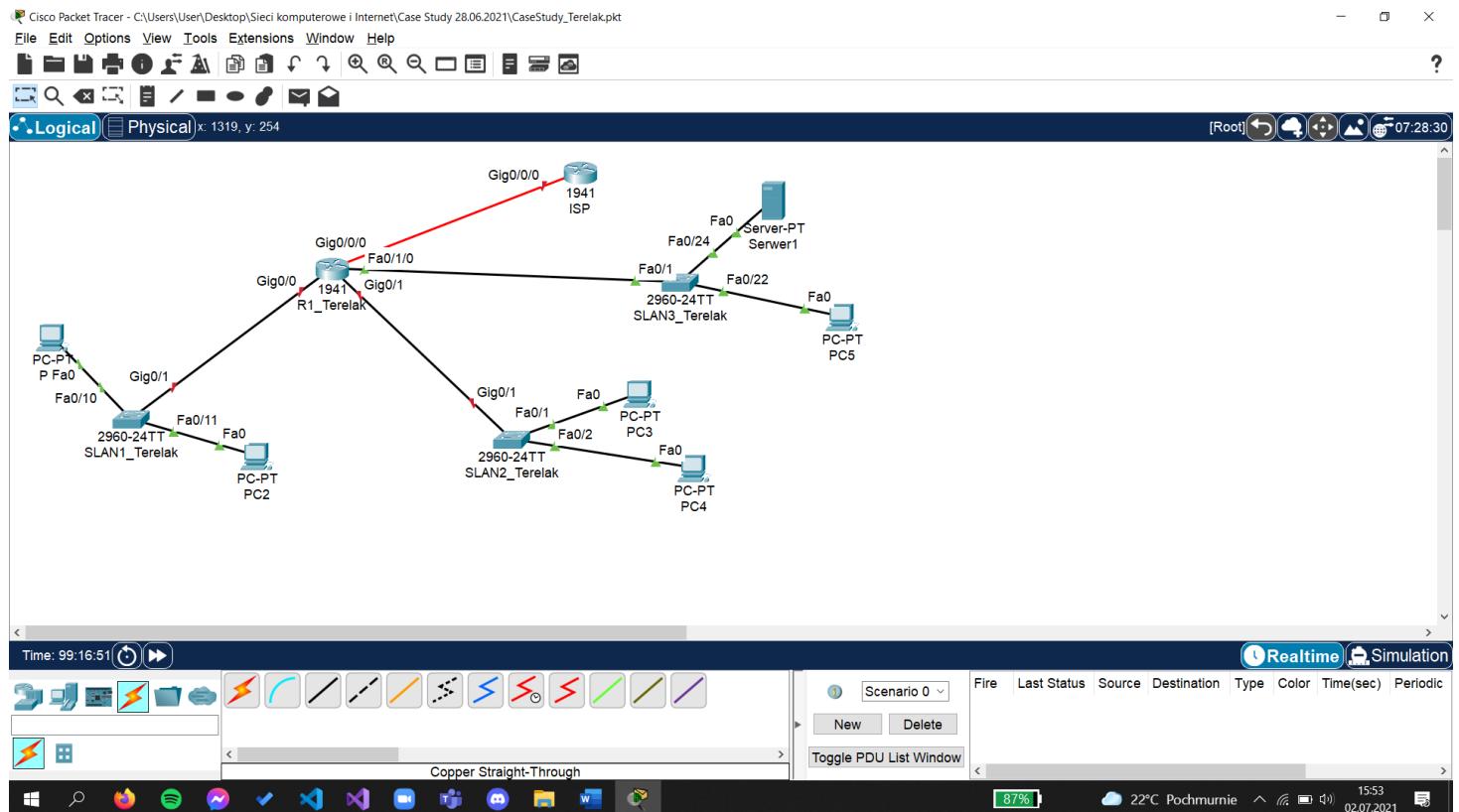


# Zadania integrujące umiejętności do samodzielnej realizacji dla „Sieci komputerowe i Internet” – *Radosław Terelak*

**Topologia przygotowana w aplikacji *Packet Tracer*:**



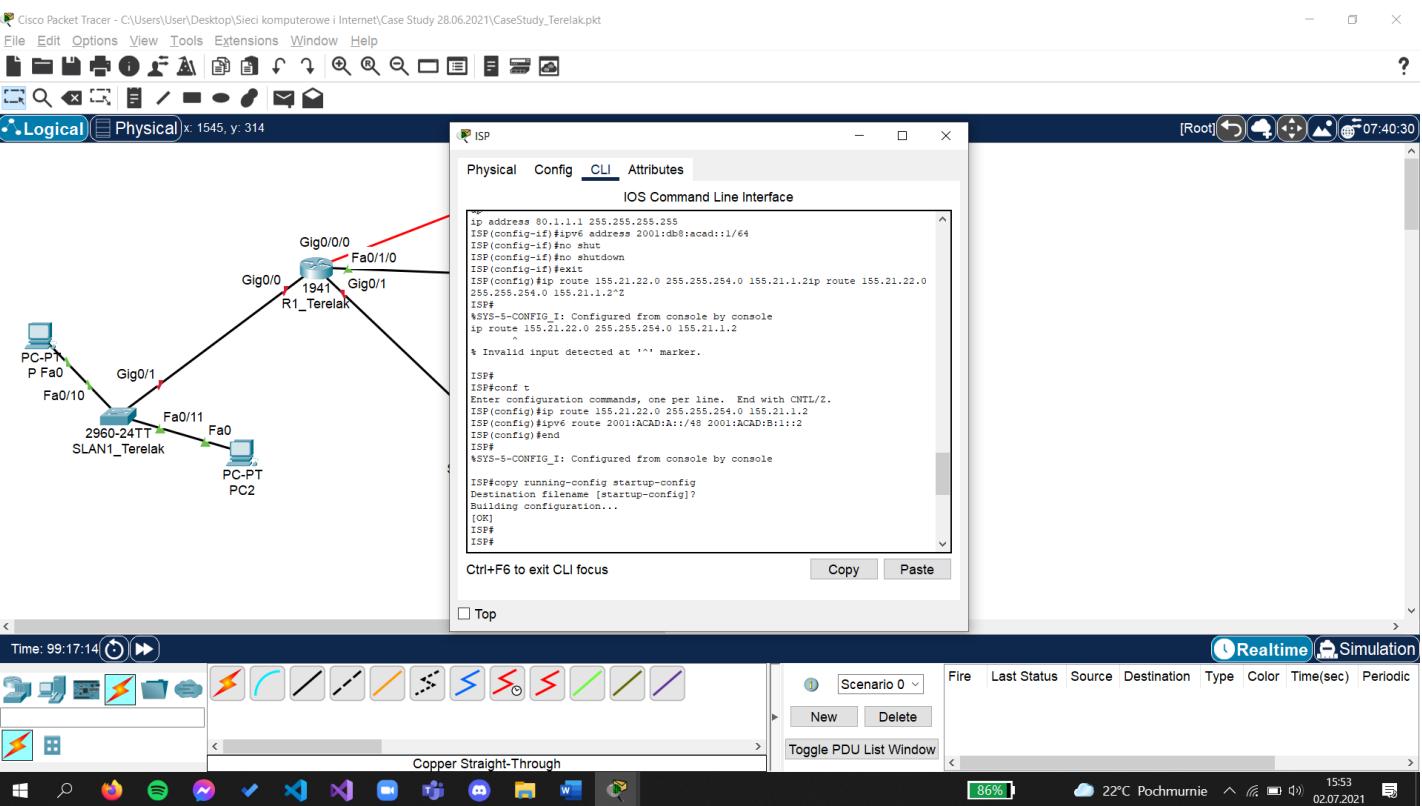
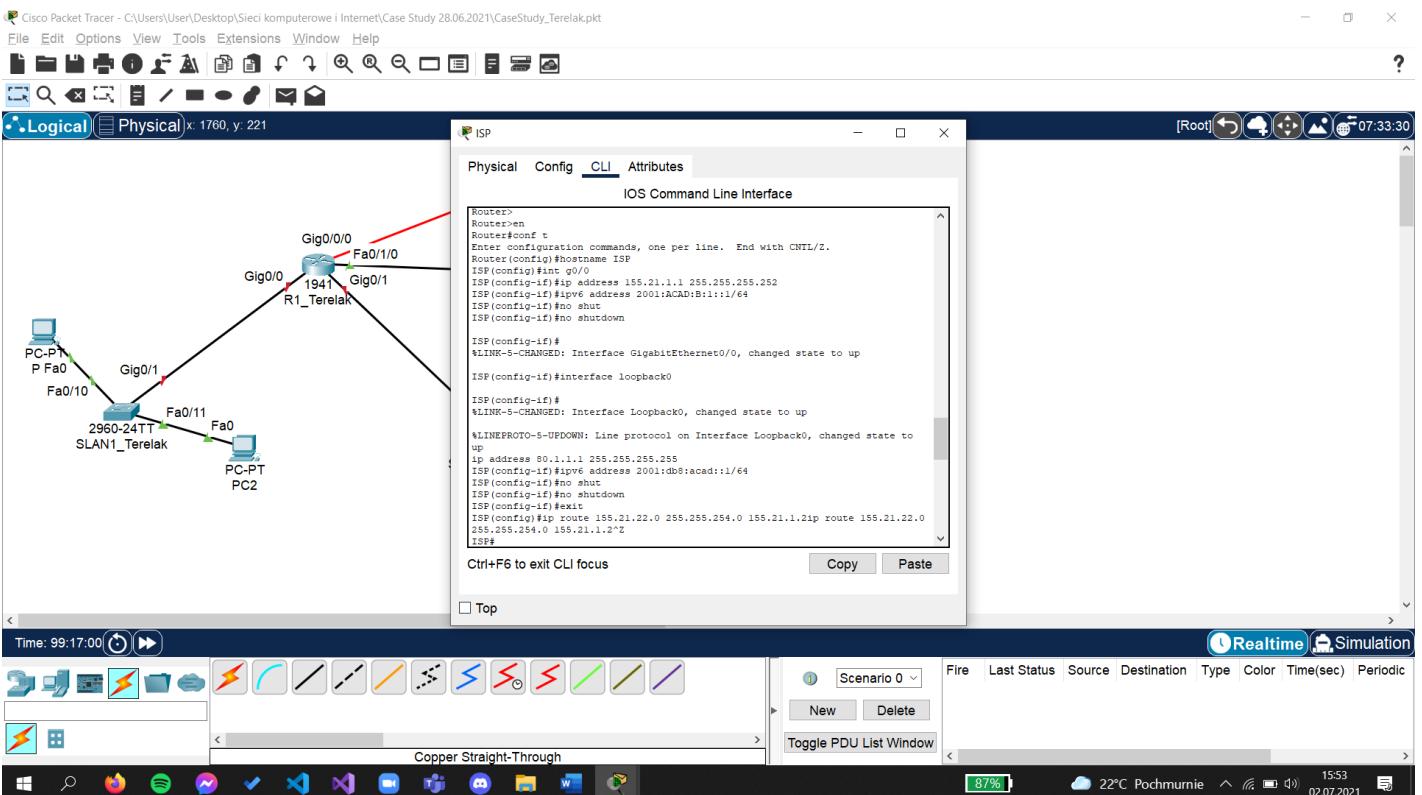
Nazwa sieci lokalnej	Przydzielona pula adresowa IPv4
SLAN1 (250 urządzeń)	155.21.22.0 /24
SLAN2 (120 urządzeń)	155.21.23.0 /25
SLAN3 (80 urządzeń)	155.21.23.128 /25

Nazwa sieci lokalnej	Przydzielona pula adresowa IPv6
SLAN1	2001:ACAD:A:1::0 /64
SLAN2	2001:ACAD:A:2::0 /64
SLAN3	2001:ACAD:A:3::0 /64

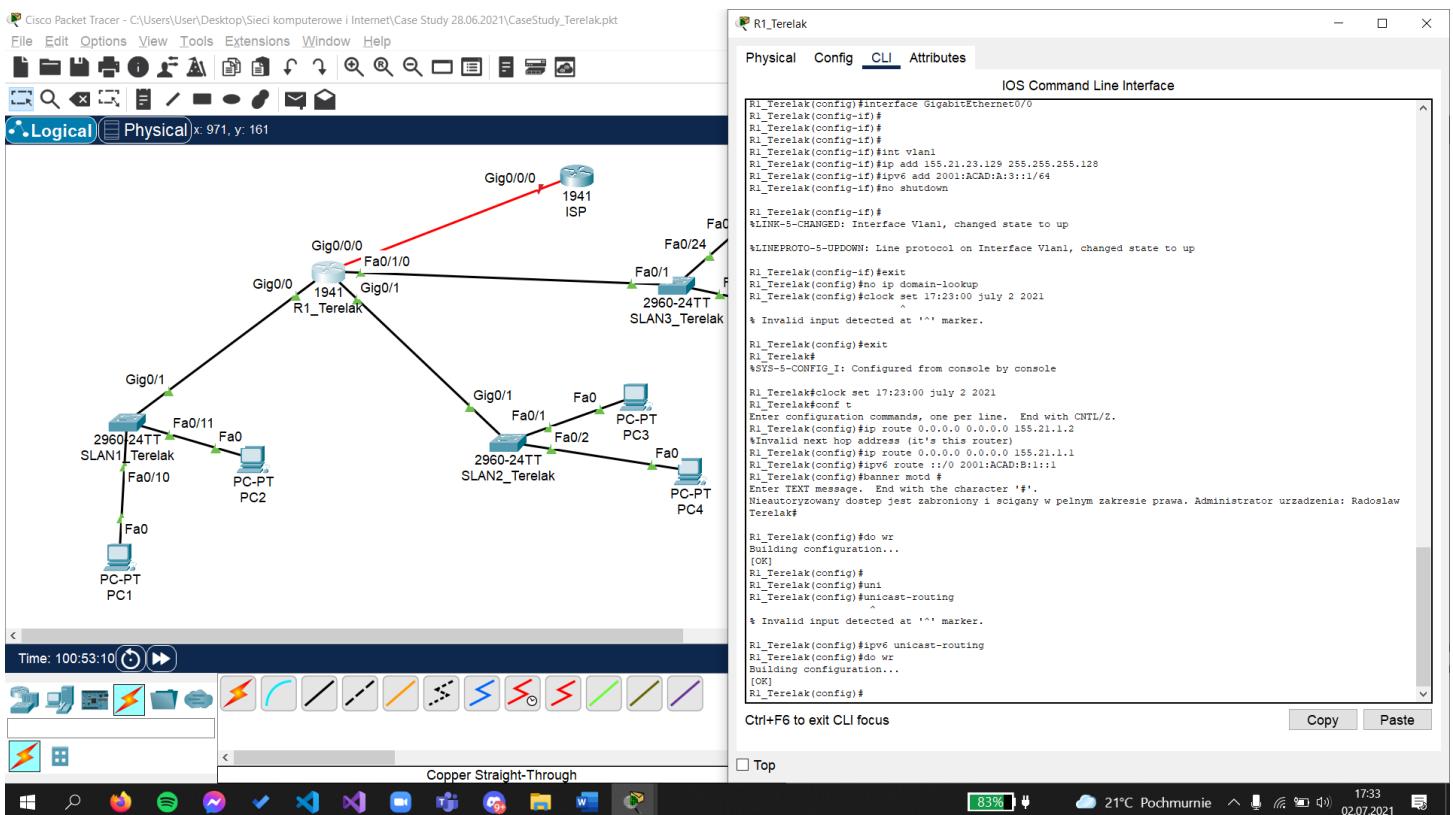
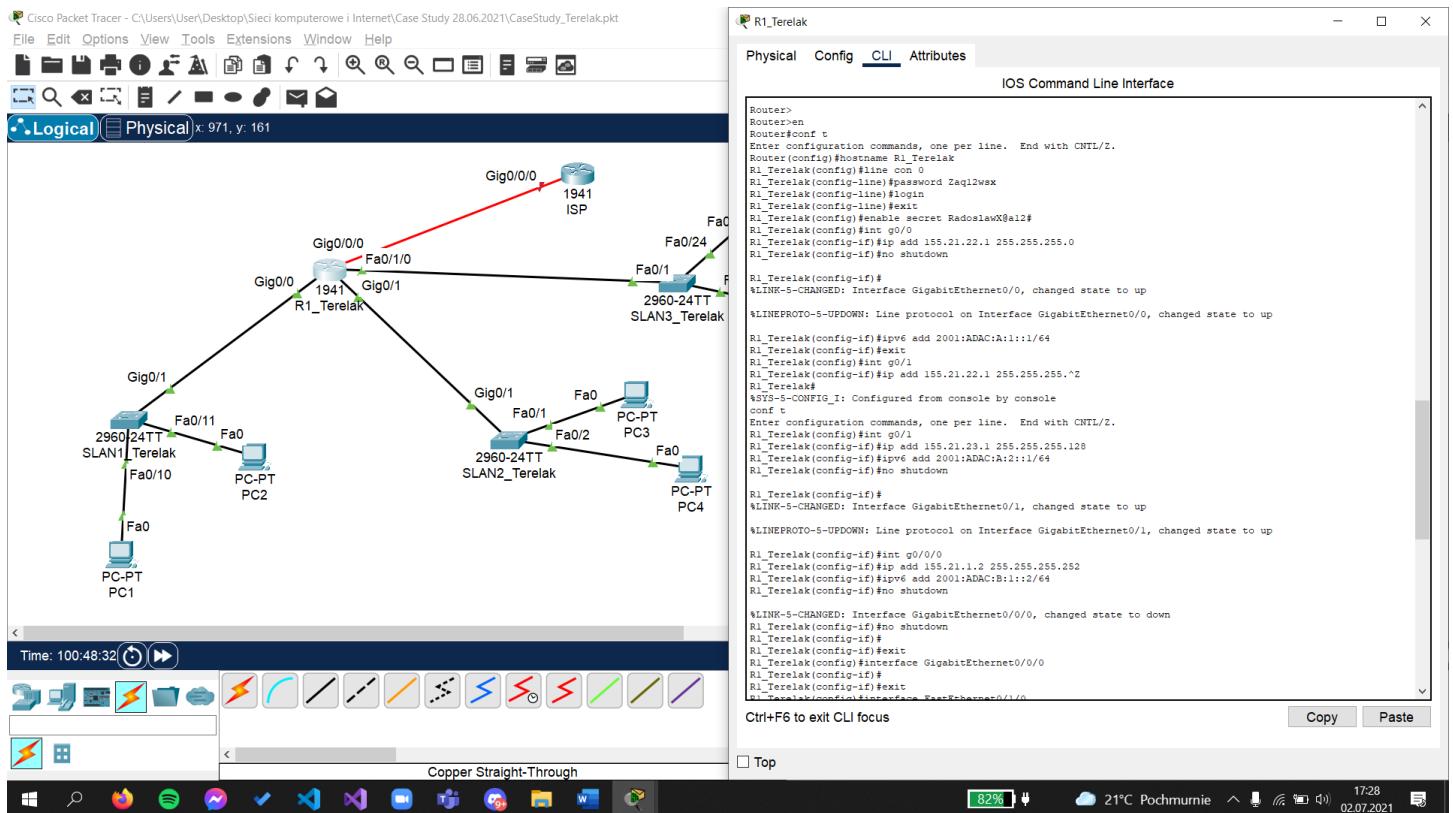
<b>Urządzenie</b>	<b>Interfejs</b>	<b>Adres IPv4</b>	<b>Maska podsieci</b>	<b>Adres IPv4 bramy domyślnej</b>
R1	G0/0/0	155.21.1.2	255.255.255.252	
	G0/0	155.21.22.1	255.255.255.0	
	G0/1	155.21.23.1	255.255.255.128	
	F0/1/0	155.21.23.129	255.255.255.128	
SLAN1	VLAN1	155.21.22.2	255.255.255.0	155.21.22.1
SLAN2	VLAN1	155.21.23.2	255.255.255.128	155.21.23.1
SLAN3	VLAN1	155.21.23.130	255.255.255.128	155.21.23.129
PC1	Interfejs sieciowy	155.21.22.3	255.255.255.0	151.21.22.1
PC2	Interfejs sieciowy	155.21.22.4	255.255.255.0	151.21.22.1
PC3	Interfejs sieciowy	155.21.23.3	255.255.255.128	151.21.23.1
PC4	Interfejs sieciowy	155.21.23.4	255.255.255.128	151.21.23.1
PC5	Interfejs sieciowy	155.21.23.131	255.255.255.128	151.21.23.129
Serwer1	Interfejs sieciowy	155.21.23.169	255.255.255.128	151.21.23.129

<b>Urządzenie</b>	<b>Interfejs</b>	<b>Adres IPv6</b>	<b>Prefix</b>	<b>Adres IPv6 bramy domyślnej</b>
R1	G0/0/0	2001:ACAD:B:1::2	64	
	G0/0	2001:ACAD:A:1::1	64	
	G0/1	2001:ACAD:A:2::1	64	
	F0/1/0	2001:ACAD:A:3::1	64	
Server1	Interfejs sieciowy	2001:ACAD:A:3::2	64	2001:ACAD:A:3::1

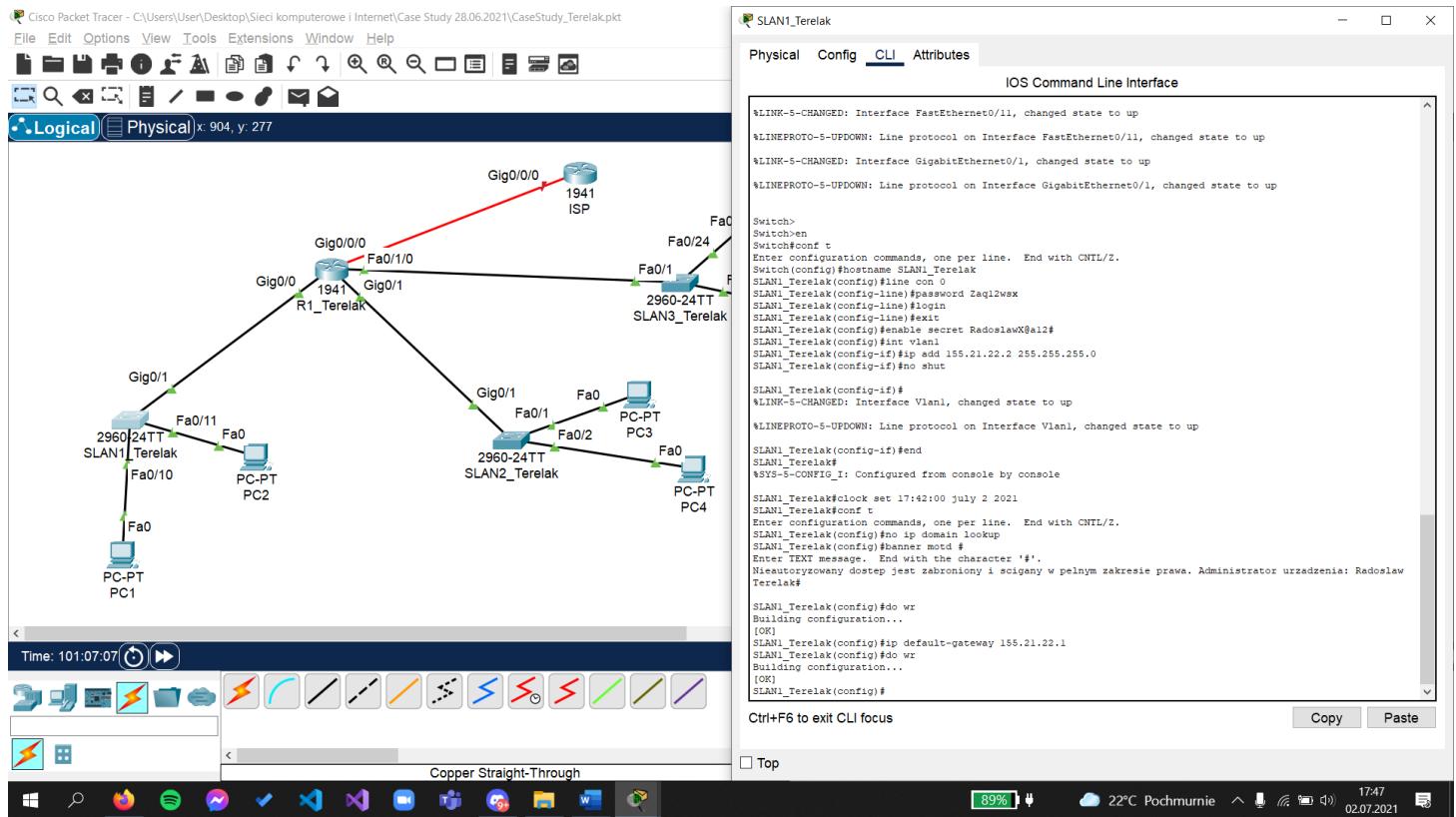
## Konfiguracja Routera ISP



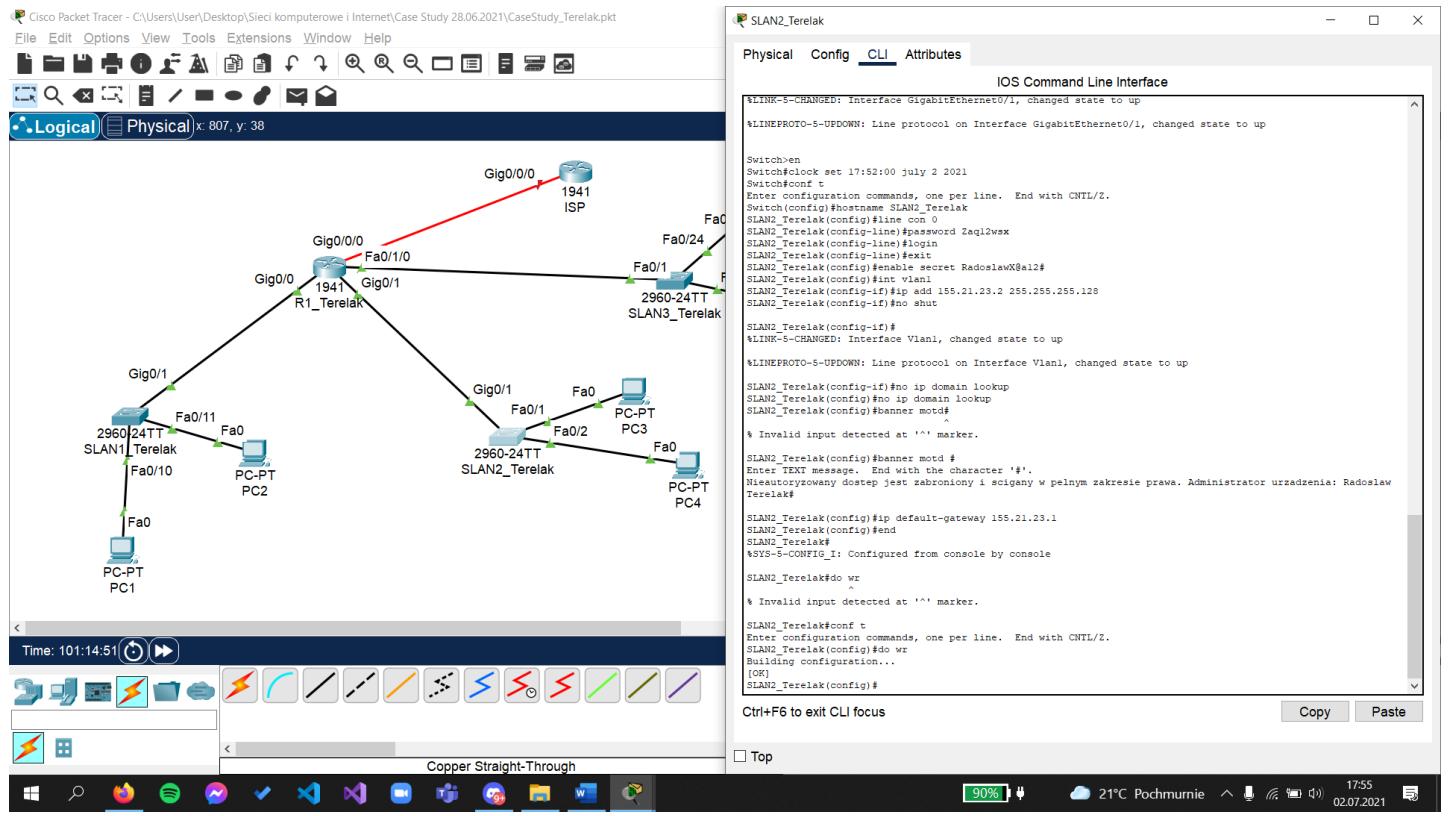
## Konfiguracja Routera R1



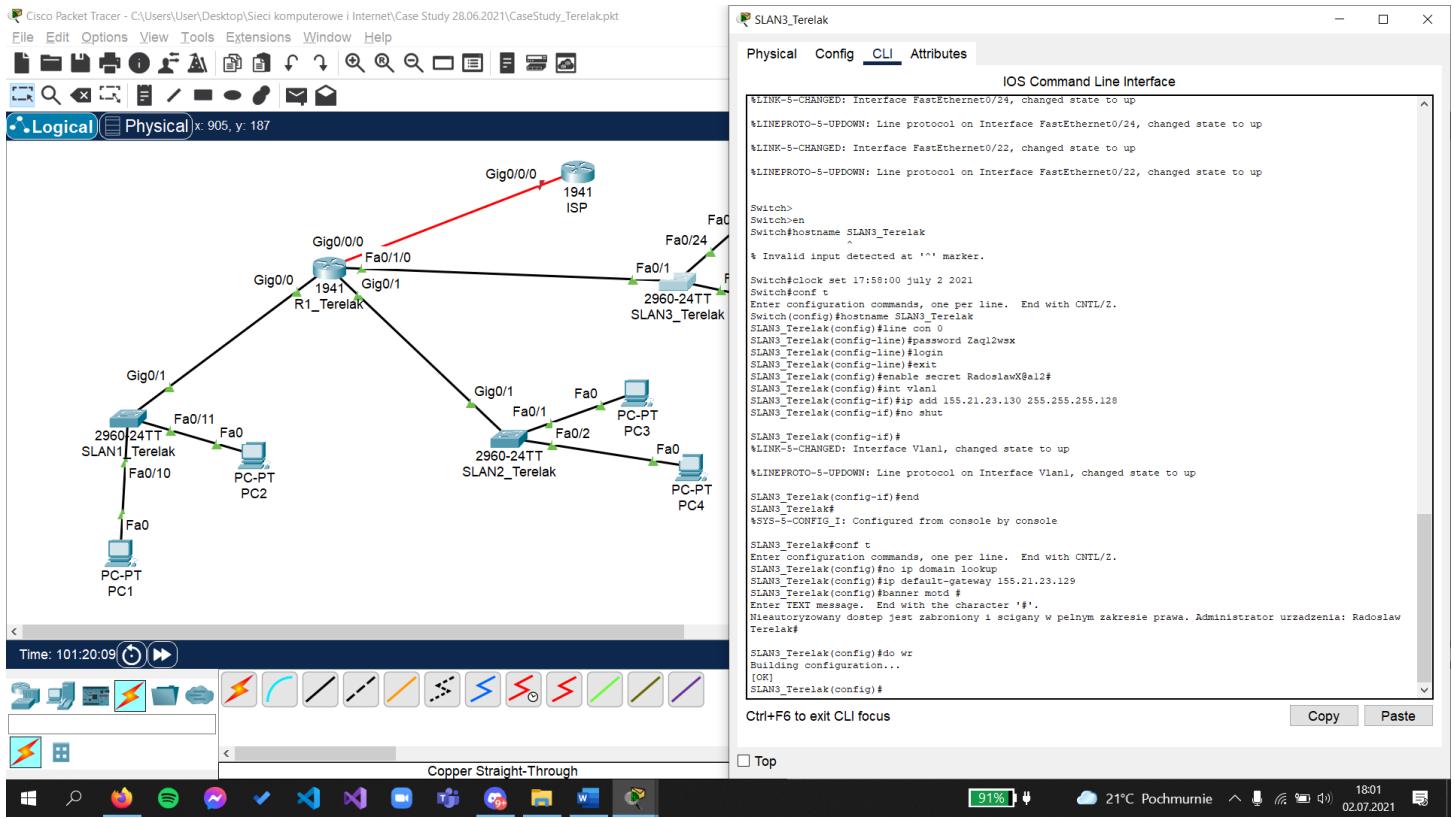
## Konfiguracja Przełącznika S1



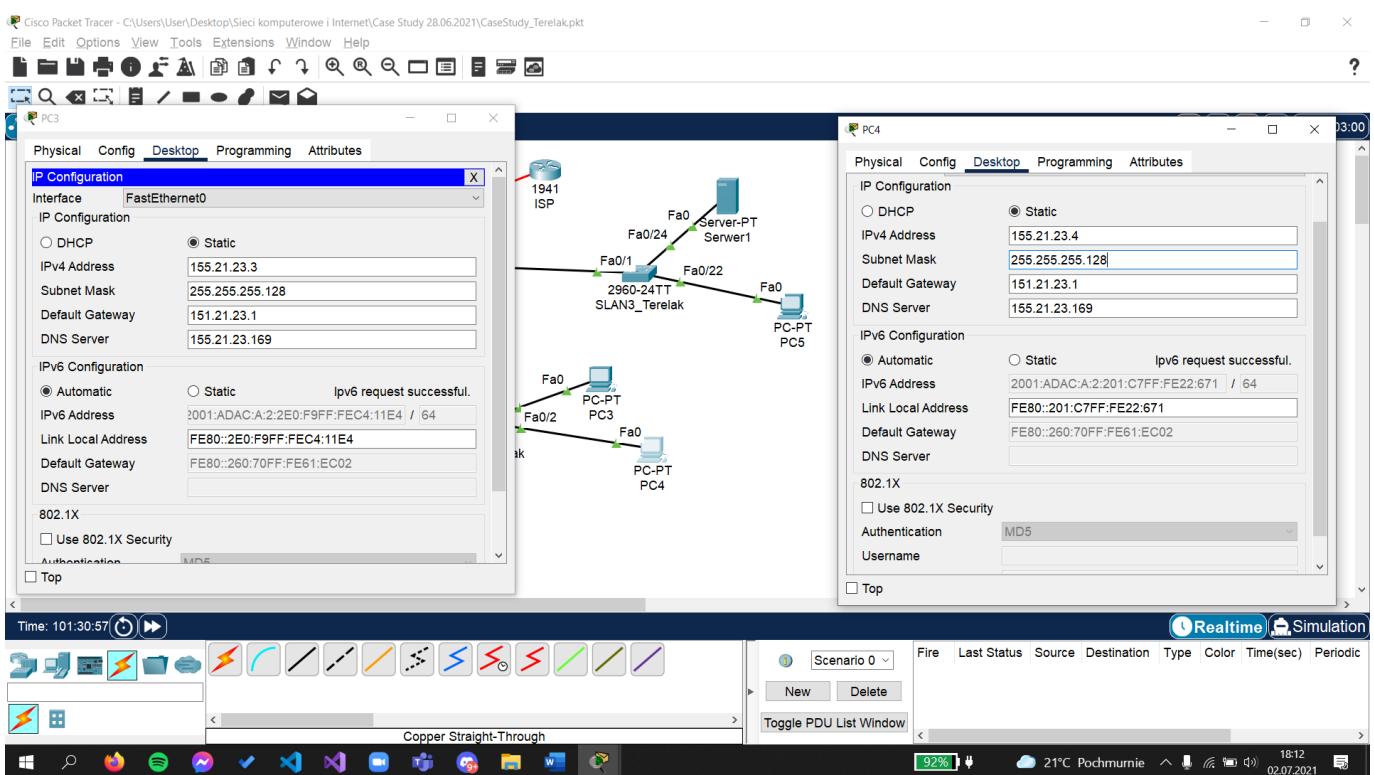
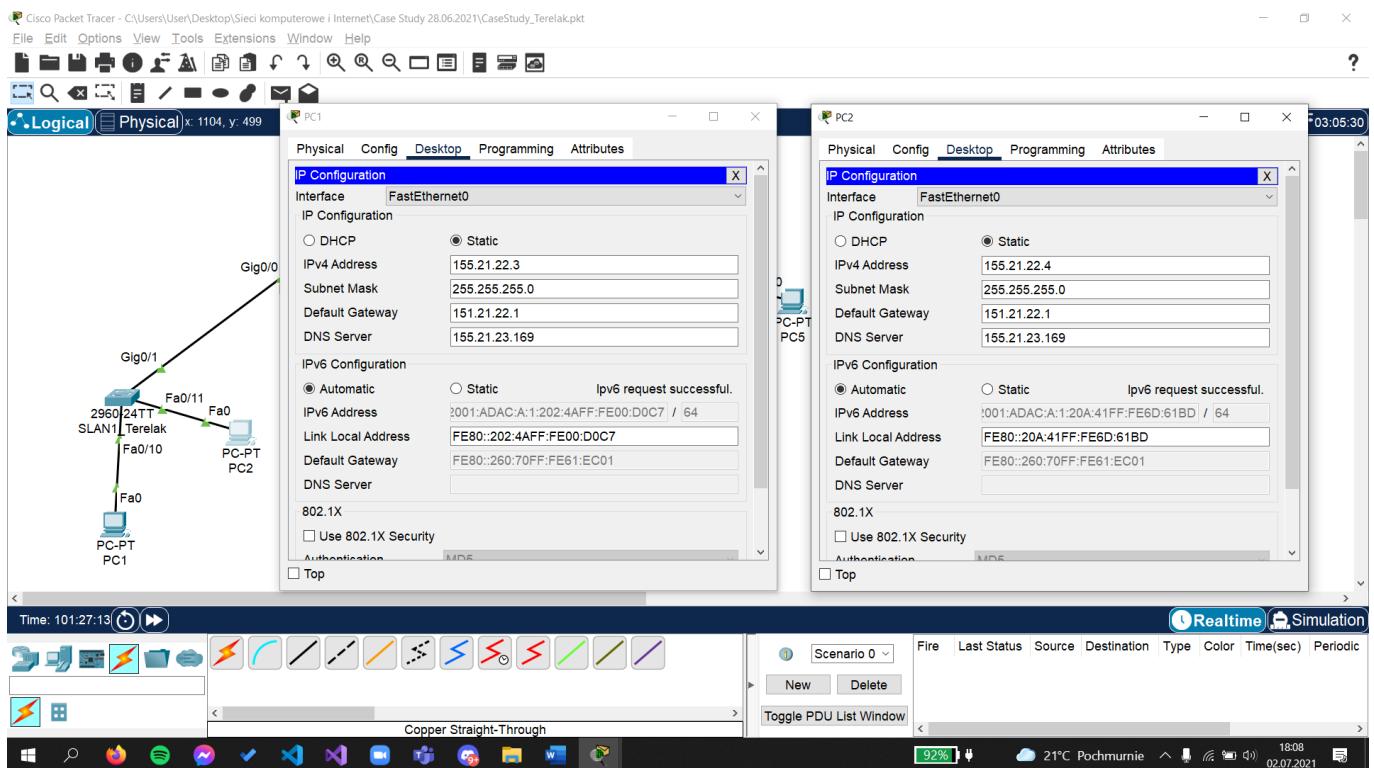
## Konfiguracja Przełącznika S2

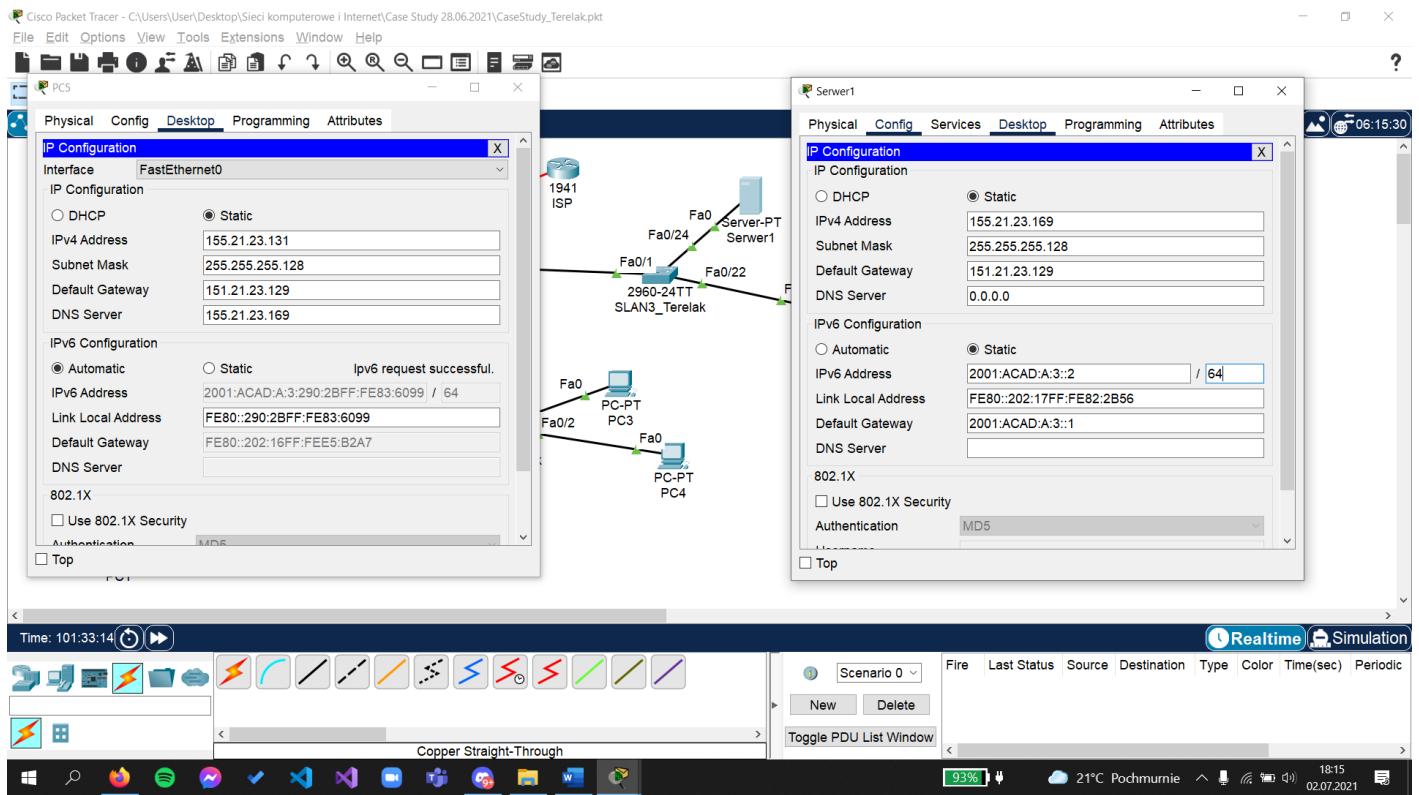


## Konfiguracja Przełącznika S3

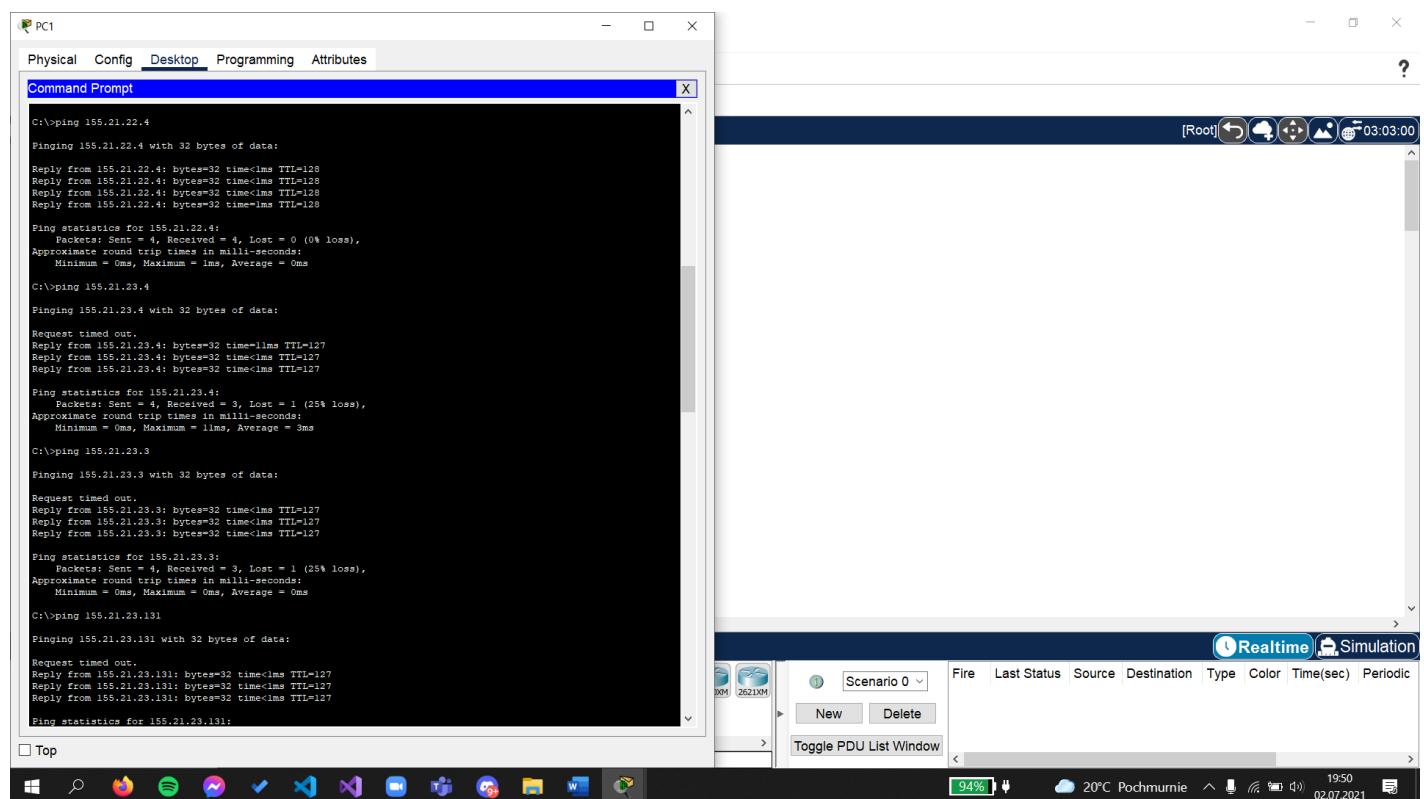
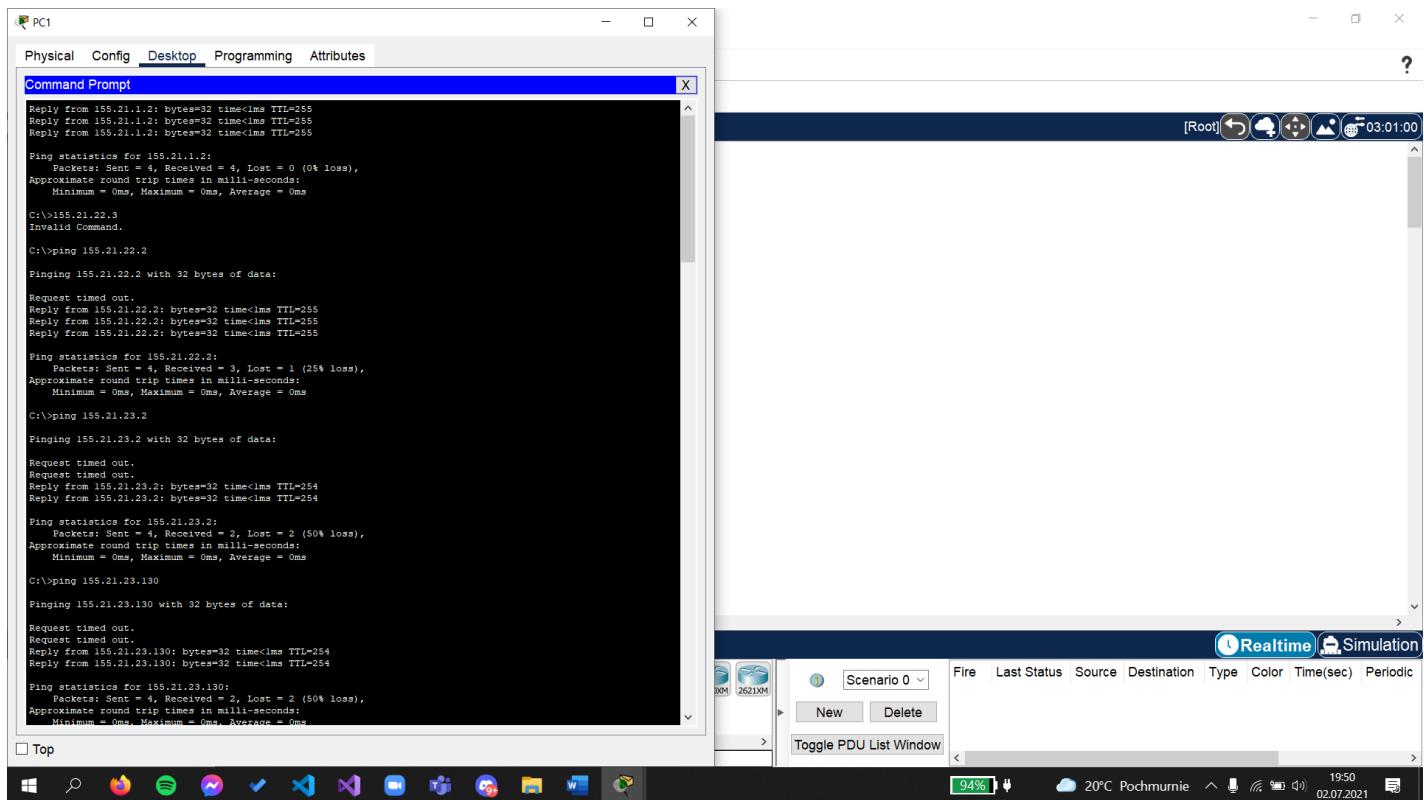


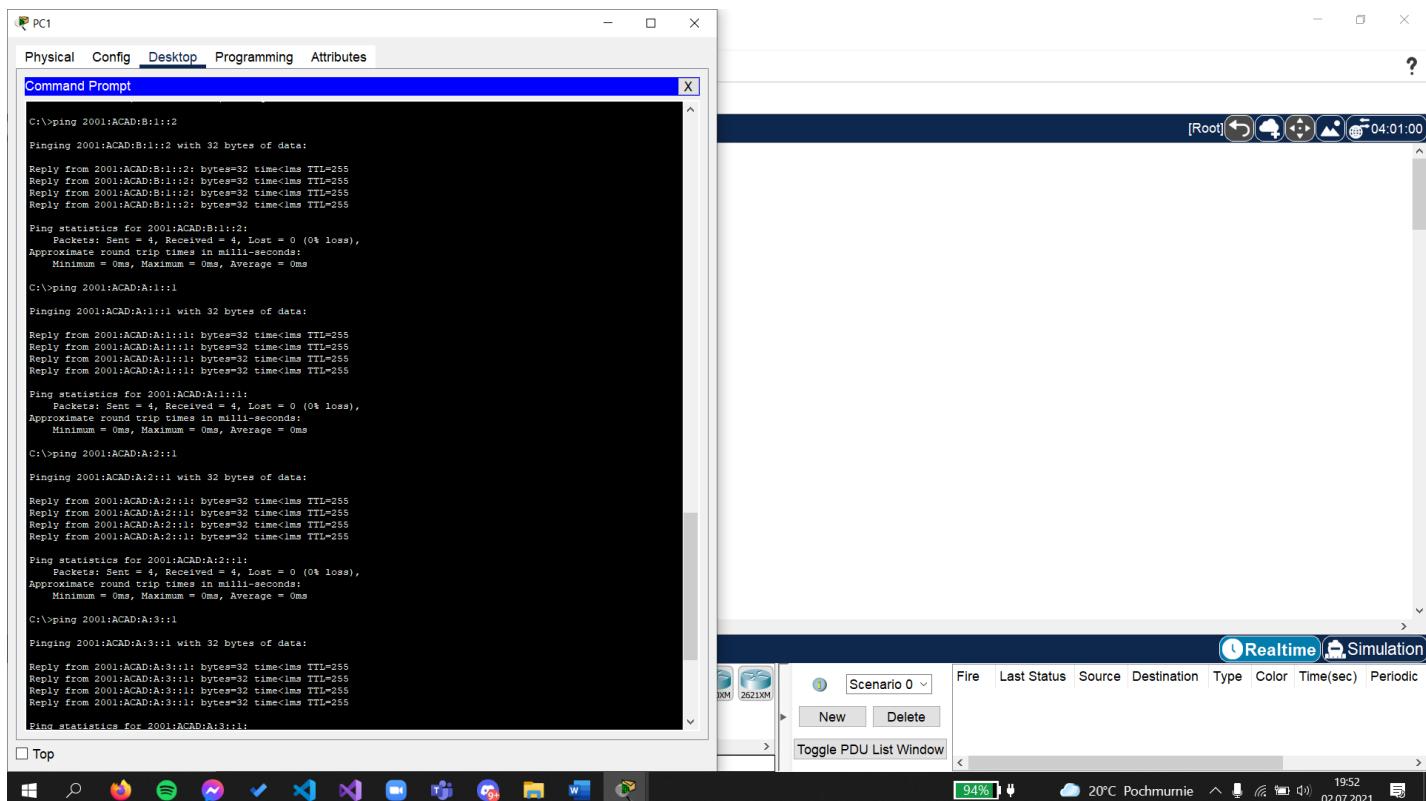
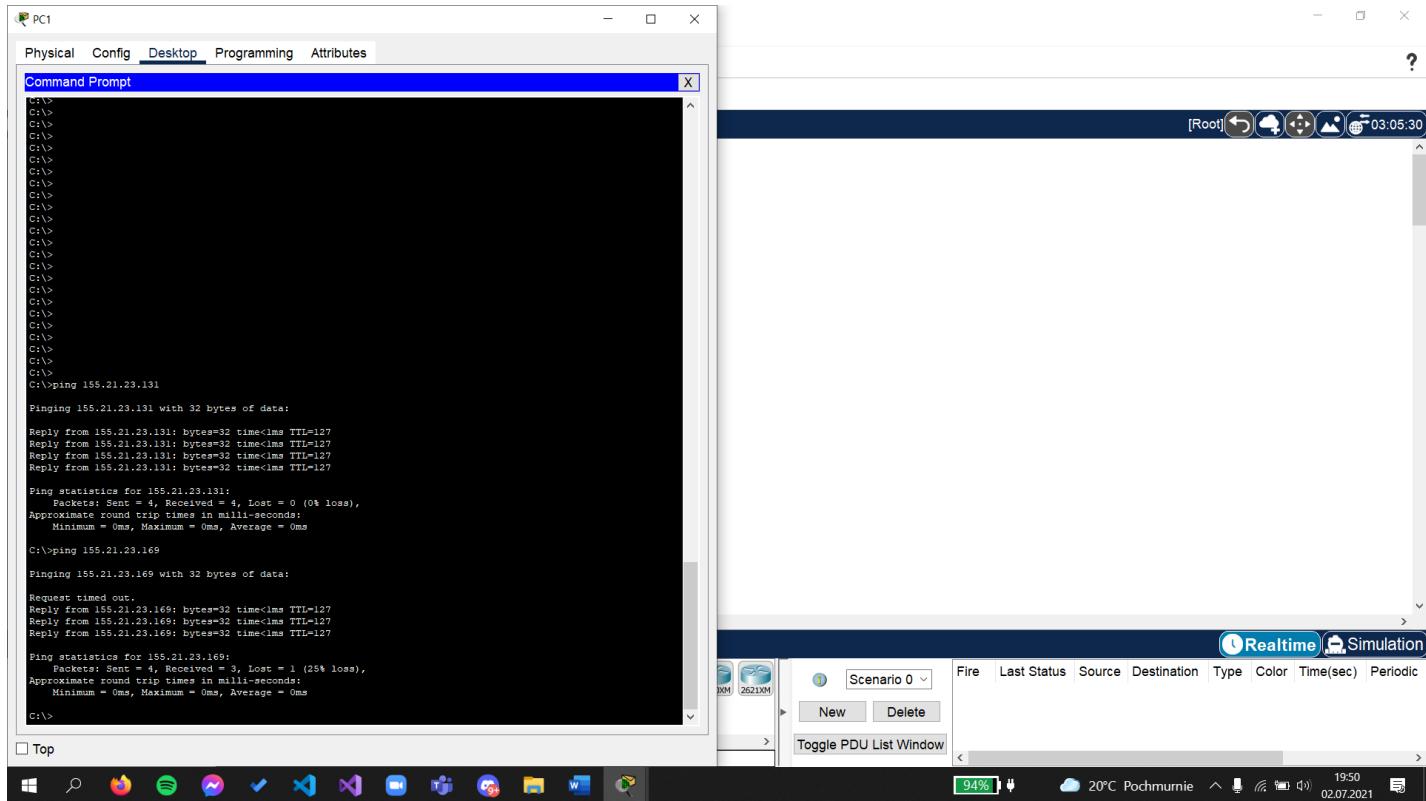
## Ręczna konfiguracja PC i Serwera

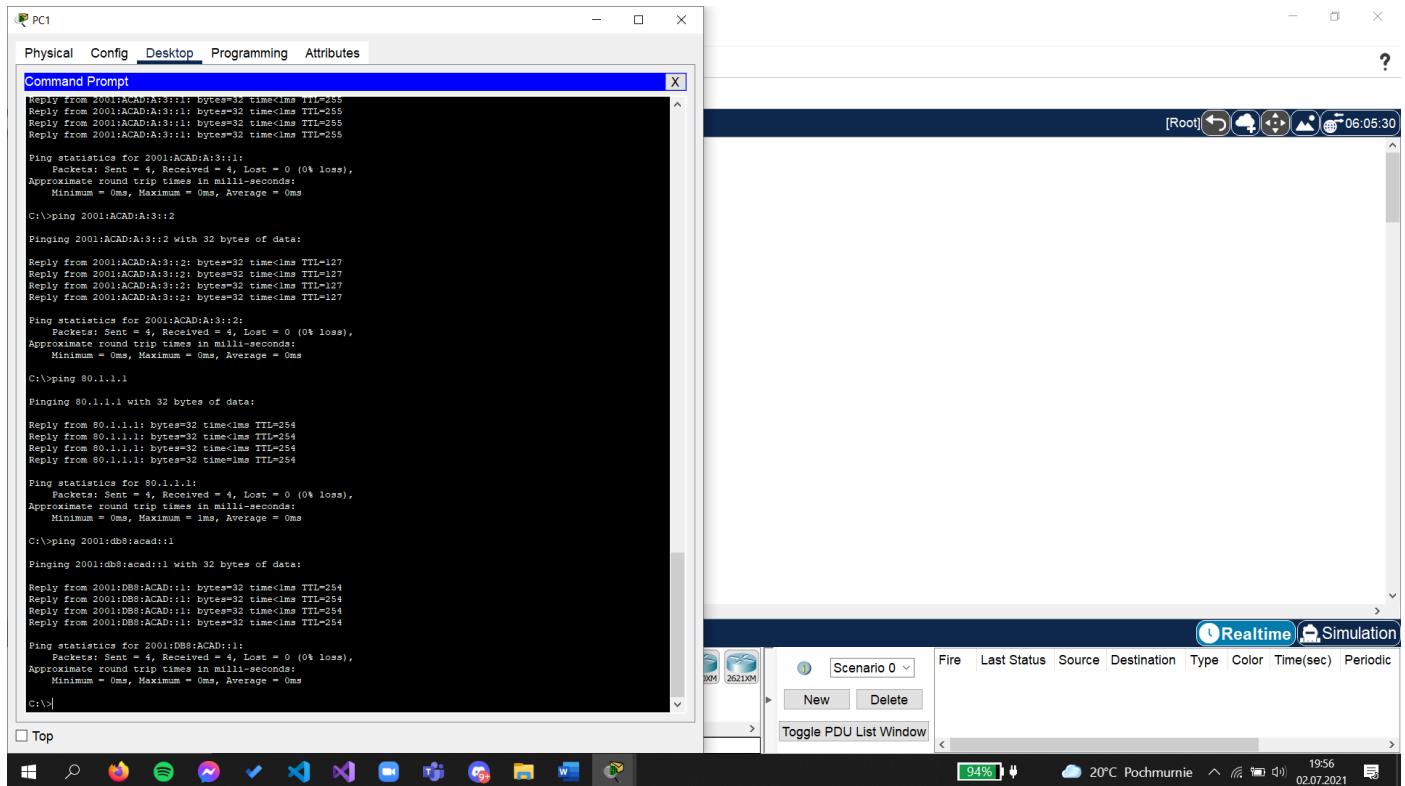
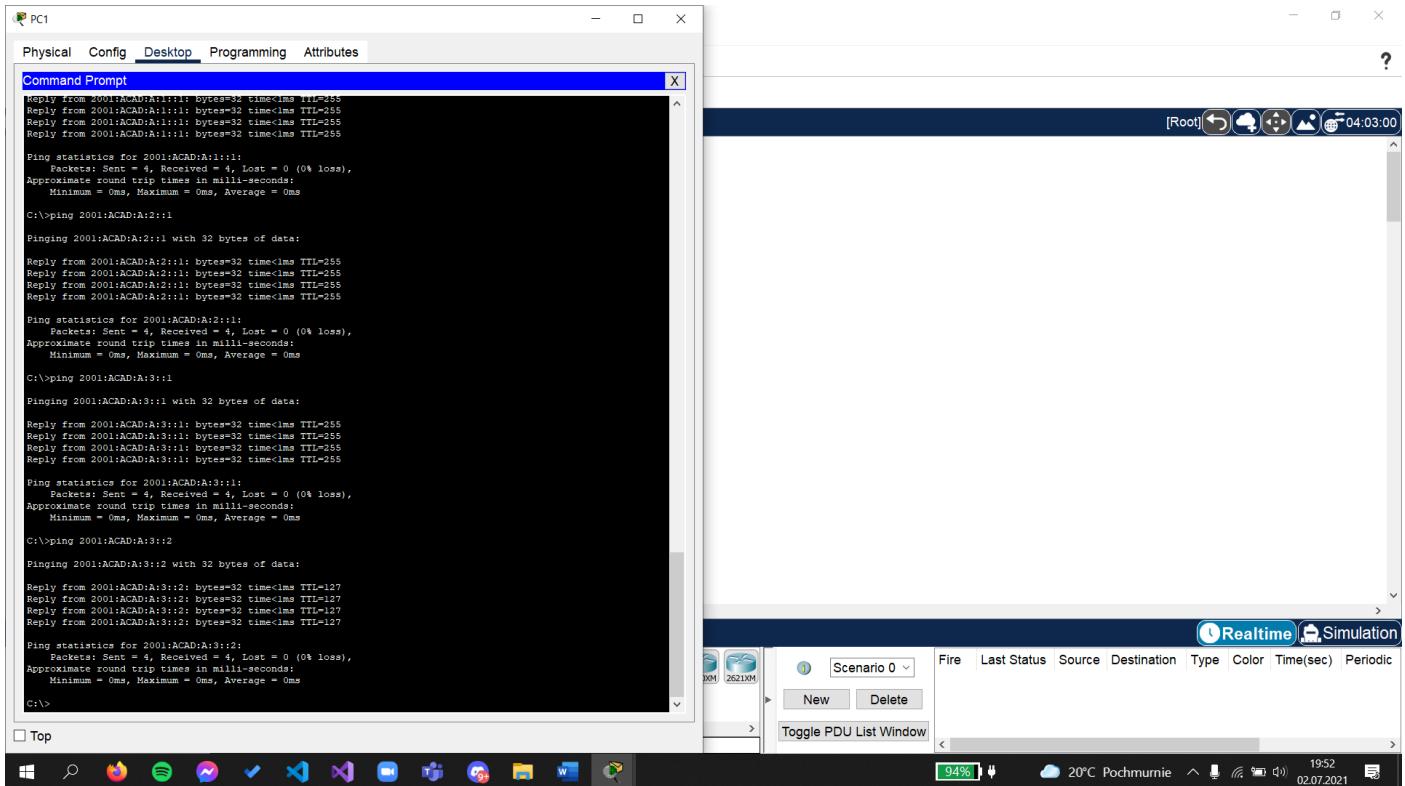




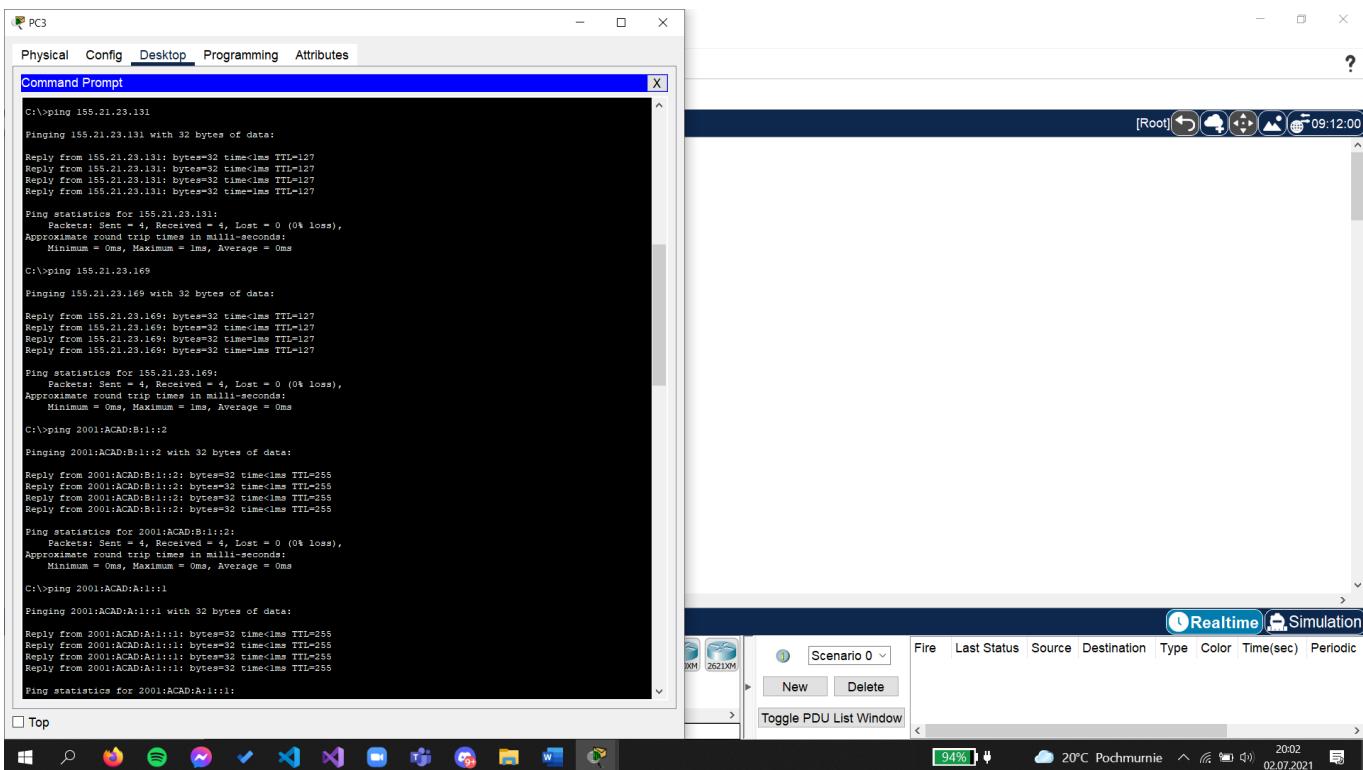
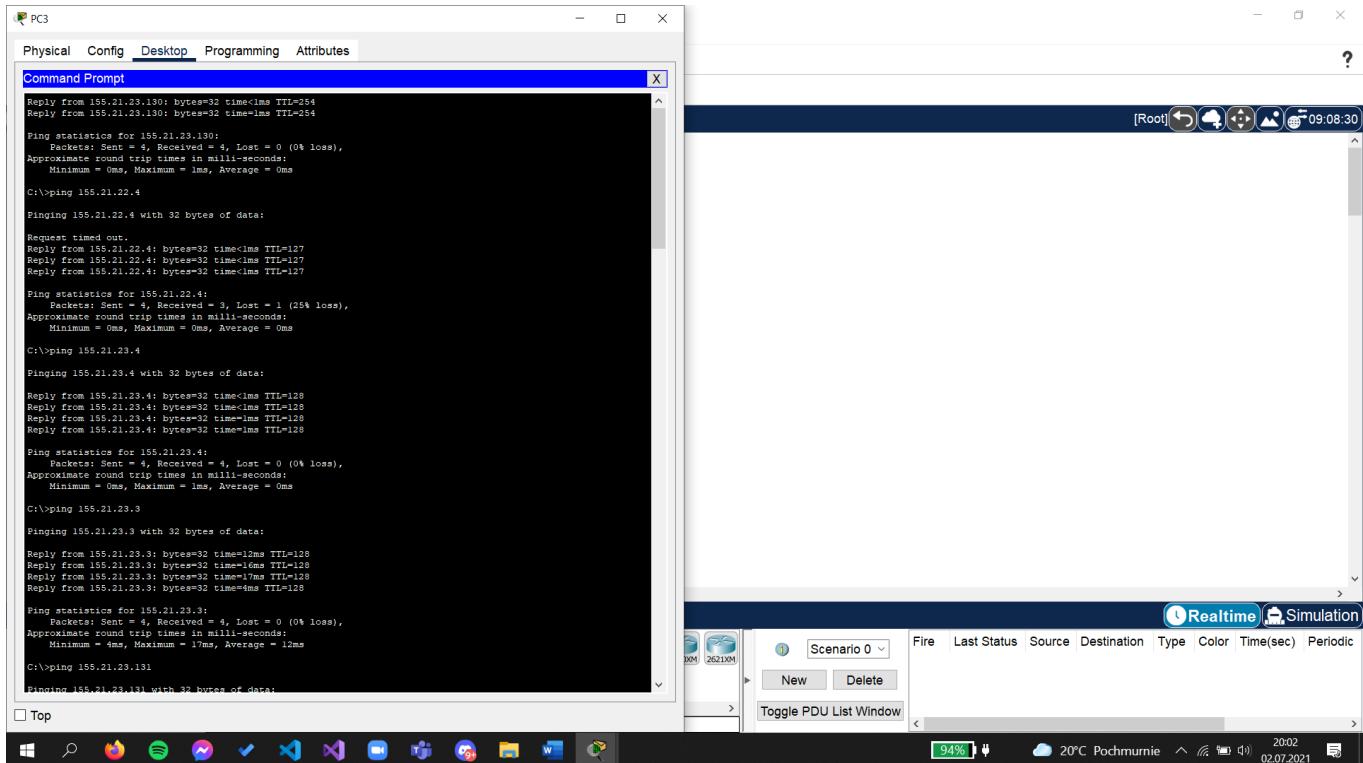
## Sprawdzanie połączenia z urządzenia PC1

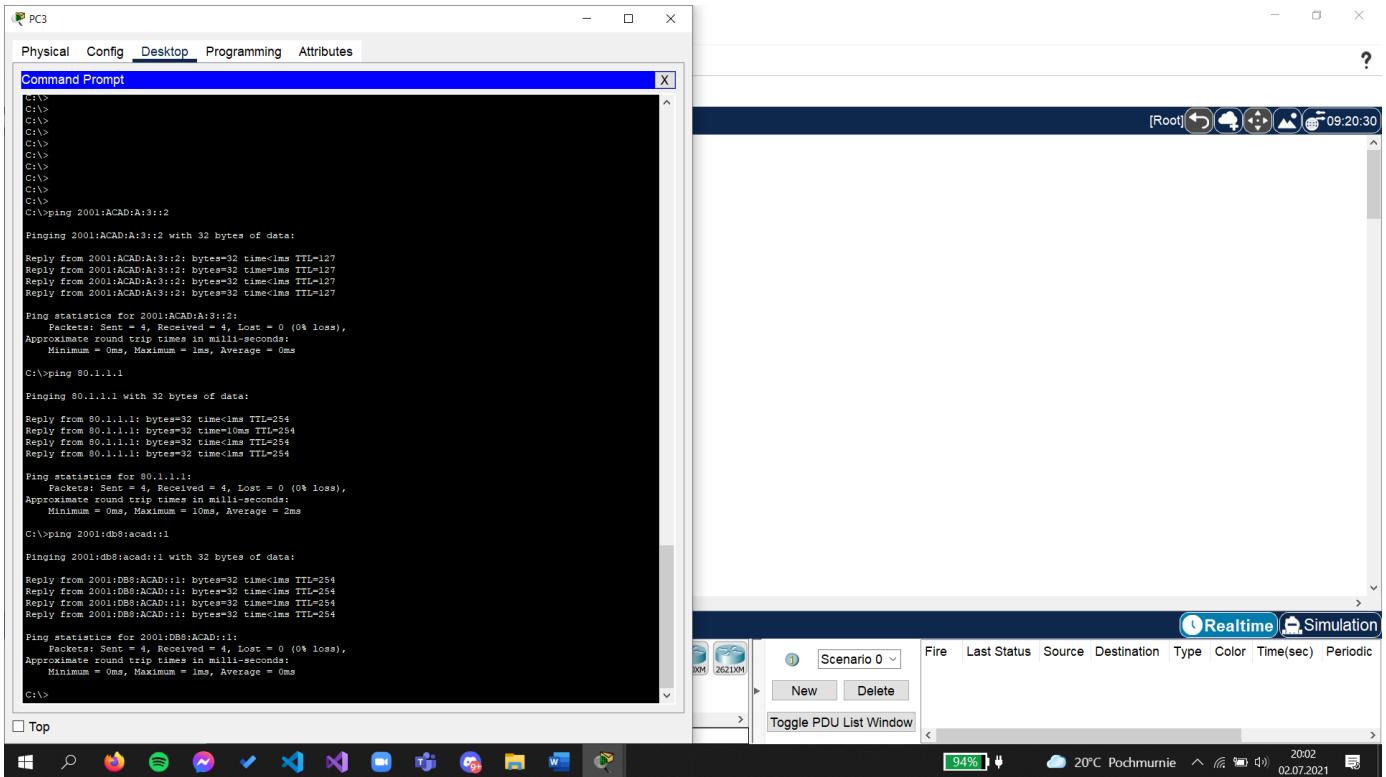
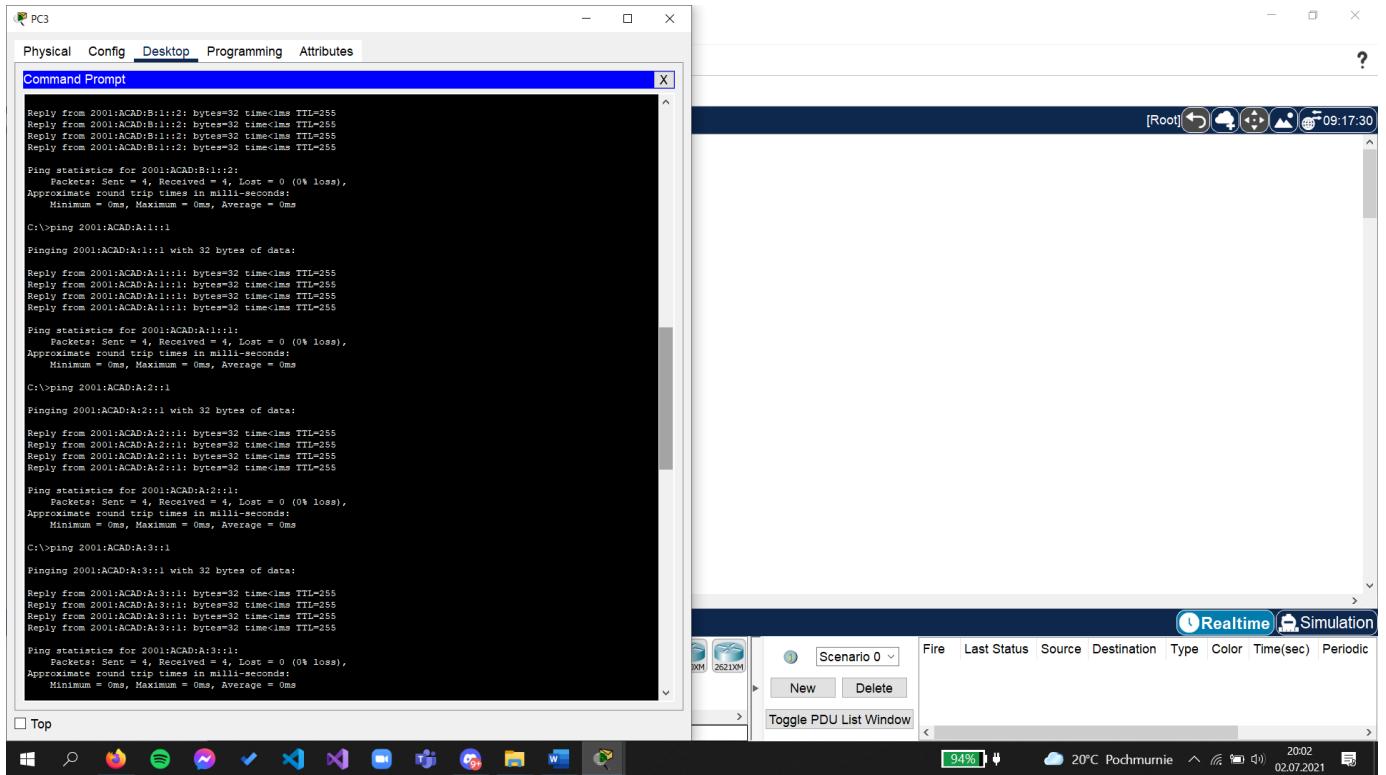




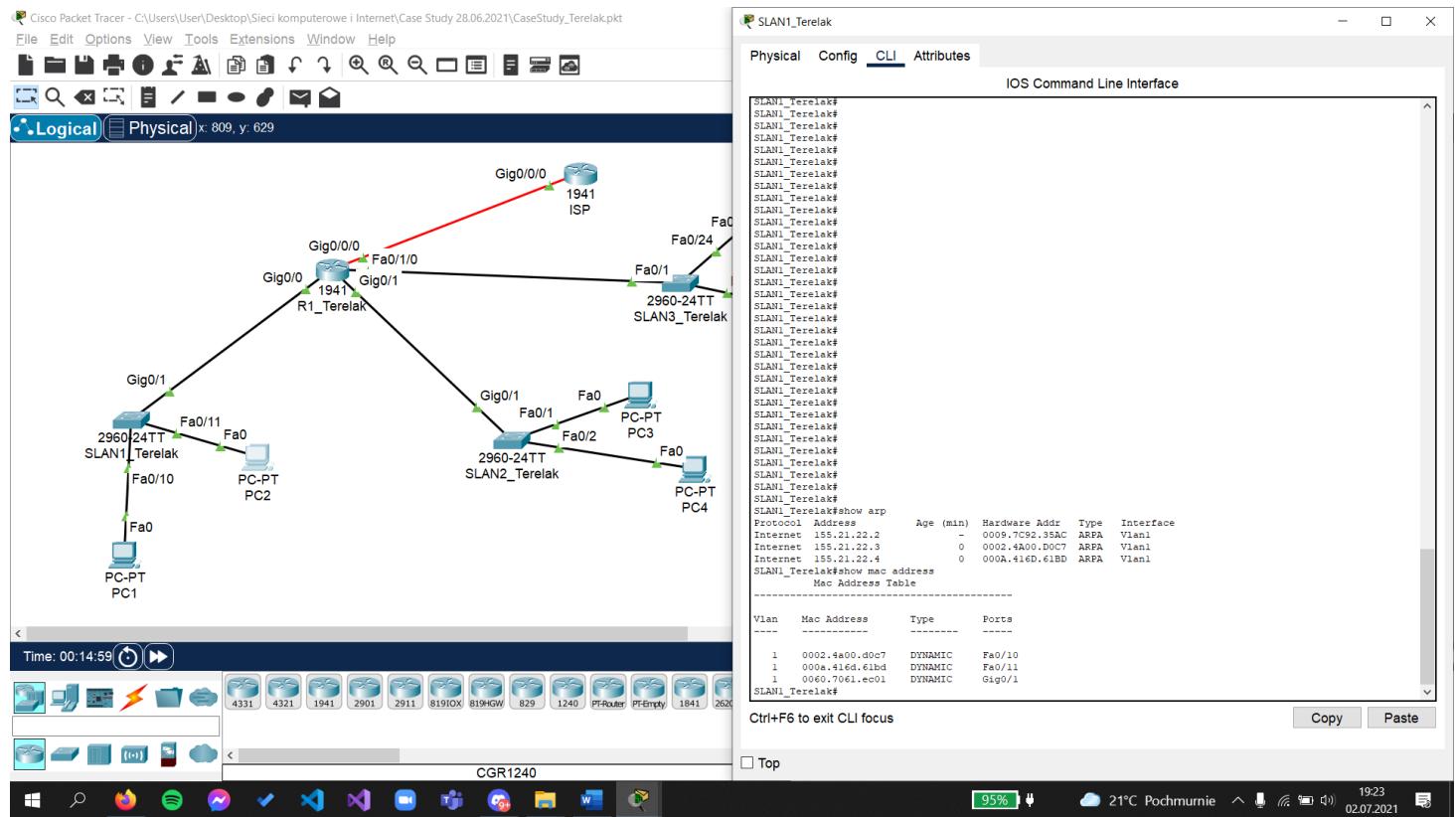


## Sprawdzanie połączenia z urządzenia PC3

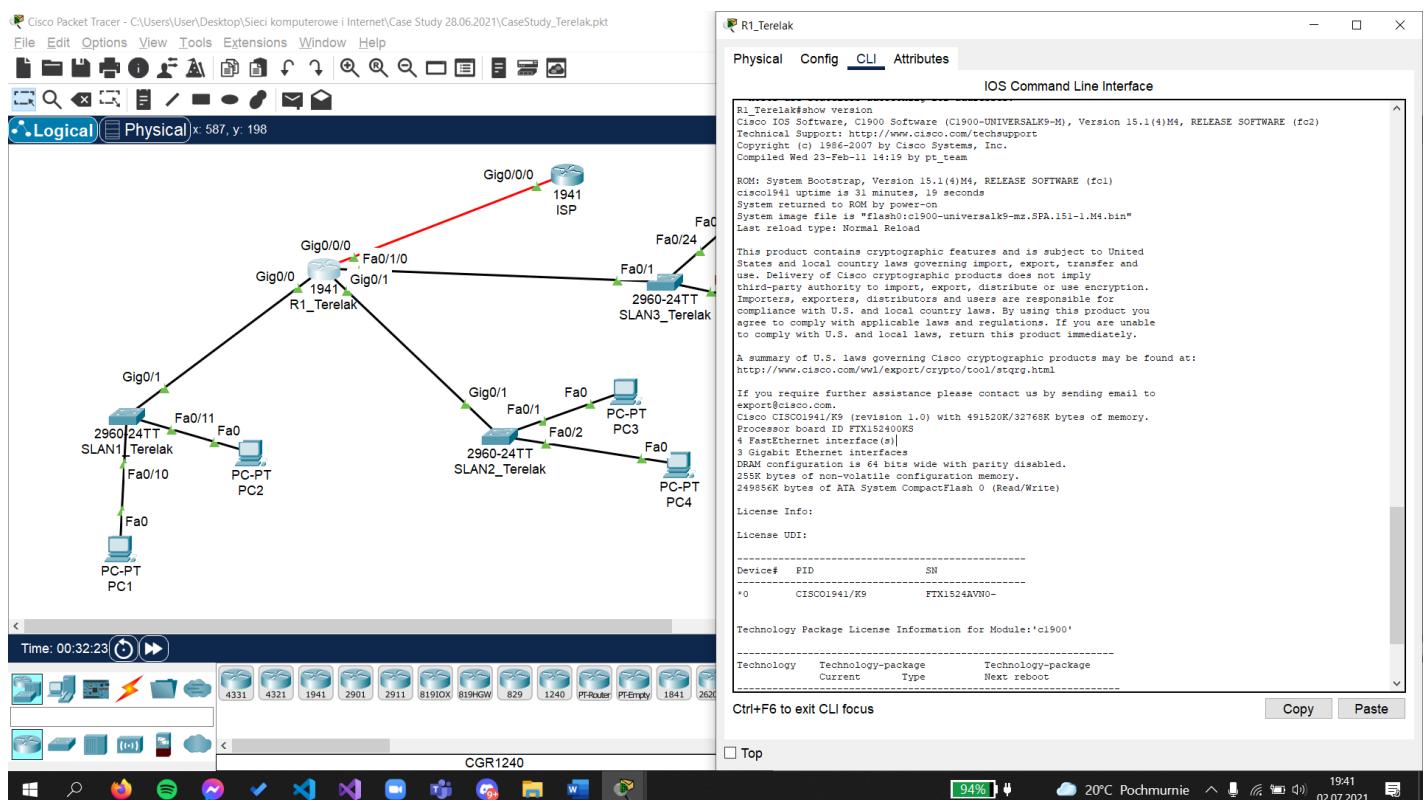
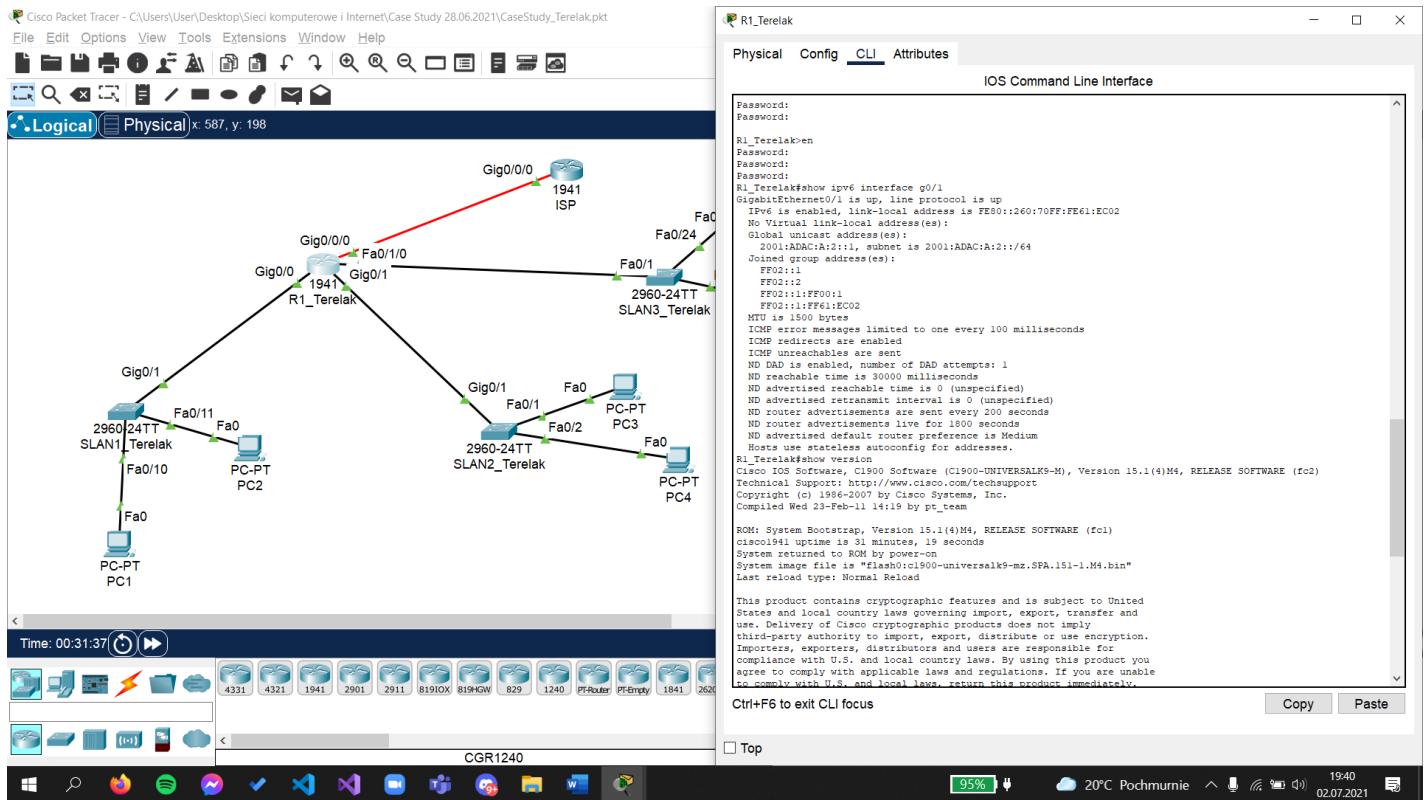




## **SLAN1 – adresy MAC**



## **Router R1 – grupy multicastowe, adresy IPv4/IPv6, wersja systemu i pamięć**



## Zadania dodatkowe

### Strefa DNS dla domeny sklep.pl

**Server1**

**Physical Config Services Desktop Programming Attributes**

**SERVICES**

- HTTP
- DHCP
- DHCPv6
- TFTP
- DNS**
- SYSLOG
- AAA
- NTP
- EMAIL
- FTP
- IoT
- VM Management
- Radius EAP

**DNS**

**DNS Service**  On  Off

**Resource Records**

Name	Type	Detail
sklep.pl	SOA	Primary Server Name: sklep.pl Mail Box: terelak.sklep.pl Minimum T T L: 86400 Refresh Time: 1800 Retry Time: 900 Expiry Time: 604800
sklep.pl	A Record	155.21.23.169
sklep.pl	NS	sklep.pl
sklep.pl	SOA	ServerName:sklep.pl MailBox:terelak.sklep.pl Expiry:604800...
www.sklep.pl	A Record	155.21.23.169
www.sklep.pl	NS	www.sklep.pl
www.sklep.pl	SOA	ServerName:www.s... MailBox:terelak.sklep.pl Expiry:604800...

**DNS Cache**

Top

**PC1**

**Physical Config Desktop Programming Attributes**

**Command Prompt**

```
C:\>ping 155.21.23.169
Pinging 155.21.23.169 with 32 bytes of data:
Reply from 155.21.23.169: bytes=32 time<1ms TTL=127

Ping statistics for 155.21.23.169:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping sklep.pl
Pinging 155.21.23.169 with 32 bytes of data:
Reply from 155.21.23.169: bytes=32 time<1ms TTL=127

Ping statistics for 155.21.23.169:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping www.sklep.pl
Pinging 155.21.23.169 with 32 bytes of data:
```

Top

**Realtime Simulation**

94% 16°C Koniec deszczu 03.07.2021 14:16

**Server1**

**Physical Config Services Desktop Programming Attributes**

**SERVICES**

- HTTP
- DHCP
- DHCPv6
- TFTP
- DNS**
- SYSLOG
- AAA
- NTP
- EMAIL
- FTP
- IoT
- VM Management
- Radius EAP

**DNS**

**DNS Service**  On  Off

**Resource Records**

Name	Type	Detail
sklep.pl	SOA	Primary Server Name: sklep.pl Mail Box: terelak.sklep.pl Minimum T T L: 86400 Refresh Time: 1800 Retry Time: 900 Expiry Time: 604800
sklep.pl	A Record	155.21.23.169
sklep.pl	NS	sklep.pl
sklep.pl	SOA	ServerName:sklep.pl MailBox:terelak.sklep.pl Expiry:604800...
www.sklep.pl	A Record	155.21.23.169
www.sklep.pl	NS	www.sklep.pl
www.sklep.pl	SOA	ServerName:www.s... MailBox:terelak.sklep.pl Expiry:604800...

**DNS Cache**

Top

**PC3**

**Physical Config Desktop Programming Attributes**

**Command Prompt**

```
C:\>
C:\>ping sklep.pl
Pinging 155.21.23.169 with 32 bytes of data:
Reply from 155.21.23.169: bytes=32 time<1ms TTL=127

Ping statistics for 155.21.23.169:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping www.sklep.pl
Pinging 155.21.23.169 with 32 bytes of data:
Reply from 155.21.23.169: bytes=32 time<1ms TTL=127

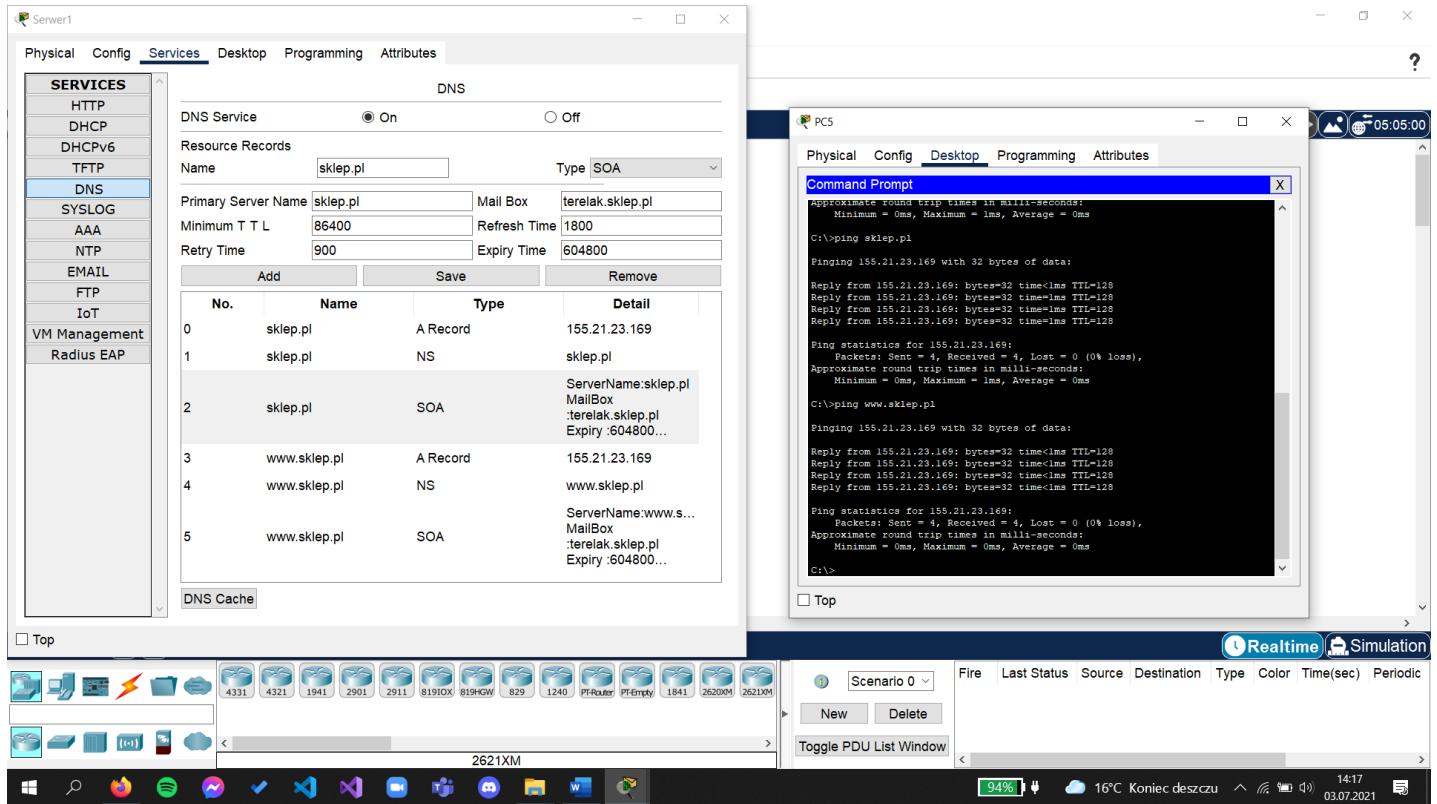
Ping statistics for 155.21.23.169:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

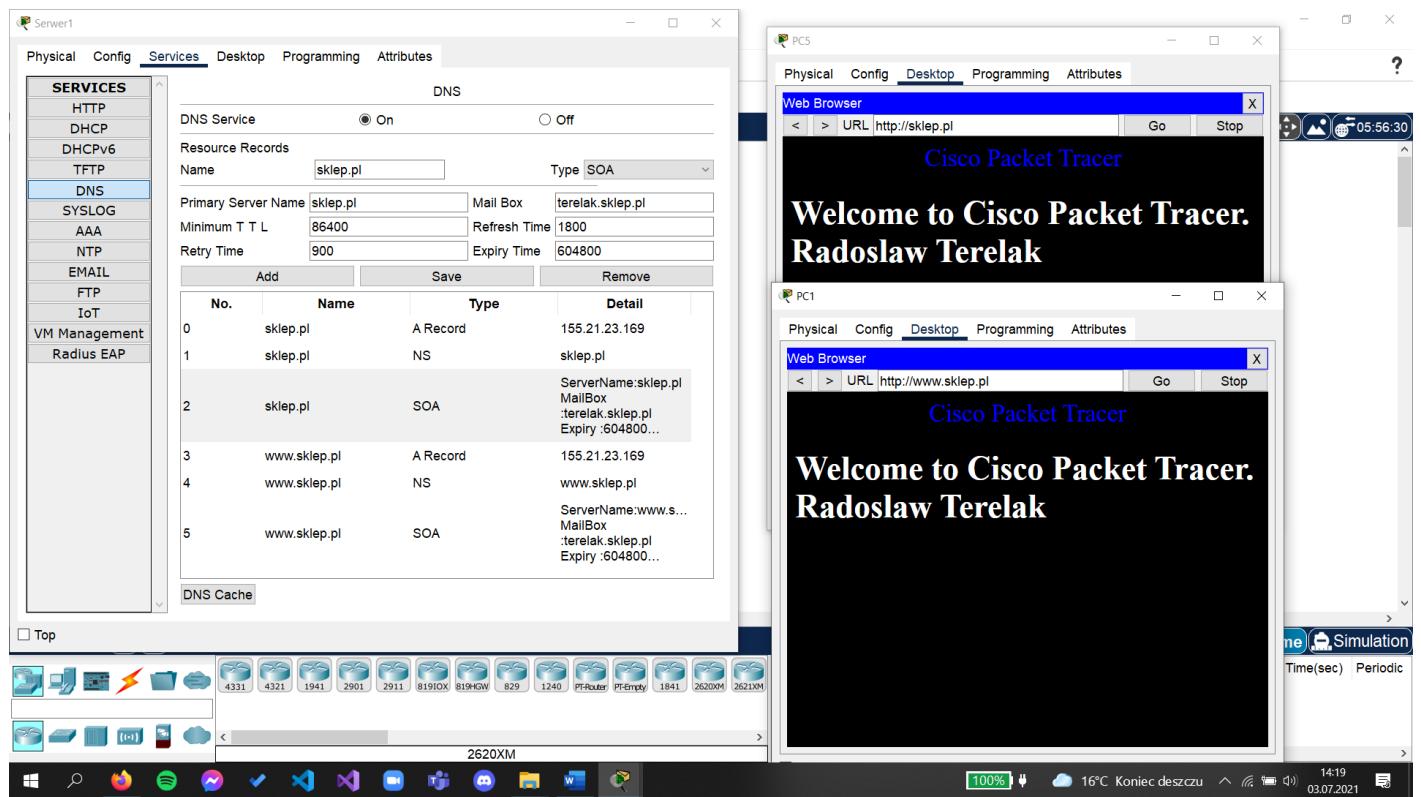
Top

**Realtime Simulation**

94% 16°C Koniec deszczu 03.07.2021 14:17



## Witryna internetowa



## Dostęp zdalny do Routera R1 i Przełączników

