

Лабораторная работа №14

Статическая маршрутизация в Интернете. Настройка

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Настроить взаимодействие через сеть провайдера посредством статической маршрутизации локальной сети организации с сетью основного здания, расположенного в 42-м квартале в Москве, и сетью филиала, расположенного в г. Сочи.

1. Настроить связь между территориями.
2. Настроить оборудование, расположенное в квартале 42 в Москве.
3. Настроить оборудование, расположенное в филиале в г. Сочи.
4. Настроить статическую маршрутизацию между территориями.
5. Настроить статическую маршрутизацию на территории квартала 42 в г. Москве.
6. Настроить NAT на маршрутизаторе msk-donskaya-gw-1.
7. При выполнении работы необходимо учитывать соглашение об именовании.

Выполнение лабораторной работы

Настройка линка между площадками

```
provider-dmbelicheva-sw-1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
provider-dmbelicheva-sw-1(config)#int x0/3
provider-dmbelicheva-sw-1(config-if)#switchport mode trunk

provider-dmbelicheva-sw-1(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3, changed state to up

provider-dmbelicheva-sw-1(config-if)#exit
provider-dmbelicheva-sw-1(config)#int x0/4
provider-dmbelicheva-sw-1(config-if)#switchport mode trunk

provider-dmbelicheva-sw-1(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/4, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/4, changed state to up

provider-dmbelicheva-sw-1(config-if)#exit
provider-dmbelicheva-sw-1(config)#vlan 5
provider-dmbelicheva-sw-1(config-vlan)#name q42
provider-dmbelicheva-sw-1(config-vlan)#exit
provider-dmbelicheva-sw-1(config)#int vlan5
provider-dmbelicheva-sw-1(config-if)#
%LINK-5-CHANGED: Interface Vlan5, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan5, changed state to up

provider-dmbelicheva-sw-1(config-if)#no shutdown
provider-dmbelicheva-sw-1(config-if)#exit
provider-dmbelicheva-sw-1(config)#vlan 6
provider-dmbelicheva-sw-1(config-vlan)#name sochi
provider-dmbelicheva-sw-1(config-vlan)#exit
provider-dmbelicheva-sw-1(config)#int vlan6
provider-dmbelicheva-sw-1(config-if)#
%LINK-5-CHANGED: Interface Vlan6, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan6, changed state to up

provider-dmbelicheva-sw-1(config-if)#no shutdown
provider-dmbelicheva-sw-1(config-if)#exit
```

Рис. 1: Настройка интерфейсов коммутатора provider-dmbelicheva-sw-1

Настройка линка между площадками

```
msk-donskaya-dmbelicheva-gw-1>en
Password:
msk-donskaya-dmbelicheva-gw-1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
msk-donskaya-dmbelicheva-gw-1(config)#int f0/1.5
msk-donskaya-dmbelicheva-gw-1(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/1.5, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1.5, changed state to up

msk-donskaya-dmbelicheva-gw-1(config-subif)#encapsulation dot1Q 5
msk-donskaya-dmbelicheva-gw-1(config-subif)#ip address 10.128.255.1 255.255.255.252
msk-donskaya-dmbelicheva-gw-1(config-subif)#description q42
msk-donskaya-dmbelicheva-gw-1(config-subif)#exit
msk-donskaya-dmbelicheva-gw-1(config)#int f0/1.6
msk-donskaya-dmbelicheva-gw-1(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/1.6, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1.6, changed state to up

msk-donskaya-dmbelicheva-gw-1(config-subif)#encapsulation dot1Q 6
msk-donskaya-dmbelicheva-gw-1(config-subif)#ip address 10.128.255.5 255.255.255.252
msk-donskaya-dmbelicheva-gw-1(config-subif)#description sochi
msk-donskaya-dmbelicheva-gw-1(config-subif)#exit
msk-donskaya-dmbelicheva-gw-1(config)#exit
msk-donskaya-dmbelicheva-gw-1#
%SYS-5-CONFIG_I: Configured from console by console
```

Рис. 2: Настройка интерфейсов маршрутизатора msk-donskaya-dmbelicheva-gw-1

Настройка линка между площадками

```
msk-q42-dmbelicheva-gw-1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
msk-q42-dmbelicheva-gw-1(config)#int f0/1
msk-q42-dmbelicheva-gw-1(config-if)#no shutdown

msk-q42-dmbelicheva-gw-1(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up

msk-q42-dmbelicheva-gw-1(config-if)#exit
msk-q42-dmbelicheva-gw-1(config)#int f0/1.5
msk-q42-dmbelicheva-gw-1(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/1.5, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1.5, changed state to up

msk-q42-dmbelicheva-gw-1(config-subif)#encapsulation dot1Q 5
msk-q42-dmbelicheva-gw-1(config-subif)#ip address 10.128.255.2 255.255.255.252
msk-q42-dmbelicheva-gw-1(config-subif)#description donskaya
msk-q42-dmbelicheva-gw-1(config-subif)#exit
msk-q42-dmbelicheva-gw-1(config)#exit
msk-q42-dmbelicheva-gw-1#
%SYS-5-CONFIG_I: Configured from console by console
```

Рис. 3: Настройка интерфейсов маршрутизатора msk-q42-dmbelicheva-gw-1

Настройка линка между площадками

```
sch-sochi-dmbelicheva-sw-1>en
Password:
sch-sochi-dmbelicheva-sw-1#conf t
Enter configuration commands, one per line. End with CNIL/Z.
sch-sochi-dmbelicheva-sw-1(config)#int f0/23
sch-sochi-dmbelicheva-sw-1(config-if)#switchport mode trunk
sch-sochi-dmbelicheva-sw-1(config-if)#exit
sch-sochi-dmbelicheva-sw-1(config)#int f0/24
sch-sochi-dmbelicheva-sw-1(config-if)#switchport mode trunk
sch-sochi-dmbelicheva-sw-1(config-if)#exit
sch-sochi-dmbelicheva-sw-1(config)#vlan 6
sch-sochi-dmbelicheva-sw-1(config-vlan)#name sochi
sch-sochi-dmbelicheva-sw-1(config-vlan)#exit
sch-sochi-dmbelicheva-sw-1(config)#int vlan6
sch-sochi-dmbelicheva-sw-1(config-if)#
%LINK-5-CHANGED: Interface Vlan6, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan6, changed state to up

sch-sochi-dmbelicheva-sw-1(config-if)#no shutdown
sch-sochi-dmbelicheva-sw-1(config-if)#exit
sch-sochi-dmbelicheva-sw-1(config)#^Z
sch-sochi-dmbelicheva-sw-1#
%SYS-5-CONFIG_I: Configured from console by console

sch-sochi-dmbelicheva-sw-1#
```

Рис. 4: Настройка интерфейсов коммутатора sch-sochi-dmbelicheva-sw-1

Настройка линка между площадками

```
sch-sochi-dmbelicheva-gw-1>en
Password:
sch-sochi-dmbelicheva-gw-1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
sch-sochi-dmbelicheva-gw-1(config)#int f0/0
sch-sochi-dmbelicheva-gw-1(config-if)#no shutdown

sch-sochi-dmbelicheva-gw-1(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

sch-sochi-dmbelicheva-gw-1(config-if)#exit
sch-sochi-dmbelicheva-gw-1(config)#int f0/0.6
sch-sochi-dmbelicheva-gw-1(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/0.6, changed state to up

sch-sochi-dmbelicheva-gw-1(config-subif)#encapsulation dot1Q 6
sch-sochi-dmbelicheva-gw-1(config-subif)#ip address 10.128.255.6 255.255.255.252
sch-sochi-dmbelicheva-gw-1(config-subif)#description donskaya
sch-sochi-dmbelicheva-gw-1(config-subif)#exit
sch-sochi-dmbelicheva-gw-1(config)#^Z
sch-sochi-dmbelicheva-gw-1#
%SYS-5-CONFIG_I: Configured from console by console

sch-sochi-dmbelicheva-gw-1#wr m
```

Рис. 5: Настройка интерфейсов маршрутизатора sch-sochi-dmbelicheva-gw-1

Настройка площадки 42-го квартала

```
msk-q42-dmbelicheva-gw-1(config)#int f0/0
msk-q42-dmbelicheva-gw-1(config-if)#no shutdown

msk-q42-dmbelicheva-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

msk-q42-dmbelicheva-gw-1(config-if)#exit
msk-q42-dmbelicheva-gw-1(config)#int f0/0.201
msk-q42-dmbelicheva-gw-1(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/0.201, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0.201, changed state to up

msk-q42-dmbelicheva-gw-1(config-subif)#encapsulation dot1Q 201
msk-q42-dmbelicheva-gw-1(config-subif)#ip address 10.129.0.1 255.255.255.0
msk-q42-dmbelicheva-gw-1(config-subif)#description q42main
msk-q42-dmbelicheva-gw-1(config-subif)#exit
msk-q42-dmbelicheva-gw-1(config)#int f1/0
msk-q42-dmbelicheva-gw-1(config-if)#no shutdown

msk-q42-dmbelicheva-gw-1(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state to up

msk-q42-dmbelicheva-gw-1(config-if)#exit
msk-q42-dmbelicheva-gw-1(config)#int f1/0.202
msk-q42-dmbelicheva-gw-1(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet1/0.202, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0.202, changed state to up

msk-q42-dmbelicheva-gw-1(config-subif)#encapsulation dot1Q 202
msk-q42-dmbelicheva-gw-1(config-subif)#ip address 10.129.1.1 255.255.255.0
msk-q42-dmbelicheva-gw-1(config-subif)#description q42management
msk-q42-dmbelicheva-gw-1(config-subif)#description q42-management
msk-q42-dmbelicheva-gw-1(config-subif)#exit
msk-q42-dmbelicheva-gw-1(config)#^Z
```

Рис. 6: Настройка интерфейсов маршрутизатора msk-q42-dmbelicheva-gw-1

Настройка площадки 42-го квартала

```
msk-q42-dmbelicheva-sw-1#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
msk-q42-dmbelicheva-sw-1(config)#int f0/24
msk-q42-dmbelicheva-sw-1(config-if)#switchport mode trunk

msk-q42-dmbelicheva-sw-1(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/24, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/24, changed state to up
exit
msk-q42-dmbelicheva-sw-1(config)#inf f0/1
      ^
% Invalid input detected at '^' marker.

msk-q42-dmbelicheva-sw-1(config)#int f0/1
msk-q42-dmbelicheva-sw-1(config-if)#switchport mode access
msk-q42-dmbelicheva-sw-1(config-if)#switchport access vlan 201
% Access VLAN does not exist. Creating vlan 201
msk-q42-dmbelicheva-sw-1(config-if)#exit
msk-q42-dmbelicheva-sw-1(config)#vlan 201
msk-q42-dmbelicheva-sw-1(config-vlan)#name q42-main
msk-q42-dmbelicheva-sw-1(config-vlan)#exit
msk-q42-dmbelicheva-sw-1(config)#int vlan201
msk-q42-dmbelicheva-sw-1(config-if)#
%LINK-5-CHANGED: Interface Vlan201, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan201, changed state to up

msk-q42-dmbelicheva-sw-1(config-if)#no shutdown
msk-q42-dmbelicheva-sw-1(config-if)#exit
msk-q42-dmbelicheva-sw-1(config)#^Z
```

Рис. 7: Настройка интерфейсов коммутатора msk-q42-dmbelicheva-sw-1

Настройка площадки 42-го квартала

```
Enter configuration commands, one per line. End with Ctrl/C.
msk-hostel-dmbelicheva-gw-1(config)#int g0/1
msk-hostel-dmbelicheva-gw-1(config-if)#switchport trunk encapsulation dot1q
msk-hostel-dmbelicheva-gw-1(config-if)#switchport mode trunk

msk-hostel-dmbelicheva-gw-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-hostel-dmbelicheva-gw-1(config-if)#exit
msk-hostel-dmbelicheva-gw-1(config)#int f0/1
msk-hostel-dmbelicheva-gw-1(config-if)#switchport trunk encapsulation dot1q
msk-hostel-dmbelicheva-gw-1(config-if)#switchport mode trunk

msk-hostel-dmbelicheva-gw-1(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up

msk-hostel-dmbelicheva-gw-1(config-if)#exit
msk-hostel-dmbelicheva-gw-1(config)#vlan 202
msk-hostel-dmbelicheva-gw-1(config-vlan)#name q12management
msk-hostel-dmbelicheva-gw-1(config-vlan)#exit
msk-hostel-dmbelicheva-gw-1(config)#vlan 301
msk-hostel-dmbelicheva-gw-1(config-vlan)#name hostel-main
msk-hostel-dmbelicheva-gw-1(config-vlan)#exit
msk-hostel-dmbelicheva-gw-1(config)#int vlan202
msk-hostel-dmbelicheva-gw-1(config-if)#
%LINK-5-CHANGED: Interface Vlan202, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan202, changed state to up

msk-hostel-dmbelicheva-gw-1(config-if)#no shutdown
msk-hostel-dmbelicheva-gw-1(config-if)#ip address 10.129.1.2 255.255.255.0
msk-hostel-dmbelicheva-gw-1(config-if)#exit
msk-hostel-dmbelicheva-gw-1(config)#int vlan301
msk-hostel-dmbelicheva-gw-1(config-if)#
%LINK-5-CHANGED: Interface Vlan301, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan301, changed state to up

msk-hostel-dmbelicheva-gw-1(config-if)#no shutdown
msk-hostel-dmbelicheva-gw-1(config-if)#ip address 10.129.128.1 255.255.255.0
msk-hostel-dmbelicheva-gw-1(config-if)#exit
msk-hostel-dmbelicheva-gw-1(config)#^Z
```

Рис. 8: Настройка интерфейсов маршрутизирующего коммутатора msk-hostel-dmbelicheva-gw-1

Настройка площадки 42-го квартала

```
mask-hostel-dmbelicheva-sw-1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
mask-hostel-dmbelicheva-sw-1(config)#int g0/1
mask-hostel-dmbelicheva-sw-1(config-if)#switchport mode trunk
mask-hostel-dmbelicheva-sw-1(config-if)#exit
mask-hostel-dmbelicheva-sw-1(config)#int f0/1
mask-hostel-dmbelicheva-sw-1(config-if)#switchport mode access
mask-hostel-dmbelicheva-sw-1(config-if)#switchport access vlan 301
% Access VLAN does not exist. Creating vlan 301
mask-hostel-dmbelicheva-sw-1(config-if)#exit
mask-hostel-dmbelicheva-sw-1(config)#vlan 301
mask-hostel-dmbelicheva-sw-1(config-vlan)#name hostel-main
mask-hostel-dmbelicheva-sw-1(config-vlan)#exit
mask-hostel-dmbelicheva-sw-1(config)#int vlan301
mask-hostel-dmbelicheva-sw-1(config-if)#
%LINK-5-CHANGED: Interface Vlan301, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan301, changed state to up

mask-hostel-dmbelicheva-sw-1(config-if)#no shutdown
mask-hostel-dmbelicheva-sw-1(config-if)#exit
mask-hostel-dmbelicheva-sw-1(config)#
```

Рис. 9: Настройка интерфейсов коммутатора msk-hostel-dmbelicheva-sw-1

```
sch-sochi-dmbelicheva-gw-1>en
Password:
sch-sochi-dmbelicheva-gw-1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
sch-sochi-dmbelicheva-gw-1(config)#int f0/0.401
sch-sochi-dmbelicheva-gw-1(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/0.401, changed state to up

sch-sochi-dmbelicheva-gw-1(config-subif)#encapsulation dot1Q 401
sch-sochi-dmbelicheva-gw-1(config-subif)#ip address 10.130.0.1 255.255.255.0
sch-sochi-dmbelicheva-gw-1(config-subif)#description sochimain
sch-sochi-dmbelicheva-gw-1(config-subif)#exit
sch-sochi-dmbelicheva-gw-1(config)#int f0/0.401
sch-sochi-dmbelicheva-gw-1(config-subif)#description sochi-main
sch-sochi-dmbelicheva-gw-1(config-subif)#exit
sch-sochi-dmbelicheva-gw-1(config)#int f0/0.402
sch-sochi-dmbelicheva-gw-1(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/0.402, changed state to up

sch-sochi-dmbelicheva-gw-1(config-subif)#encapsulation dot1Q 402
sch-sochi-dmbelicheva-gw-1(config-subif)#ip address 10.130.1.1 255.255.255.0
sch-sochi-dmbelicheva-gw-1(config-subif)#description sochi-management
sch-sochi-dmbelicheva-gw-1(config-subif)#exit
sch-sochi-dmbelicheva-gw-1(config)#^Z
sch-sochi-dmbelicheva-gw-1#
%SYS-5-CONFIG_I: Configured from console by console

sch-sochi-dmbelicheva-gw-1#wr m
```

Рис. 10: Настройка интерфейсов маршрутизатора sch-sochi-dmbelicheva-gw-1


```
sch-sochi-dmbelicheva-sw-1(config)#int f0/1
sch-sochi-dmbelicheva-sw-1(config-if)#switchport mode access
sch-sochi-dmbelicheva-sw-1(config-if)#switchport access vlan 401
% Access VLAN does not exist. Creating vlan 401
sch-sochi-dmbelicheva-sw-1(config-if)#exit
sch-sochi-dmbelicheva-sw-1(config)#vlan 401
sch-sochi-dmbelicheva-sw-1(config-vlan)#name sochi-main
sch-sochi-dmbelicheva-sw-1(config-vlan)#exit
sch-sochi-dmbelicheva-sw-1(config)#int vlan401
sch-sochi-dmbelicheva-sw-1(config-if)#
%LINK-5-CHANGED: Interface Vlan401, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan401, changed state to up

sch-sochi-dmbelicheva-sw-1(config-if)#no shutdown
sch-sochi-dmbelicheva-sw-1(config-if)#exit
sch-sochi-dmbelicheva-sw-1(config)#^Z
sch-sochi-dmbelicheva-sw-1#
%SYS-5-CONFIG_I: Configured from console by console

sch-sochi-dmbelicheva-sw-1#wr m
Building configuration...
^C
```

Рис. 11: Настройка интерфейсов коммутатора sch-sochi-sw-1

Настройка маршрутизации между площадками

```
msk-donskaya-dmbelicheva-gw-1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
msk-donskaya-dmbelicheva-gw-1(config)#ip route 10.129.0.0 255.255.0.0 10.128.255.2
msk-donskaya-dmbelicheva-gw-1(config)#ip route 10.130.0.0 255.255.0.0 10.128.255.6
msk-donskaya-dmbelicheva-gw-1(config)#^Z
msk-donskaya-dmbelicheva-gw-1#
%SYS-5-CONFIG_I: Configured from console by console
```

Рис. 12: Настройка маршрутизатора msk-donskaya-gw-1

Настройка маршрутизации между площадками

```
Password:
msk-q42-dmbelicheva-gw-1#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
msk-q42-dmbelicheva-gw-1(config)#ip route 0.0.0.0 0.0.0.0 10.128.255.1
msk-q42-dmbelicheva-gw-1(config)#^Z
msk-q42-dmbelicheva-gw-1#
%SYS-5-CONFIG_I: Configured from console by console

msk-q42-dmbelicheva-gw-1#wr m
```

Рис. 13: Настройка маршрутизатора msk-q42-gw-1

Настройка маршрутизации между площадками

```
sch-sochi-dmbelicheva-gw-1#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
sch-sochi-dmbelicheva-gw-1(config)#ip route 0.0.0.0 0.0.0.0 10.128.255.5
sch-sochi-dmbelicheva-gw-1(config)#^Z
sch-sochi-dmbelicheva-gw-1#
%SYS-5-CONFIG_I: Configured from console by console
```

Рис. 14: Настройка маршрутизатора sch-sochi-gw-1

```
{0A}
msk-q42-dmbelicheva-gw-1#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
msk-q42-dmbelicheva-gw-1(config)#ip route 10.129.128.0 255.255.128.0 10.129.1.2
msk-q42-dmbelicheva-gw-1(config)#^Z
msk-q42-dmbelicheva-gw-1#
%SYS-5-CONFIG_I: Configured from console by console
```

Рис. 15: Настройка маршрутизатора msk-q42-gw-1

```
Enter configuration commands, one per line. End with CNTL/Z.  
msk-hostel-dmbelicheva-gw-1(config)#ip routing  
msk-hostel-dmbelicheva-gw-1(config)#ip route 0.0.0.0 0.0.0.0 10.129.1.1  
msk-hostel-dmbelicheva-gw-1(config)#^Z  
msk-hostel-dmbelicheva-gw-1#  
%SYS-5-CONFIG_I: Configured from console by console
```

Рис. 16: Настройка интерфейсов маршрутизирующего коммутатора msk-hostel-gw-1

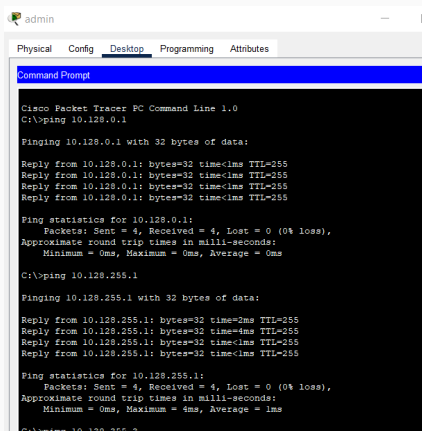
Настройка NAT на маршрутизаторе msk-donskaya-gw-1

```
msk-donskaya-dmbelicheva-gw-1>en
Password:
msk-donskaya-dmbelicheva-gw-1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
msk-donskaya-dmbelicheva-gw-1(config)#ip route 10.129.0.0 255.255.0.0 10.129.255.2
msk-donskaya-dmbelicheva-gw-1(config)#ip route 10.130.0.0 255.255.0.0 10.129.255.6
msk-donskaya-dmbelicheva-gw-1(config)#^Z
msk-donskaya-dmbelicheva-gw-1#
%SYS-5-CONFIG_I: Configured from console by console

msk-donskaya-dmbelicheva-gw-1#wr m
Building configuration...
[OK]
msk-donskaya-dmbelicheva-gw-1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
msk-donskaya-dmbelicheva-gw-1(config)#int f0/1.5
msk-donskaya-dmbelicheva-gw-1(config-subif)#ip nat inside
msk-donskaya-dmbelicheva-gw-1(config-subif)#exit
msk-donskaya-dmbelicheva-gw-1(config)#int f0/1.6
msk-donskaya-dmbelicheva-gw-1(config-subif)#ip nat inside
msk-donskaya-dmbelicheva-gw-1(config-subif)#exit
msk-donskaya-dmbelicheva-gw-1(config)#ip access-list extended nat-inet
msk-donskaya-dmbelicheva-gw-1(config-ext-nacl)#remark q42
msk-donskaya-dmbelicheva-gw-1(config-ext-nacl)#permit ip host 10.129.0.200 any
msk-donskaya-dmbelicheva-gw-1(config-ext-nacl)#permit ip host 10.129.128.200 any
msk-donskaya-dmbelicheva-gw-1(config-ext-nacl)#remark sochi
msk-donskaya-dmbelicheva-gw-1(config-ext-nacl)#permit ip host 10.130.0.200 any
msk-donskaya-dmbelicheva-gw-1(config-ext-nacl)#exit
msk-donskaya-dmbelicheva-gw-1(config)#^Z
msk-donskaya-dmbelicheva-gw-1#
%SYS-5-CONFIG_I: Configured from console by console

msk-donskaya-dmbelicheva-gw-1#wr m
Building configuration...
[OK]
msk-donskaya-dmbelicheva-gw-1#
```

Рис. 17: Настройка NAT на маршрутизаторе msk-donskaya-gw-1



The screenshot shows a Cisco Packet Tracer PC Command Line window for a device named 'admin'. The window has tabs for 'Physical', 'Config', 'Desktop', 'Programming', and 'Attributes', with 'Desktop' currently selected. The Command Prompt displays the output of two ping commands. The first command is 'C:\>ping 10.128.0.1', which shows four successful replies with 32 bytes of data, a time of less than 1ms, and a TTL of 255. The second command is 'C:\>ping 10.128.255.1', which also shows four successful replies with 32 bytes of data, a time of less than 1ms, and a TTL of 255. Both tests show 0% loss and 0ms round trip times.

```
admin
Physical Config Desktop Programming Attributes
Command Prompt

Cisco Packet Tracer PC Command Line 1.0
C:\>ping 10.128.0.1

Pinging 10.128.0.1 with 32 bytes of data:

Reply from 10.128.0.1: bytes=32 time<1ms TTL=255
Reply from 10.128.0.1: bytes=32 time<1ms TTL=255
Reply from 10.128.0.1: bytes=32 time<1ms TTL=255
Reply from 10.128.0.1: bytes=32 time<1ms TTL=255

Ping statistics for 10.128.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 10.128.255.1

Pinging 10.128.255.1 with 32 bytes of data:

Reply from 10.128.255.1: bytes=32 time=2ms TTL=255
Reply from 10.128.255.1: bytes=32 time=4ms TTL=255
Reply from 10.128.255.1: bytes=32 time<1ms TTL=255
Reply from 10.128.255.1: bytes=32 time<1ms TTL=255

Ping statistics for 10.128.255.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 4ms, Average = 1ms

C:\>ping 10.128.255.2
```

Рис. 18: Проверка доступа администратора с Донской к маршрутизирующим устройствам

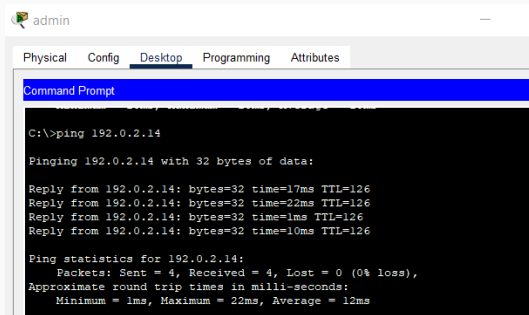


Рис. 19: Проверка доступа в Интернет

В результате выполнения лабораторной были приобретены практические навыки по настройке взаимодействия через сеть провайдера посредством статической маршрутизации локальной сети организации с сетью основного здания, расположенного в 42-м квартале в Москве, и сетью филиала, расположенного в г. Сочи.