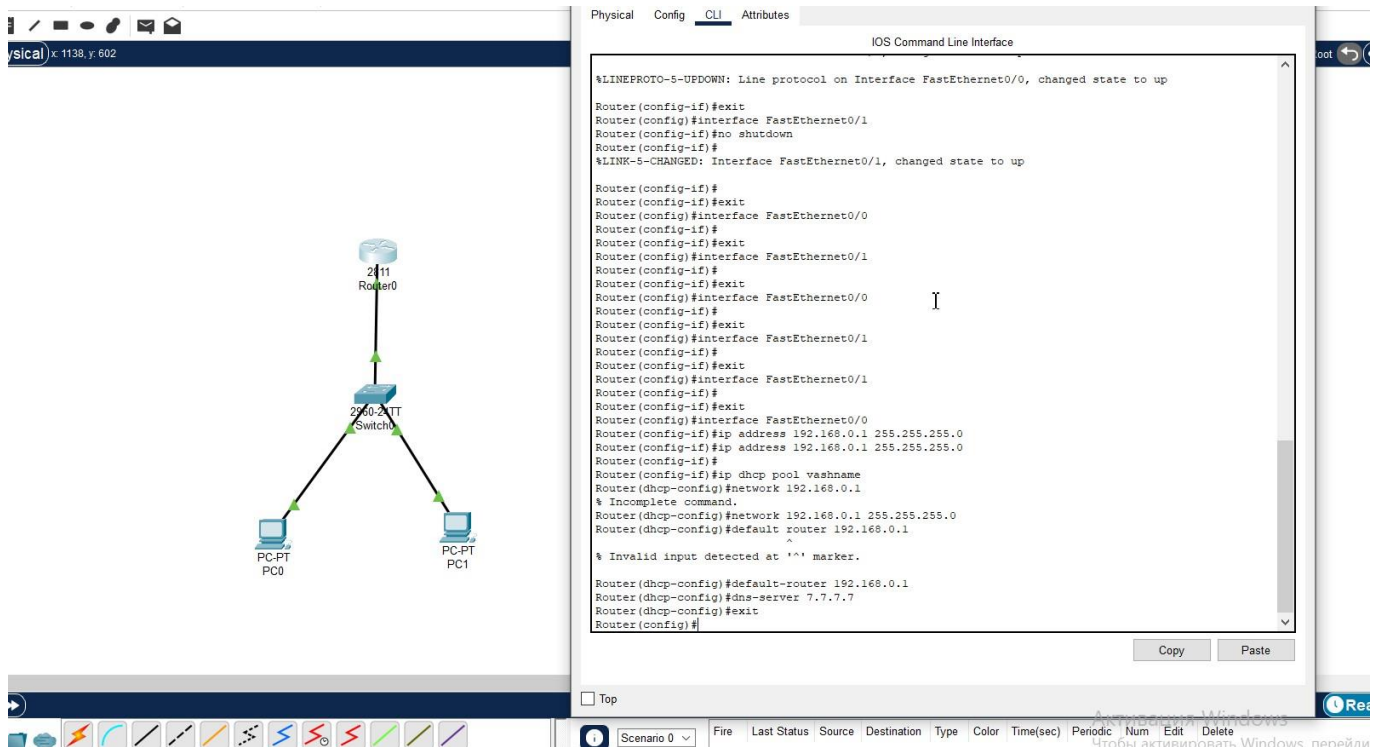


Практическая работа №10

Тема: Настройка DHCP на маршрутизаторе

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1. По уже известному протоколу действий я создал сеть, добавил и подключил к сети роутер и включил его. Следующим шагом у меня была настройка DHCP на роутере



The image shows a network diagram on the left and a CLI window on the right. The diagram illustrates a topology with a 2411 Router0 connected to a 2960-24TT Switch, which is then connected to two PCs (PC0 and PC1). The CLI window displays the configuration for the router, showing the activation of the line protocol on FastEthernet0/0 and the configuration of the FastEthernet0/1 interface. The DHCP configuration is partially shown, including the definition of a DHCP pool named 'vashname' with a network of 192.168.0.1 and a default router of 192.168.0.1.

```
Router(config-if)#exit
Router(config)#interface FastEthernet0/1
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up

Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/1
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/0
Router(config-if)#ip address 192.168.0.1 255.255.255.0
Router(config-if)#ip address 192.168.0.1 255.255.255.0
Router(config-if)#ip dhcp pool vashname
Router(dhcp-config)#network 192.168.0.1
% Incomplete command.
Router(dhcp-config)#network 192.168.0.1 255.255.255.0
Router(dhcp-config)#default-router 192.168.0.1
Router(dhcp-config)#dns-server 7.7.7.7
Router(dhcp-config)#exit
Router(config)#
```

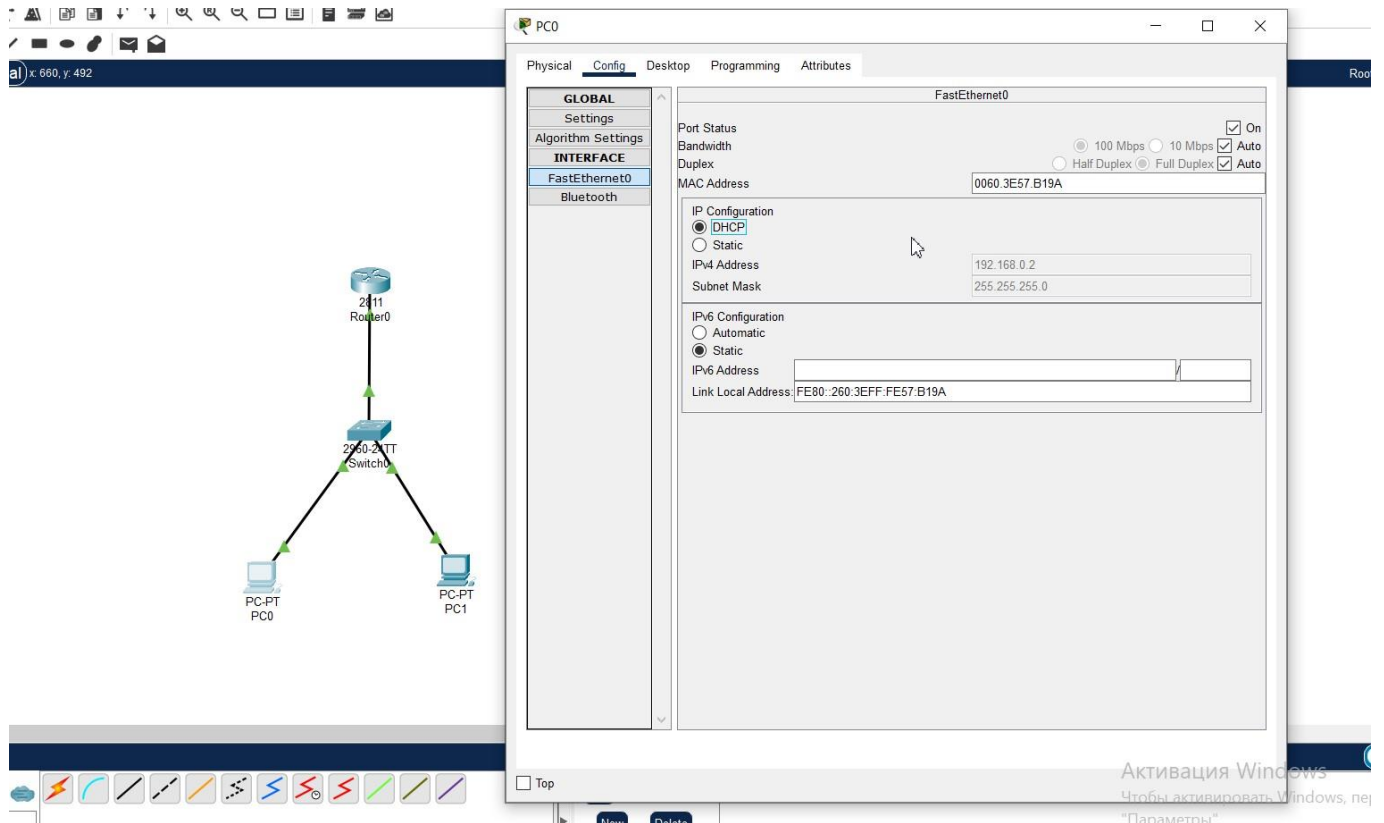
2. Следующим моим шагом у меня была пропись команды чтобы убрать ip-адрес роутера из пула доступных адресов



The image shows a network diagram on the left and a CLI window on the right. The diagram illustrates a topology with a 2411 Router0 connected to a 2960-24TT Switch, which is then connected to one PC (PC1). The CLI window displays the configuration for the router, showing the addition of a DNS server (7.7.7.7) and the exclusion of the router's IP address (192.168.0.1) from the DHCP pool.

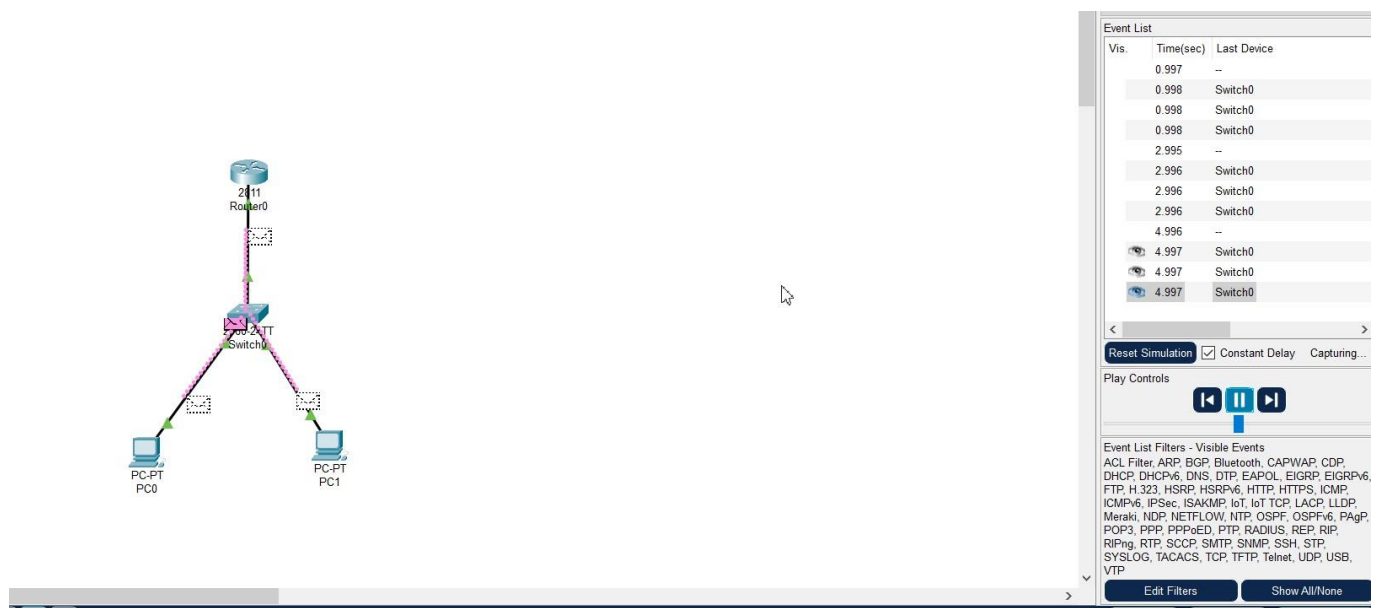
```
Router(dhcp-config)#dns-server 7.7.7.7
Router(dhcp-config)#exit
Router(config)#ip dhcp excluded-address 192.168.0.1
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

3. Для проверки я перешёл в одну из двух имеющихся машин и переключился на DHCP



The screenshot shows a network simulation environment. On the left, a topology diagram displays a 2411 Router connected to a 2960-24TT Switch, which is then connected to two PCs labeled PC0 and PC1. On the right, the configuration window for PC0 is open, specifically the 'Config' tab for the 'FastEthernet0' interface. The 'Port Status' is 'On'. The 'Bandwidth' is set to '100 Mbps'. The 'Duplex' is set to 'Full Duplex'. The 'MAC Address' is '0060.3E57.B19A'. Under 'IP Configuration', the 'DHCP' radio button is selected. The 'IPv4 Address' is '192.168.0.2' and the 'Subnet Mask' is '255.255.255.0'. Under 'IPv6 Configuration', the 'Static' radio button is selected. The 'IPv6 Address' is 'FE80::260:3EFF:FE57:B19A' and the 'Link Local Address' is 'FE80::260:3EFF:FE57:B19A'. A watermark 'Активация Windows' is visible in the bottom right corner.

4. В завершение, я проверил работоспособность сети с помощью команды ping и симуляции



The screenshot shows the same network simulation environment as before, but with the 'Event List' window open on the right. The Event List shows a series of events, including 'Switch0' events, indicating successful ping operations. The Play Controls section shows the simulation is running. The Event List Filters section shows 'Visible Events' including ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT TCP, LACP, LLDP, Meraki, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP. The Play Controls section shows 'Reset Simulation', 'Constant Delay', and 'Capturing...' buttons. The Play Controls section also shows a play button and a stop button. The Event List Filters section shows 'Edit Filters' and 'Show All/None' buttons.