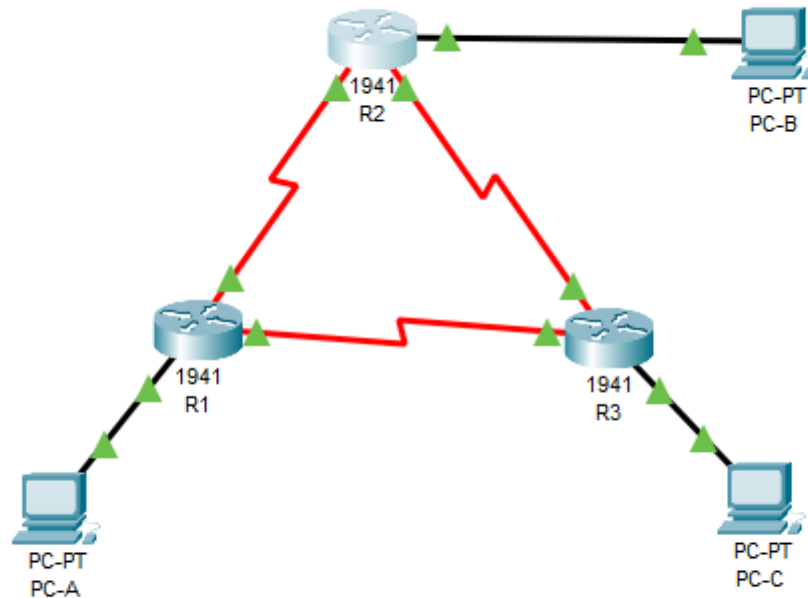Zadanie 10.2.2.3

Piotr Boguszewski 63478 inis5_fd

Topologia sieci

R1

```
Device Name: R1
Device Model: 1941
Hostname: R1

Port               Link   VLAN   IP Address          IPv6 Address                MAC Address
GigabitEthernet0/0 Up     --     192.168.1.1/24      2001:DB8:ACAD:A::1/64       0001.C97E.BB01
GigabitEthernet0/1 Down   --     <not set>           <not set>                   0001.C97E.BB02
Serial0/0/0        Up     --     192.168.12.1/30     2001:DB8:ACAD:12::1/64      <not set>
Serial0/0/1        Up     --     192.168.13.1/30     2001:DB8:ACAD:13::1/64      <not set>
Serial0/1/0        Down   --     <not set>           <not set>                   <not set>
Serial0/1/1        Down   --     <not set>           <not set>                   <not set>
Vlan1              Down   1      <not set>           <not set>                   0060.2F9C.CCE0

Physical Location: Intercity > Home City > Corporate Office > Main Wiring Closet > Rack > R1
```

R2

```
Device Name: R2
Device Model: 1941
Hostname: R2

Port               Link   VLAN   IP Address          IPv6 Address                MAC Address
GigabitEthernet0/0 Up     --     192.168.2.1/24      2001:DB8:ACAD:B::2/64       000C.CF9B.5C01
GigabitEthernet0/1 Down   --     <not set>           <not set>                   000C.CF9B.5C02
Serial0/0/0        Up     --     192.168.12.2/30     2001:DB8:ACAD:12::2/64      <not set>
Serial0/0/1        Up     --     192.168.23.1/30     2001:DB8:ACAD:23::2/64      <not set>
Vlan1              Down   1      <not set>           <not set>                   0001.43D1.E652

Physical Location: Intercity > Home City > Corporate Office > Main Wiring Closet > Rack > R2
```

R3

```
Device Name: R3
Device Model: 1941
Hostname: R3

Port              Link   VLAN   IP Address        IPv6 Address               MAC Address
GigabitEthernet0/0  Up    --     192.168.3.1/24    2001:DB8:ACAD:C::3/64      00E0.8FC3.9B01
GigabitEthernet0/1  Down  --     <not set>         <not set>                  00E0.8FC3.9B02
Serial0/0/0         Up    --     192.168.13.2/30   2001:DB8:ACAD:13::3/64     <not set>
Serial0/0/1         Up    --     192.168.23.2/30   2001:DB8:ACAD:23::3/64     <not set>
Vlan1               Down  1      <not set>         <not set>                  00E0.8F7D.E62A

Physical Location: Intercity > Home City > Corporate Office > Main Wiring Closet > Rack > R3
```

Pingi po ip v4

PC-A   —   □

Physical   Config   Desktop   Programming   Attributes

Command Prompt   X

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.2.3

Pinging 192.168.2.3 with 32 bytes of data:

Request timed out.
Reply from 192.168.2.3: bytes=32 time=15ms TTL=126
Reply from 192.168.2.3: bytes=32 time=12ms TTL=126
Reply from 192.168.2.3: bytes=32 time=7ms TTL=126

Ping statistics for 192.168.2.3:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 7ms, Maximum = 15ms, Average = 11ms

C:\>ping 192.168.3.3

Pinging 192.168.3.3 with 32 bytes of data:

Request timed out.
Reply from 192.168.3.3: bytes=32 time=10ms TTL=126
Reply from 192.168.3.3: bytes=32 time=8ms TTL=126
Reply from 192.168.3.3: bytes=32 time=23ms TTL=126

Ping statistics for 192.168.3.3:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 8ms, Maximum = 23ms, Average = 13ms

C:\>
```

PC-B

Physical Config Desktop Programming Attributes

Command Prompt   X

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.1.3

Pinging 192.168.1.3 with 32 bytes of data:

Reply from 192.168.1.3: bytes=32 time=14ms TTL=126
Reply from 192.168.1.3: bytes=32 time=1ms TTL=126
Reply from 192.168.1.3: bytes=32 time=10ms TTL=126
Reply from 192.168.1.3: bytes=32 time=3ms TTL=126

Ping statistics for 192.168.1.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 14ms, Average = 7ms

C:\>ping 192.168.3.3

Pinging 192.168.3.3 with 32 bytes of data:

Reply from 192.168.3.3: bytes=32 time=15ms TTL=126
Reply from 192.168.3.3: bytes=32 time=8ms TTL=126
Reply from 192.168.3.3: bytes=32 time=1ms TTL=126
Reply from 192.168.3.3: bytes=32 time=9ms TTL=126

Ping statistics for 192.168.3.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 15ms, Average = 8ms

C:\>
```
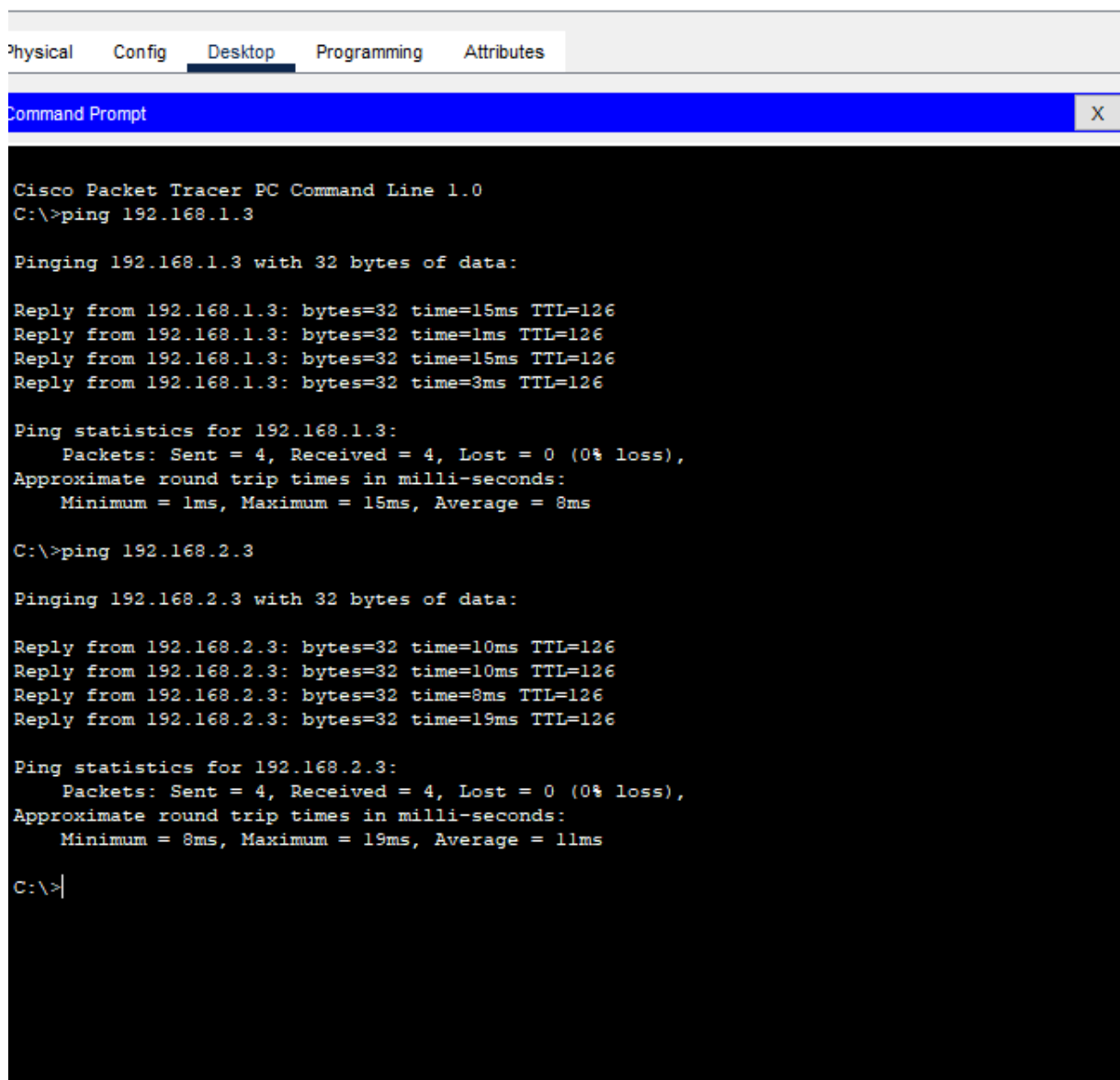
Pingi po ip v6

Physical   Config   Desktop   Programming   Attributes

Command Prompt   X

```
 Minimum = 0ms, Maximum = 13ms, Average = 1ms

C:\>ping 2001:db8:acad:a::a

Pinging 2001:db8:acad:a::a with 32 bytes of data:

Reply from 2001:DB8:ACAD:A::A: bytes=32 time=13ms TTL=126
Reply from 2001:DB8:ACAD:A::A: bytes=32 time=1ms TTL=126
Reply from 2001:DB8:ACAD:A::A: bytes=32 time=1ms TTL=126
Reply from 2001:DB8:ACAD:A::A: bytes=32 time=11ms TTL=126

Ping statistics for 2001:DB8:ACAD:A::A:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 13ms, Average = 6ms

C:\>ping 2001:db8:acad:b::b

Pinging 2001:db8:acad:b::b with 32 bytes of data:

Reply from 2001:DB8:ACAD:B::B: bytes=32 time=2ms TTL=126
Reply from 2001:DB8:ACAD:B::B: bytes=32 time=2ms TTL=126
Reply from 2001:DB8:ACAD:B::B: bytes=32 time=6ms TTL=126
Reply from 2001:DB8:ACAD:B::B: bytes=32 time=2ms TTL=126

Ping statistics for 2001:DB8:ACAD:B::B:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 2ms, Maximum = 6ms, Average = 3ms

C:\>
```
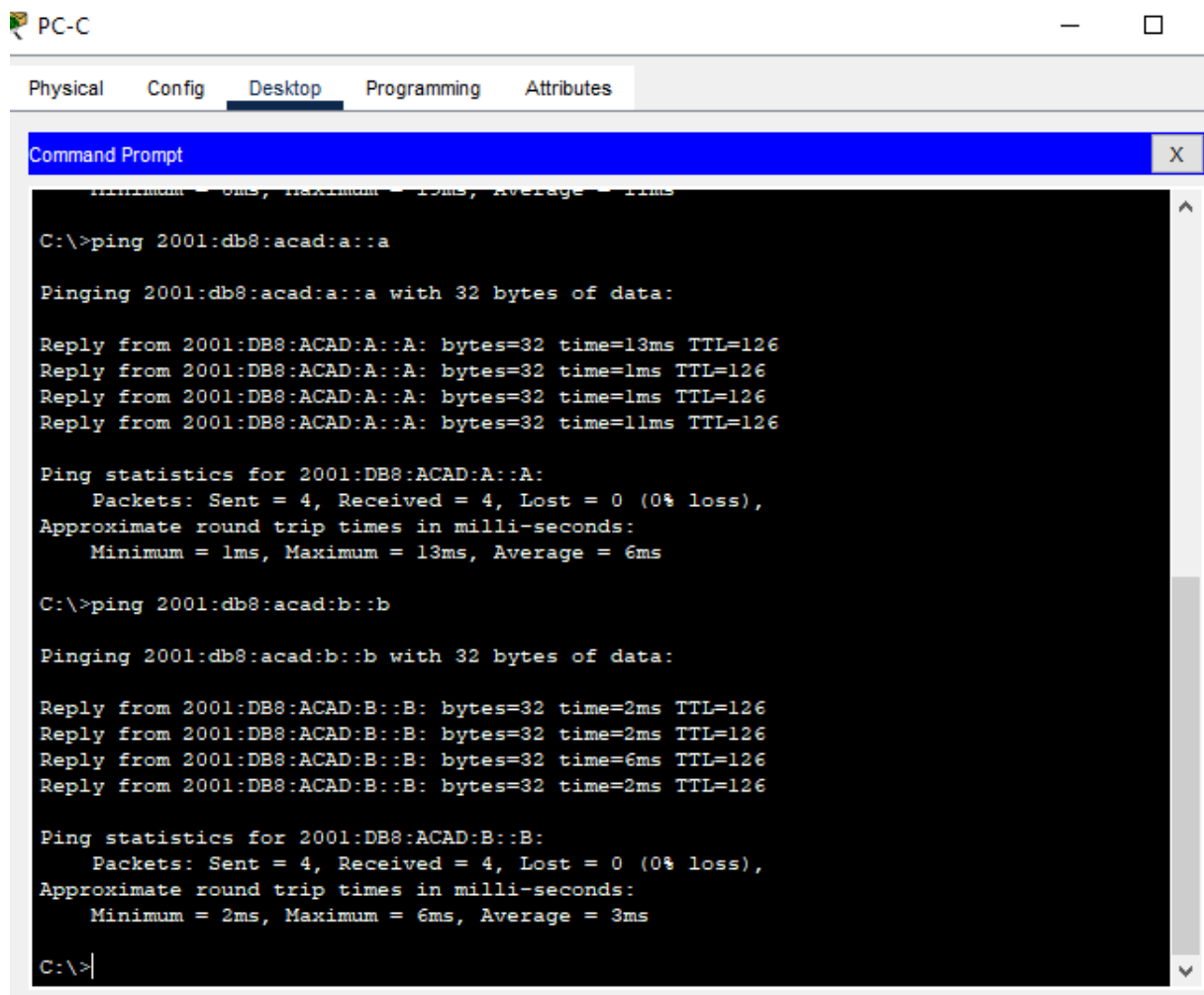
Command Prompt

```
Minimum = 1ms, Maximum = 15ms, Average = 8ms

C:\>ping 2001:db8:acad:a::a

Pinging 2001:db8:acad:a::a with 32 bytes of data:

Reply from 2001:DB8:ACAD:A::A: bytes=32 time=17ms TTL=126
Reply from 2001:DB8:ACAD:A::A: bytes=32 time=1ms TTL=126
Reply from 2001:DB8:ACAD:A::A: bytes=32 time=1ms TTL=126
Reply from 2001:DB8:ACAD:A::A: bytes=32 time=1ms TTL=126

Ping statistics for 2001:DB8:ACAD:A::A:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 17ms, Average = 5ms

C:\>ping 2001:db8:acad:c::c

Pinging 2001:db8:acad:c::c with 32 bytes of data:

Reply from 2001:DB8:ACAD:C::C: bytes=32 time=15ms TTL=126
Reply from 2001:DB8:ACAD:C::C: bytes=32 time=1ms TTL=126
Reply from 2001:DB8:ACAD:C::C: bytes=32 time=14ms TTL=126
Reply from 2001:DB8:ACAD:C::C: bytes=32 time=8ms TTL=126

Ping statistics for 2001:DB8:ACAD:C::C:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 15ms, Average = 9ms

C:\>
```
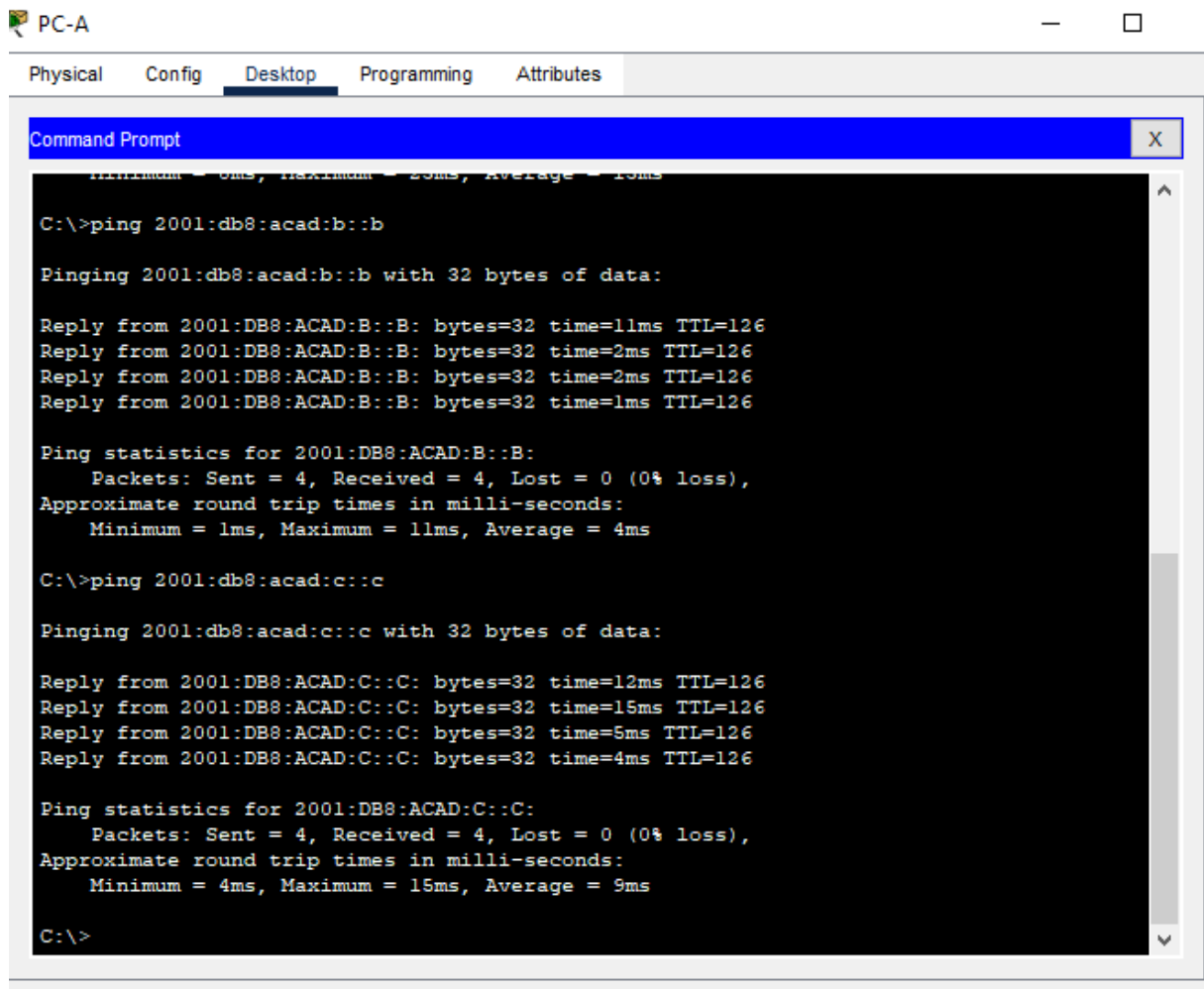
```
                                   Maximum    25ms, Average   15ms

C:\>ping 2001:db8:acad:b::b

Pinging 2001:db8:acad:b::b with 32 bytes of data:

Reply from 2001:DB8:ACAD:B::B: bytes=32 time=11ms TTL=126
Reply from 2001:DB8:ACAD:B::B: bytes=32 time=2ms TTL=126
Reply from 2001:DB8:ACAD:B::B: bytes=32 time=2ms TTL=126
Reply from 2001:DB8:ACAD:B::B: bytes=32 time=1ms TTL=126

Ping statistics for 2001:DB8:ACAD:B::B:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 11ms, Average = 4ms

C:\>ping 2001:db8:acad:c::c

Pinging 2001:db8:acad:c::c with 32 bytes of data:

Reply from 2001:DB8:ACAD:C::C: bytes=32 time=12ms TTL=126
Reply from 2001:DB8:ACAD:C::C: bytes=32 time=15ms TTL=126
Reply from 2001:DB8:ACAD:C::C: bytes=32 time=5ms TTL=126
Reply from 2001:DB8:ACAD:C::C: bytes=32 time=4ms TTL=126

Ping statistics for 2001:DB8:ACAD:C::C:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 4ms, Maximum = 15ms, Average = 9ms

C:\>
```

Podsumowanie

Konfiguracja routingu za pomocą protokołów OSPF jest stosunkowo prosta, jednak istotne jest zwrócenie uwagi na subtelne różnice między OSPFv2 a OSPFv3 podczas ich implementacji.