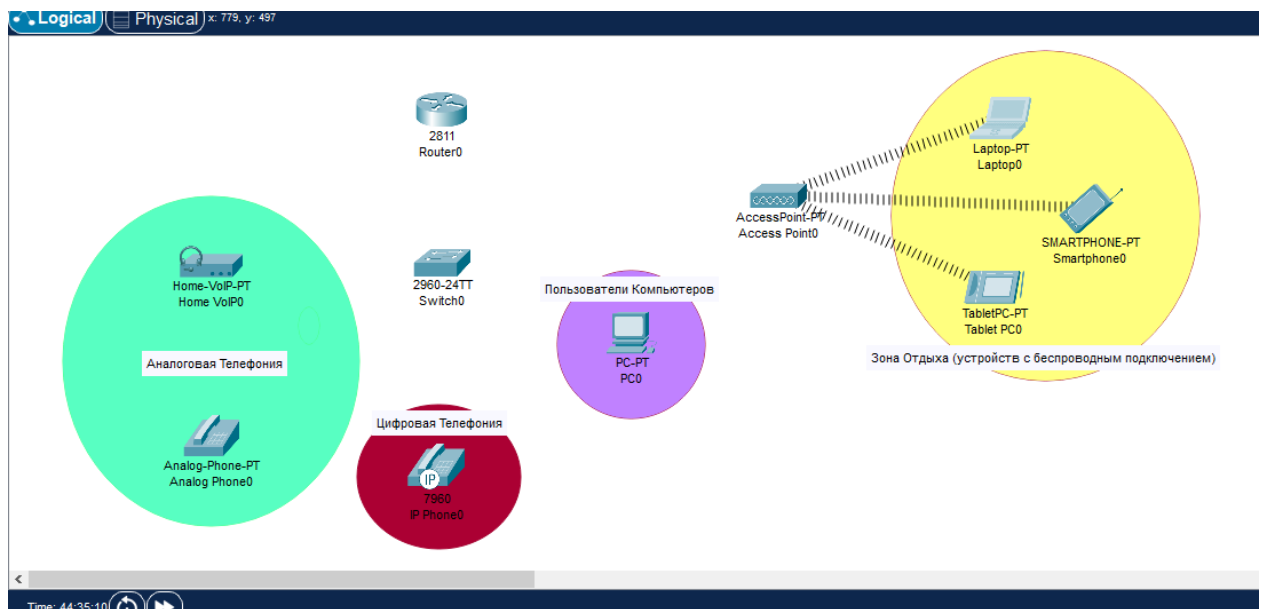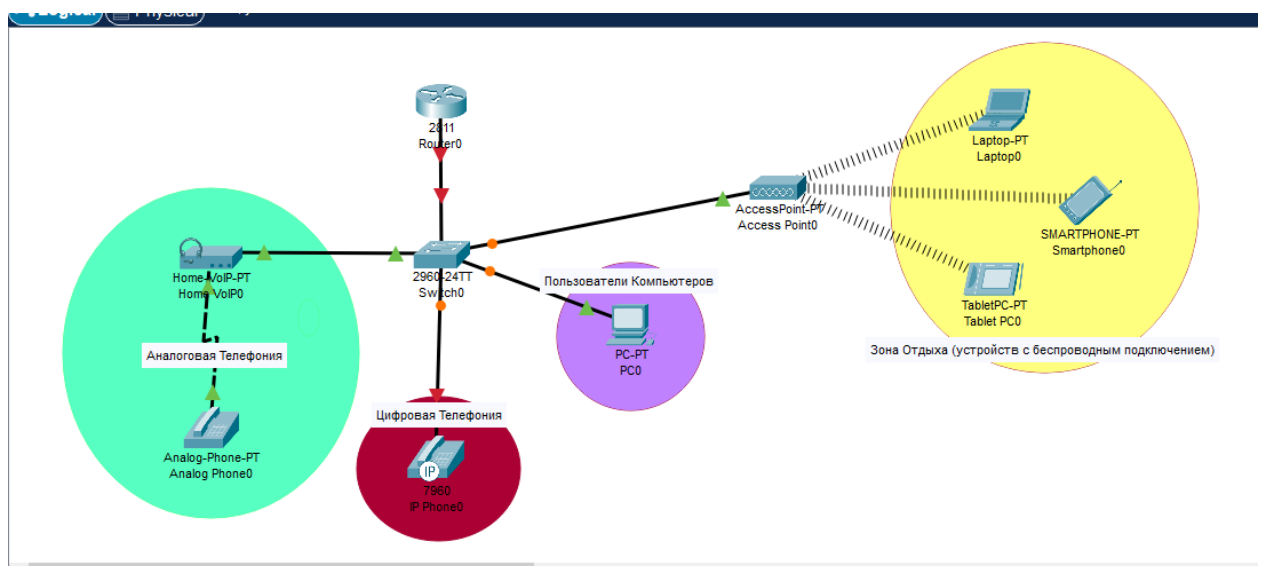*Выполнила: Федотова Дарина*

# Практическая работа 29 – IP-телефония на примере разных устройств пользователя

## 1. Строю сеть



## 2. Подключаю устройства между собой



## 3. У устройства Home VoIP прописываю адрес сервера

## 4. Прописываю код для конфигурации устройств через консоль роутера

```
A summary of U.S. laws governing Cisco cryptographic products may be found at:
http://www.cisco.com/wwl/export/crypto/tool/stqrg.html

If you require further assistance please contact us by sending email to
export@cisco.com.

cisco 2811 (MPC860) processor (revision 0x200) with 60416K/5120K bytes of memory
Processor board ID JAD05190MTZ (4292891495)
2 FastEthernet interface(s)
DRAM configuration is 64 bits wide with parity disabled.
255K bytes of non-volatile configuration memory.
249856K bytes of ATA System CompactFlash 0 (Read/Write)


        --- System Configuration Dialog ---

Would you like to enter the initial configuration dialog? [yes/no]:

Press RETURN to get started!




Router>
Router>en
Router#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#interface fa0/0
Router(config-if)#ip ad 10.3.0.1 255.255.255.0
Router(config-if)#no sh

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

Router(config-if)#
```

Copy        Paste

```
Router>
Router>en
Router#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#interface fa0/0
Router(config-if)#ip ad 10.3.0.1 255.255.255.0
Router(config-if)#no sh

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

Router(config-if)#ip dhcp excluded-address 10.3.0.1
Router(config)#ip dhcp excluded-address 10.3.0.1
Router(config)#ip dhcp pool Telephony
Router(dhcp-config)#network 10.3.0.0 255.255.255.0
Router(dhcp-config)#default-router 10.3.0.1
Router(dhcp-config)#option 150 ip 10.3.0.1
Router(dhcp-config)#ex
Router(config)#telephony-service
Router(config-telephony)#max-ephones 10
Router(config-telephony)#max-dn 10
Router(config-telephony)#ip source-address 10.3.0.1 port 2000
Router(config-telephony)#auto assign 1 to 10
Router(config-telephony)#ephone-dn 1
Router(config-ephone-dn)#%LINK-3-UPDOWN: Interface ephone_dsp DN 1.1, changed state to up

Router(config-ephone-dn)#number 101
Router(config-ephone-dn)#ephone-dn 2
Router(config-ephone-dn)#%LINK-3-UPDOWN: Interface ephone_dsp DN 2.1, changed state to up

Router(config-ephone-dn)#
%IPPHONE-6-REGISTER: ephone-1 IP:10.3.0.5 Socket:2 DeviceType:Phone has registered.

Router(config-ephone-dn)#number 102
Router(config-ephone-dn)#
```

```
Router(dhcp-config)#default-router 10.3.0.1
Router(dhcp-config)#option 150 ip 10.3.0.1
Router(dhcp-config)#ex
Router(config)#telephony-service
Router(config-telephony)#max-ephones 10
Router(config-telephony)#max-dn 10
Router(config-telephony)#ip source-address 10.3.0.1 port 2000
Router(config-telephony)#auto assign 1 to 10
Router(config-telephony)#ephone-dn 1
Router(config-ephone-dn)#%LINK-3-UPDOWN: Interface ephone_dsp DN 1.1, changed state to up

Router(config-ephone-dn)#number 101
Router(config-ephone-dn)#ephone-dn 2
Router(config-ephone-dn)#%LINK-3-UPDOWN: Interface ephone_dsp DN 2.1, changed state to up

Router(config-ephone-dn)#
%IPPHONE-6-REGISTER: ephone-1 IP:10.3.0.5 Socket:2 DeviceType:Phone has registered.

Router(config-ephone-dn)#number 102
Router(config-ephone-dn)#ephone-dn 3
Router(config-ephone-dn)#%LINK-3-UPDOWN: Interface ephone_dsp DN 3.1, changed state to up

Router(config-ephone-dn)#number 103
Router(config-ephone-dn)#ephone-dn 4
Router(config-ephone-dn)#%LINK-3-UPDOWN: Interface ephone_dsp DN 4.1, changed state to up

Router(config-ephone-dn)#number 104
Router(config-ephone-dn)#
Router(config-ephone-dn)#ephone-dn 5
Router(config-ephone-dn)#%LINK-3-UPDOWN: Interface ephone_dsp DN 5.1, changed state to up

Router(config-ephone-dn)#number 105
Router(config-ephone-dn)#ephone-dn 6
Router(config-ephone-dn)#%LINK-3-UPDOWN: Interface ephone_dsp DN 6.1, changed state to up

Router(config-ephone-dn)#number 106
Router(config-ephone-dn)#
```

```
Router(config-ephone-dn)#number 101
Router(config-ephone-dn)#ephone-dn 2
Router(config-ephone-dn)#%LINK-3-UPDOWN: Interface ephone_dsp DN 2.1, changed state to up

Router(config-ephone-dn)#
%IPPHONE-6-REGISTER: ephone-1 IP:10.3.0.5 Socket:2 DeviceType:Phone has registered.

Router(config-ephone-dn)#number 102
Router(config-ephone-dn)#ephone-dn 3
Router(config-ephone-dn)#%LINK-3-UPDOWN: Interface ephone_dsp DN 3.1, changed state to up

Router(config-ephone-dn)#number 103
Router(config-ephone-dn)#ephone-dn 4
Router(config-ephone-dn)#%LINK-3-UPDOWN: Interface ephone_dsp DN 4.1, changed state to up

Router(config-ephone-dn)#number 104
Router(config-ephone-dn)#
Router(config-ephone-dn)#ephone-dn 5
Router(config-ephone-dn)#%LINK-3-UPDOWN: Interface ephone_dsp DN 5.1, changed state to up

Router(config-ephone-dn)#number 105
Router(config-ephone-dn)#ephone-dn 6
Router(config-ephone-dn)#%LINK-3-UPDOWN: Interface ephone_dsp DN 6.1, changed state to up

Router(config-ephone-dn)#number 106
Router(config-ephone-dn)#
Router(config-ephone-dn)#ex
Router(config)#ephone 1
Router(config-ephone)#mac-address 0009.7C34.3C01
ephone slot is already registered with 0001.43AA.7801
Cannot change MAC address.
Router(config-ephone)#type ata
Router(config-ephone)#button 1:1
Dn already assigned.
Router(config-ephone)#
```

```
Router(config-ephone-dn)#
%IPPHONE-6-REGISTER: ephone-1 IP:10.3.0.5 Socket:2 DeviceType:Phone has registered.

Router(config-ephone-dn)#number 102
Router(config-ephone-dn)#ephone-dn 3
Router(config-ephone-dn)#%LINK-3-UPDOWN: Interface ephone_dsp DN 3.1, changed state to
up

Router(config-ephone-dn)#number 103
Router(config-ephone-dn)#ephone-dn 4
Router(config-ephone-dn)#%LINK-3-UPDOWN: Interface ephone_dsp DN 4.1, changed state to
up

Router(config-ephone-dn)#number 104
Router(config-ephone-dn)#
Router(config-ephone-dn)#ephone-dn 5
Router(config-ephone-dn)#%LINK-3-UPDOWN: Interface ephone_dsp DN 5.1, changed state to
up

Router(config-ephone-dn)#number 105
Router(config-ephone-dn)#ephone-dn 6
Router(config-ephone-dn)#%LINK-3-UPDOWN: Interface ephone_dsp DN 6.1, changed state to
up

Router(config-ephone-dn)#number 106
Router(config-ephone-dn)#
Router(config-ephone-dn)#ex
Router(config)#ephone 1
Router(config-ephone)#mac-address 0009.7C34.3C01
ephone slot is already registered with 0001.43AA.7801
Cannot change MAC address.
Router(config-ephone)#type ata
Router(config-ephone)#button 1:1
Dn already assigned.
Router(config-ephone)#ex
Router(config)#ephone 2
Router(config-ephone)#mac-address 000C.CF09.D862
Router(config-ephone)#type 7960
Router(config-ephone)#button 1:2
Router(config-ephone)#
```

```
up

Router(config-ephone-dn)#number 103
Router(config-ephone-dn)#ephone-dn 4
Router(config-ephone-dn)#%LINK-3-UPDOWN: Interface ephone_dsp DN 4.1, changed state to
up

Router(config-ephone-dn)#number 104
Router(config-ephone-dn)#
Router(config-ephone-dn)#ephone-dn 5
Router(config-ephone-dn)#%LINK-3-UPDOWN: Interface ephone_dsp DN 5.1, changed state to
up

Router(config-ephone-dn)#number 105
Router(config-ephone-dn)#ephone-dn 6
Router(config-ephone-dn)#%LINK-3-UPDOWN: Interface ephone_dsp DN 6.1, changed state to
up

Router(config-ephone-dn)#number 106
Router(config-ephone-dn)#
Router(config-ephone-dn)#ex
Router(config)#ephone 1
Router(config-ephone)#mac-address 0009.7C34.3C01
ephone slot is already registered with 0001.43AA.7801
Cannot change MAC address.
Router(config-ephone)#type ata
Router(config-ephone)#button 1:1
Dn already assigned.
Router(config-ephone)#ex
Router(config)#ephone 2
Router(config-ephone)#mac-address 000C.CF09.D862
Router(config-ephone)#type 7960
Router(config-ephone)#button 1:2
Router(config-ephone)#ephone 3
Router(config-ephone)#mac-address 0006.2A28.7710
Router(config-ephone)#tipe CIPC
                         ^
% Invalid input detected at '^' marker.

Router(config-ephone)#type CIPC
Router(config-ephone)#button 1:3
```

5. После прописанного кода подключение между устройствами наладилось