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[Home](#) > [Networks](#) > 7. Small office configuration scenario with VLAN and internet access nr. 1

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## 7. Small office configuration scenario with VLAN and internet access nr. 1

This scenario focus on:

- host separation on appropriate VLAN

```
fa0/1.3 192.168.3.1/24  vlan 3 Students
      .6 192.168.6.1/24  vlan 6 Staff
      .9 192.168.9.1/24  vlan 9 Farm
      .12 192.168.12.1/24 vlan 12 Admin&Native
```
- inter VLAN communication with router on a stick scenario

```
interface FastEthernet0/1
no ip address
duplex auto
speed auto
!
interface FastEthernet0/1.3
encapsulation dot1Q 3
ip address 192.168.3.1 255.255.255.0
ip nat inside
!
interface FastEthernet0/1.6
encapsulation dot1Q 6
ip address 192.168.6.1 255.255.255.0
ip nat inside
!
interface FastEthernet0/1.9
encapsulation dot1Q 9
ip address 192.168.9.1 255.255.255.0
ip nat inside
!
interface FastEthernet0/1.12
encapsulation dot1Q 12 native
ip address 192.168.12.1 255.255.255.0
ip access-group ADMIN in
```
- basic admin VLAN security

```
ip access-list standard ADMIN
permit host 192.168.12.10
```

```
interface FastEthernet0/1.12
 encapsulation dot1Q 12 native
 ip address 192.168.12.1 255.255.255.0
 ip access-group ADMIN in
```

- DHCP with first nine excluded address

```
ip dhcp excluded-address 192.168.3.1 192.168.3.9
ip dhcp excluded-address 192.168.6.1 192.168.6.9
!
```

```
ip dhcp pool VLAN3
 network 192.168.3.0 255.255.255.0
 default-router 192.168.3.1
 dns-server 192.168.9.254
```

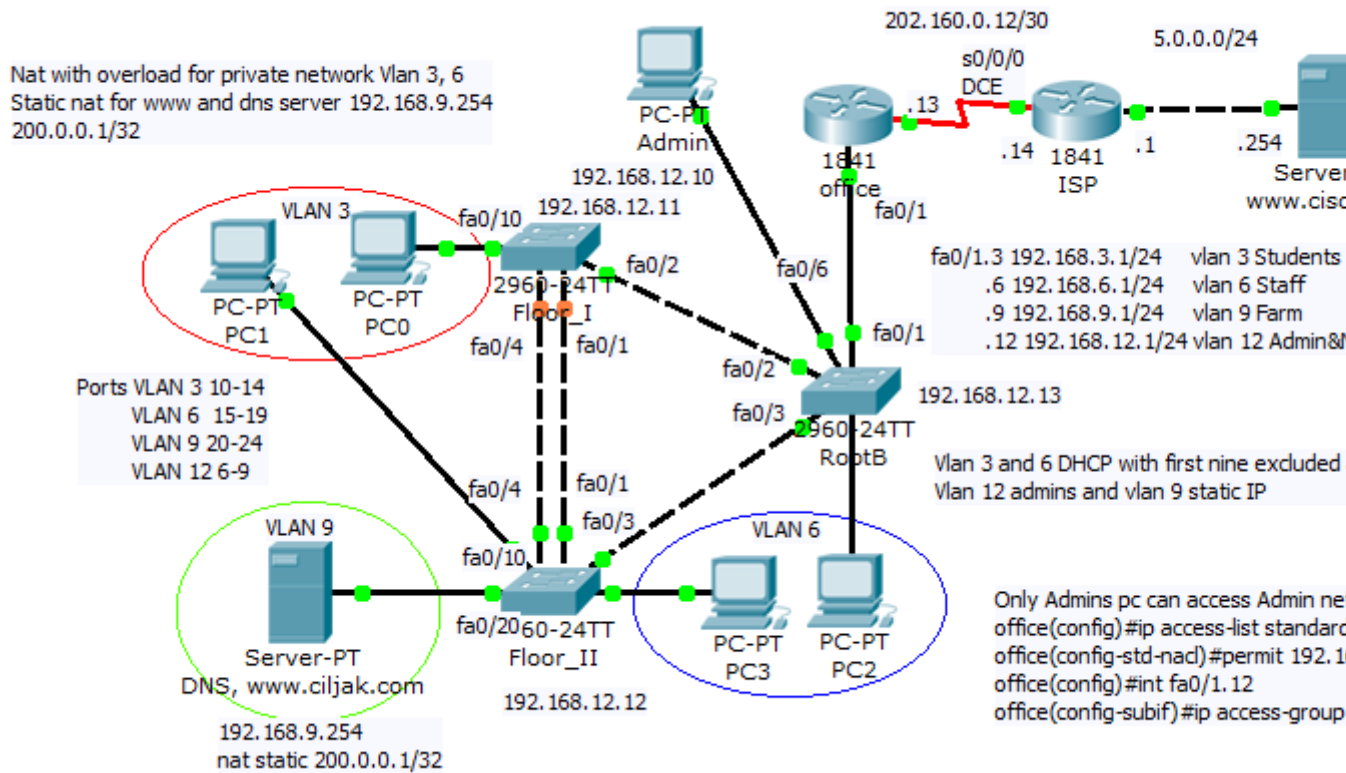
```
ip dhcp pool VLAN6
 network 192.168.6.0 255.255.255.0
 default-router 192.168.6.1
 dns-server 192.168.9.254
```

- DNS server on host in VLAN 9 with IP 192.168.9.254/24
- static NAT translation for server
- NAT with overload for private host accessing internet

```
ip nat inside source list NAT interface Serial0/0/0 overload
ip access-list standard NAT
 permit 192.168.3.0 0.0.0.255
 permit 192.168.6.0 0.0.0.255
```

Preconfigured scenario can be obtained from here ([PKT 5.2 or above you need](#)) <sup>[1]</sup>.  
Topology diagram of described network is on next picture. Host VLAN assignment is marked with configuration description

Small business office with vlan and internet access 1



[2]

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