

LABORATORIUM SIECI KOMPUTEROWYCH

**Data wykonania
ćwiczenia:**

25.05.2023

Rok studiów:

2

Semestr:

4

Grupa studencka:

2

Grupa laboratoryjna:

2B

Ćwiczenie nr.

13

Temat: Projektowanie i stosowanie adresacji VLSM

Osoby wykonujące ćwiczenia:

1. Igor Gawłowicz

Katedra Informatyki i Automatyki

| Urządzenie | Interfejs | Adres IP | Maska podsieci | Brama domyślna |
|------------|-----------|------------|-----------------|----------------|
| East | G0/0 | 10.1.1.97 | 255.255.255.240 | ND |
| | G0/1 | 10.1.1.65 | 255.255.255.224 | ND |
| | S0/0/0 | 10.1.1.121 | 255.255.255.252 | ND |
| West | G0/0 | 10.1.1.113 | 255.255.255.248 | ND |
| | G0/1 | 10.1.1.1 | 255.255.255.192 | ND |
| | S0/0/0 | 10.1.1.122 | 255.255.255.252 | ND |
| ES-1 | VLAN1 | 10.1.1.98 | 255.255.255.240 | 10.1.1.97 |
| ES-2 | VLAN1 | 10.1.1.66 | 255.255.255.224 | 10.1.1.65 |
| WS-1 | VLAN1 | 10.1.1.114 | 255.255.255.248 | 10.1.1.113 |
| WS-2 | VLAN1 | 10.1.1.2 | 255.255.255.192 | 10.1.1.1 |
| PC E1-22 | NIC | 10.1.1.110 | 255.255.255.240 | 10.1.1.97 |
| PC E2-47 | NIC | 10.1.1.94 | 255.255.255.224 | 10.1.1.65 |
| PC W1-201 | NIC | 10.1.1.118 | 255.255.255.248 | 10.1.1.113 |
| PC W2-87 | NIC | 10.1.1.62 | 255.255.255.192 | 10.1.1.1 |

| Opis podsieci | Ilość wymaganych hostów | Adres sieci/CIDR | Pierwszy użyteczny adres hosta | Adres rozgłoszeniowy |
|---------------|-------------------------|------------------|--------------------------------|----------------------|
| WS-2 LAN | 47 | 10.1.1.0/26 | 10.1.1.1 | 10.1.1.63 |
| ES-2 LAN | 28 | 10.1.1.64/27 | 10.1.1.65 | 10.1.1.95 |
| ES-1 LAN | 11 | 10.1.48.96/28 | 10.1.1.97 | 10.1.1.111 |
| WS-1 LAN | 5 | 10.1.48.112/29 | 10.1.1.113 | 10.1.1.119 |
| WAN Link | 2 | 10.1.48.120/30 | 10.1.1.121 | 10.1.1.123 |

East Config

```
East>en
East#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
East(config)#int g0/0
East(config-if)#ip add 10.1.1.97 255.255.255.240
East(config-if)#no shut

East(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state
to up

East(config-if)#int g0/1
East(config-if)#ip add 10.1.1.65 255.255.255.224
East(config-if)#no shut

East(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state
to up

East(config-if)#int s0/0/0
East(config-if)#ip add 10.1.1.121 255.255.255.252
East(config-if)#no shut

%LINK-5-CHANGED: Interface Serial0/0/0, changed state to down
```

West Config

```
West>en
West#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
West(config)#int g0/0
West(config-if)#ip add 10.1.1.113 255.255.255.248
West(config-if)#no shut

West(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state
to up

West(config-if)#int g0/1
West(config-if)#ip add 10.1.1.1 255.255.255.192
West(config-if)#no shut
```

```
West(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state
to up

West(config-if)#int s0/0/0
West(config-if)#ip add 10.1.1.122 255.255.255.252
West(config-if)#no shut

%LINK-5-CHANGED: Interface Serial0/0/0, changed state to down
```

ES-1 Config

```
ES-1>en
ES-1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
ES-1(config)#int vlan 1
ES-1(config-if)#ip add 10.1.1.98 255.255.255.240
ES-1(config-if)#no shut

ES-1(config-if)#
%LINK-5-CHANGED: Interface Vlan1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to up
ip def 10.1.1.97
```

ES-2 Config

```
ES-2>en
ES-2#conf t
Enter configuration commands, one per line. End with CNTL/Z.
ES-2(config)#int vlan 1
ES-2(config-if)#ip add 10.1.1.66 255.255.255.224
ES-2(config-if)#no shut

ES-2(config-if)#
%LINK-5-CHANGED: Interface Vlan1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to up
ip def 10.1.1.65
```

WS-1 Config

```
WS-1>en
WS-1#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
WS-1(config)#int vlan 1
WS-1(config-if)#ip add 10.1.1.114 255.255.255.248
WS-1(config-if)#no shut

WS-1(config-if)#
%LINK-5-CHANGED: Interface Vlan1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to up
ip def 10.1.1.113
```

WS-2 Config

```
WS-2>en
WS-2#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
WS-2(config)#int vlan 1
WS-2(config-if)#ip add 10.1.1.2 255.255.255.192
WS-2(config-if)#no shut

WS-2(config-if)#
%LINK-5-CHANGED: Interface Vlan1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to up
ip def 10.1.1.1
```