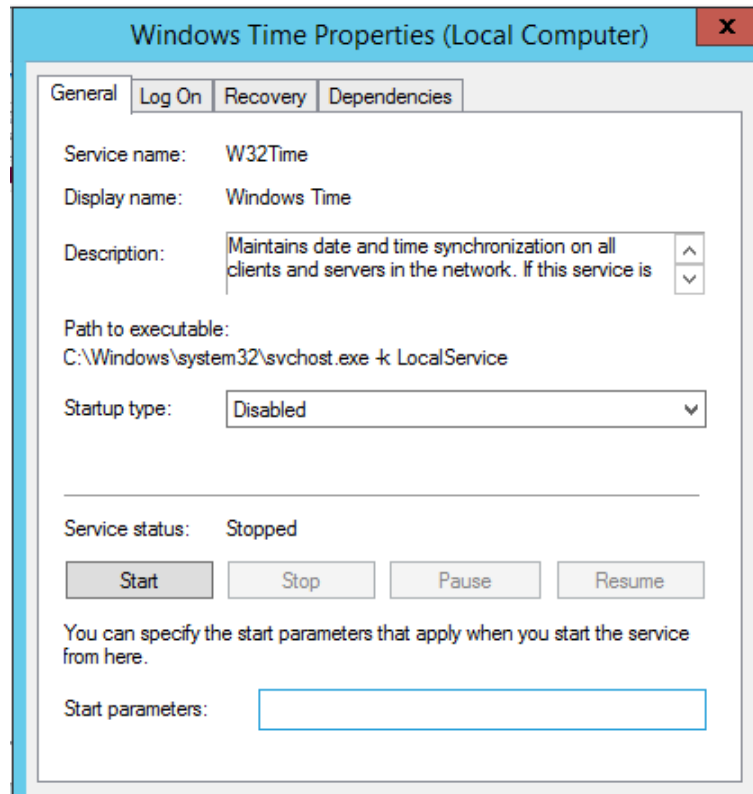
```
ERR_DNS_FAIL - Notepad
File Edit Format View Help
OCTYPE html PUBLIC "-//W3C//DTD HTML 4.01//EN" "http://www.w3.org/TR/html4/strict.dtd"> <html><head> <meta http-equiv="Content-Type" content="text/html" charset="UTF-8"></meta></head><body><div id="main"><p>Generated %T by %h (%s)</p></div></body></html>
```



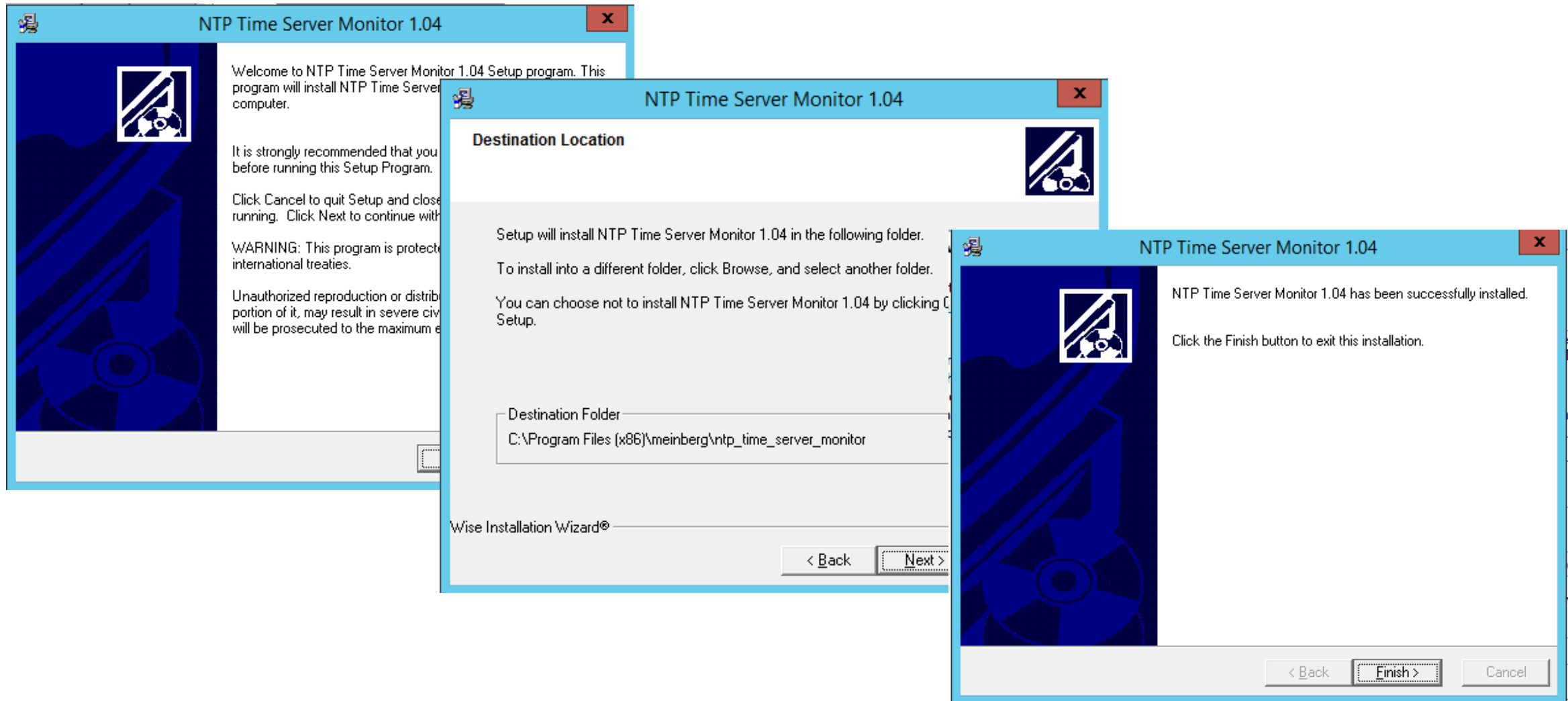
# PERGUNTA 4 – A)



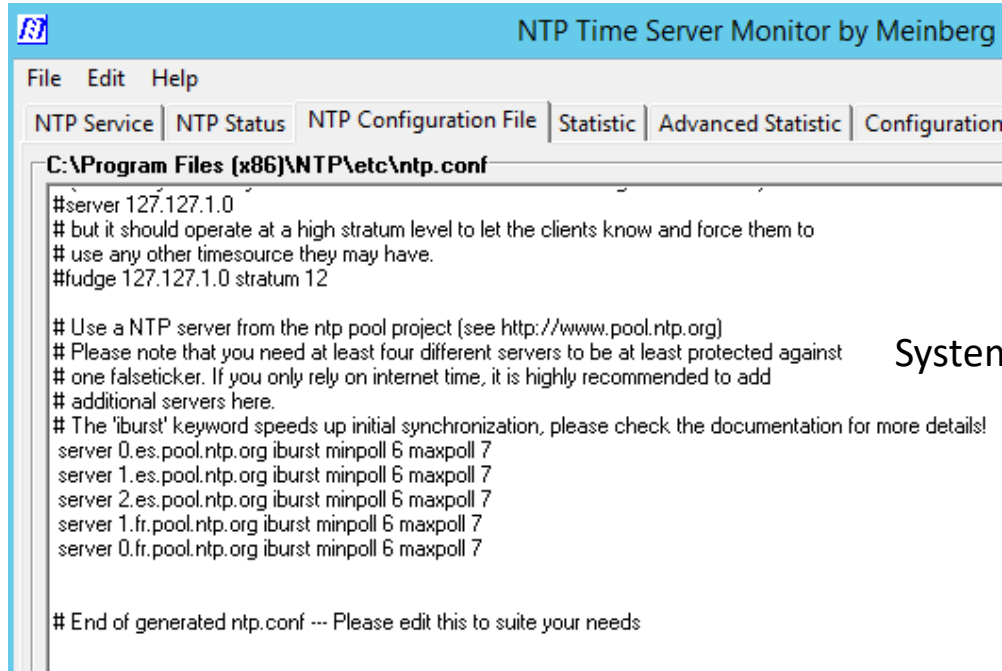
# PERGUNTA 4 – A)



# PERGUNTA 4 – B)



# PERGUNTA 4 – C)



NTP Time Server Monitor by Meinberg

File Edit Help

NTP Service NTP Status NTP Configuration File Statistic Advanced Statistic Configuration

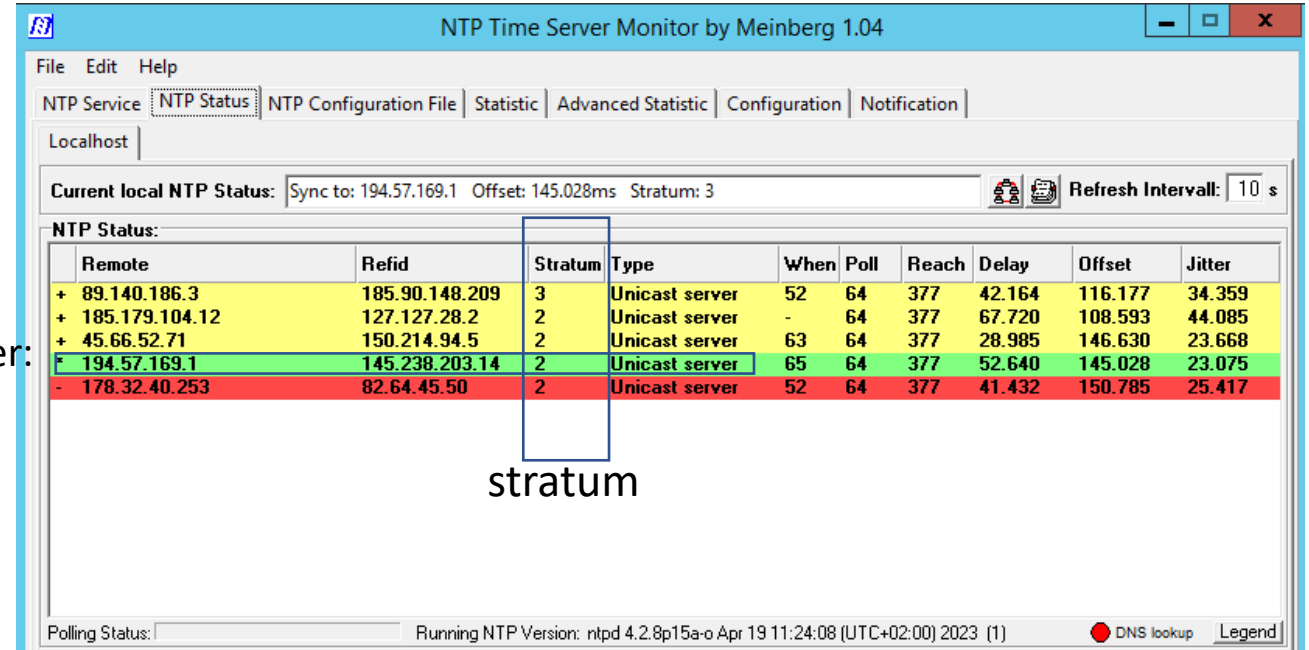
C:\Program Files (x86)\NTP\etc\ntp.conf

```
#server 127.127.1.0
# but it should operate at a high stratum level to let the clients know and force them to
# use any other timesource they may have.
#fudge 127.127.1.0 stratum 12

# Use a NTP server from the ntp pool project (see http://www.pool.ntp.org)
# Please note that you need at least four different servers to be at least protected against
# one falseticker. If you only rely on internet time, it is highly recommended to add
# additional servers here.
# The 'iburst' keyword speeds up initial synchronization, please check the documentation for more details!
server 0.es.pool.ntp.org iburst minpoll 6 maxpoll 7
server 1.es.pool.ntp.org iburst minpoll 6 maxpoll 7
server 2.es.pool.ntp.org iburst minpoll 6 maxpoll 7
server 1.fr.pool.ntp.org iburst minpoll 6 maxpoll 7
server 0.fr.pool.ntp.org iburst minpoll 6 maxpoll 7

# End of generated ntp.conf --- Please edit this to suite your needs
```

System peer:



NTP Time Server Monitor by Meinberg 1.04

File Edit Help

NTP Service NTP Status NTP Configuration File Statistic Advanced Statistic Configuration Notification

Localhost

Current local NTP Status: Sync to: 194.57.169.1 Offset: 145.028ms Stratum: 3 Refresh Interval: 10 s

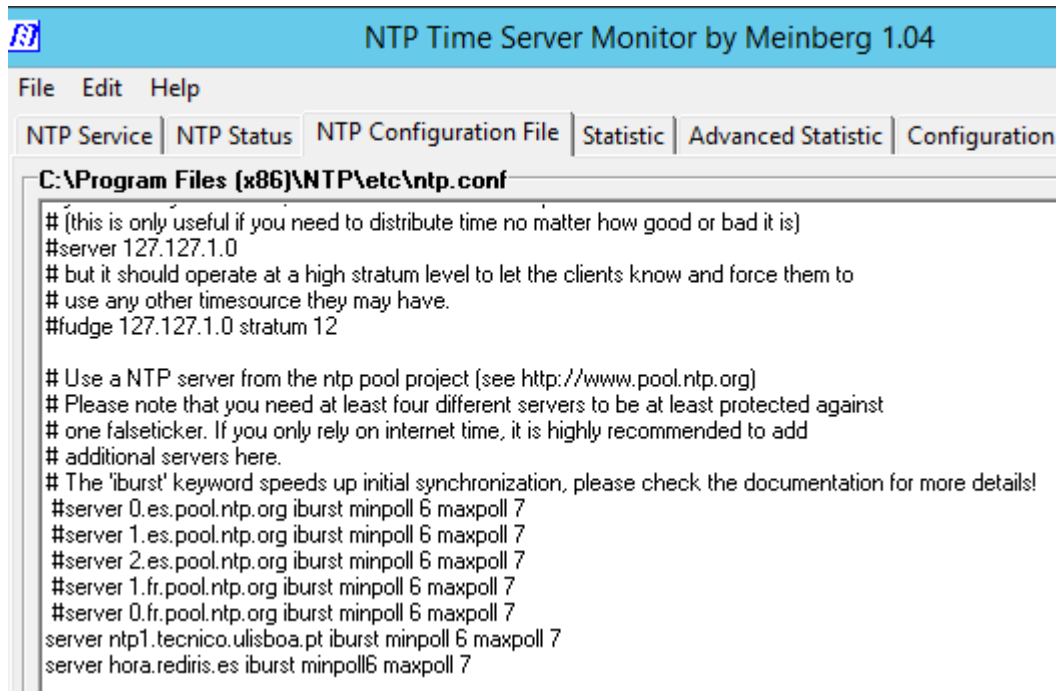
NTP Status:

	Remote	Refid	Stratum	Type	When	Poll	Reach	Delay	Offset	Jitter
+	89.140.186.3	185.90.148.209	3	Unicast server	52	64	377	42.164	116.177	34.359
+	185.179.104.12	127.127.28.2	2	Unicast server	-	64	377	67.720	108.593	44.085
+	45.66.52.71	150.214.94.5	2	Unicast server	63	64	377	28.985	146.630	23.668
*	194.57.169.1	145.238.203.14	2	Unicast server	65	64	377	52.640	145.028	23.075
-	178.32.40.253	82.64.45.50	2	Unicast server	52	64	377	41.432	150.785	25.417

stratum

Polling Status: Running NTP Version: ntpd 4.2.8p15a-o Apr 19 11:24:08 (UTC+02:00) 2023 (1) DNS lookup Legend

# PERGUNTA 4 – D)

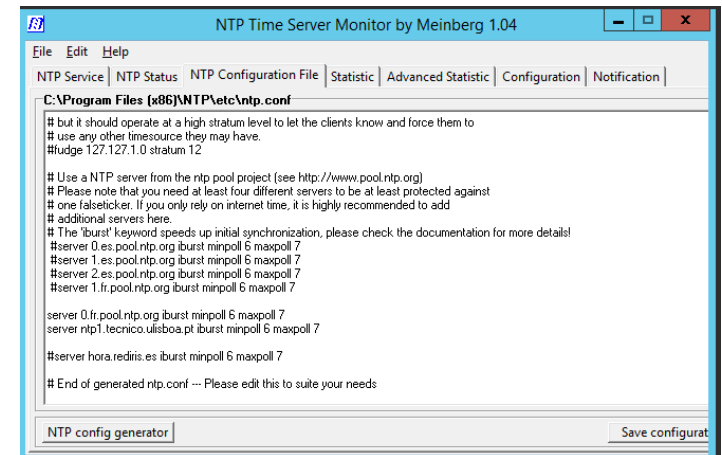


The screenshot shows the 'NTP Configuration File' tab in the 'NTP Time Server Monitor by Meinberg 1.04' application. The file path is 'C:\Program Files (x86)\NTP\etc\ntp.conf'. The configuration text is as follows:


```
# (this is only useful if you need to distribute time no matter how good or bad it is)
#server 127.127.1.0
# but it should operate at a high stratum level to let the clients know and force them to
# use any other timesource they may have.
#fudge 127.127.1.0 stratum 12

# Use a NTP server from the ntp pool project (see http://www.pool.ntp.org)
# Please note that you need at least four different servers to be at least protected against
# one falseticker. If you only rely on internet time, it is highly recommended to add
# additional servers here.
# The 'iburst' keyword speeds up initial synchronization, please check the documentation for more details!
#server 0.es.pool.ntp.org iburst minpoll 6 maxpoll 7
#server 1.es.pool.ntp.org iburst minpoll 6 maxpoll 7
#server 2.es.pool.ntp.org iburst minpoll 6 maxpoll 7
#server 1.fr.pool.ntp.org iburst minpoll 6 maxpoll 7
#server 0.fr.pool.ntp.org iburst minpoll 6 maxpoll 7
server ntp1.tecnico.ulisboa.pt iburst minpoll 6 maxpoll 7
server hora.rediris.es iburst minpoll 6 maxpoll 7
```

O segundo servidor adicionado não estava a responder aos pedidos



This screenshot is similar to the previous one but includes a 'NTP config generator' button at the bottom left and a 'Save configurat...' button at the bottom right. The configuration text is identical to the previous screenshot.



The screenshot shows a Windows command prompt with the following commands and output:

```
C:\Users\Administrator>ping 193.136.152.71

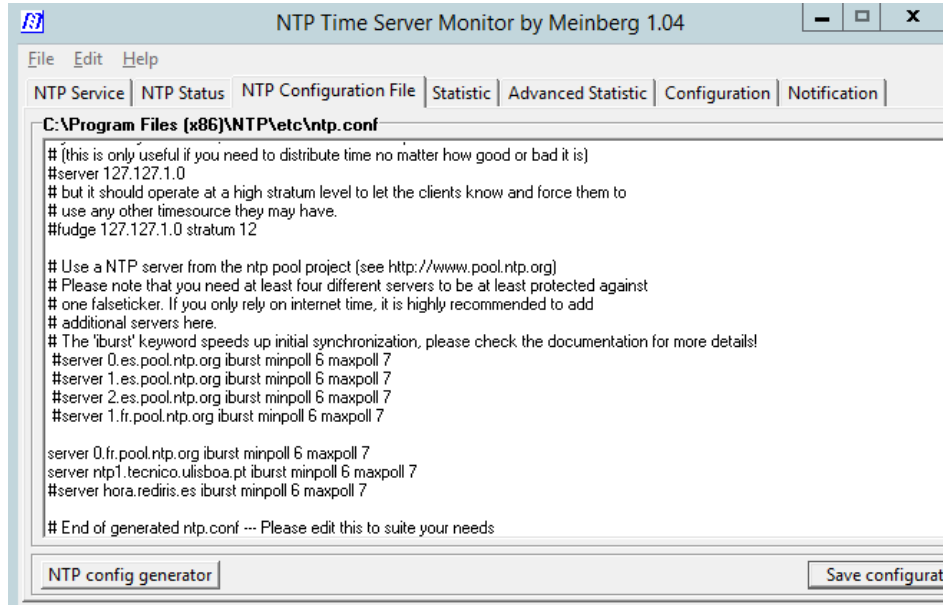
Pinging 193.136.152.71 with 32 bytes of data:
Reply from 193.136.152.71: bytes=32 time=8ms TTL=55
Reply from 193.136.152.71: bytes=32 time=4ms TTL=55
Reply from 193.136.152.71: bytes=32 time=5ms TTL=55
Reply from 193.136.152.71: bytes=32 time=8ms TTL=55

Ping statistics for 193.136.152.71:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 4ms, Maximum = 8ms, Average = 6ms

C:\Users\Administrator>ping 130.206.3.166

Pinging 130.206.3.166 with 32 bytes of data:
Request timed out.
```

# PERGUNTA 4 –D)



The screenshot shows the 'NTP Configuration File' tab in the NTP Time Server Monitor. The file path is 'C:\Program Files (x86)\NTP\etc\ntp.conf'. The configuration includes comments and server entries for the NTP pool project and local servers.

```
# (this is only useful if you need to distribute time no matter how good or bad it is)
#server 127.127.1.0
# but it should operate at a high stratum level to let the clients know and force them to
# use any other timesource they may have.
#fudge 127.127.1.0 stratum 12

# Use a NTP server from the ntp pool project (see http://www.pool.ntp.org)
# Please note that you need at least four different servers to be at least protected against
# one falselicker. If you only rely on internet time, it is highly recommended to add
# additional servers here.
# The 'iburst' keyword speeds up initial synchronization, please check the documentation for more details!
#server 0.es.pool.ntp.org iburst minpoll 6 maxpoll 7
#server 1.es.pool.ntp.org iburst minpoll 6 maxpoll 7
#server 2.es.pool.ntp.org iburst minpoll 6 maxpoll 7
#server 1.fr.pool.ntp.org iburst minpoll 6 maxpoll 7

server 0.fr.pool.ntp.org iburst minpoll 6 maxpoll 7
server ntp1.tecnico.ulisboa.pt iburst minpoll 6 maxpoll 7
#server hora.rediris.es iburst minpoll 6 maxpoll 7

# End of generated ntp.conf --- Please edit this to suite your needs
```

Buttons at the bottom: 'NTP config generator' and 'Save configurat'.

```
C:\Users\Administrator>ping 178.32.40.253

Pinging 178.32.40.253 with 32 bytes of data:
Reply from 178.32.40.253: bytes=32 time=44ms TTL=42
Reply from 178.32.40.253: bytes=32 time=44ms TTL=42
Reply from 178.32.40.253: bytes=32 time=46ms TTL=42
Reply from 178.32.40.253: bytes=32 time=44ms TTL=42

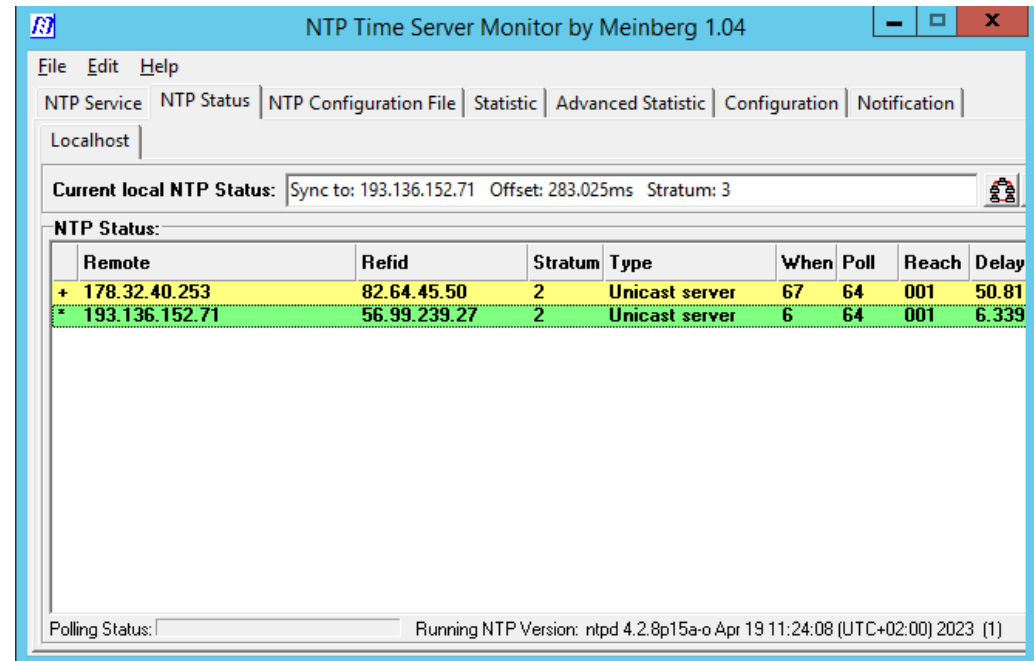
Ping statistics for 178.32.40.253:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 44ms, Maximum = 46ms, Average = 44ms

C:\Users\Administrator>ping 193.136.152.71

Pinging 193.136.152.71 with 32 bytes of data:
Reply from 193.136.152.71: bytes=32 time=5ms TTL=55
Reply from 193.136.152.71: bytes=32 time=6ms TTL=55
Reply from 193.136.152.71: bytes=32 time=6ms TTL=55
Reply from 193.136.152.71: bytes=32 time=6ms TTL=55

Ping statistics for 193.136.152.71:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 5ms, Maximum = 6ms, Average = 5ms
```

Foi usado um dos servidores que estava em funcionamento previamente mais o novo



The screenshot shows the 'NTP Status' tab. It displays the 'Current local NTP Status' and a table of NTP servers.

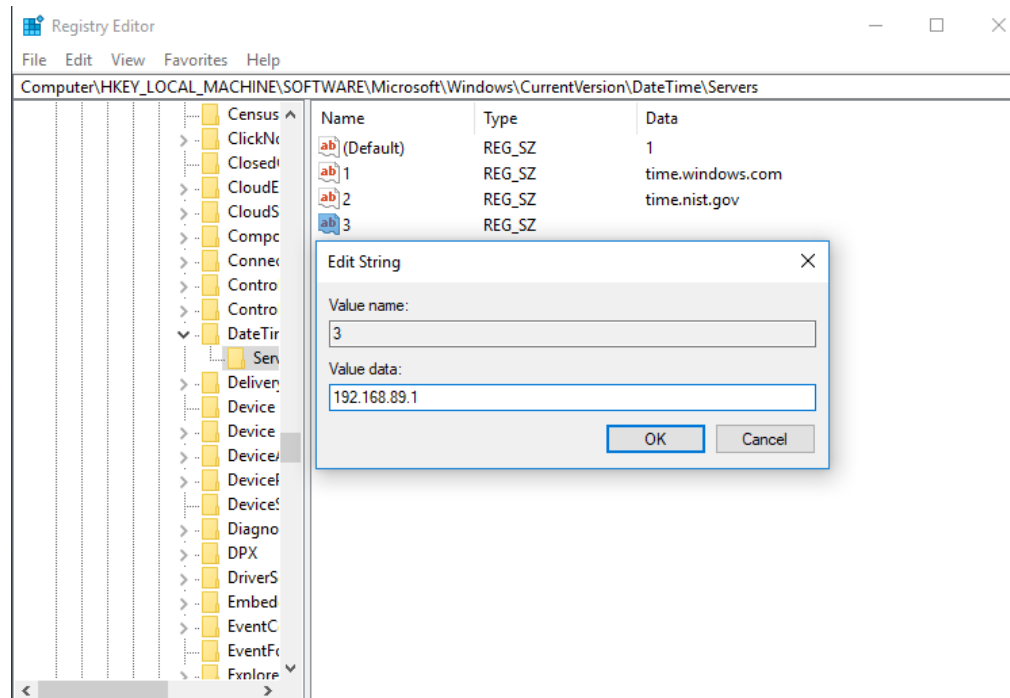
Current local NTP Status: Sync to: 193.136.152.71 Offset: 283.025ms Stratum: 3

NTP Status:

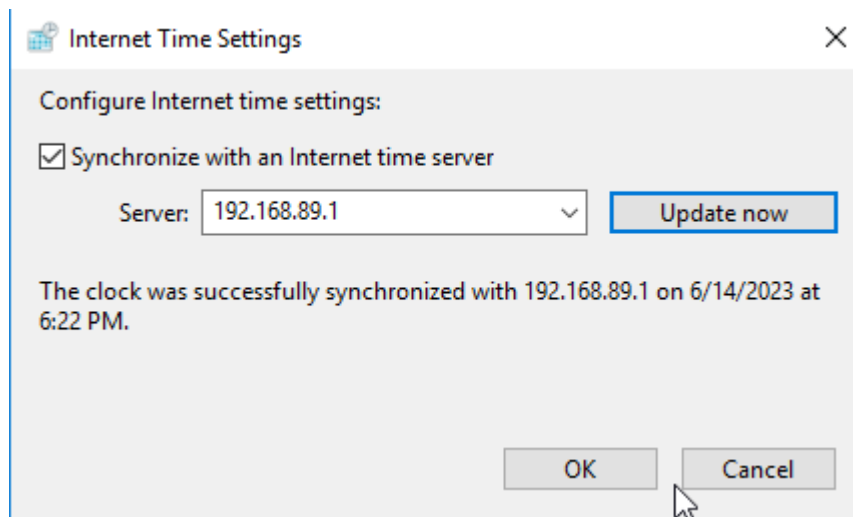
	Remote	Refid	Stratum	Type	When	Poll	Reach	Delay
+	178.32.40.253	82.64.45.50	2	Unicast server	67	64	001	50.81
*	193.136.152.71	56.99.239.27	2	Unicast server	6	64	001	6.339

Buttons at the bottom: 'Polling Status:' and 'Running NTP Version: ntpd 4.2.8p15a-o Apr 19 11:24:08 (UTC+02:00) 2023 (1)'

# PERGUNTA 4 – E)



# PERGUNTA 4 – F)





# PERGUNTA 4 – G)

