



ЛАБОРАТОРНАЯ РАБОТА 4 АДМИНИСТРИРОВАНИЕ ЛОКАЛЬНЫХ СЕТЕЙ

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Цели работы

- Провести подготовительную работу по первоначальной настройке коммутаторов сети.

Имя файла: lab_PT-04.pkt

Тип файла: Cisco Packet Tracer Activity File (*.pkt)

Выбор папки

Сохранить Отмена

Рис. 1.1. Создание нового проекта.

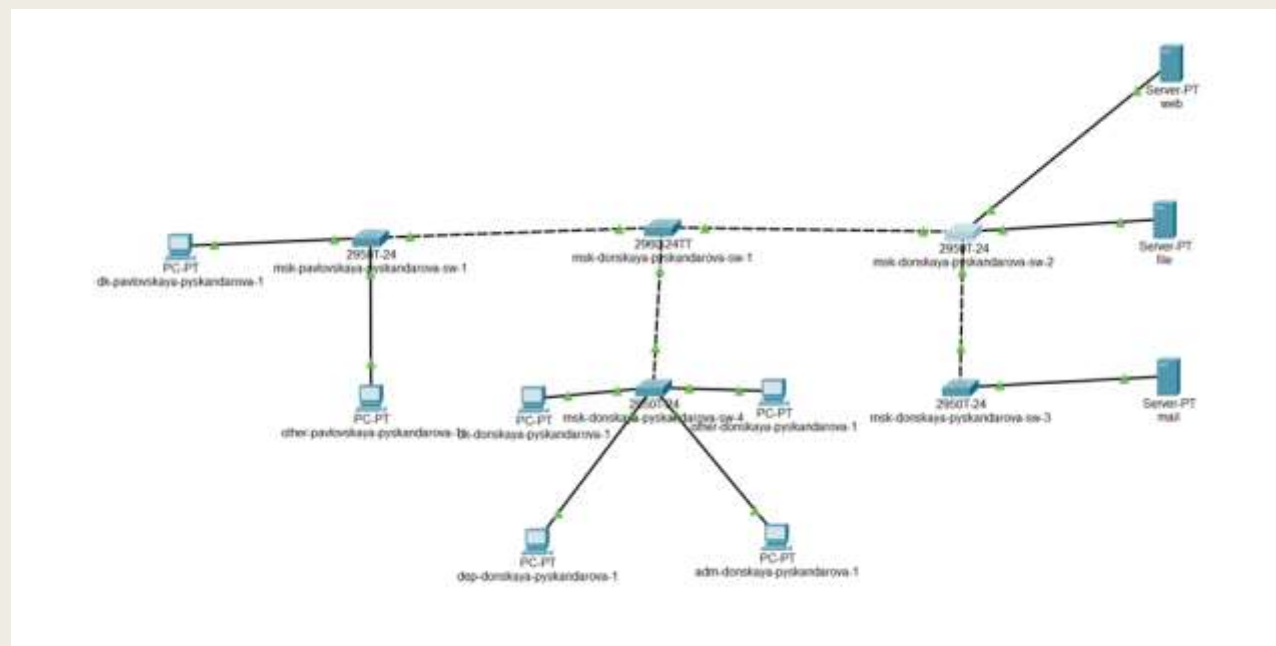
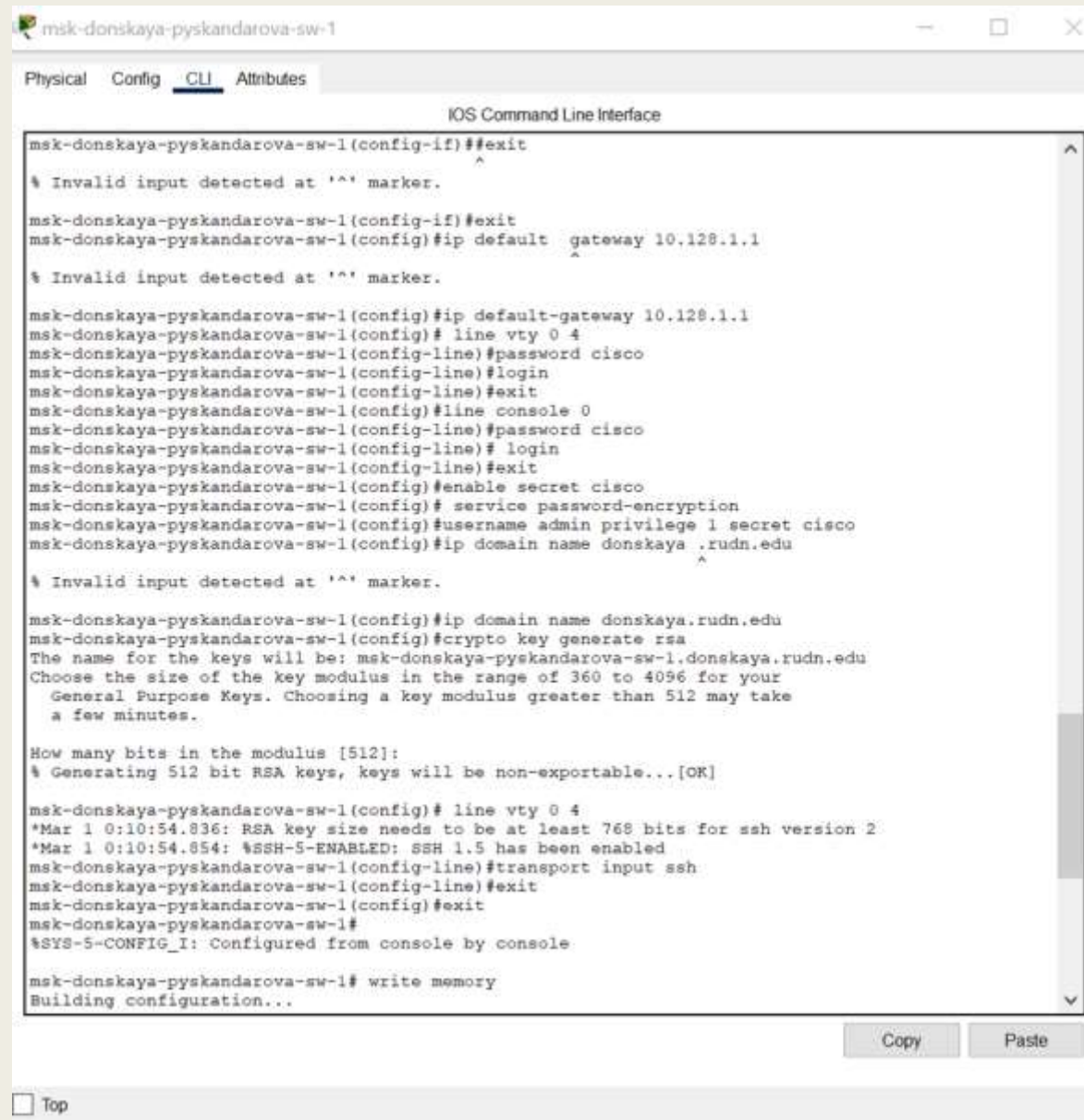


Рис. 1.2. Размещение коммутаторов и оконченных устройств согласно схеме сети L1.



```
msk-donskaya-pyskandarova-sw-1
Physical Config CLI Attributes

IOS Command Line Interface

msk-donskaya-pyskandarova-sw-1(config-if)##exit
% Invalid input detected at '^' marker.

msk-donskaya-pyskandarova-sw-1(config-if)#exit
msk-donskaya-pyskandarova-sw-1(config)#ip default-gateway 10.128.1.1
% Invalid input detected at '^' marker.

msk-donskaya-pyskandarova-sw-1(config)#ip default-gateway 10.128.1.1
msk-donskaya-pyskandarova-sw-1(config)# line vty 0 4
msk-donskaya-pyskandarova-sw-1(config-line)#password cisco
msk-donskaya-pyskandarova-sw-1(config-line)#login
msk-donskaya-pyskandarova-sw-1(config-line)#exit
msk-donskaya-pyskandarova-sw-1(config)#line console 0
msk-donskaya-pyskandarova-sw-1(config-line)#password cisco
msk-donskaya-pyskandarova-sw-1(config-line)# login
msk-donskaya-pyskandarova-sw-1(config-line)#exit
msk-donskaya-pyskandarova-sw-1(config)#enable secret cisco
msk-donskaya-pyskandarova-sw-1(config)# service password-encryption
msk-donskaya-pyskandarova-sw-1(config)#username admin privilege 1 secret cisco
msk-donskaya-pyskandarova-sw-1(config)#ip domain name donsкаya.rudn.edu
% Invalid input detected at '^' marker.

msk-donskaya-pyskandarova-sw-1(config)#ip domain name donsкаya.rudn.edu
msk-donskaya-pyskandarova-sw-1(config)#crypto key generate rsa
The name for the keys will be: msk-donskaya-pyskandarova-sw-1.donsкаya.rudn.edu
Choose the size of the key modulus in the range of 360 to 4096 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]

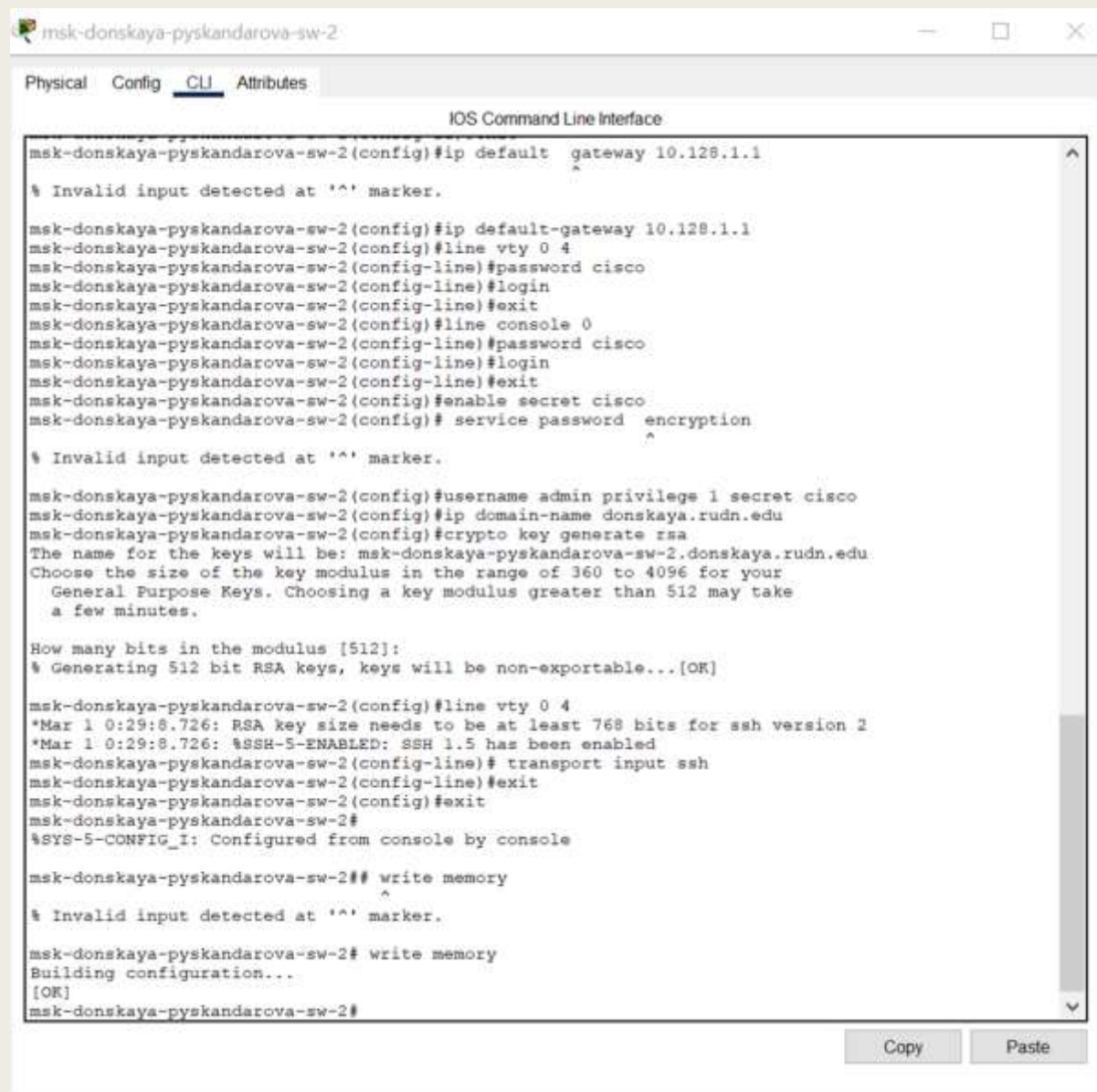
msk-donskaya-pyskandarova-sw-1(config)# line vty 0 4
*Mar 1 0:10:54.836: RSA key size needs to be at least 768 bits for ssh version 2
*Mar 1 0:10:54.854: %SSH-5-ENABLED: SSH 1.5 has been enabled
msk-donskaya-pyskandarova-sw-1(config-line)#transport input ssh
msk-donskaya-pyskandarova-sw-1(config-line)#exit
msk-donskaya-pyskandarova-sw-1(config)#exit
msk-donskaya-pyskandarova-sw-1#
%SYS-5-CONFIG_I: Configured from console by console

msk-donskaya-pyskandarova-sw-1# write memory
Building configuration...
```

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Рис. 1.3. Настройка коммутатора msk-donskaya-pyskandarova-sw-1, используя типовую конфигурацию.



```
msk-donskaya-pyskandarova-sw-2
Physical Config CLI Attributes
IOS Command Line Interface

msk-donskaya-pyskandarova-sw-2(config)#ip default gateway 10.128.1.1
^
% Invalid input detected at '^' marker.

msk-donskaya-pyskandarova-sw-2(config)#ip default-gateway 10.128.1.1
msk-donskaya-pyskandarova-sw-2(config)#line vty 0 4
msk-donskaya-pyskandarova-sw-2(config-line)#password cisco
msk-donskaya-pyskandarova-sw-2(config-line)#login
msk-donskaya-pyskandarova-sw-2(config-line)#exit
msk-donskaya-pyskandarova-sw-2(config)#line console 0
msk-donskaya-pyskandarova-sw-2(config-line)#password cisco
msk-donskaya-pyskandarova-sw-2(config-line)#login
msk-donskaya-pyskandarova-sw-2(config-line)#exit
msk-donskaya-pyskandarova-sw-2(config)#enable secret cisco
msk-donskaya-pyskandarova-sw-2(config)# service password encryption
^
% Invalid input detected at '^' marker.

msk-donskaya-pyskandarova-sw-2(config)#username admin privilege 1 secret cisco
msk-donskaya-pyskandarova-sw-2(config)#ip domain-name donskeya.rudn.edu
msk-donskaya-pyskandarova-sw-2(config)#crypto key generate rsa
The name for the keys will be: msk-donskaya-pyskandarova-sw-2.donskeya.rudn.edu
Choose the size of the key modulus in the range of 360 to 4096 for your
General Purpose Keys. Choosing a key modulus greater than 512 may take
a few minutes.

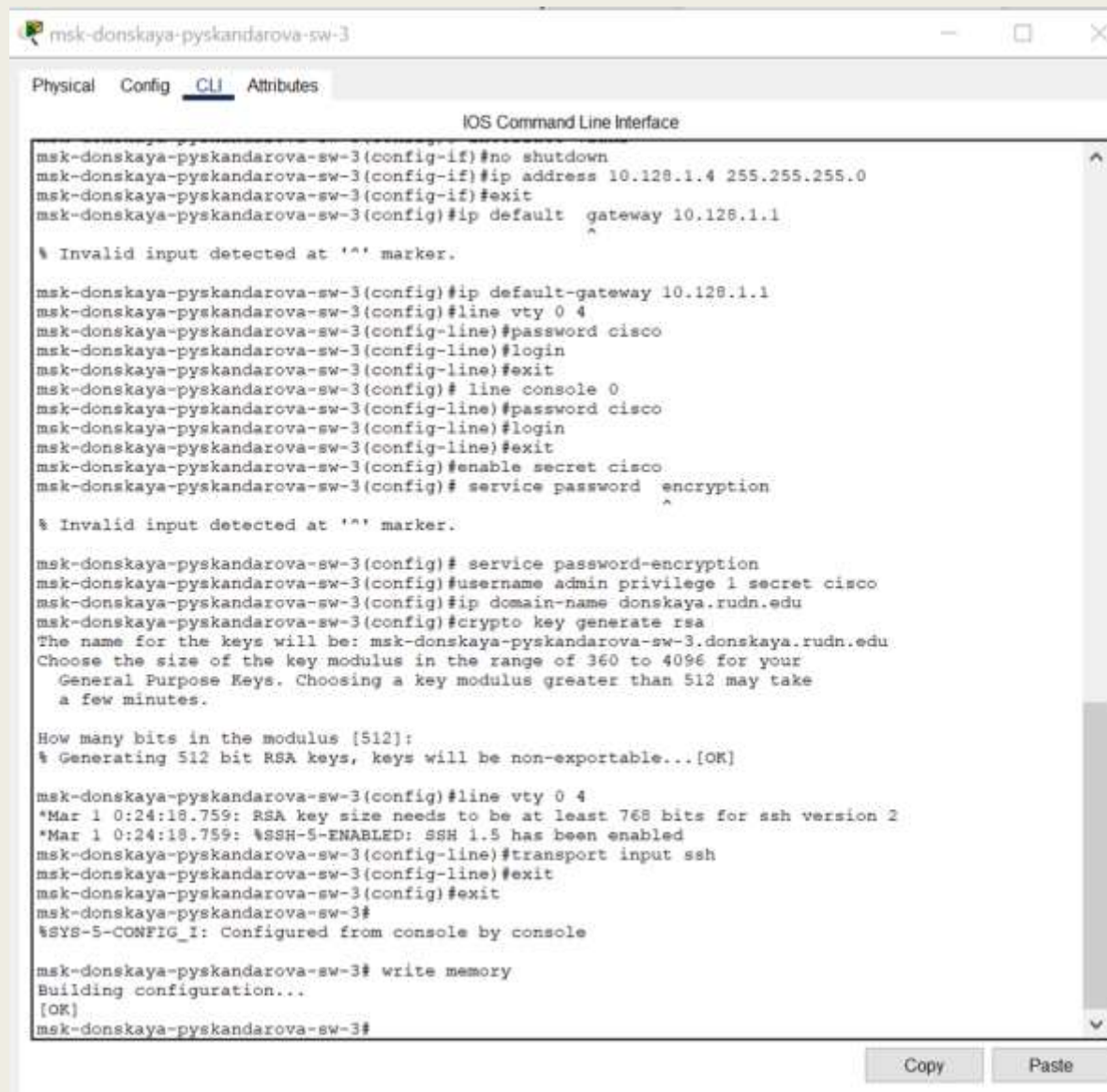
How many bits in the modulus [512]:
% Generating 512 bit RSA keys, keys will be non-exportable...[OK]

msk-donskaya-pyskandarova-sw-2(config)#line vty 0 4
*Mar 1 0:29:8.726: RSA key size needs to be at least 768 bits for ssh version 2
*Mar 1 0:29:8.726: %SSH-5-ENABLED: SSH 1.5 has been enabled
msk-donskaya-pyskandarova-sw-2(config-line)# transport input ssh
msk-donskaya-pyskandarova-sw-2(config-line)#exit
msk-donskaya-pyskandarova-sw-2(config)#exit
msk-donskaya-pyskandarova-sw-2#
%SYS-5-CONFIG_I: Configured from console by console

msk-donskaya-pyskandarova-sw-2## write memory
^
% Invalid input detected at '^' marker.

msk-donskaya-pyskandarova-sw-2# write memory
Building configuration...
[OK]
msk-donskaya-pyskandarova-sw-2#
```

Рис. 1.4. Настройка коммутатора msk-donskaya-pyskandarova-sw-2, используя типовую конфигурацию.



```
msk-donskaya-pyskandarova-sw-3
Physical Config CLI Attributes
IOS Command Line Interface

msk-donskaya-pyskandarova-sw-3(config-if)#no shutdown
msk-donskaya-pyskandarova-sw-3(config-if)#ip address 10.128.1.4 255.255.255.0
msk-donskaya-pyskandarova-sw-3(config-if)#exit
msk-donskaya-pyskandarova-sw-3(config)#ip default gateway 10.128.1.1
^
% Invalid input detected at '^' marker.

msk-donskaya-pyskandarova-sw-3(config)#ip default-gateway 10.128.1.1
msk-donskaya-pyskandarova-sw-3(config)#line vty 0 4
msk-donskaya-pyskandarova-sw-3(config-line)#password cisco
msk-donskaya-pyskandarova-sw-3(config-line)#login
msk-donskaya-pyskandarova-sw-3(config-line)#exit
msk-donskaya-pyskandarova-sw-3(config)# line console 0
msk-donskaya-pyskandarova-sw-3(config-line)#password cisco
msk-donskaya-pyskandarova-sw-3(config-line)#login
msk-donskaya-pyskandarova-sw-3(config-line)#exit
msk-donskaya-pyskandarova-sw-3(config)#enable secret cisco
msk-donskaya-pyskandarova-sw-3(config)# service password encryption
^
% Invalid input detected at '^' marker.

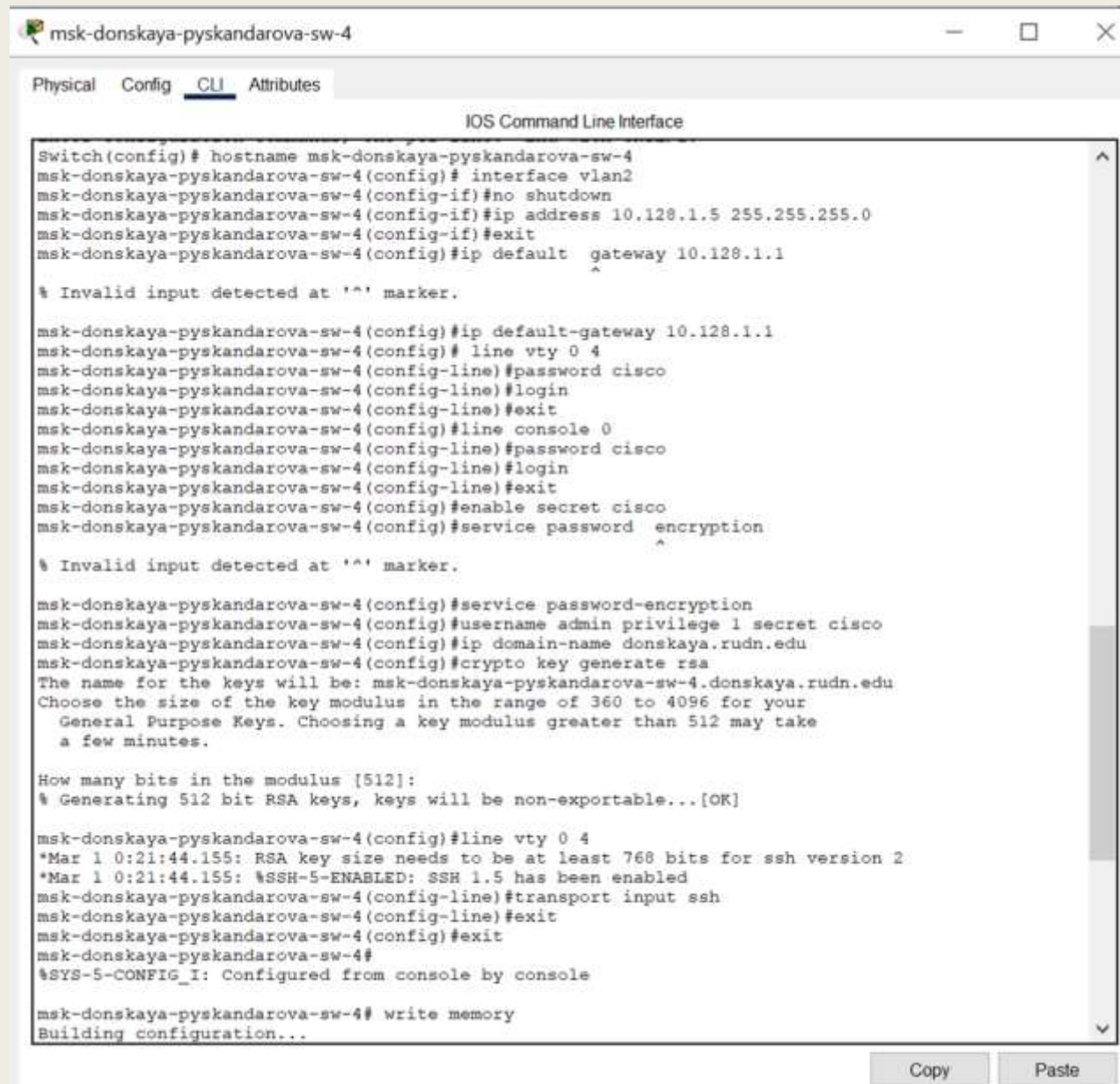
msk-donskaya-pyskandarova-sw-3(config)# service password-encryption
msk-donskaya-pyskandarova-sw-3(config)#username admin privilege 1 secret cisco
msk-donskaya-pyskandarova-sw-3(config)#ip domain-name donsкаya.rudn.edu
msk-donskaya-pyskandarova-sw-3(config)#crypto key generate rsa
The name for the keys will be: msk-donskaya-pyskandarova-sw-3.donskaya.rudn.edu
Choose the size of the key modulus in the range of 360 to 4096 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-pyskandarova-sw-3(config)#line vty 0 4
*Mar 1 0:24:18.759: RSA key size needs to be at least 768 bits for ssh version 2
*Mar 1 0:24:18.759: %SSH-5-ENABLED: SSH 1.5 has been enabled
msk-donskaya-pyskandarova-sw-3(config-line)#transport input ssh
msk-donskaya-pyskandarova-sw-3(config-line)#exit
msk-donskaya-pyskandarova-sw-3(config)#exit
msk-donskaya-pyskandarova-sw-3#
%SYS-5-CONFIG_I: Configured from console by console

msk-donskaya-pyskandarova-sw-3# write memory
Building configuration...
[OK]
msk-donskaya-pyskandarova-sw-3#
```

Рис. 1.5. Настройка коммутатора msk-donskaya-pyskandarova-sw-3, используя типовую конфигурацию.



```
msk-donskaya-pyskandarova-sw-4
Physical Config CLI Attributes
IOS Command Line Interface

Switch(config)# hostname msk-donskaya-pyskandarova-sw-4
msk-donskaya-pyskandarova-sw-4(config)# interface vlan2
msk-donskaya-pyskandarova-sw-4(config-if)#no shutdown
msk-donskaya-pyskandarova-sw-4(config-if)#ip address 10.128.1.5 255.255.255.0
msk-donskaya-pyskandarova-sw-4(config-if)#exit
msk-donskaya-pyskandarova-sw-4(config)#ip default gateway 10.128.1.1

% Invalid input detected at '^' marker.

msk-donskaya-pyskandarova-sw-4(config)#ip default-gateway 10.128.1.1
msk-donskaya-pyskandarova-sw-4(config)# line vty 0 4
msk-donskaya-pyskandarova-sw-4(config-line)#password cisco
msk-donskaya-pyskandarova-sw-4(config-line)#login
msk-donskaya-pyskandarova-sw-4(config-line)#exit
msk-donskaya-pyskandarova-sw-4(config)#line console 0
msk-donskaya-pyskandarova-sw-4(config-line)#password cisco
msk-donskaya-pyskandarova-sw-4(config-line)#login
msk-donskaya-pyskandarova-sw-4(config-line)#exit
msk-donskaya-pyskandarova-sw-4(config)#enable secret cisco
msk-donskaya-pyskandarova-sw-4(config)#service password encryption

% Invalid input detected at '^' marker.

msk-donskaya-pyskandarova-sw-4(config)#service password-encryption
msk-donskaya-pyskandarova-sw-4(config)#username admin privilege 1 secret cisco
msk-donskaya-pyskandarova-sw-4(config)#ip domain-name donsokaya.rudn.edu
msk-donskaya-pyskandarova-sw-4(config)#crypto key generate rsa
The name for the keys will be: msk-donskaya-pyskandarova-sw-4.donsokaya.rudn.edu
Choose the size of the key modulus in the range of 360 to 4096 for your
General Purpose Keys. Choosing a key modulus greater than 512 may take
a few minutes.

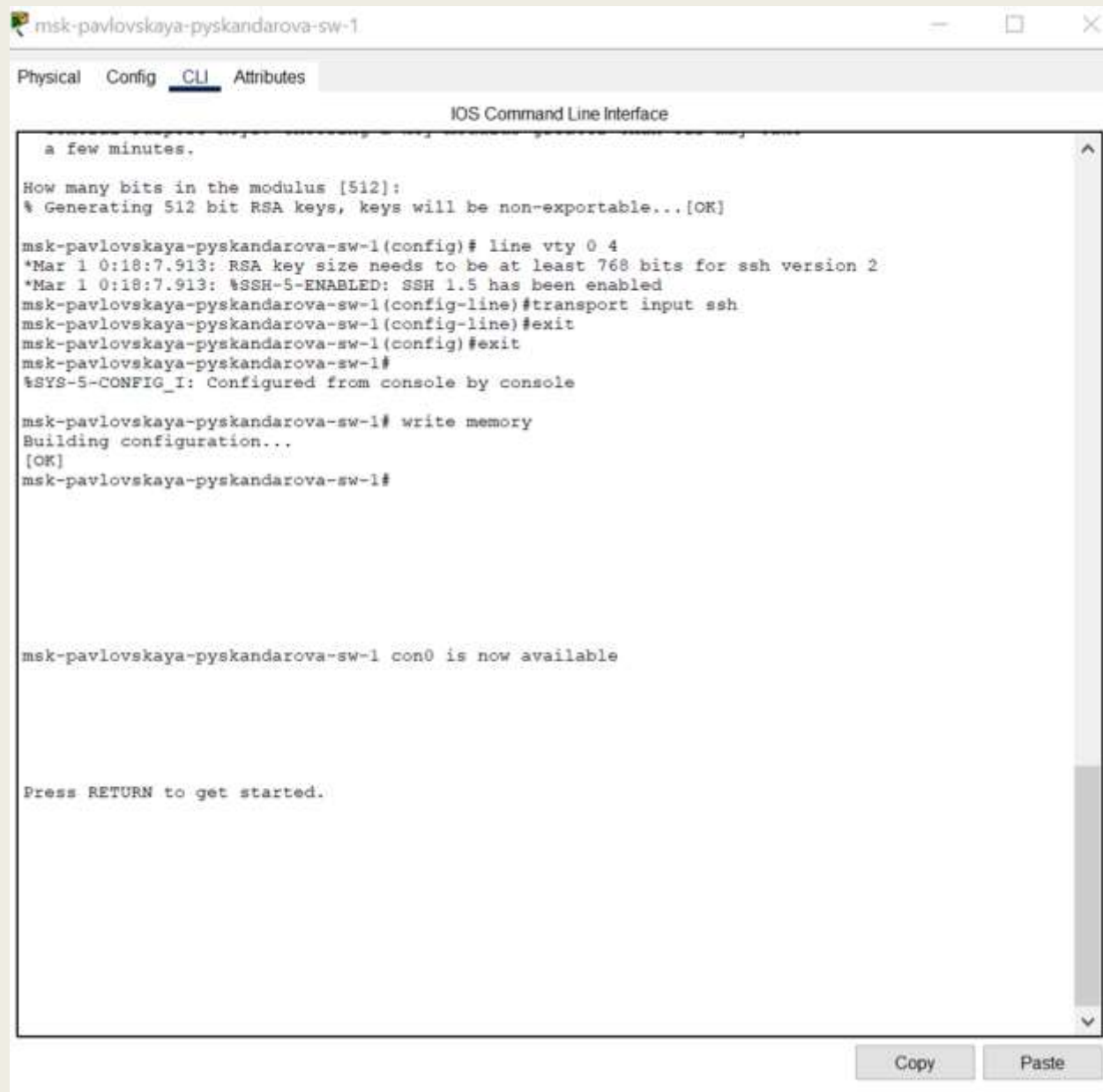
How many bits in the modulus [512]:
% Generating 512 bit RSA keys, keys will be non-exportable...[OK]

msk-donskaya-pyskandarova-sw-4(config)#line vty 0 4
*Mar 1 0:21:44.155: RSA key size needs to be at least 768 bits for ssh version 2
*Mar 1 0:21:44.155: %SSH-5-ENABLED: SSH 1.5 has been enabled
msk-donskaya-pyskandarova-sw-4(config-line)#transport input ssh
msk-donskaya-pyskandarova-sw-4(config-line)#exit
msk-donskaya-pyskandarova-sw-4(config)#exit
msk-donskaya-pyskandarova-sw-4#
%SYS-5-CONFIG_I: Configured from console by console

msk-donskaya-pyskandarova-sw-4# write memory
Building configuration...
```

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Рис. 1.6. Настройка коммутатора msk-donskaya-pyskandarova-sw-4, используя типовую конфигурацию.



```
msk-pavlovskaya-pyskandarova-sw-1
Physical Config CLI Attributes
IOS Command Line Interface

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

msk-pavlovskaya-pyskandarova-sw-1(config)# line vty 0 4
*Mar 1 0:18:7.913: RSA key size needs to be at least 768 bits for ssh version 2
*Mar 1 0:18:7.913: %SSH-5-ENABLED: SSH 1.5 has been enabled
msk-pavlovskaya-pyskandarova-sw-1(config-line)#transport input ssh
msk-pavlovskaya-pyskandarova-sw-1(config-line)#exit
msk-pavlovskaya-pyskandarova-sw-1(config)#exit
msk-pavlovskaya-pyskandarova-sw-1#
%SYS-5-CONFIG_I: Configured from console by console

msk-pavlovskaya-pyskandarova-sw-1# write memory
Building configuration...
[OK]
msk-pavlovskaya-pyskandarova-sw-1#

msk-pavlovskaya-pyskandarova-sw-1 con0 is now available

Press RETURN to get started.
```

Рис. 1.7. Настройка коммутатора msk-pavlovskaya-pyskandarova-sw-1, используя типовую конфигурацию.

Вывод:

В ходе выполнения лабораторной работы мы научились проводить подготовительную работу по первоначальной настройке коммутаторов сети.