

Презентация лабораторной работы №2

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Цель работы

- Предварительная настройка оборудования Cisco

Задачи

- Сделать предварительную настройку маршрутизатора и коммутатора

Результаты выполнения

- В логической рабочей области Packet Tracer разместите коммутатор, маршрутизатор и 2 оконечных устройства

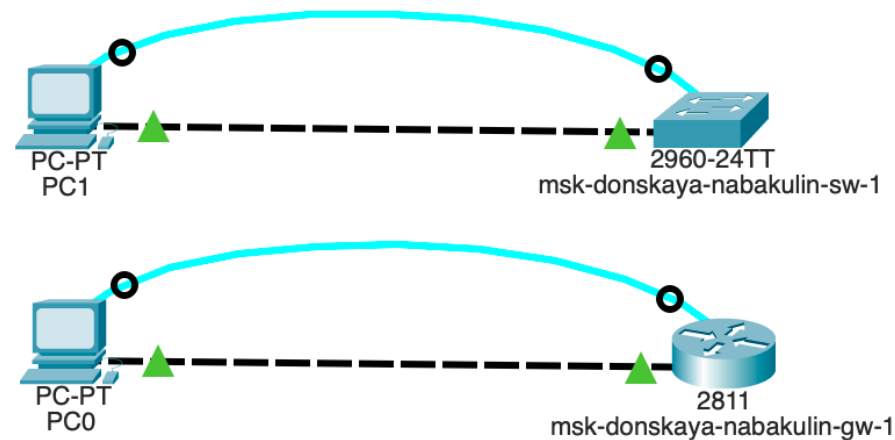


Рис. 1

Результаты выполнения

- Проведите настройку маршрутизатора в соответствии с заданием

```
Router>enable
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname msk-donskaya-nabakulin-gw-1
msk-donskaya-nabakulin-gw-1(config)#interface f0/0
msk-donskaya-nabakulin-gw-1(config-if)#no shutdown

msk-donskaya-nabakulin-gw-1(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
ip address 192.168.1.254 255.255.255.0
msk-donskaya-nabakulin-gw-1(config-if)#ip address 192.168.1.254 255.255.255.0
msk-donskaya-nabakulin-gw-1(config-if)#line vty 0 4
msk-donskaya-nabakulin-gw-1(config-line)#password cisco
msk-donskaya-nabakulin-gw-1(config-line)#login
msk-donskaya-nabakulin-gw-1(config-line)#line console 0
msk-donskaya-nabakulin-gw-1(config-line)#password cisco
msk-donskaya-nabakulin-gw-1(config-line)#login
msk-donskaya-nabakulin-gw-1(config-line)#enable secret cisco
msk-donskaya-nabakulin-gw-1(config)#service password encryption
^
% Invalid input detected at '^' marker.

msk-donskaya-nabakulin-gw-1(config)#service password-encryption
msk-donskaya-nabakulin-gw-1(config)#username admin privilege 1 secret cisco
msk-donskaya-nabakulin-gw-1(config)#ip domain name donskeya.rudn.edu
msk-donskaya-nabakulin-gw-1(config)#crypto key generate rsa
The name for the keys will be: msk-donskaya-nabakulin-gw-1.donskeya.rudn.edu
Choose the size of the key modulus in the range of 360 to 2048 for your
General Purpose Keys. Choosing a key modulus greater than 512 may take
a few minutes.

How many bits in the modulus [512]:
% Generating 512 bit RSA keys, keys will be non-exportable...[OK]

msk-donskaya-nabakulin-gw-1(config)#line vty 0 4
*Mar 1 0:17:40.430: RSA key size needs to be at least 768 bits for ssh version 2
*Mar 1 0:17:40.430: %SSH-5-ENABLED: SSH 1.5 has been enabled
msk-donskaya-nabakulin-gw-1(config-line)#transport input ssh
```

Рис. 2

Результаты выполнения

- Проведите настройку коммутатора в соответствии с заданием

```
Switch>enable
Switch#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname msk-donskaya-nabakulin-sw-1
msk-donskaya-nabakulin-sw-1(config)#interface vlan2
msk-donskaya-nabakulin-sw-1(config-if)#no shutdown
msk-donskaya-nabakulin-sw-1(config-if)#ip address 192.168.2.1 255.255.255.0
msk-donskaya-nabakulin-sw-1(config-if)#interface f0/1
msk-donskaya-nabakulin-sw-1(config-if)#switchport mode access
msk-donskaya-nabakulin-sw-1(config-if)#switchport access vlan 2
% Access VLAN does not exist. Creating vlan 2
msk-donskaya-nabakulin-sw-1(config-if)#
%LINK-5-CHANGED: Interface Vlan2, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan2, changed state to up

msk-donskaya-nabakulin-sw-1(config-if)#ip default gateway 192.168.2.254
^
% Invalid input detected at '^' marker.

msk-donskaya-nabakulin-sw-1(config-if)#ip default-gateway 192.168.2.254
msk-donskaya-nabakulin-sw-1(config)#line vty 0 4
msk-donskaya-nabakulin-sw-1(config-line)#password cisco
msk-donskaya-nabakulin-sw-1(config-line)#login
msk-donskaya-nabakulin-sw-1(config-line)#line console 0
msk-donskaya-nabakulin-sw-1(config-line)#password cisco
msk-donskaya-nabakulin-sw-1(config-line)#login
msk-donskaya-nabakulin-sw-1(config-line)#enable secret cisco
^
% Invalid input detected at '^' marker.

msk-donskaya-nabakulin-sw-1(config-line)#enable secret cisco
msk-donskaya-nabakulin-sw-1(config)#service password encryption
^
% Invalid input detected at '^' marker.

msk-donskaya-nabakulin-sw-1(config)#service password-encryption
msk-donskaya-nabakulin-sw-1(config)#username admin privilege 1 secret cisco
msk-donskaya-nabakulin-sw-1(config)#ip domain-name donskeya.rudn.edu
msk-donskaya-nabakulin-sw-1(config)#crypto key generate rsa
The name for the keys will be: msk-donskaya-nabakulin-sw-1.donskeya.rudn.edu
Choose the size of the key modulus in the range of 360 to 2048 for your
General Purpose Keys. Choosing a key modulus greater than 512 may take
a few minutes.

How many bits in the modulus [512]:
% Generating 512 bit RSA keys, keys will be non-exportable...[OK]

msk-donskaya-nabakulin-sw-1(config)#line vty 0 4
*Mar 1 0:23:2.848: RSA key size needs to be at least 768 bits for ssh version 2
*Mar 1 0:23:2.848: %SSH-5-ENABLED: SSH 1.5 has been enabled
msk-donskaya-nabakulin-sw-1(config-line)#transport input ssh
```

Рис. 2

Результаты выполнения

- Проверьте работоспособность соединений

```
C:\>ping 192.168.2.1

Pinging 192.168.2.1 with 32 bytes of data:

Request timed out.
Reply from 192.168.2.1: bytes=32 time<1ms TTL=255
Reply from 192.168.2.1: bytes=32 time<1ms TTL=255
Reply from 192.168.2.1: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.2.1:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

```
C:\>ping 192.168.1.254

Pinging 192.168.1.254 with 32 bytes of data:

Reply from 192.168.1.254: bytes=32 time<1ms TTL=255
Reply from 192.168.1.254: bytes=32 time<1ms TTL=255
Reply from 192.168.1.254: bytes=32 time<1ms TTL=255
Reply from 192.168.1.254: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.1.254:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

Рис. 4

```
C:\>telnet 192.168.2.1
Trying 192.168.2.1 ...Open
[Connection to 192.168.2.1 closed by foreign host]
```

```
C:\>telnet 192.168.1.254
Trying 192.168.1.254 ...Open
[Connection to 192.168.1.254 closed by foreign host]
```

Рис. 5

```
C:\>ssh -l admin 192.168.2.1
Password:

msk-donskaya-nabakulin-sw-1>
```

```
C:\>ssh -l admin 192.168.1.254
Password:

msk-donskaya-nabakulin-gw-1>
```

Рис. 6