

# Лабораторная Работа №5

## Конфигурирование VLAN

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# Выполнение лабораторной работы

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Получить основные навыки по настройке VLAN на коммутаторах сети.

## Задание

1. На коммутаторах сети настроить Trunk-порты на соответствующих интерфейсах, связывающих коммутаторы между собой.
2. Коммутатор msk-donskaya-sw-1 настроить как VTP-сервер и прописать на нём номера и названия VLAN согласно таблице.
3. Коммутаторы msk-donskaya-sw-2 — msk-donskaya-sw-4, mskpravlovskaya-sw-1 настроить как VTP-клиенты, на интерфейсах указать принадлежность к соответствующему VLAN.
4. На серверах прописать IP-адреса, как указано в таблице.
5. На конечных устройствах указать соответствующий адрес шлюза и прописать статические IP-адреса из диапазона соответствующей сети, следуя регламенту выделения ip-адресов.
6. Проверить доступность устройств, принадлежащих одному VLAN, и недоступность устройств, принадлежащих разным VLAN.
7. При выполнении работы необходимо учитывать соглашение об

# Поднял trunk-порты на msk-donskaya-vpkozlov-sw-1

```
msk-donskaya-vpkozlov-sw-1>en
Password:
msk-donskaya-vpkozlov-sw-1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
msk-donskaya-vpkozlov-sw-1(config)#interface g0/1
msk-donskaya-vpkozlov-sw-1(config-if)#switchport mode trunk

msk-donskaya-vpkozlov-sw-1(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to up

msk-donskaya-vpkozlov-sw-1(config-if)#interface g0/2
msk-donskaya-vpkozlov-sw-1(config-if)#switchport mode trunk

msk-donskaya-vpkozlov-sw-1(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/2, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/2, changed state to up

msk-donskaya-vpkozlov-sw-1(config-if)#wr mem
^
% Invalid input detected at '^' marker.

msk-donskaya-vpkozlov-sw-1(config-if)#write memory
^
% Invalid input detected at '^' marker.

msk-donskaya-vpkozlov-sw-1(config-if)#exit
msk-donskaya-vpkozlov-sw-1(config)#exit
msk-donskaya-vpkozlov-sw-1#
%SYS-5-CONFIG_I: Configured from console by console

msk-donskaya-vpkozlov-sw-1#write memory
Building configuration...
[OK]
msk-donskaya-vpkozlov-sw-1#sh ru
Building configuration...

Current configuration : 1464 bytes
!
version 15.0
no service timestamps log datetime msec
```

**Figure 1:** Создание trunk-портов на msk-donskaya-vpkozlov-sw-1

# Поднял trunk-порты на msk-donskaya-vpkozlov-sw-2

```
msk-donskaya-vpkozlov-sw-2>en
Password:
msk-donskaya-vpkozlov-sw-2#conf t
Enter configuration commands, one per line. End with CNTL/Z.
msk-donskaya-vpkozlov-sw-2(config)#interface g0/1
msk-donskaya-vpkozlov-sw-2(config-if)#switchport mode trunk
msk-donskaya-vpkozlov-sw-2(config-if)#interface g0/2
msk-donskaya-vpkozlov-sw-2(config-if)#switchport mode trunk

msk-donskaya-vpkozlov-sw-2(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/2, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/2, changed state to up

msk-donskaya-vpkozlov-sw-2(config-if)#exit
msk-donskaya-vpkozlov-sw-2(config)#exit
msk-donskaya-vpkozlov-sw-2#
%SYS-5-CONFIG_I: Configured from console by console

msk-donskaya-vpkozlov-sw-2#wr mem
Building configuration...
[OK]
msk-donskaya-vpkozlov-sw-2#
```

**Figure 2:** Создание trunk-портов на msk-donskaya-vpkozlov-sw-2

# Поднял trunk-порты на msk-donskaya-vpkozlov-sw-3

```
msk-donskaya-vpkozlov-3>en
Password:
msk-donskaya-vpkozlov-3#conf t
Enter configuration commands, one per line. End with CNTL/Z.
msk-donskaya-vpkozlov-3(config)#interface q0/1
msk-donskaya-vpkozlov-3(config-if)#switchport mode trunk
msk-donskaya-vpkozlov-3(config-if)#exit
msk-donskaya-vpkozlov-3(config)#exit
msk-donskaya-vpkozlov-3#
%SYS-5-CONFIG_I: Configured from console by console

msk-donskaya-vpkozlov-3#wr mem
Building configuration...
[OK]
msk-donskaya-vpkozlov-3#
```

**Figure 3:** Создание trunk-портов на msk-donskaya-vpkozlov-sw-3



# Поднял trunk-порты на msk-donskaya-vpkozlov-sw-4

```
msk-donskaya-vpkozlov-sw-4>en
Password:
msk-donskaya-vpkozlov-sw-4#conf t
Enter configuration commands, one per line. End with CNTL/Z.
msk-donskaya-vpkozlov-sw-4(config)#interface g0/1
msk-donskaya-vpkozlov-sw-4(config-if)#switchport mode trunk
msk-donskaya-vpkozlov-sw-4(config-if)#exit
msk-donskaya-vpkozlov-sw-4(config)#exit
msk-donskaya-vpkozlov-sw-4#
%SYS-5-CONFIG_I: Configured from console by console

msk-donskaya-vpkozlov-sw-4#wr mem
Building configuration...
[OK]
msk-donskaya-vpkozlov-sw-4#
```

**Figure 4:** Создание trunk-портов на msk-donskaya-vpkozlov-sw-4

# Поднял trunk-порты на msk-pavlovskaya-vpkozlov-sw-1

```
msk-pavlovskaya-vpkozlov-sw-1>en
Password:
msk-pavlovskaya-vpkozlov-sw-1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
msk-pavlovskaya-vpkozlov-sw-1(config)#interface f0/1
msk-pavlovskaya-vpkozlov-sw-1(config-if)#switchport mode trunk
msk-pavlovskaya-vpkozlov-sw-1(config-if)#exit
msk-pavlovskaya-vpkozlov-sw-1(config)#exit
msk-pavlovskaya-vpkozlov-sw-1#
%SYS-5-CONFIG_I: Configured from console by console

msk-pavlovskaya-vpkozlov-sw-1#wr mem
Building configuration...
[OK]
msk-pavlovskaya-vpkozlov-sw-1#
```

**Figure 5:** Создание trunk-портов на msk-pavlovskaya-vpkozlov-sw-1

# Сконфигурировал VLAN на msk-donskaya-vpkozlov-sw-1

```
msk-donskaya-vpkozlov-sw-1>en
Password:
msk-donskaya-vpkozlov-sw-1#conf t
Enter configuration commands, one per line. End with CRTL/Z.
msk-donskaya-vpkozlov-sw-1(config)#interface f0/24
msk-donskaya-vpkozlov-sw-1(config-if)#switchport mode trunk
msk-donskaya-vpkozlov-sw-1(config-if)#exit
msk-donskaya-vpkozlov-sw-1(config)#exit
msk-donskaya-vpkozlov-sw-1#
$SYS-5-CONFIG_i: Configured from console by console

msk-donskaya-vpkozlov-sw-1#wr mem
Building configuration...
[OK]
msk-donskaya-vpkozlov-sw-1#
```

**Figure 6:** Конфигурирование VLAN на msk-donskaya-vpkozlov-sw-1

# Настроил VLAN-порты

```
msk-donskaya-vpkozlov-sw-1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
msk-donskaya-vpkozlov-sw-1(config)#vlan 2
msk-donskaya-vpkozlov-sw-1(config-vlan)#
%LINK-5-CHANGED: Interface Vlan2, changed state to up

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

msk-donskaya-vpkozlov-sw-1(config-vlan)#name managment
msk-donskaya-vpkozlov-sw-1(config-vlan)#vlan 3
msk-donskaya-vpkozlov-sw-1(config-vlan)#name servers
msk-donskaya-vpkozlov-sw-1(config-vlan)#vlan 101
msk-donskaya-vpkozlov-sw-1(config-vlan)#name dk
msk-donskaya-vpkozlov-sw-1(config-vlan)#vlan 102
msk-donskaya-vpkozlov-sw-1(config-vlan)#name departments
msk-donskaya-vpkozlov-sw-1(config-vlan)#vlan 103
msk-donskaya-vpkozlov-sw-1(config-vlan)#name adm
msk-donskaya-vpkozlov-sw-1(config-vlan)#vlan 104
msk-donskaya-vpkozlov-sw-1(config-vlan)#name other
msk-donskaya-vpkozlov-sw-1(config-vlan)#exit
msk-donskaya-vpkozlov-sw-1(config)#exit
msk-donskaya-vpkozlov-sw-1#
%SYS-5-CONFIG_I: Configured from console by console

msk-donskaya-vpkozlov-sw-1#wr mem
Building configuration...
[OK]
msk-donskaya-vpkozlov-sw-1#show vlan
```

VLAN Name	Status	Ports
1 default	active	Fa0/2, Fa0/3, Fa0/4, Fa0/5 Fa0/6, Fa0/7, Fa0/8, Fa0/9 Fa0/10, Fa0/11, Fa0/12, Fa0/13 Fa0/14, Fa0/15, Fa0/16, Fa0/17 Fa0/18, Fa0/19, Fa0/20, Fa0/21 Fa0/22, Fa0/23, Fa0/24
2 managment	active	
3 servers	active	
101 dk	active	
102 departments	active	
103 adm	active	
104 other	active	

Figure 7: Настройка VLAN-портов

# Настроил VTP сервер на msk-donskaya-vpkozlov-sw-1

```
msk-donskaya-vpkozlov-sw-1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
msk-donskaya-vpkozlov-sw-1(config)#vtp mode server
Device mode already VTP SERVER.
msk-donskaya-vpkozlov-sw-1(config)#vtp mode server
Device mode already VTP SERVER.
msk-donskaya-vpkozlov-sw-1(config)#vtp domain donsкаya
Changing VTP domain name from NULL to donsкаya
msk-donskaya-vpkozlov-sw-1(config)#vtp password cisco
Setting device VLAN database password to cisco
msk-donskaya-vpkozlov-sw-1(config)#exit
msk-donskaya-vpkozlov-sw-1#
%SYS-5-CONFIG_I: Configured from console by console
conf t
Enter configuration commands, one per line. End with CNTL/Z.
msk-donskaya-vpkozlov-sw-1(config)#exit
msk-donskaya-vpkozlov-sw-1#
%SYS-5-CONFIG_I: Configured from console by console
w
Building configuration...
[OK]
msk-donskaya-vpkozlov-sw-1#wr mem
Building configuration...
[OK]
```

**Figure 8:** VTP сервер на msk-donskaya-vpkozlov-sw-1

# Сделал msk-donskaya-vpkozlov-sw-2 клиентом VTP

```
msk-donskaya-vpkozlov-sw-2>en
Password:
msk-donskaya-vpkozlov-sw-2#conf t
Enter configuration commands, one per line. End with CNTL/Z.
msk-donskaya-vpkozlov-sw-2(config)#vtp domain donsкаya
Domain name already set to donsкаya.
msk-donskaya-vpkozlov-sw-2(config)#vtp mode client
Setting device to VTP CLIENT mode
msk-donskaya-vpkozlov-sw-2(config)#
%LINK-5-CHANGED: Interface Vlan2, changed state to up

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

msk-donskaya-vpkozlov-sw-2(config)#vtp password cisco
Setting device VLAN database password to cisco
msk-donskaya-vpkozlov-sw-2(config)#exit
msk-donskaya-vpkozlov-sw-2#
%SYS-5-CONFIG_I: Configured from console by console

msk-donskaya-vpkozlov-sw-2#wr mem
Building configuration...
[OK]
msk-donskaya-vpkozlov-sw-2#sh vtp status
VTP Version                : 1
Configuration Revision      : 0
Maximum VLANs supported locally : 255
Number of existing VLANs    : 11
VTP Operating Mode          : Client
VTP Domain Name             : donsкаya
VTP Pruning Mode            : Disabled
VTP V2 Mode                 : Disabled
VTP Traps Generation        : Disabled
MD5 digest                  : 0x26 0xAF 0x7C 0x25 0x9A 0xF0 0x0D 0xB0
Configuration last modified by 10.128.1.2 at 3-1-93 02:03:00
msk-donskaya-vpkozlov-sw-2#
```

**Figure 9:** Клиент VTP msk-donskaya-vpkozlov-sw-2

# Сделал msk-donskaya-vpkozlov-sw-3 клиентом VTP

```
msk-donskaya-vpkozlov-3#conf t
Enter configuration commands, one per line. End with CNTL/Z.
msk-donskaya-vpkozlov-3(config)#vtp mode client
Device mode already VTP CLIENT.
msk-donskaya-vpkozlov-3(config)#vtp password cisco
Setting device VLAN database password to cisco
msk-donskaya-vpkozlov-3(config)#
%LINK-5-CHANGED: Interface Vlan2, changed state to up

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

msk-donskaya-vpkozlov-3(config)#exit
msk-donskaya-vpkozlov-3#
%SYS-5-CONFIG_I: Configured from console by console

msk-donskaya-vpkozlov-3#wr mem
Building configuration...
[OK]
msk-donskaya-vpkozlov-3#sh vlan
```

VLAN	Name	Status	Ports
1	default	active	Fa0/2, Fa0/3, Fa0/4, Fa0/5 Fa0/6, Fa0/7, Fa0/8, Fa0/9 Fa0/10, Fa0/11, Fa0/12, Fa0/13 Fa0/14, Fa0/15, Fa0/16, Fa0/17 Fa0/18, Fa0/19, Fa0/20, Fa0/21 Fa0/22, Fa0/23, Fa0/24, Gig0/2
2	managment	active	
3	servers	active	
101	dk	active	
102	departments	active	
103	adm	active	
104	other	active	
1002	fddi-default	active	
1003	token-ring-default	active	
1004	fddinet-default	active	
1005	trnet-default	active	

VLAN	Type	SAID	MTU	Parent	RingNo	BridgeNo	Stp	BrdgMode	Trans1	Trans2
--More--										

**Figure 10:** Клиент VTP msk-donskaya-vpkozlov-sw-3

# Сделал msk-donskaya-vpkozlov-sw-4 клиентом VTP

```
msk-donskaya-vpkozlov-sw-4#conf t
Enter configuration commands, one per line. End with CNTL/Z.
msk-donskaya-vpkozlov-sw-4(config)#vtp mode client
Setting device to VTP CLIENT mode.
msk-donskaya-vpkozlov-sw-4(config)#vtp password cisco
Setting device VLAN database password to cisco
msk-donskaya-vpkozlov-sw-4(config)#
%LINK-5-CHANGED: Interface Vlan2, changed state to up

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

msk-donskaya-vpkozlov-sw-4(config)#exit
msk-donskaya-vpkozlov-sw-4#
%SYS-5-CONFIG_I: Configured from console by console

msk-donskaya-vpkozlov-sw-4#wr mem
Building configuration...
[OK]
msk-donskaya-vpkozlov-sw-4#sh vlan
```

VLAN	Name	Status	Ports
1	default	active	Fa0/2, Fa0/3, Fa0/4, Fa0/5 Fa0/7, Fa0/8, Fa0/9, Fa0/10 Fa0/12, Fa0/13, Fa0/14, Fa0/15 Fa0/17, Fa0/18, Fa0/19, Fa0/20 Fa0/21, Fa0/22, Fa0/23, Fa0/24 Gig0/2
2	managment	active	
3	servers	active	
101	dk	active	
102	departments	active	
103	adm	active	
104	other	active	
1002	fddi-default	active	
1003	token-ring-default	active	
1004	fddinet-default	active	
1005	trnet-default	active	

VLAN	Type	SAID	MTU	Parent	RingNo	BridgeNo	Stp	BrdgMode	Trans1	Trans2
--More--										

Figure 11: Клиент VTP msk-donskaya-vpkozlov-sw-4



# Сделал msk-pavlovskaya-vpkozlov-sw-1 клиентом VTP

```
msk-pavlovskaya-vpkozlov-sw-1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
msk-pavlovskaya-vpkozlov-sw-1(config)#vtp mode client
Setting device to VTP CLIENT mode.
msk-pavlovskaya-vpkozlov-sw-1(config)#vtp password cisco
Setting device VLAN database password to cisco
msk-pavlovskaya-vpkozlov-sw-1(config)#
%LINK-5-CHANGED: Interface Vlan2, changed state to up

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

msk-pavlovskaya-vpkozlov-sw-1(config)#exit
msk-pavlovskaya-vpkozlov-sw-1#
%SYS-5-CONFIG_I: Configured from console by console

msk-pavlovskaya-vpkozlov-sw-1#wr mem
Building configuration...
[OK]
msk-pavlovskaya-vpkozlov-sw-1#sh vlan
```

VLAN	Name	Status	Ports
1	default	active	Fa0/2, Fa0/3, Fa0/4, Fa0/5 Fa0/6, Fa0/7, Fa0/8, Fa0/9 Fa0/10, Fa0/11, Fa0/12, Fa0/13 Fa0/14, Fa0/15, Fa0/16, Fa0/17 Fa0/18, Fa0/19, Fa0/21, Fa0/22 Fa0/23, Gig0/1, Gig0/2
2	managment	active	
3	servers	active	
101	dk	active	
102	departments	active	
103	adm	active	
104	other	active	
1002	fdi-default	active	
1003	token-ring-default	active	
1004	fdinet-default	active	
1005	trnet-default	active	

VLAN	Type	SAID	MTU	Parent	RingNo	BridgeNo	Stp	BrdgMode	Trans1	Trans2
--More--										

**Figure 12:** Клиент VTP msk-pavlovskaya-vpkozlov-sw-1

# Сконфигурировал диапазоны портов для msk-donskaya-vpkozlov-sw-4

```
msk-donskaya-vpkozlov-sw-4#  
msk-donskaya-vpkozlov-sw-4#conf t  
Enter configuration commands, one per line. End with CNTL/Z.  
msk-donskaya-vpkozlov-sw-4(config)#interface f0/1 - 5  
^  
% Invalid input detected at '^' marker.  
  
msk-donskaya-vpkozlov-sw-4(config)#interface range f0/1 - 5  
msk-donskaya-vpkozlov-sw-4(config-if-range)#switchport mode access  
msk-donskaya-vpkozlov-sw-4(config-if-range)#switchport access vlan 101  
msk-donskaya-vpkozlov-sw-4(config-if-range)#interface range f0/6 - 10  
msk-donskaya-vpkozlov-sw-4(config-if-range)#switchport mode access  
msk-donskaya-vpkozlov-sw-4(config-if-range)#switchport access vlan 102  
msk-donskaya-vpkozlov-sw-4(config-if-range)#interface range f0/11 - 15  
msk-donskaya-vpkozlov-sw-4(config-if-range)#switchport mode access  
msk-donskaya-vpkozlov-sw-4(config-if-range)#switchport access vlan 103  
msk-donskaya-vpkozlov-sw-4(config-if-range)#interface range f0/16 - 24  
msk-donskaya-vpkozlov-sw-4(config-if-range)#switchport mode access  
msk-donskaya-vpkozlov-sw-4(config-if-range)#switchport access vlan 104  
msk-donskaya-vpkozlov-sw-4(config-if-range)#exit  
msk-donskaya-vpkozlov-sw-4(config)#exit  
msk-donskaya-vpkozlov-sw-4#  
%SYS-5-CONFIG_I: Configured from console by console  
  
msk-donskaya-vpkozlov-sw-4#wr mm  
^  
% Invalid input detected at '^' marker.  
  
msk-donskaya-vpkozlov-sw-4#wr mem  
Building configuration...  
[OK]
```

**Figure 13:** Диапазоны портов для msk-donskaya-vpkozlov-sw-4

# Сконфигурировал диапазоны портов для msk-pavlovskaya-vpkozlov-sw-1

```
msk-pavlovskaya-vpkozlov-sw-1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
msk-pavlovskaya-vpkozlov-sw-1(config)#
msk-pavlovskaya-vpkozlov-sw-1(config)#
msk-pavlovskaya-vpkozlov-sw-1(config)#
msk-pavlovskaya-vpkozlov-sw-1(config)#interface f0/1 - 15
                                     ^
% Invalid input detected at '^' marker.

msk-pavlovskaya-vpkozlov-sw-1(config)#interface range f0/1 - 15
msk-pavlovskaya-vpkozlov-sw-1(config-if-range)#switchport mode access
msk-pavlovskaya-vpkozlov-sw-1(config-if-range)#switchport access vlan 101
msk-pavlovskaya-vpkozlov-sw-1(config-if-range)#interface f0/20
msk-pavlovskaya-vpkozlov-sw-1(config-if)#switchport mode access
msk-pavlovskaya-vpkozlov-sw-1(config-if)#switchport access vlan 104
msk-pavlovskaya-vpkozlov-sw-1(config-if)#exit
msk-pavlovskaya-vpkozlov-sw-1(config)#exit
msk-pavlovskaya-vpkozlov-sw-1#
%SYS-5-CONFIG_I: Configured from console by console

msk-pavlovskaya-vpkozlov-sw-1#wr mem
Building configuration...
[OK]
msk-pavlovskaya-vpkozlov-sw-1#
```

**Figure 14:** Диапазоны портов для msk-pavlovskaya-vpkozlov-sw-1

# Сконфигурировал диапазоны портов для msk-donskaya-vpkozlov-sw-2

```
msk-donskaya-vpkozlov-sw-2#conf t
Enter configuration commands, one per line. End with CNTL/Z.
msk-donskaya-vpkozlov-sw-2(config)#interface range f0/1 - 2
msk-donskaya-vpkozlov-sw-2(config-if-range)#switchport mode access
msk-donskaya-vpkozlov-sw-2(config-if-range)#switchport access vlan 101
msk-donskaya-vpkozlov-sw-2(config-if-range)#switchport access vlan 3
msk-donskaya-vpkozlov-sw-2(config-if-range)#sh vlan
^
% Invalid input detected at '^' marker.

msk-donskaya-vpkozlov-sw-2(config-if-range)#exit
msk-donskaya-vpkozlov-sw-2(config)#exit
msk-donskaya-vpkozlov-sw-2#
%SYS-5-CONFIG_I: Configured from console by console

msk-donskaya-vpkozlov-sw-2#sh vlan

VLAN Name                Status    Ports
-----
1    default                active    Fa0/3, Fa0/4, Fa0/5, Fa0/6
                                           Fa0/7, Fa0/8, Fa0/9, Fa0/10
                                           Fa0/11, Fa0/12, Fa0/13, Fa0/14
                                           Fa0/15, Fa0/16, Fa0/17, Fa0/18
                                           Fa0/19, Fa0/20, Fa0/21, Fa0/22
                                           Fa0/23, Fa0/24
2    management            active
3    servers                active    Fa0/1, Fa0/2
101  dk                     active
102  departments            active
103  adm                    active
104  other                  active
1002 fddi-default           active
1003 token-ring-default    active
1004 fddinet-default       active
1005 trnet-default         active

VLAN Type  SAID      MTU    Parent RingNo BridgeNo Stp  BrdgMode Trans1 Trans2
-----
msk-donskaya-vpkozlov-sw-2#wr mem
Building configuration...
[OK]
msk-donskaya-vpkozlov-sw-2#
```

Figure 15: Диапазоны портов для msk-donskaya-vpkozlov-sw-2

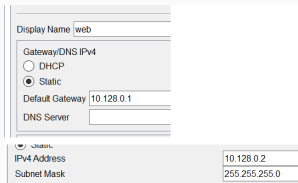
# Сконфигурировал диапазоны портов для msk-donskaya-vpkozlov-sw-3

```
msk-donskaya-vpkozlov-3#conf t
Enter configuration commands, one per line. End with CNTL/Z.
msk-donskaya-vpkozlov-3(config)#interface f0/1
msk-donskaya-vpkozlov-3(config-if)#switchport mode access
msk-donskaya-vpkozlov-3(config-if)#switchport access vlan 3
msk-donskaya-vpkozlov-3(config-if)#exit
msk-donskaya-vpkozlov-3(config)#exit
msk-donskaya-vpkozlov-3#
%SYS-5-CONFIG_i: Configured from console by console

msk-donskaya-vpkozlov-3#wr mem
Building configuration...
[OK]
msk-donskaya-vpkozlov-3#
```

**Figure 16:** Диапазоны портов для msk-donskaya-vpkozlov-sw-3

# Указал ip-адреса для сервера web



The image shows a network configuration window for a server named 'web'. The 'Display Name' is set to 'web'. Under the 'Gateway/DNS IPv4' section, the 'Static' radio button is selected. The 'Default Gateway' is set to '10.128.0.1'. The 'DNS Server' field is empty. Below this, the 'Static' tab is active, showing the 'IPv4 Address' as '10.128.0.2' and the 'Subnet Mask' as '255.255.255.0'.

Display Name	web
Gateway/DNS IPv4	
<input type="radio"/> DHCP	
<input checked="" type="radio"/> Static	
Default Gateway	10.128.0.1
DNS Server	
Static	
IPv4 Address	10.128.0.2
Subnet Mask	255.255.255.0

**Figure 17:** ip-адреса для сервера web

# Указал ip-адреса для сервера file

Display Name: file

Gateway/DNS IPv4

☐ DHCP

☒ Static

Default Gateway: 10.128.0.1

DNS Server:

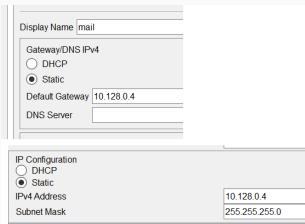
☒ Static

IPv4 Address: 10.128.0.3

Subnet Mask: 255.255.255.0

**Figure 18:** ip-адреса для сервера file

# Указал ip-адреса для сервера mail



The image shows a network configuration window for a device named 'mail'. It is divided into two main sections. The top section, titled 'Gateway/DNS IPv4', contains radio buttons for 'DHCP' and 'Static' (which is selected). Below these are input fields for 'Default Gateway' (containing '10.128.0.4') and 'DNS Server' (empty). The bottom section, titled 'IP Configuration', also has radio buttons for 'DHCP' and 'Static' (selected). It includes input fields for 'IPv4 Address' (containing '10.128.0.4') and 'Subnet Mask' (containing '255.255.255.0').

Display Name		mail
Gateway/DNS IPv4		
<input type="radio"/> DHCP		
<input checked="" type="radio"/> Static		
Default Gateway	10.128.0.4	
DNS Server		
IP Configuration		
<input type="radio"/> DHCP		
<input checked="" type="radio"/> Static		
IPv4 Address	10.128.0.4	
Subnet Mask	255.255.255.0	

**Figure 19:** ip-адреса для сервера mail



# Указал ip-адреса на dk-donskaya-1

Display Name	dk-donskaya-1
Interfaces	FastEthernet0
Gateway/DNS IPv4	
<input type="radio"/> DHCP	
<input checked="" type="radio"/> Static	
Default Gateway	10.128.3.1
DNS Server	
<input type="radio"/> DHCP	
<input checked="" type="radio"/> Static	
IPv4 Address	10.128.3.201
Subnet Mask	255.255.255.0

**Figure 20:** ip-адреса на dk-donskaya-1

# Пропинговал другие ПК

```
C:\>ping 10.128.3.202

Pinging 10.128.3.202 with 32 bytes of data:

Reply from 10.128.3.202: bytes=32 time=1ms TTL=128
Reply from 10.128.3.202: bytes=32 time<1ms TTL=128
Reply from 10.128.3.202: bytes=32 time<1ms TTL=128
Reply from 10.128.3.202: bytes=32 time<1ms TTL=128

Ping statistics for 10.128.3.202:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>ping 10.128.4.201

Pinging 10.128.4.201 with 32 bytes of data:

Request timed out.
Request timed out.
```

**Figure 21:** Отправка и получение пакетов от других ПК

Получил основные навыки по настройке VLAN на коммутаторах сети.