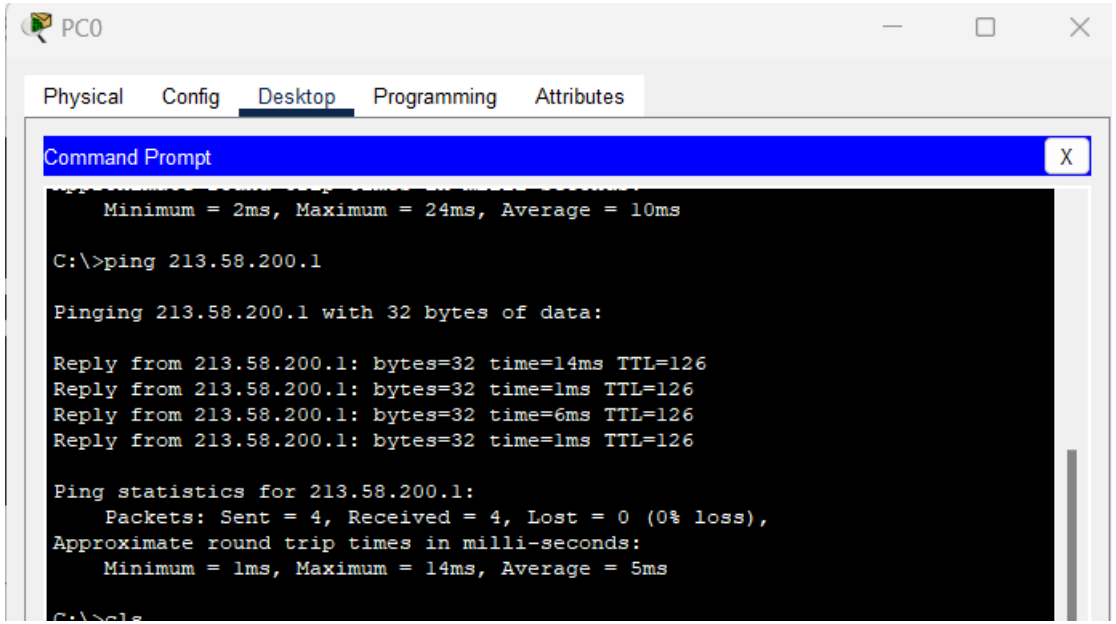
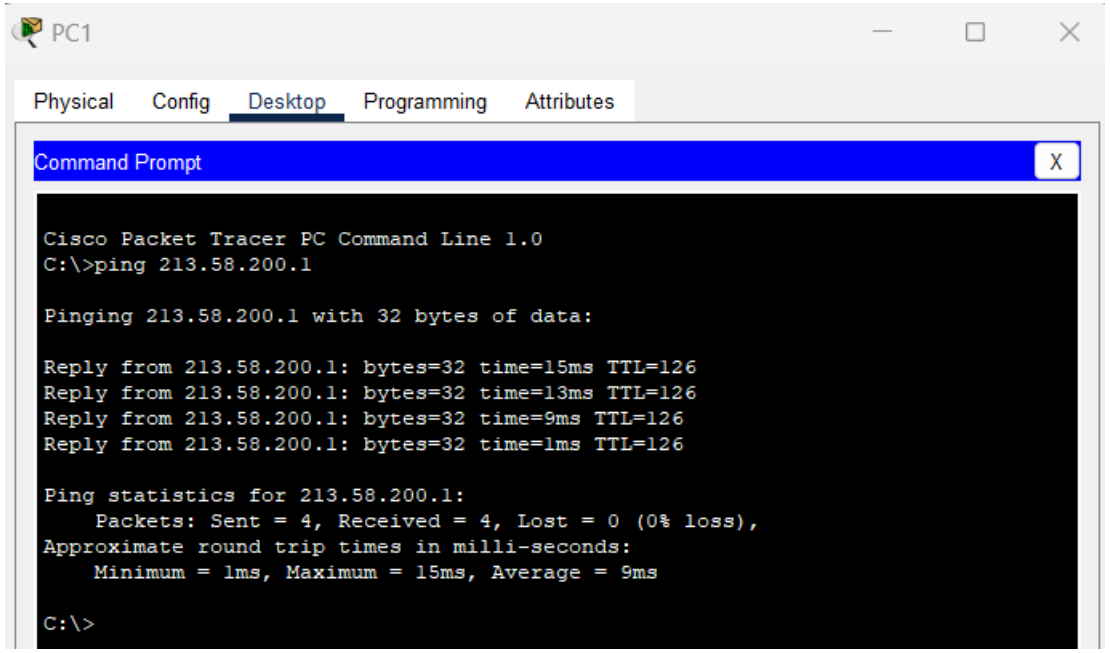
PEDRO MIGUEL NEVES MARTINS

2021135054

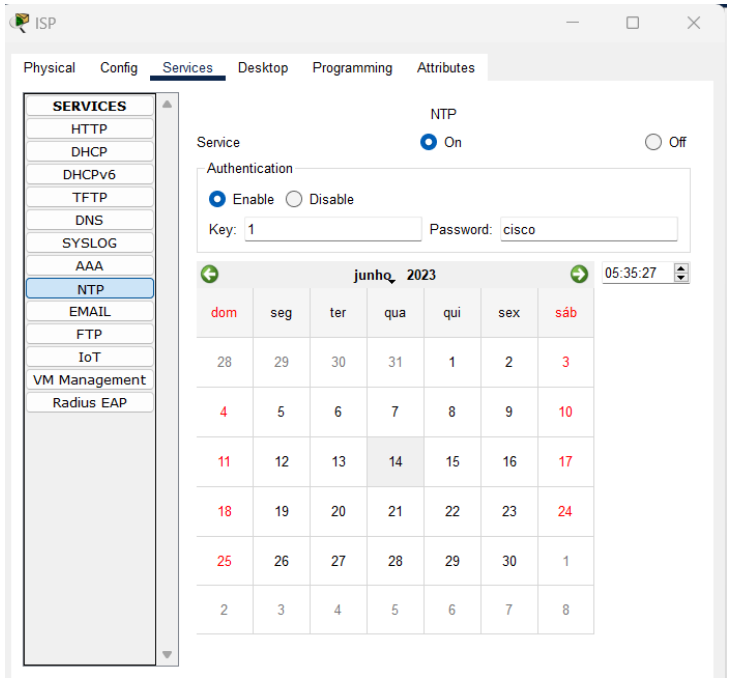
PARTE A


PC0
Physical
Config
Desktop
Programming
Attributes
Command Prompt
X
Minimum = 2ms, Maximum = 24ms, Average = 10ms
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=14ms TTL=126
Reply from 213.58.200.1: bytes=32 time=1ms TTL=126
Reply from 213.58.200.1: bytes=32 time=6ms 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 = 14ms, Average = 5ms


PC1
Physical
Config
Desktop
Programming
Attributes
Command Prompt
X
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=15ms TTL=126
Reply from 213.58.200.1: bytes=32 time=13ms TTL=126
Reply from 213.58.200.1: bytes=32 time=9ms 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 = 15ms, Average = 9ms
C:\>

PERGUNTA 1

Desativei todos os serviços no servidor, exceto o NTP

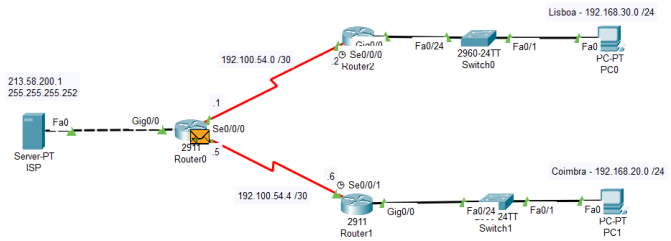



```
R0>en
R0#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
R0(config)#hostname Router0
Router0(config)#ntp server 213.58.200.1
Router0(config)#ntp u
Router0(config)#ntp update-calendar
Router0(config)#
```

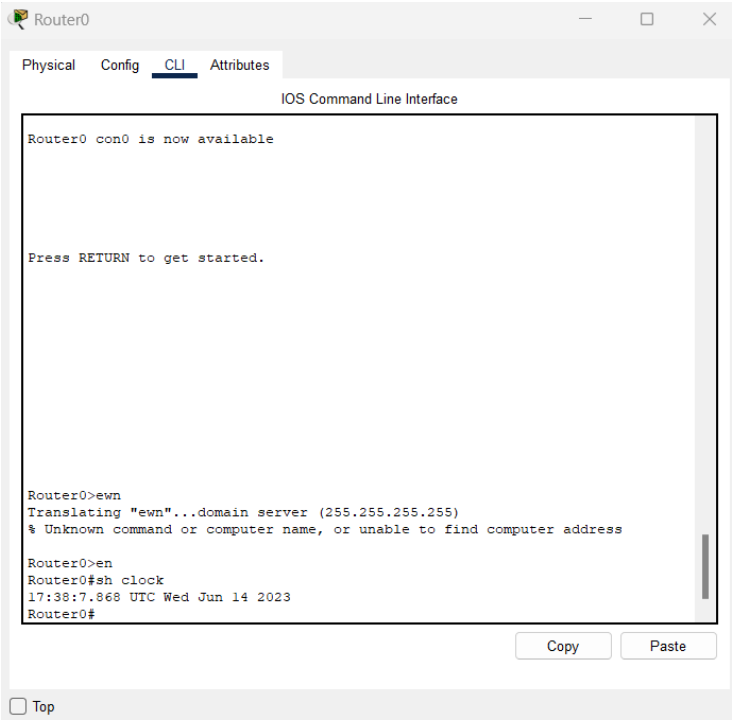
```
R2(config)#ntp server 213.58.200.1
R2(config)#ntp up
R2(config)#ntp update-calendar
R2(config)#
```

```
R1>en
R1#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
R1(config)#ntp server 213.58.200.1
R1(config)#ntp upa
R1(config)#ntp up
R1(config)#ntp update-calendar
R1(config)#
```

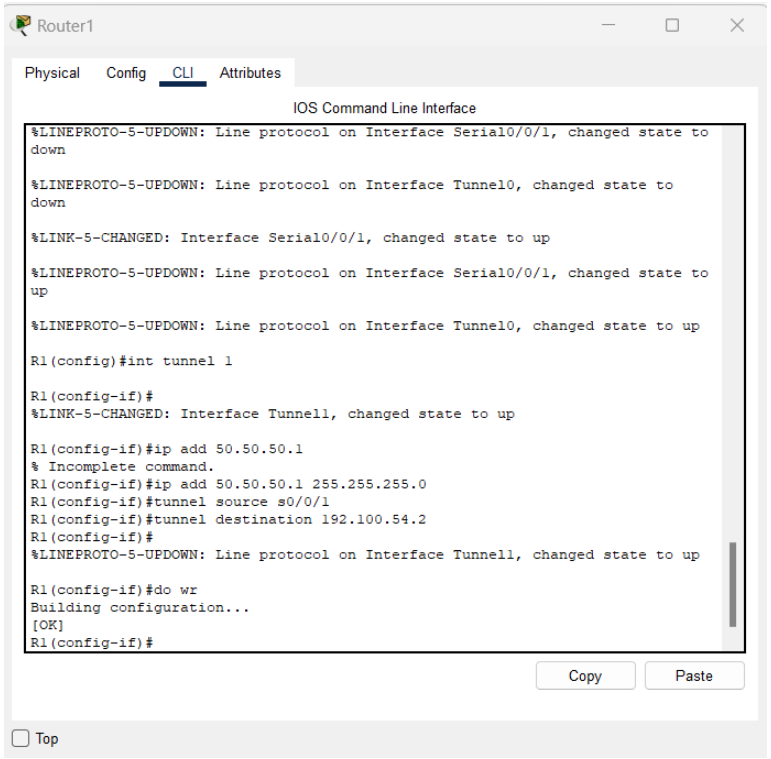
PERGUNTA 1

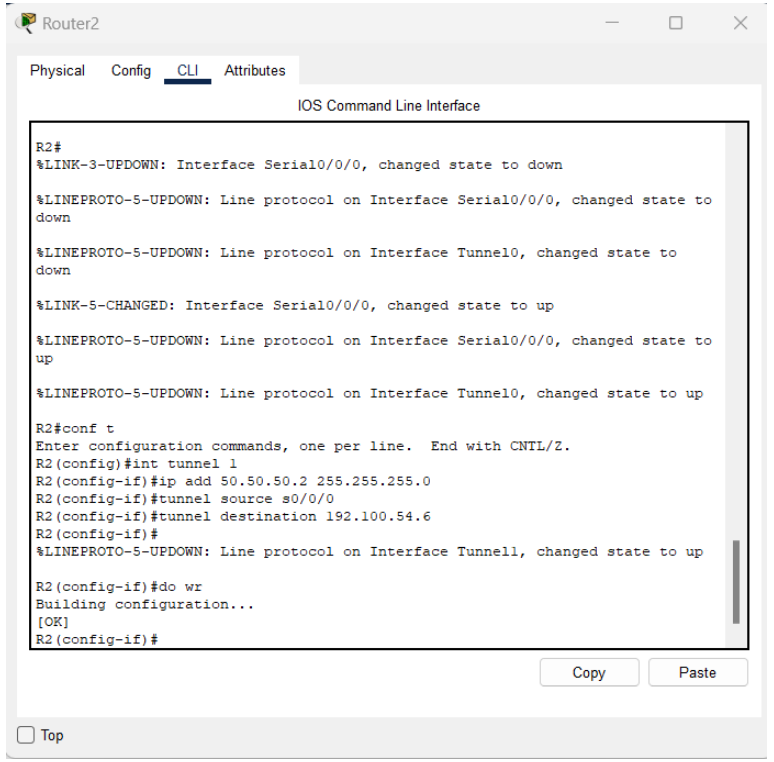


0.006	Router0	ISP	ICMP
0.007	Router0	ISP	ICMP
0.770	--	Router2	NTP
0.771	Router2	Router0	NTP
0.772	Router0	ISP	NTP
0.772	--	ISP	NTP
0.773	ISP	Router0	NTP
0.774	Router0	Router2	NTP
15.778	--	Router1	NTP
15.779	Router1	Router0	NTP
15.780	Router0	ISP	NTP
15.780	--	ISP	NTP
15.781	ISP	Router0	NTP
15.782	Router0	Router1	NTP
15.794	--	Router0	NTP
15.795	Router0	ISP	NTP
15.795	--	ISP	NTP
15.796	ISP	Router0	NTP

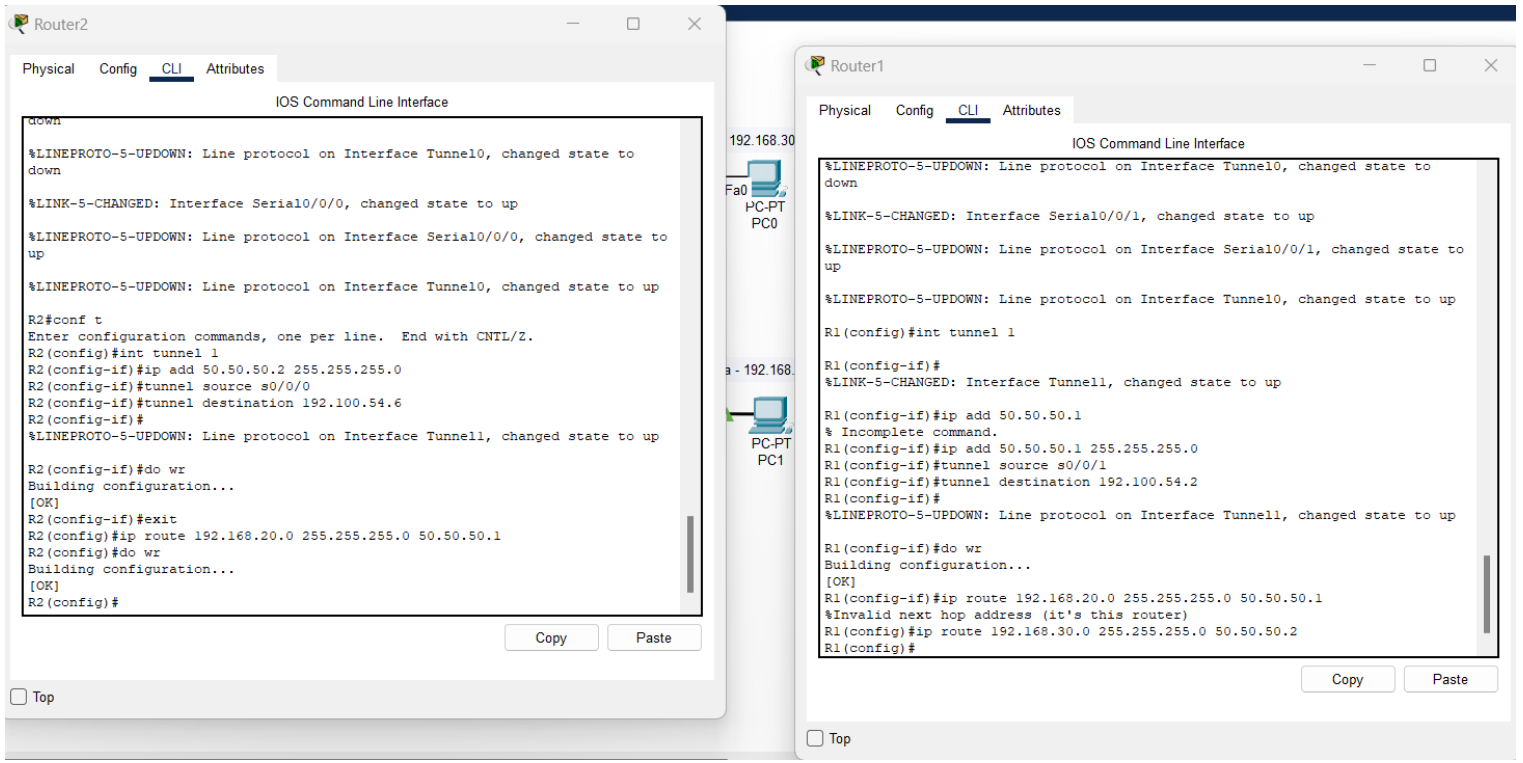


PERGUNTA 2

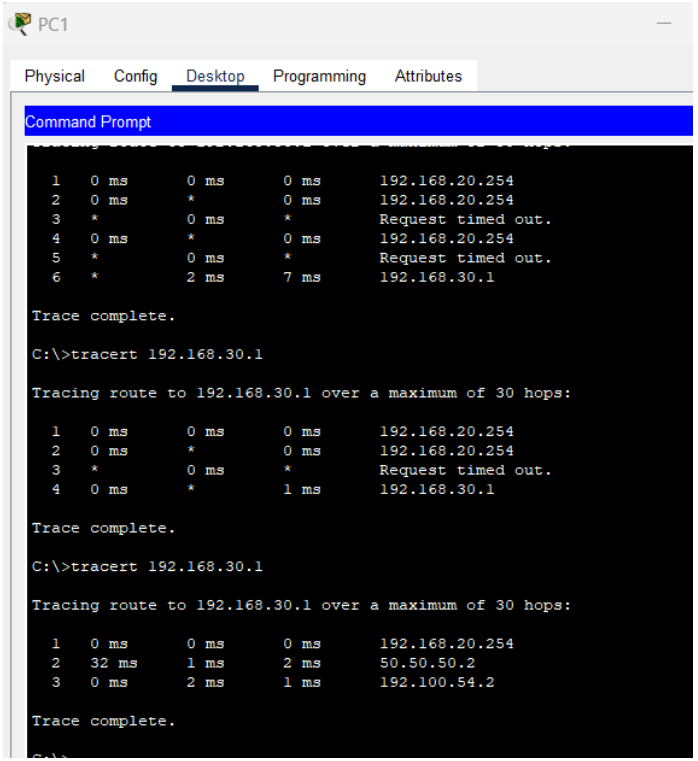

Router1
Physical
Config
CLI
Attributes
IOS Command Line Interface
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/1, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface Tunnel0, changed state to down
%LINK-5-CHANGED: Interface Serial0/0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Tunnel0, changed state to up
R1(config)#int tunnel 1
R1(config-if)#
%LINK-5-CHANGED: Interface Tunnel1, changed state to up
R1(config-if)#ip add 50.50.50.1
% Incomplete command.
R1(config-if)#ip add 50.50.50.1 255.255.255.0
R1(config-if)#tunnel source s0/0/1
R1(config-if)#tunnel destination 192.100.54.2
R1(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Tunnel1, changed state to up
R1(config-if)#do wr
Building configuration...
[OK]
R1(config-if)#
Copy
Paste
Top

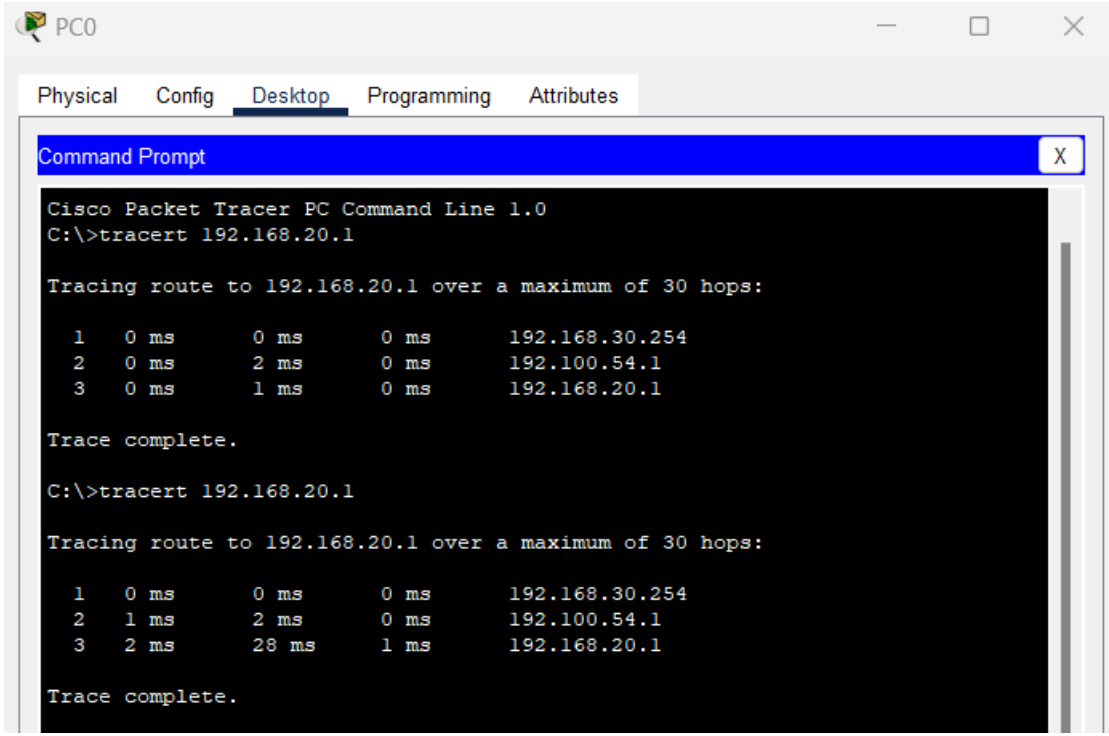

Router2
Physical
Config
CLI
Attributes
IOS Command Line Interface
R2#
%LINK-3-UPDOWN: Interface Serial0/0/0, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/0, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface Tunnel0, changed state to down
%LINK-5-CHANGED: Interface Serial0/0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Tunnel0, changed state to up
R2#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R2(config)#int tunnel 1
R2(config-if)#ip add 50.50.50.2 255.255.255.0
R2(config-if)#tunnel source s0/0/0
R2(config-if)#tunnel destination 192.100.54.6
R2(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Tunnel1, changed state to up
R2(config-if)#do wr
Building configuration...
[OK]
R2(config-if)#
Copy
Paste
Top

PERGUNTA 2

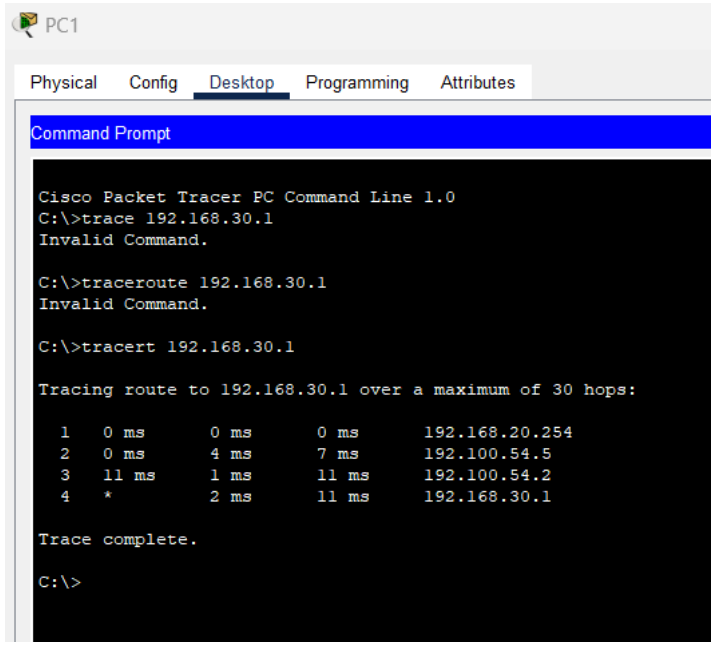

Router2
Physical
Config
CLI
Attributes
IOS Command Line Interface
down
%LINEPROTO-5-UPDOWN: Line protocol on Interface Tunnel0, changed state to down
%LINK-5-CHANGED: Interface Serial0/0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Tunnel0, changed state to up
R2#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R2(config)#int tunnel 1
R2(config-if)#ip add 50.50.50.2 255.255.255.0
R2(config-if)#tunnel source s0/0/0
R2(config-if)#tunnel destination 192.100.54.6
R2(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Tunnel1, changed state to up
R2(config-if)#do wr
Building configuration...
[OK]
R2(config-if)#exit
R2(config)#ip route 192.168.20.0 255.255.255.0 50.50.50.1
R2(config)#do wr
Building configuration...
[OK]
R2(config)#
Copy
Paste
Top
192.168.30
Fa0
PC-PT
PC0
PC-PT
PC1
Router1
Physical
Config
CLI
Attributes
IOS Command Line Interface
%LINEPROTO-5-UPDOWN: Line protocol on Interface Tunnel0, changed state to down
%LINK-5-CHANGED: Interface Serial0/0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Tunnel0, changed state to up
R1(config)#int tunnel 1
R1(config-if)#
%LINK-5-CHANGED: Interface Tunnel1, changed state to up
R1(config-if)#ip add 50.50.50.1
% Incomplete command.
R1(config-if)#ip add 50.50.50.1 255.255.255.0
R1(config-if)#tunnel source s0/0/1
R1(config-if)#tunnel destination 192.100.54.2
R1(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Tunnel1, changed state to up
R1(config-if)#do wr
Building configuration...
[OK]
R1(config-if)#ip route 192.168.20.0 255.255.255.0 50.50.50.1
%Invalid next hop address (it's this router)
R1(config)#ip route 192.168.30.0 255.255.255.0 50.50.50.2
R1(config)#
Copy
Paste
Top

PERGUNTA 2

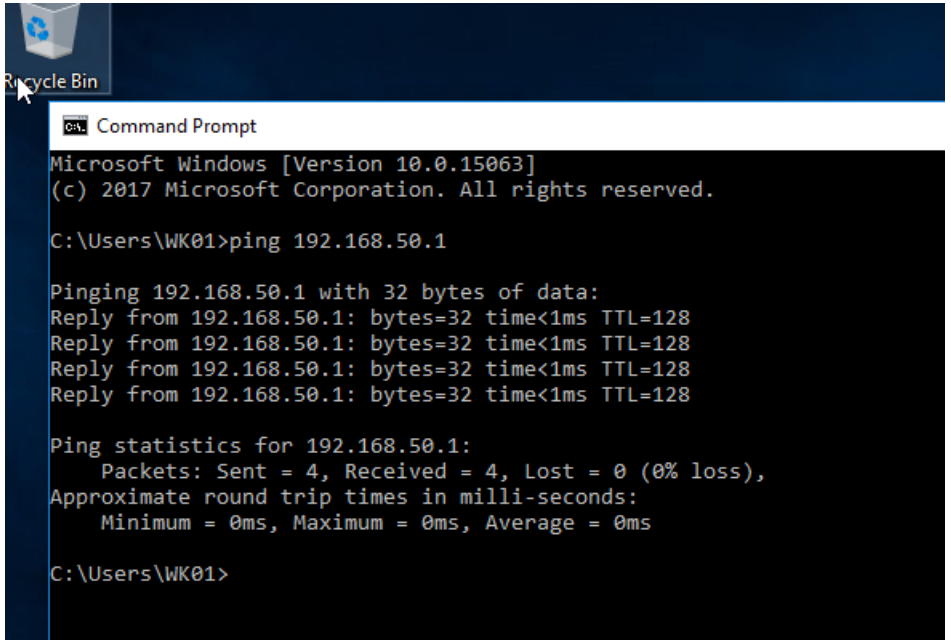

PC1
Physical
Config
Desktop
Programming
Attributes
Command Prompt
1 0 ms 0 ms 0 ms 192.168.20.254
2 0 ms * 0 ms 192.168.20.254
3 * 0 ms * Request timed out.
4 0 ms * 0 ms 192.168.20.254
5 * 0 ms * Request timed out.
6 * 2 ms 7 ms 192.168.30.1
Trace complete.
C:\>tracert 192.168.30.1
Tracing route to 192.168.30.1 over a maximum of 30 hops:
1 0 ms 0 ms 0 ms 192.168.20.254
2 0 ms * 0 ms 192.168.20.254
3 * 0 ms * Request timed out.
4 0 ms * 1 ms 192.168.30.1
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 32 ms 1 ms 2 ms 50.50.50.2
3 0 ms 2 ms 1 ms 192.100.54.2
Trace complete.

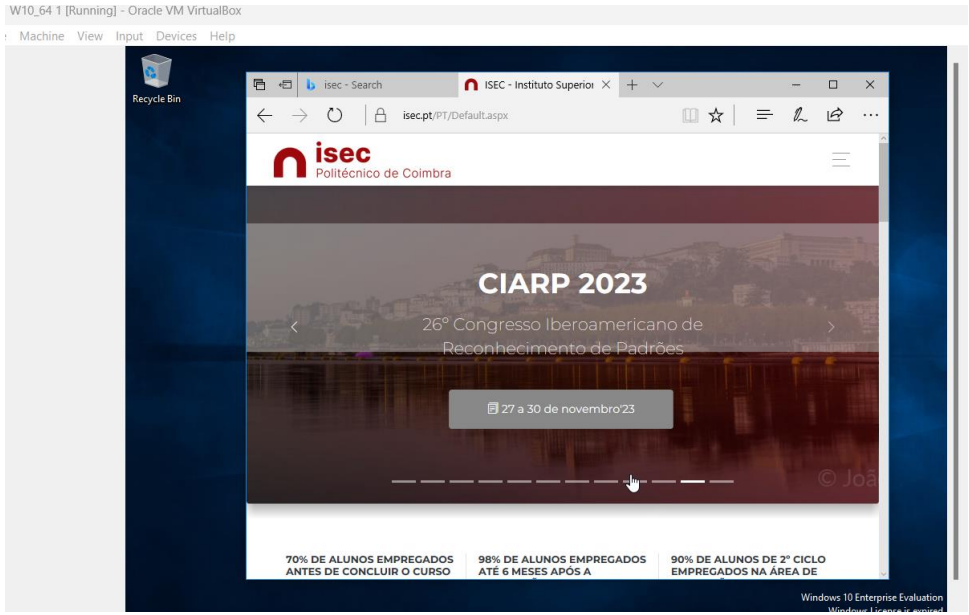

PC0
Physical
Config
Desktop
Programming
Attributes
Command Prompt
X
Cisco Packet Tracer PC Command Line 1.0
C:\>tracert 192.168.20.1
Tracing route to 192.168.20.1 over a maximum of 30 hops:
1 0 ms 0 ms 0 ms 192.168.30.254
2 0 ms 2 ms 0 ms 192.100.54.1
3 0 ms 1 ms 0 ms 192.168.20.1
Trace complete.
C:\>tracert 192.168.20.1
Tracing route to 192.168.20.1 over a maximum of 30 hops:
1 0 ms 0 ms 0 ms 192.168.30.254
2 1 ms 2 ms 0 ms 192.100.54.1
3 2 ms 28 ms 1 ms 192.168.20.1
Trace complete.

PERGUNTA 2

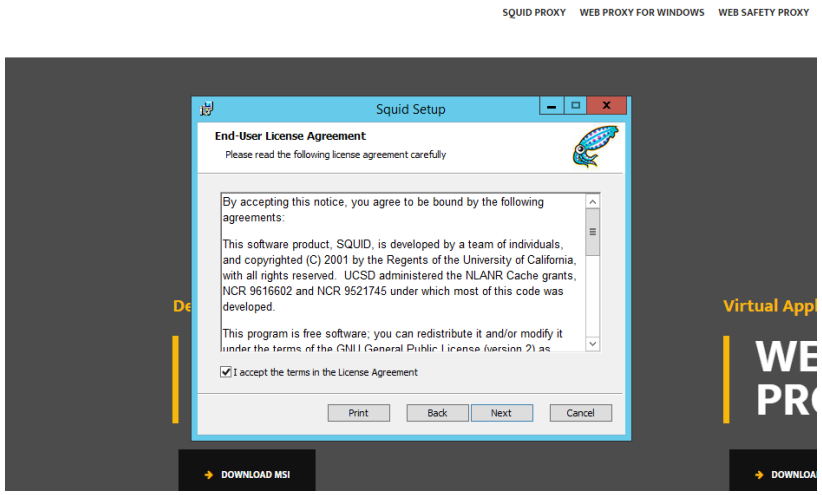

PC1
Physical
Config
Desktop
Programming
Attributes
Command Prompt
Cisco Packet Tracer PC Command Line 1.0
C:\>trace 192.168.30.1
Invalid Command.
C:\>traceroute 192.168.30.1
Invalid Command.
C:\>tracert 192.168.30.1
Tracing route to 192.168.30.1 over a maximum of 30 hops:
1 0 ms 0 ms 0 ms 192.168.20.254
2 0 ms 4 ms 7 ms 192.100.54.5
3 11 ms 1 ms 11 ms 192.100.54.2
4 * 2 ms 11 ms 192.168.30.1
Trace complete.
C:\>

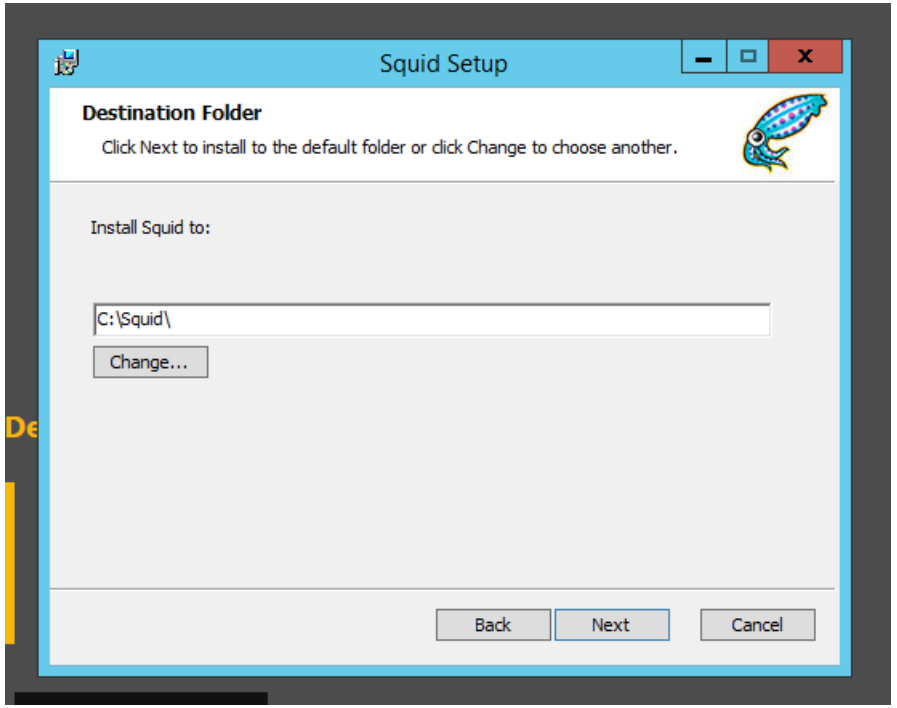
PARTE B


Recycle Bin
Command Prompt
Microsoft Windows [Version 10.0.15063]
(c) 2017 Microsoft Corporation. All rights reserved.
C:\Users\WK01>ping 192.168.50.1
Pinging 192.168.50.1 with 32 bytes of data:
Reply from 192.168.50.1: bytes=32 time<1ms TTL=128
Reply from 192.168.50.1: bytes=32 time<1ms TTL=128
Reply from 192.168.50.1: bytes=32 time<1ms TTL=128
Reply from 192.168.50.1: bytes=32 time<1ms TTL=128
Ping statistics for 192.168.50.1:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\Users\WK01>

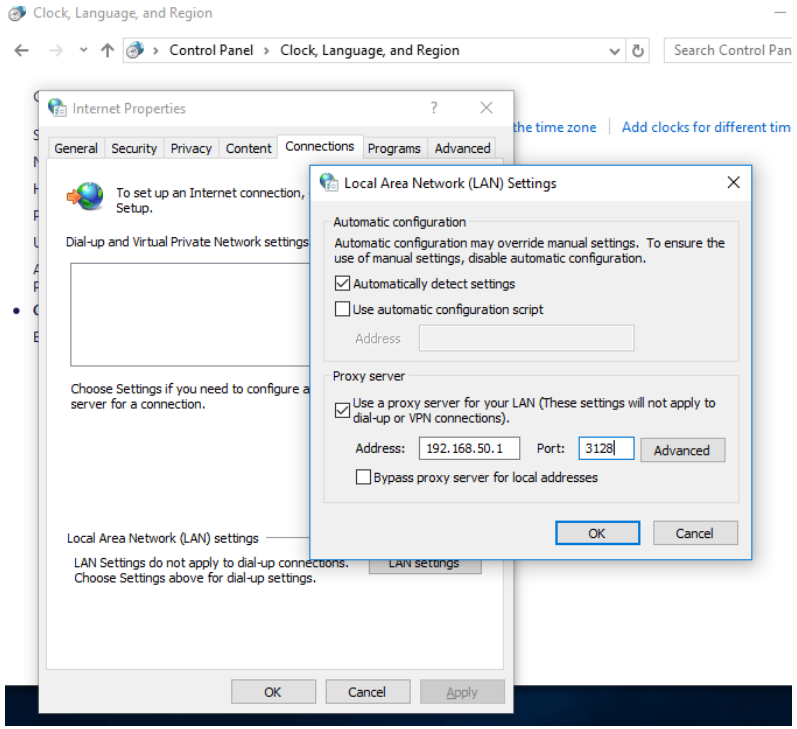

W10_64 1 [Running] - Oracle VM VirtualBox
Machine View Input Devices Help
Recycle Bin
isec - Search
ISEC - Instituto Superior
isec.pt/PT/Default.aspx
isec
Politécnico de Coimbra
CIARP 2023
26º Congresso Iberoamericano de Reconhecimento de Padrões
27 a 30 de novembro'23
70% DE ALUNOS EMPREGADOS ANTES DE CONCLUIR O CURSO
98% DE ALUNOS EMPREGADOS ATÉ 6 MESES APÓS A
90% DE ALUNOS DE 2º CICLO EMPREGADOS NA ÁREA DE
Windows 10 Enterprise Evaluation

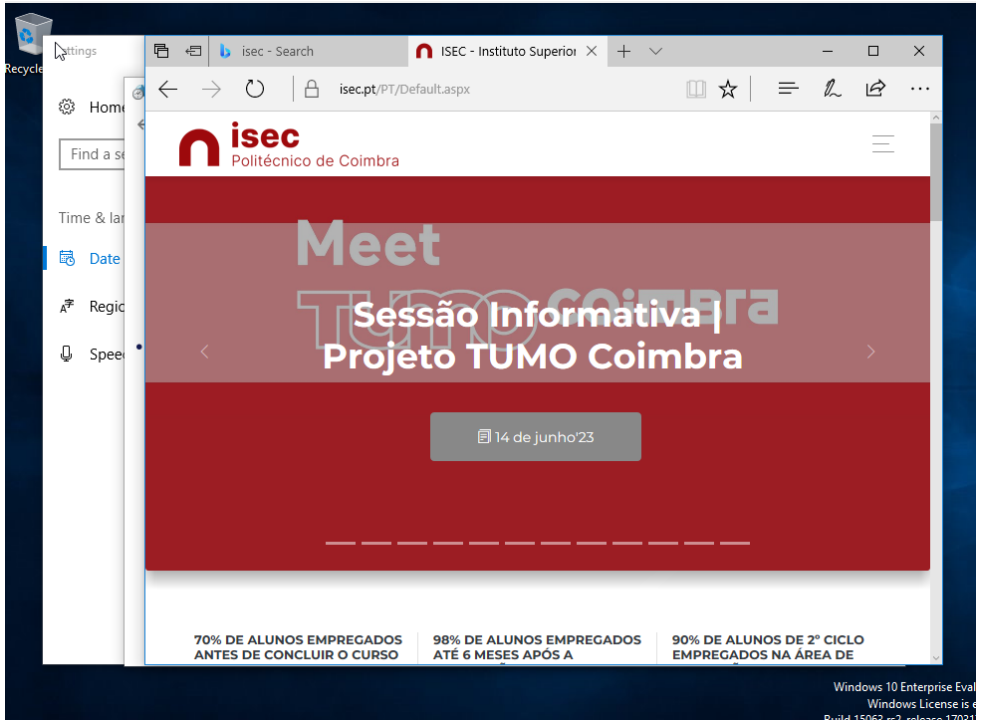
PERGUNTA 3


SQUID PROXY
WEB PROXY FOR WINDOWS
WEB SAFETY PROXY
Squid Setup
End-User License Agreement
Please read the following license agreement carefully
By accepting this notice, you agree to be bound by the following agreements:
This software product, SQUID, is developed by a team of individuals, and copyrighted (C) 2001 by the Regents of the University of California, with all rights reserved. UCSD administered the NLANR Cache grants, NCR 9616602 and NCR 9521745 under which most of this code was developed.
This program is free software; you can redistribute it and/or modify it
I accept the terms in the License Agreement
Print
Back
Next
Cancel
DOWNLOAD MSI

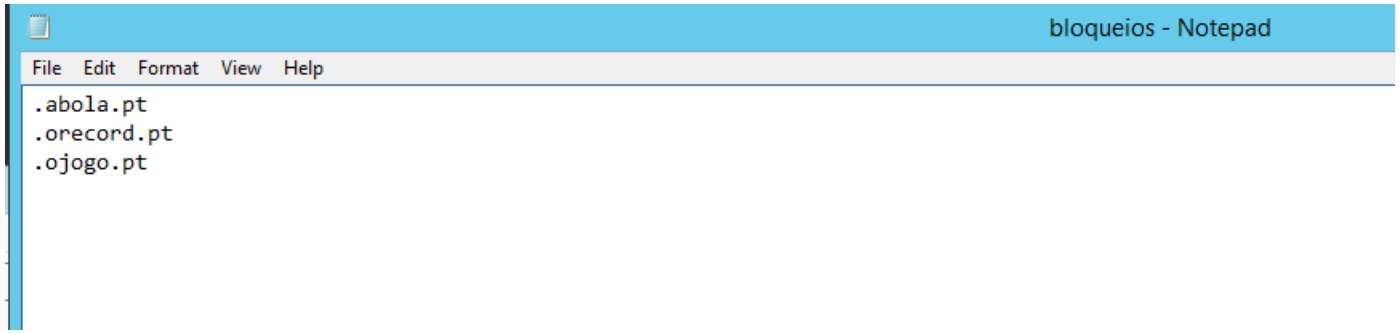

Squid Setup
Destination Folder
Click Next to install to the default folder or click Change to choose another.
Install Squid to:
C:\Squid\
Change...
Back
Next
Cancel

PERGUNTA 3

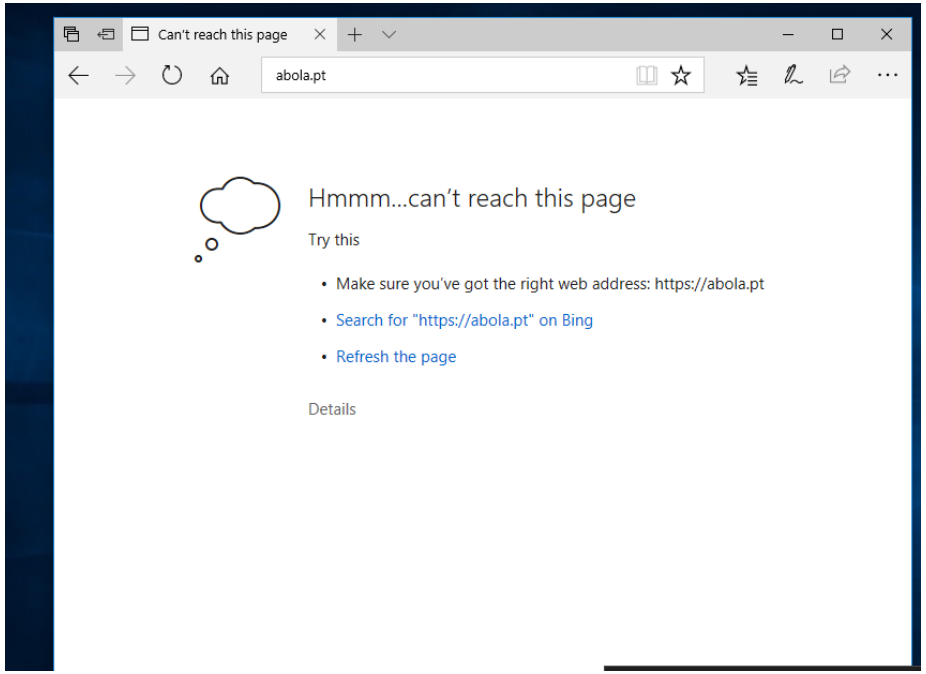

Clock, Language, and Region
Control Panel › Clock, Language, and Region
Search Control Pan
Internet Properties
General Security Privacy Content Connections Programs Advanced
To set up an Internet connection, Setup.
Dial-up and Virtual Private Network settings
Choose Settings if you need to configure a server for a connection.
Local Area Network (LAN) settings
LAN Settings do not apply to dial-up connections. Choose Settings above for dial-up settings.
LAN settings
OK Cancel Apply
Local Area Network (LAN) Settings
Automatic configuration
Automatic configuration may override manual settings. To ensure the use of manual settings, disable automatic configuration.
Automatically detect settings
Use automatic configuration script
Address
Proxy server
Use a proxy server for your LAN (These settings will not apply to dial-up or VPN connections).
Address: 192.168.50.1 Port: 3128 Advanced
Bypass proxy server for local addresses
OK Cancel


isec - Search
ISEC - Instituto Superior
isec.pt/PT/Default.aspx
isec
Politécnico de Coimbra
Meet
TUMO Coimbra
Sessão Informativa | Projeto TUMO Coimbra
14 de junho'23
70% DE ALUNOS EMPREGADOS ANTES DE CONCLUIR O CURSO
98% DE ALUNOS EMPREGADOS ATÉ 6 MESES APÓS A
90% DE ALUNOS DE 2º CICLO EMPREGADOS NA ÁREA DE
Windows 10 Enterprise Eval
Windows License is e

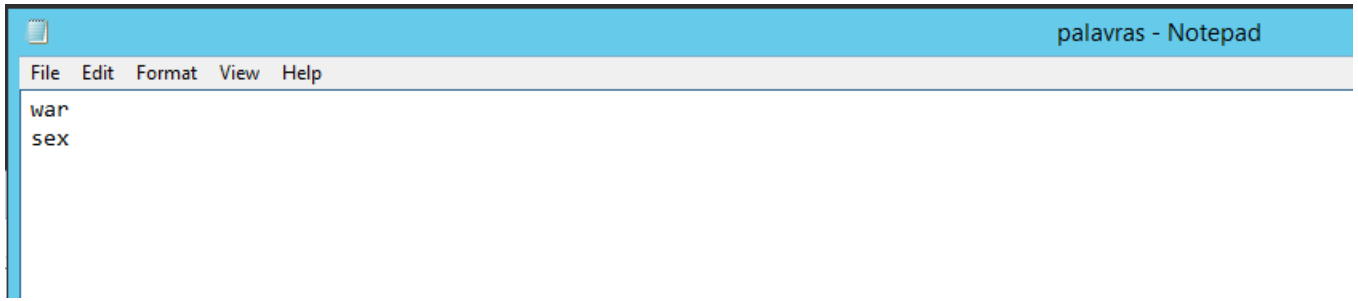
PERGUNTA 3




```
acl Safe_ports port 777         # multiling http
acl CONNECT method CONNECT

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

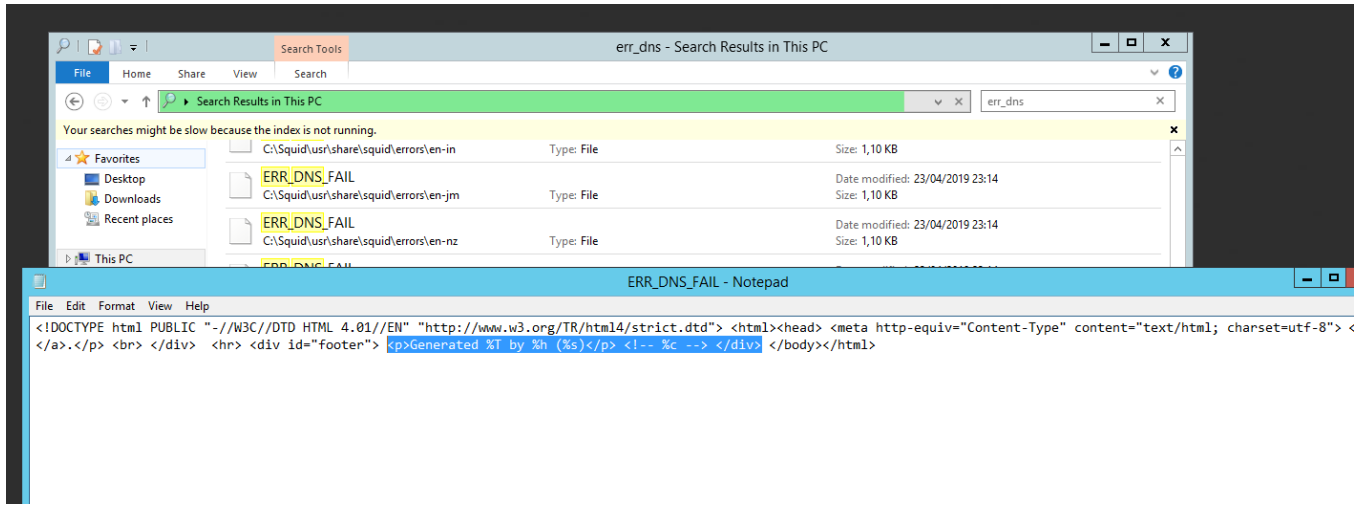


PERGUNTA 3



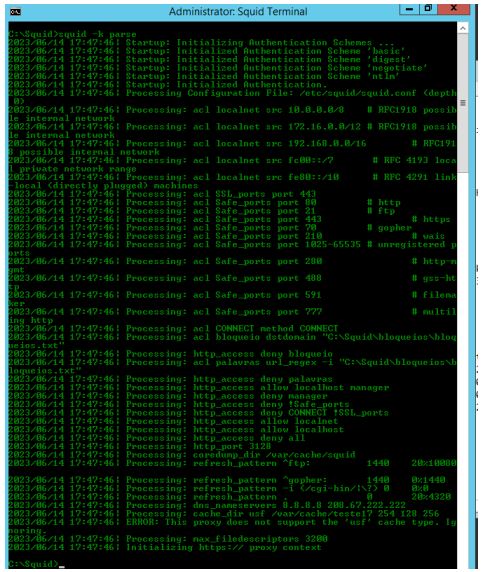

```
acl bloqueio dstdomain "C:\Squid\bloqueios\bloqueios.txt"
http_access deny bloqueio

acl palavras url_regex -i "C:\Squid\bloqueios\bloqueios.txt"
http_access deny palavras

#
```

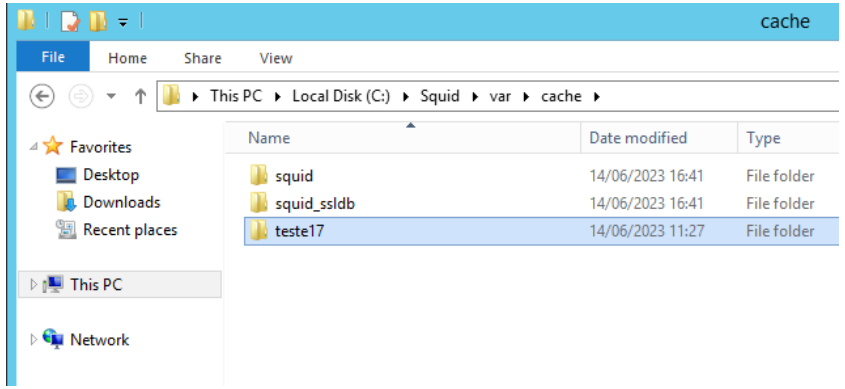
PERGUNTA 3


err_dns - Search Results in This PC
Search Tools
File
Home
Share
View
Search
Search Results in This PC
err_dns
Your searches might be slow because the index is not running.
Favorites
Desktop
Downloads
Recent places
This PC
C:\Squid\usr\share\squid\errors\en-in
Type: File
Size: 1,10 KB
ERR_DNS_FAIL
C:\Squid\usr\share\squid\errors\en-jm
Type: File
Date modified: 23/04/2019 23:14
Size: 1,10 KB
ERR_DNS_FAIL
C:\Squid\usr\share\squid\errors\en-nz
Type: File
Date modified: 23/04/2019 23:14
Size: 1,10 KB
ERR_DNS_FAIL - Notepad
File Edit Format View Help
<!DOCTYPE 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"> <
.
  <hr> Generated %T by %h (%s) <!-- %c --> </body></html>

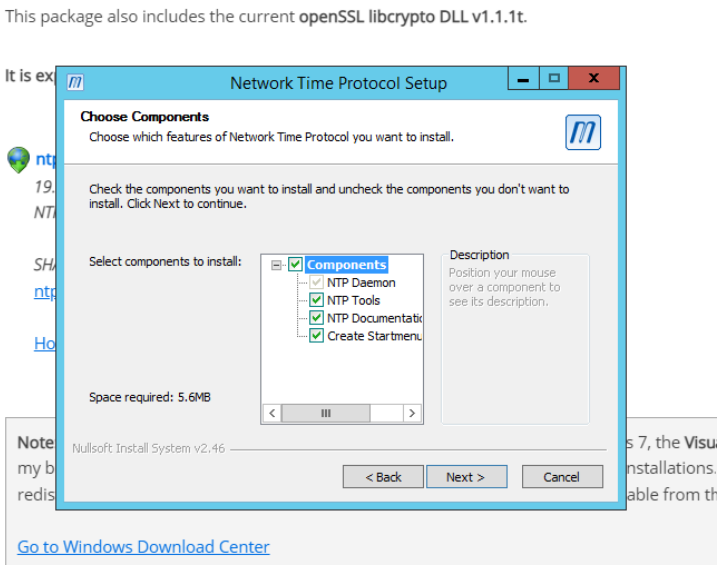
PERGUNTA 3

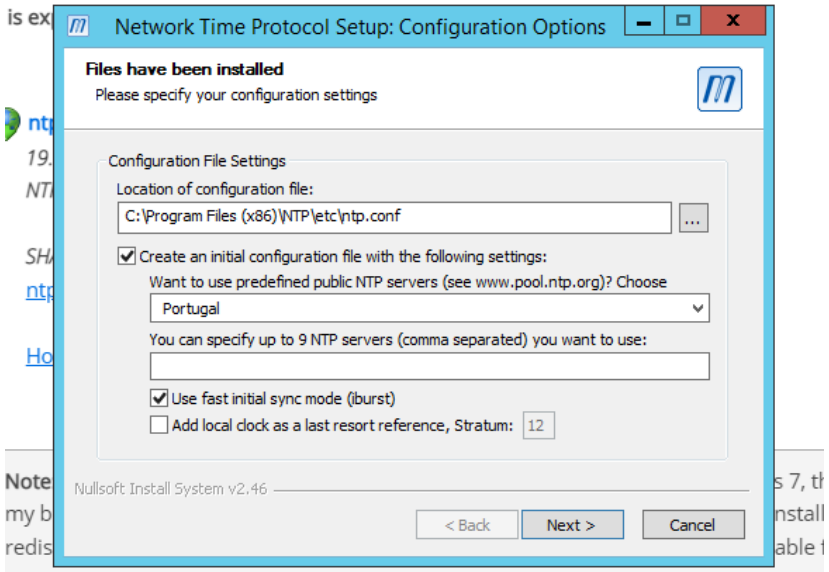
```
# Add any of your own refresh_pattern entries above these.
refresh_pattern ^ftp:           1440    20%     10080
refresh_pattern ^gopher:        1440    0%      1440
refresh_pattern -i (/cgi-bin/|\?) 0     0%      0
refresh_pattern .               0       20%     4320

dns_nameservers 8.8.8.8 208.67.222.222

cache_dir usf /var/cache/teste17 254 128 256
```

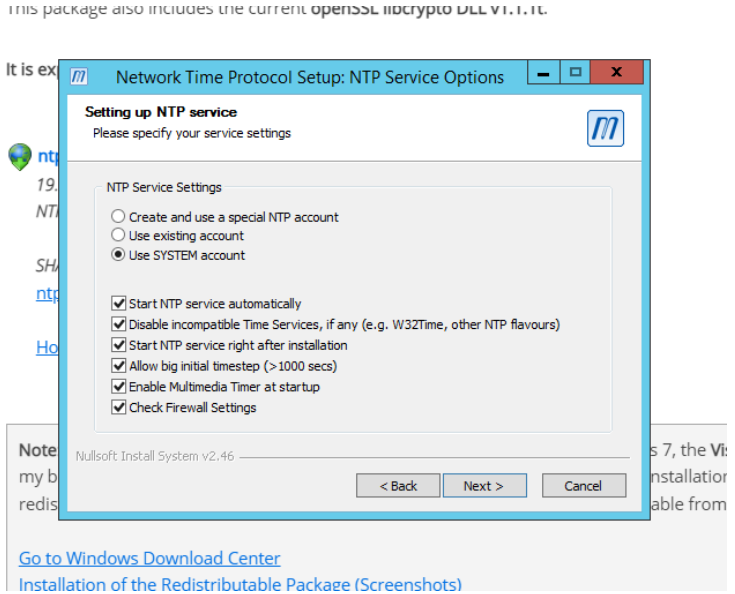




PERGUNTA 4

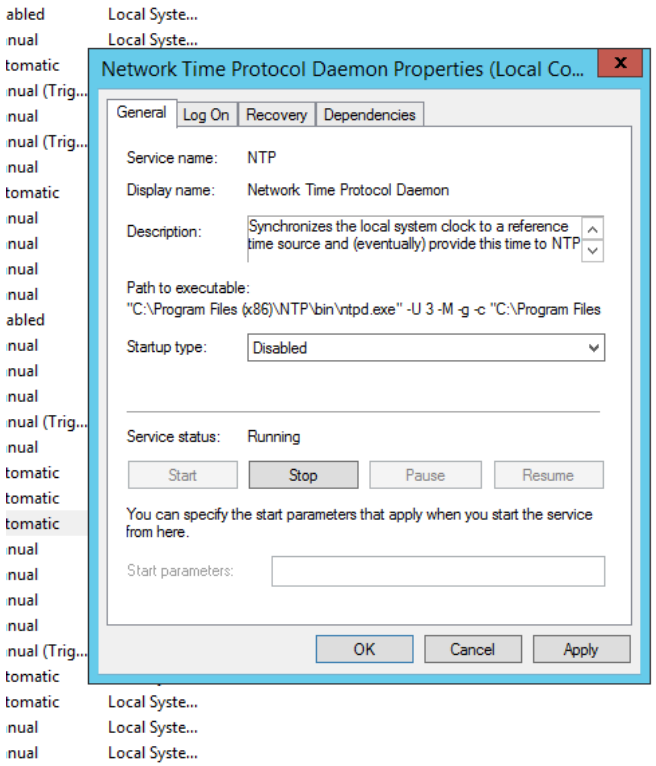

This package also includes the current openSSL libcrypto DLL v1.1.1t.
Network Time Protocol Setup
Choose Components
Choose which features of Network Time Protocol you want to install.
Check the components you want to install and uncheck the components you don't want to install. Click Next to continue.
Select components to install:
Components
NTP Daemon
NTP Tools
NTP Documentati
Create Startmenu
Description
Position your mouse over a component to see its description.
Space required: 5.6MB
Nullsoft Install System v2.46
< Back
Next >
Cancel
Go to Windows Download Center


Network Time Protocol Setup: Configuration Options
Files have been installed
Please specify your configuration settings
Configuration File Settings
Location of configuration file:
C:\Program Files (x86)\NTP\etc\ntp.conf
Create an initial configuration file with the following settings:
Want to use predefined public NTP servers (see www.pool.ntp.org)? Choose
Portugal
You can specify up to 9 NTP servers (comma separated) you want to use:
Use fast initial sync mode (iburst)
Add local clock as a last resort reference, Stratum:
12
Nullsoft Install System v2.46
< Back
Next >
Cancel

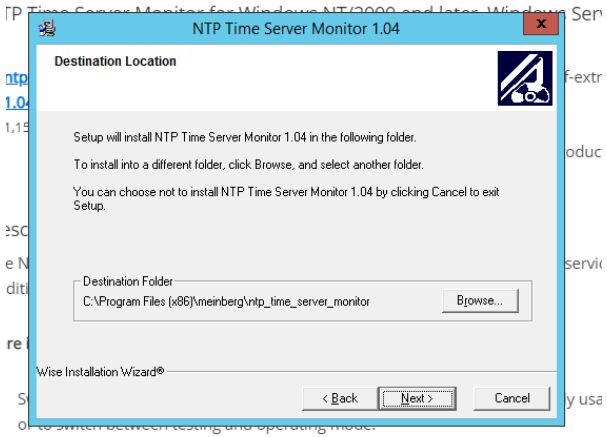

This package also includes the current openSSL libcrypto DLL v1.1.1t.
Network Time Protocol Setup: NTP Service Options
Setting up NTP service
Please specify your service settings
NTP Service Settings
Create and use a special NTP account
Use existing account
Use SYSTEM account
Start NTP service automatically
Disable incompatible Time Services, if any (e.g. W32Time, other NTP flavours)
Start NTP service right after installation
Allow big initial timestep (>1000 secs)
Enable Multimedia Timer at startup
Check Firewall Settings
Nullsoft Install System v2.46
< Back
Next >
Cancel
Go to Windows Download Center
Installation of the Redistributable Package (Screenshots)

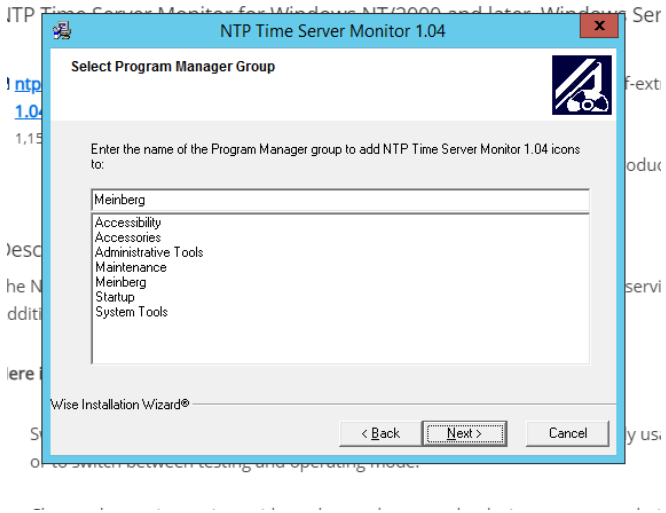
PERGUNTA 4

Desabilitar o W32 Time.



PERGUNTA 4

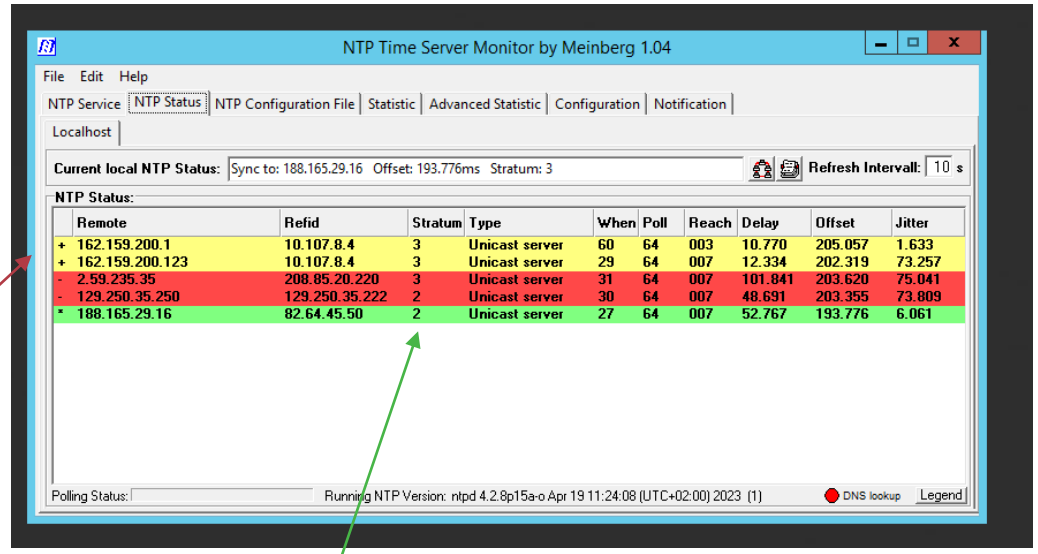

NTP Time Server Monitor 1.04
Destination Location
Setup will install NTP Time Server Monitor 1.04 in the following folder.
To install into a different folder, click Browse, and select another folder.
You can choose not to install NTP Time Server Monitor 1.04 by clicking Cancel to exit Setup.
Destination Folder
C:\Program Files (x86)\meinberg\ntp_time_server_monitor
Browse...
Wise Installation Wizard®
< Back
Next >
Cancel


NTP Time Server Monitor 1.04
Select Program Manager Group
Enter the name of the Program Manager group to add NTP Time Server Monitor 1.04 icons to:
Meinberg
Accessibility
Accessories
Administrative Tools
Maintenance
Meinberg
Startup
System Tools
Wise Installation Wizard®
< Back
Next >
Cancel

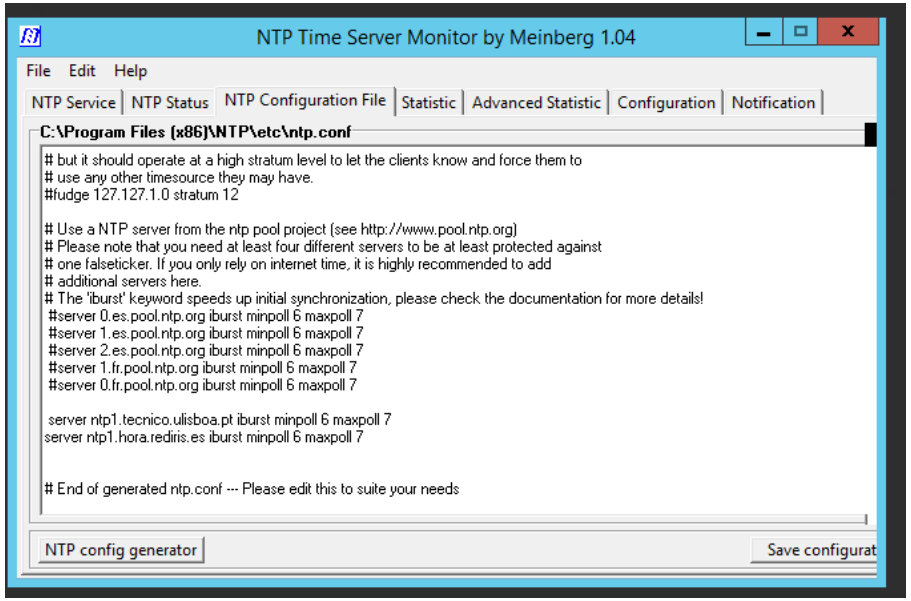
PERGUNTA 4

A coluna do *stratum* está indicada pela seta verde.

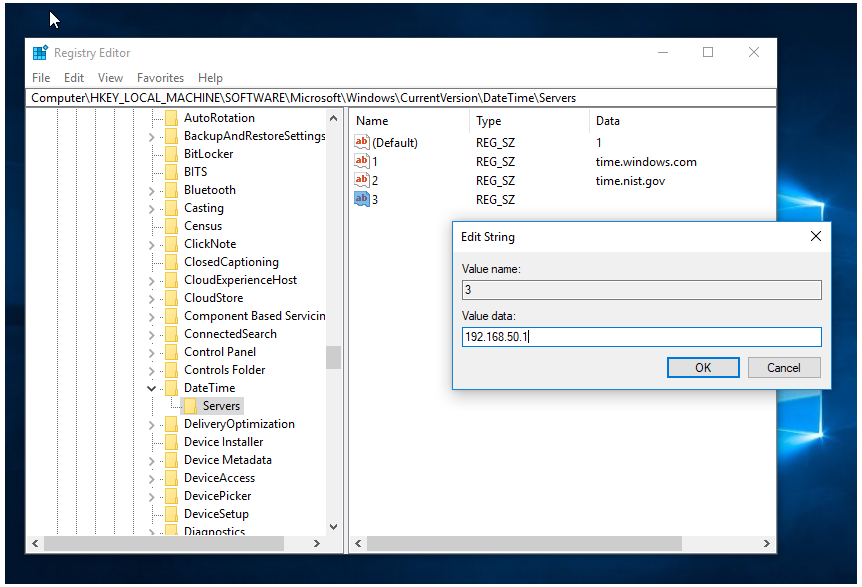
A coluna do system peer está indicada pela seta a vermelho.

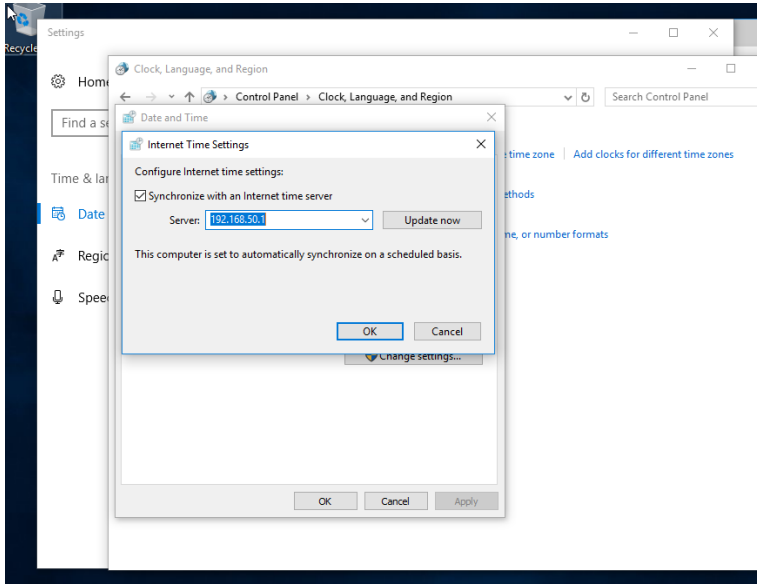


PERGUNTA 4

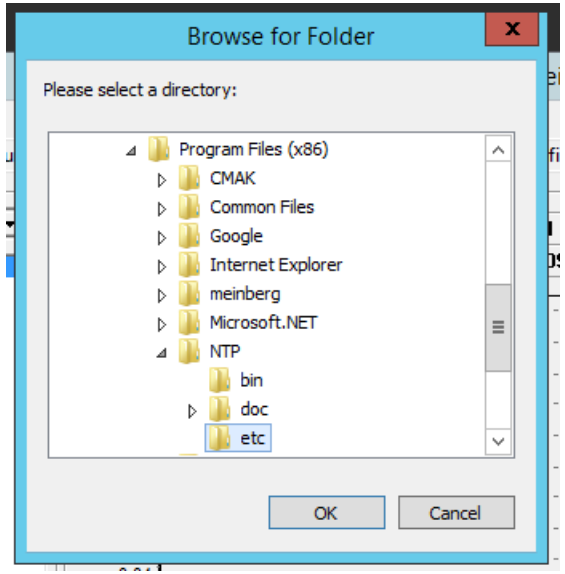

NTP Time Server Monitor by Meinberg 1.04
File Edit Help
NTP Service | NTP Status | NTP Configuration File | Statistic | Advanced Statistic | Configuration | Notification
C:\Program Files (x86)\NTP\etc\ntp.conf
but it should operate at a high stratum level to let the clients know and force them to
use 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 ntp1.hora.rediris.es iburst minpoll 6 maxpoll 7
End of generated ntp.conf --- Please edit this to suite your needs
NTP config generator
Save configurat

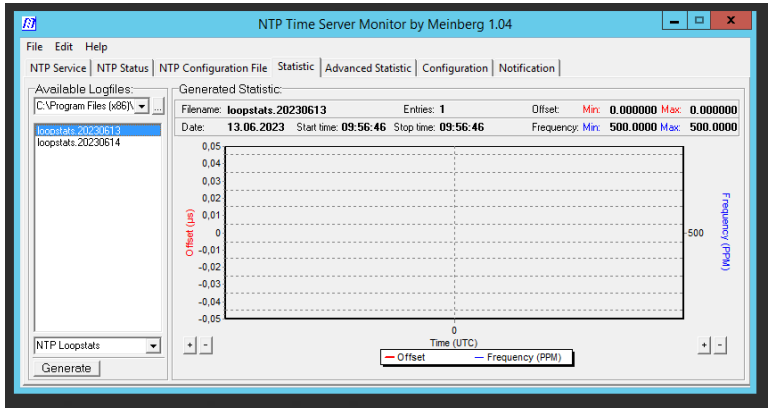
PERGUNTA 4

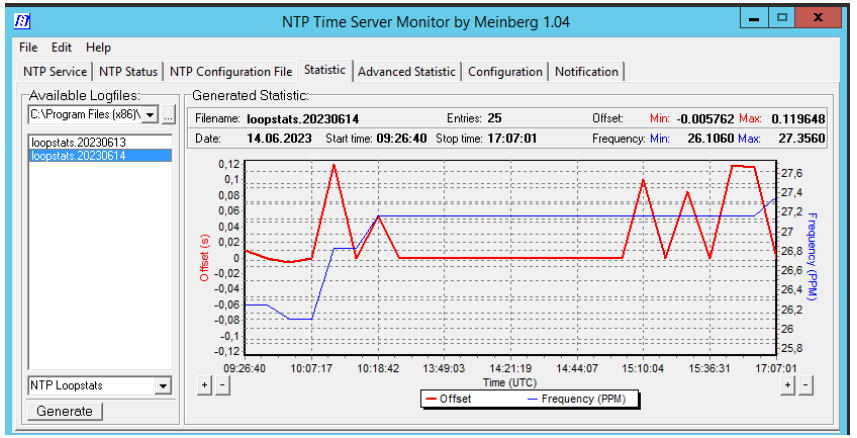

Registry Editor
File Edit View Favorites Help
Computer\HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\DateTime\Servers
AutoRotation
BackupAndRestoreSettings
BitLocker
BITS
Bluetooth
Casting
Census
ClickNote
ClosedCaptioning
CloudExperienceHost
CloudStore
Component Based Servicin
ConnectedSearch
Control Panel
Controls Folder
DateTime
Servers
DeliveryOptimization
Device Installer
Device Metadata
DeviceAccess
DevicePicker
DeviceSetup
Diagnostics
Name Type Data
(Default) REG_SZ 1
1 REG_SZ time.windows.com
2 REG_SZ time.nist.gov
3 REG_SZ
Edit String
Value name:
3
Value data:
192.168.50.1
OK
Cancel


Settings
Clock, Language, and Region
Control Panel › Clock, Language, and Region
Search Control Panel
Date and Time
Internet Time Settings
Configure Internet time settings:
Synchronize with an Internet time server
Server: 192.168.50.1
Update now
This computer is set to automatically synchronize on a scheduled basis.
OK
Cancel
Change settings...
OK
Cancel
Apply

PERGUNTA 4


Browse for Folder
Please select a directory:
Program Files (x86)
CMAK
Common Files
Google
Internet Explorer
meinberg
Microsoft.NET
NTP
bin
doc
etc
OK
Cancel


NTP Time Server Monitor by Meinberg 1.04
File Edit Help
NTP Service | NTP Status | NTP Configuration File | Statistic | Advanced Statistic | Configuration | Notification
Available Logfiles:
C:\Program Files (x86)\
loopstats.20230613
loopstats.20230614
Generated Statistic:
Filename: loopstats.20230613 Entries: 1 Offset: Min: 0.000000 Max: 0.000000
Date: 13.06.2023 Start time: 09:56:46 Stop time: 09:56:46 Frequency: Min: 500.0000 Max: 500.0000
Offset (us)
Frequency (PPM)
Time (UTC)
Offset
Frequency (PPM)
NTP Loopstats
Generate


NTP Time Server Monitor by Meinberg 1.04
File Edit Help
NTP Service | NTP Status | NTP Configuration File | Statistic | Advanced Statistic | Configuration | Notification
Available Logfiles:
C:\Program Files (x86)\
loopstats.20230613
loopstats.20230614
Generated Statistic:
Filename: loopstats.20230614 Entries: 25 Offset: Min: -0.005762 Max: 0.119648
Date: 14.06.2023 Start time: 09:26:40 Stop time: 17:07:01 Frequency: Min: 26.1060 Max: 27.3560
Offset (s)
Frequency (PPM)
09:26:40
10:07:17
10:18:42
13:49:03
14:21:19
14:44:07
15:10:04
15:36:31
17:07:01
Time (UTC)
Offset
Frequency (PPM)
NTP Loopstats
Generate