

# Презентация по лабораторной работе №2

Администрирование локальных сетей

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3 апреля 2025 г.

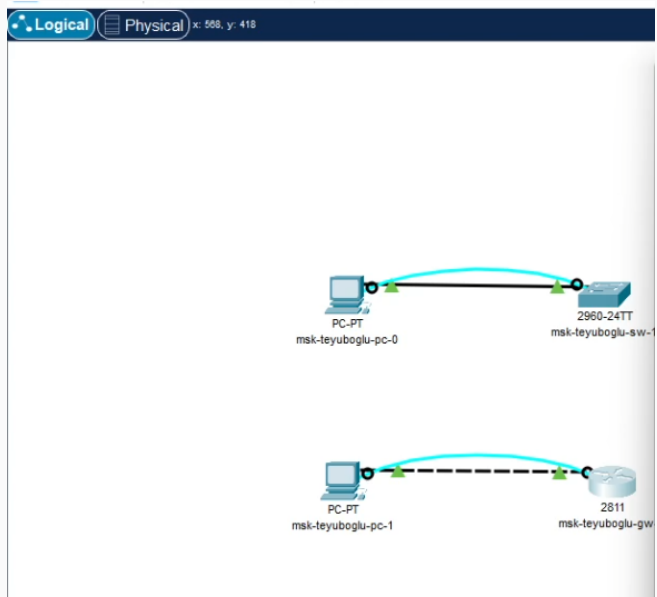
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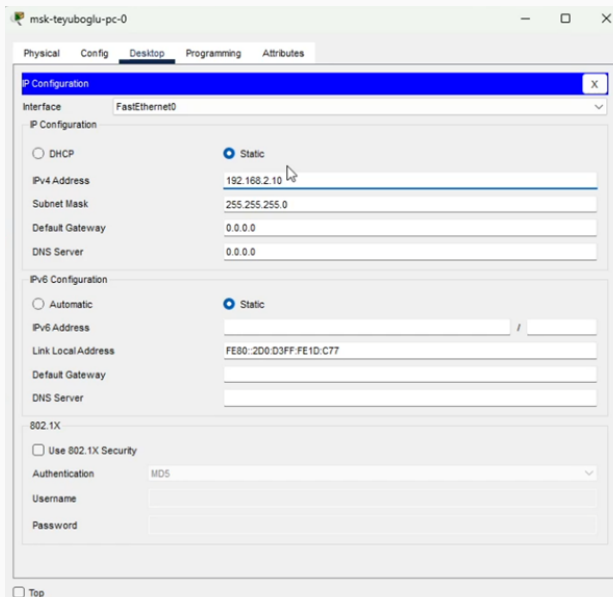
Получить основные навыки по начальному конфигурированию оборудования Cisco.

## Выполнение лабораторной работы

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# Присвоение статических IP



# Присвоение статических IP

msk-teyuboglu-pc-1

Physical Config **Desktop** Programming Attributes

**IP Configuration** X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.1.10

Subnet Mask 255.255.255.0

Default Gateway 0.0.0.0

DNS Server 0.0.0.0

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address /

Link Local Address FE80::2E0:A3FF:FE71:7C2E

Default Gateway

DNS Server

802.1X

☐ Use 802.1X Security

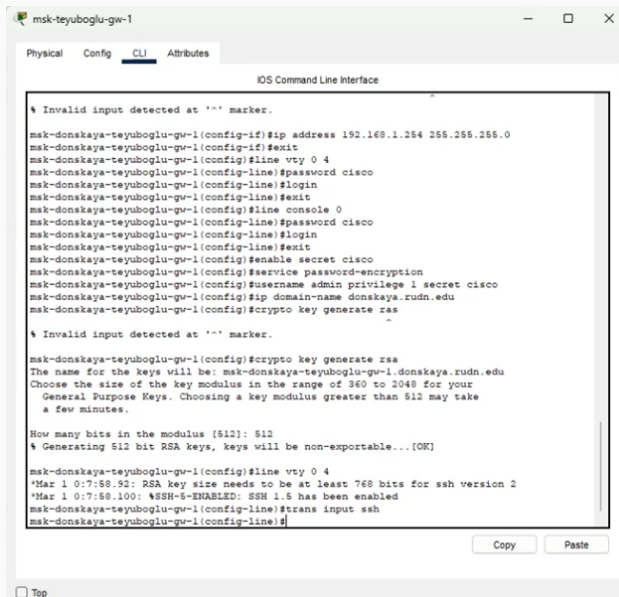
Authentication MD5

Username

Password

☐ Top

# Конфигурирование оборудования



The screenshot shows a network configuration window titled "msk-teyuboglu-gw-1". It has four tabs: "Physical", "Config", "CLI", and "Attributes". The "CLI" tab is active, displaying the "IOS Command Line Interface". The interface shows a series of configuration commands and their outputs. The commands are entered in a terminal-like environment, and the outputs are displayed below them. The commands include setting the IP address, exiting the interface configuration, setting the vty lines, setting the password, logging in, exiting, setting the console, setting the password, logging in, exiting, enabling secret, setting the service password encryption, setting the username and privilege level, setting the domain name, and generating RSA keys. The output shows the successful execution of these commands, including the generation of RSA keys and the enabling of SSH.

```
msk-teyuboglu-gw-1
Physical Config CLI Attributes

IOS Command Line Interface

% Invalid input detected at '^' marker.

msk-donskaya-teyuboglu-gw-1(config-if)#ip address 192.168.1.254 255.255.255.0
msk-donskaya-teyuboglu-gw-1(config-if)#exit
msk-donskaya-teyuboglu-gw-1(config)#line vty 0 4
msk-donskaya-teyuboglu-gw-1(config-line)#password cisco
msk-donskaya-teyuboglu-gw-1(config-line)#login
msk-donskaya-teyuboglu-gw-1(config-line)#exit
msk-donskaya-teyuboglu-gw-1(config)#line console 0
msk-donskaya-teyuboglu-gw-1(config-line)#password cisco
msk-donskaya-teyuboglu-gw-1(config-line)#login
msk-donskaya-teyuboglu-gw-1(config-line)#exit
msk-donskaya-teyuboglu-gw-1(config)#enable secret cisco
msk-donskaya-teyuboglu-gw-1(config)#service password-encryption
msk-donskaya-teyuboglu-gw-1(config)#username admin privilege 1 secret cisco
msk-donskaya-teyuboglu-gw-1(config)#ip domain-name donskeya.rudn.edu
msk-donskaya-teyuboglu-gw-1(config)#crypto key generate ras
^
% Invalid input detected at '^' marker.

msk-donskaya-teyuboglu-gw-1(config)#crypto key generate rsa
The name for the keys will be: msk-donskaya-teyuboglu-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]: 512
% Generating 512 bit RSA keys, keys will be non-exportable...[OK]

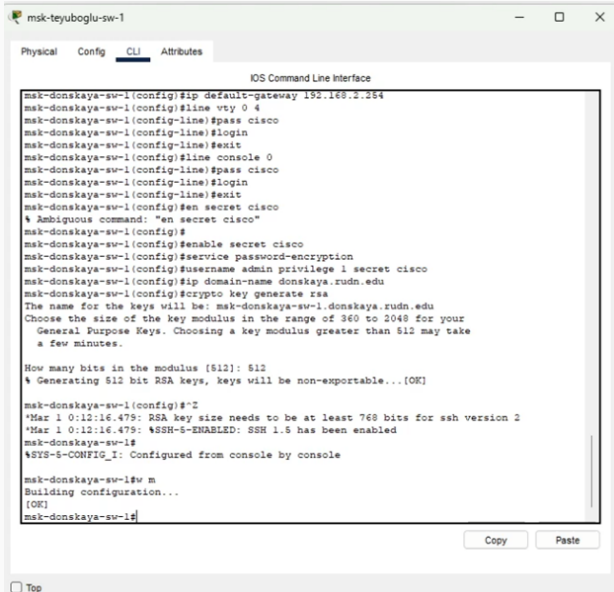
msk-donskaya-teyuboglu-gw-1(config)#line vty 0 4
*Mar 1 0:7:58.92: RSA key size needs to be at least 768 bits for ssh version 2
*Mar 1 0:7:58.100: %SSH-5-ENABLED: SSH 1.5 has been enabled
msk-donskaya-teyuboglu-gw-1(config-line)#trans input ssh
msk-donskaya-teyuboglu-gw-1(config-line)#
```

Copy Paste

☐ Top



# Конфигурирование оборудования



The screenshot shows a network configuration window titled "msk-teyuboglu-sw-1". It has tabs for "Physical", "Config", "CLI", and "Attributes", with "CLI" selected. The window displays the "IOS Command Line Interface" with a series of configuration commands and their outputs. The commands configure the default gateway, VTY lines, console access, secret passwords, and generate RSA keys. The output shows the successful generation of 512-bit RSA keys and the enabling of SSH version 1.5.

```
msk-donskaya-sw-1(config)#ip default-gateway 192.168.2.254
msk-donskaya-sw-1(config)#line vty 0 4
msk-donskaya-sw-1(config-line)#pass cisco
msk-donskaya-sw-1(config-line)#login
msk-donskaya-sw-1(config-line)#exit
msk-donskaya-sw-1(config)#line console 0
msk-donskaya-sw-1(config-line)#pass cisco
msk-donskaya-sw-1(config-line)#login
msk-donskaya-sw-1(config-line)#exit
msk-donskaya-sw-1(config)#en secret cisco
% Ambiguous command: "en secret cisco"
msk-donskaya-sw-1(config)#
msk-donskaya-sw-1(config)#enable secret cisco
msk-donskaya-sw-1(config)#service password-encryption
msk-donskaya-sw-1(config)#username admin privilege 1 secret cisco
msk-donskaya-sw-1(config)#ip domain-name donskeya.rudn.edu
msk-donskaya-sw-1(config)#crypto key generate rsa
The name for the keys will be: msk-donskaya-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.

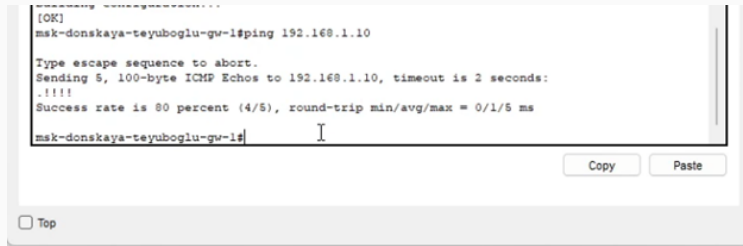
How many bits in the modulus [512]: 512
% Generating 512 bit RSA keys, keys will be non-exportable...[OK]

msk-donskaya-sw-1(config)#^Z
*Mar 1 0:12:16.479: RSA key size needs to be at least 768 bits for ssh version 2
*Mar 1 0:12:16.479: %SSH-5-ENABLED: SSH 1.5 has been enabled
msk-donskaya-sw-1#
%SYS-5-CONFIG_I: Configured from console by console

msk-donskaya-sw-1#w m
Building configuration...
[OK]
msk-donskaya-sw-1#
```

Buttons for "Copy" and "Paste" are visible at the bottom right of the CLI window.

☐ Top



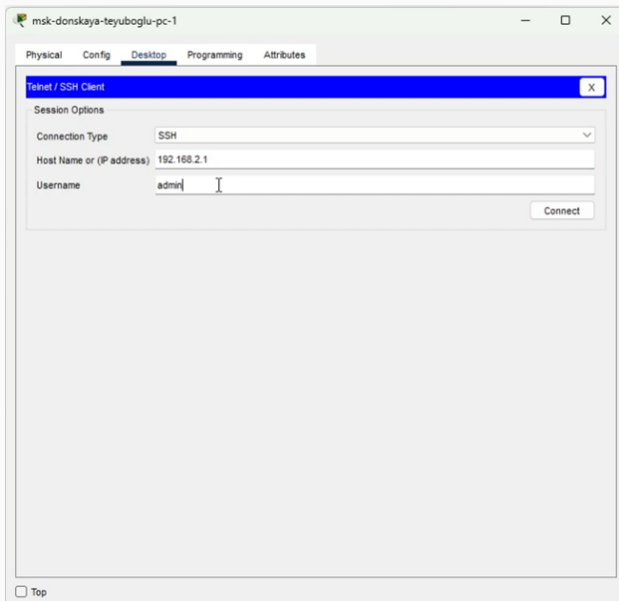
The image shows a terminal window with a light gray background. The text inside the terminal is as follows:

```
[OK]  
msk-donskaya-teyuboglu-gw-1#ping 192.168.1.10  
  
Type escape sequence to abort.  
Sending 5, 100-byte ICMP Echos to 192.168.1.10, timeout is 2 seconds:  
..!!!!  
Success rate is 80 percent (4/5), round-trip min/avg/max = 0/1/5 ms  
msk-donskaya-teyuboglu-gw-1#
```

Below the terminal window, there are two buttons: "Copy" and "Paste". At the bottom left of the window, there is a checkbox labeled "Top".

Рис. 6: Пингует

# Подключение разными способами



## Выводы по проделанной работе

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Получили основные навыки по начальному конфигурированию оборудования Cisco.