

Практическая работа – Связываем VLAN с помощью роутера

Построил сеть:



Настройка свитч0:

```
Switch>en
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#int fa0/1
Switch(config-if)#sw ac vl 10
Switch(config-if)#^
% Invalid input detected at '^' marker.

Switch(config-if)#sw ac vl 10
% Access VLAN does not exist. Creating vlan 10
Switch(config-if)#no sh
Switch(config-if)#int fa0/2
Switch(config-if)#sw ac vl 20
% Access VLAN does not exist. Creating vlan 20
Switch(config-if)#no sh
Switch(config-if)#exit
```

Настройка свитч1:

```
Switch>en
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#int fa0/1
Switch(config-if)#sw ac vl 10
% Access VLAN does not exist. Creating vlan 10
Switch(config-if)#no sh
Switch(config-if)#int fa0/2
Switch(config-if)#sw ac vl 20
% Access VLAN does not exist. Creating vlan 20
Switch(config-if)#no sh
Switch(config-if)#exit
```

Проложил Trunk-порт.

Свитч0:

```
Switch(config)#int gi0/1
Switch(config-if)#sw mode trunk
Switch(config-if)#no sh
Switch(config-if)#exit
```

Свитч1:

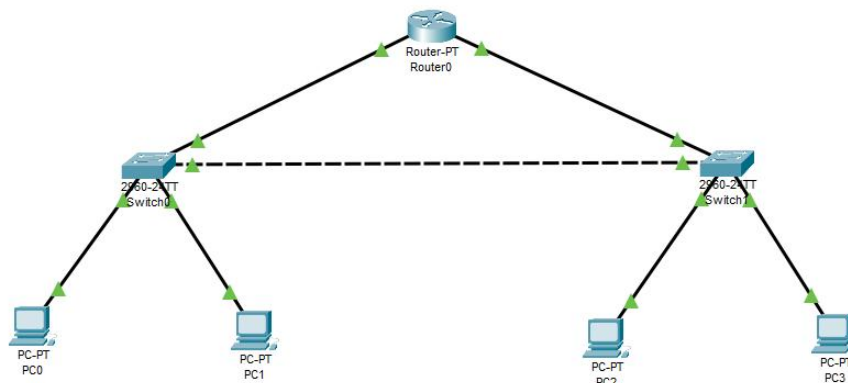
```
Switch#en
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#int gi0/1
Switch(config-if)#sw mode trunk
Switch(config-if)#no sh
Switch(config-if)#exit
```

Протестировал настройку:

```
Pinging 192.162.1.2 with 32 bytes of data:
Reply from 192.162.1.2: bytes=32 time=6ms TTL=128
Reply from 192.162.1.2: bytes=32 time<1ms TTL=128
Reply from 192.162.1.2: bytes=32 time<1ms TTL=128
Reply from 192.162.1.2: bytes=32 time<1ms TTL=128

Ping statistics for 192.162.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 6ms, Average = 1ms
```

Подсоединил роутер:



Конфигурация роутера:

```
Router(config-if)#
Router(config-if)#exit
Router(config)#int fa0/0
Router(config-if)#ip ad 192.168.1.100 255.255.255.0
Router(config-if)#no sh
Router(config-if)#int fa1/0
Router(config-if)#ip ad 192.168.2.100 255.255.255.0
Router(config-if)#no sh
```

Свитч0:

```
Switch(config)#int fa0/3
Switch(config-if)#sw ac vl 10
Switch(config-if)#no sh
Switch(config-if)#exi
```

Свитч1:

```
Switch(config)#int fa0/3
Switch(config-if)#s2 ac vl 20
^
% Invalid input detected at '^' marker.

Switch(config-if)#sw ac vl 20
Switch(config-if)#no sh
```

```

C:\>ping 192.162.2.2

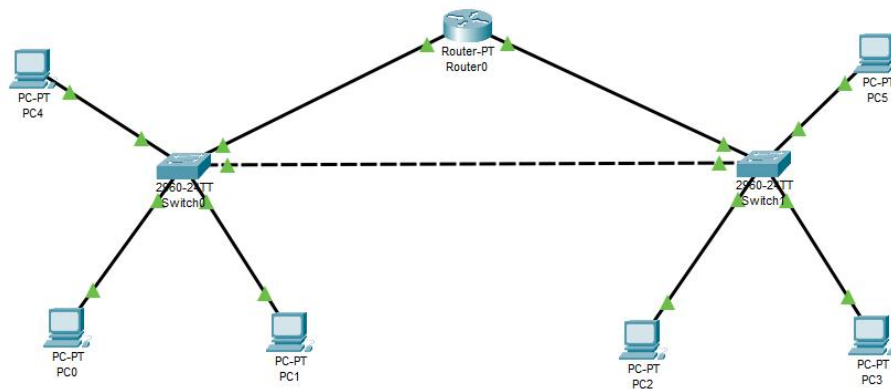
Pinging 192.162.2.2 with 32 bytes of data:

Reply from 192.162.2.2: bytes=32 time<1ms TTL=128
Reply from 192.162.2.2: bytes=32 time=4ms TTL=128
Reply from 192.162.2.2: bytes=32 time<1ms TTL=128
Reply from 192.162.2.2: bytes=32 time<1ms TTL=128

Ping statistics for 192.162.2.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 4ms, Average = 1ms

```

Добавил vlan 30:



Свитч0:

```

Switch(config)#int fa0/4
Switch(config-if)#sw ac vl 30
% Access VLAN does not exist. Creating vlan 30
Switch(config-if)#no sh

```

Свитч1:

```

Switch(config)#int fa0/4
Switch(config-if)#sw ac vl 30
% Access VLAN does not exist. Creating vlan 30
Switch(config-if)#no sh
Switch(config-if)#exit

```