

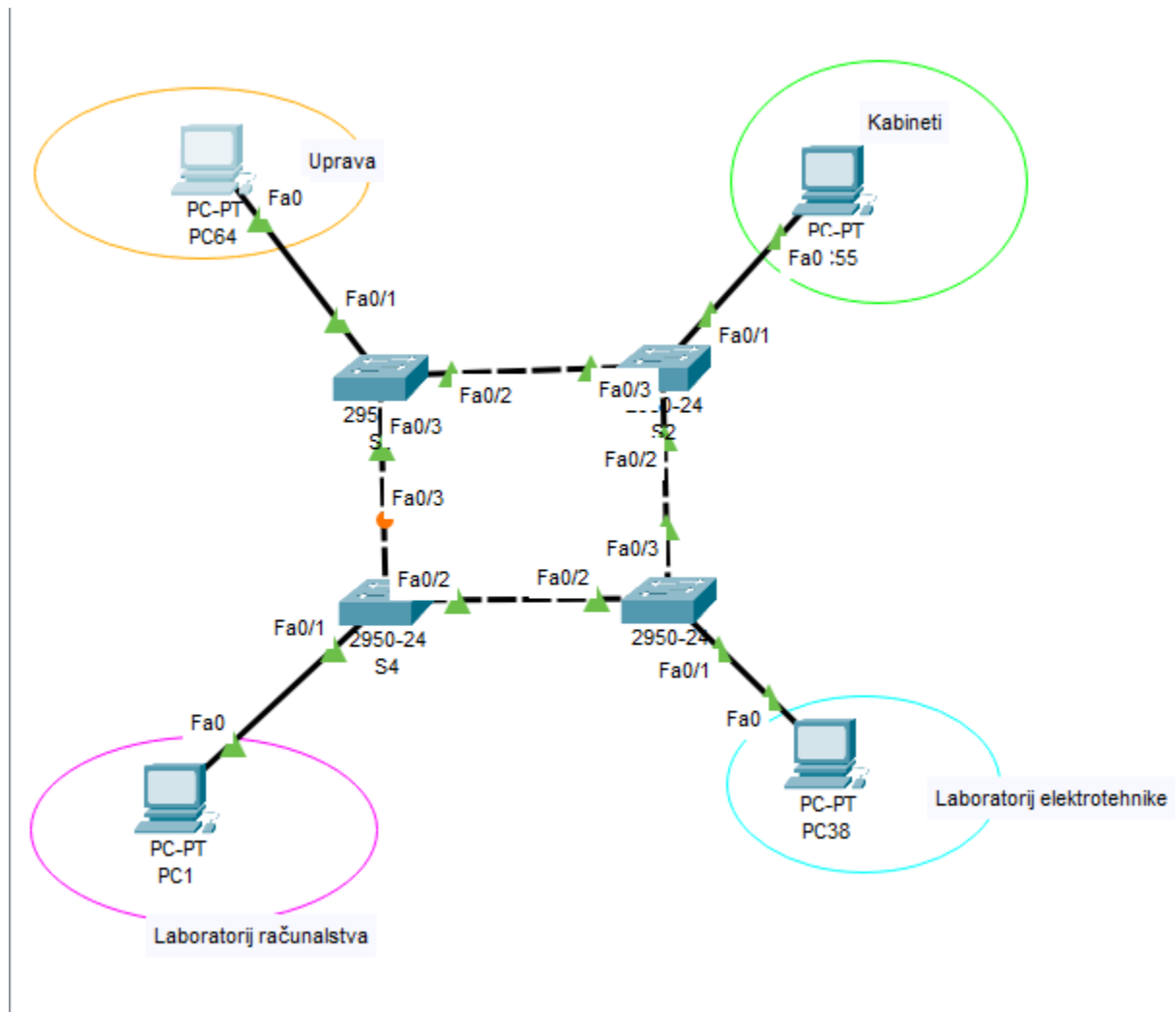
LV03_Subnetiranje pomoću VLSM tehnike

1. Zadatak:

1. U tehničkoj školi je u uporabi 68 računala, prema slijedećem rasporedu:

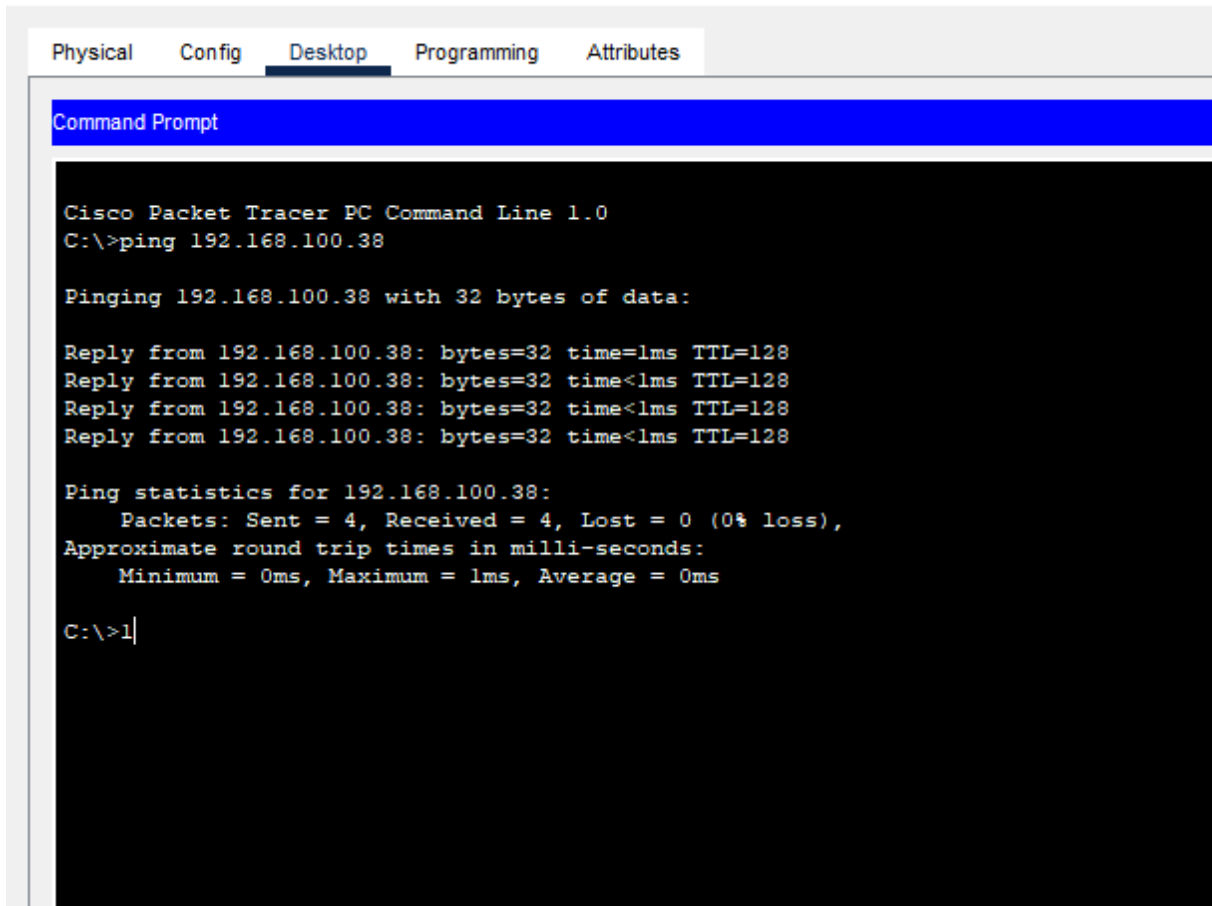
Organizacijska jedinica	Broj računala	Naziv računala
Laboratorij računarstva	37	PC1 – PC37
Laboratorij elektrotehnike	17	PC38 – PC54
Kabineti	9	PC55 – PC63
Uprava	5	PC64 – PC68

Adresni blok: 192.168.100.0/24



Provjeri veze međusobnim pingiranjem:

PC64



The screenshot shows a Cisco Packet Tracer PC Command Line window. The window has a title bar with tabs for 'Physical', 'Config', 'Desktop', 'Programming', and 'Attributes'. The 'Desktop' tab is selected. The main area is a black terminal window with white text. The text shows the execution of a ping command to 192.168.100.38, resulting in four successful replies with 0% loss.

```
Command Prompt

Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.100.38

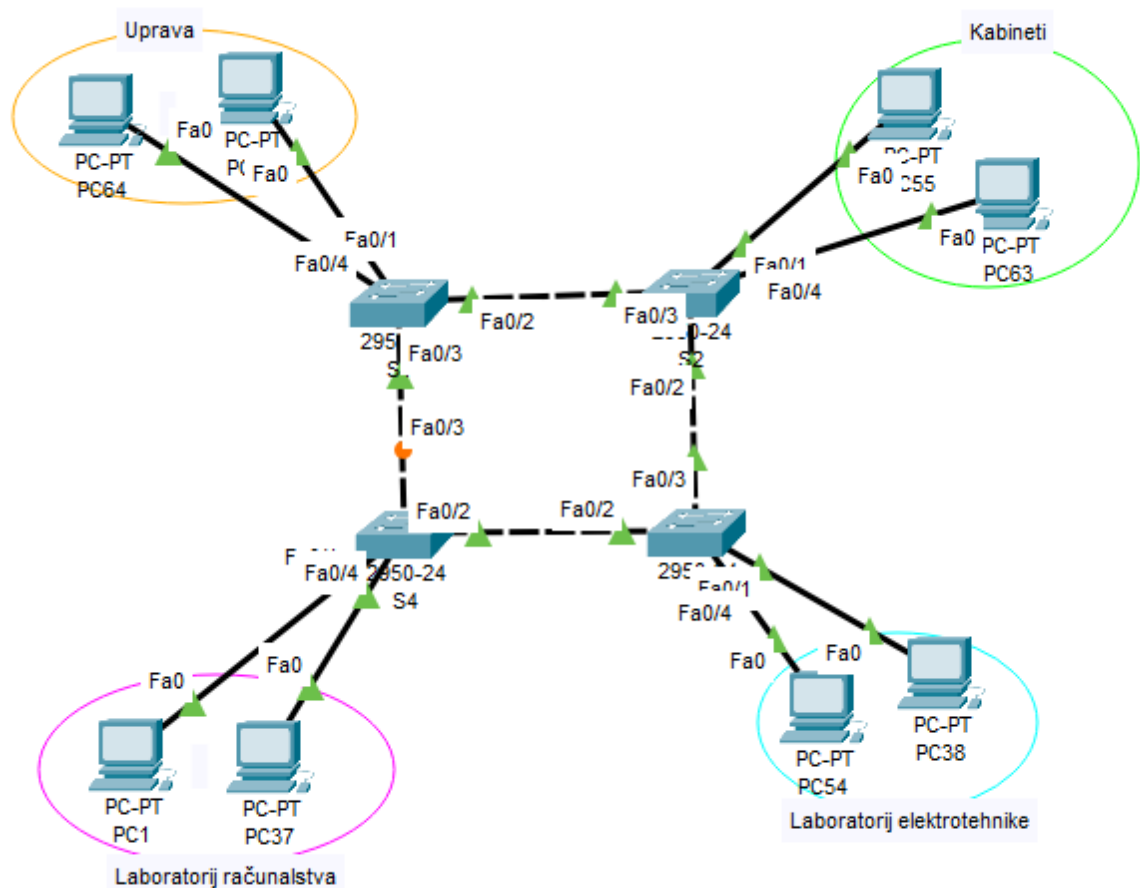
Pinging 192.168.100.38 with 32 bytes of data:

Reply from 192.168.100.38: bytes=32 time=1ms TTL=128
Reply from 192.168.100.38: bytes=32 time<1ms TTL=128
Reply from 192.168.100.38: bytes=32 time<1ms TTL=128
Reply from 192.168.100.38: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.100.38:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>|
```

2. Zadatak: Uprava škole odlučila je da se izvrši subnetiranje postojeće mreže uporabom VLSM, kako bi svaka organizacijska cjelina imala neovisnu mrežu. Tehničari imaju zadatak da nakon subnetiranja prikažu i dokumentiraju novu adresnu shemu, te uporabom Packet Tracera provjere da li su mreže neovisne.



Physical Config **Desktop** Programming Attributes

Command Prompt

```

Cisco Packet Tracer PC Command Line 1.0
C:\>pin 192.168.100.113
Invalid Command.

C:\>
C:\>ping 192.168.100.113

Pinging 192.168.100.113 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.100.113:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 192.168.100.65

Pinging 192.168.100.65 with 32 bytes of data:

Reply from 192.168.100.65: bytes=32 time<lms TTL=128
Reply from 192.168.100.65: bytes=32 time<lms TTL=128
Reply from 192.168.100.65: bytes=32 time<lms TTL=128
Reply from 192.168.100.65: bytes=32 time<lms TTL=128

Ping statistics for 192.168.100.65:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>|

```

Subnetting Successful

Major Network: **192.168.100.0/24**
 Available IP addresses in major network: **254**
 Number of IP addresses needed: **68**
 Available IP addresses in allocated subnets: **112**
 About **47%** of available major network address space is used
 About **61%** of subnetted network address space is used

Subnet Name	Needed Size	Allocated Size	Address	Mask	Dec Mask	Assignable Range	Broadcast
A	37	62	192.168.100.0	/26	255.255.255.192	192.168.100.1 - 192.168.100.62	192.168.100.63
B	17	30	192.168.100.64	/27	255.255.255.224	192.168.100.65 - 192.168.100.94	192.168.100.95
C	9	14	192.168.100.96	/28	255.255.255.240	192.168.100.97 - 192.168.100.110	192.168.100.111
D	5	6	192.168.100.112	/29	255.255.255.248	192.168.100.113 - 192.168.100.118	192.168.100.119