



Динамическая маршрутизация

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Группа: НПИбд-01-18

Настройка OSPF

- Настройка маршрутизатора msk-konkova-zikarimov-gw1
- Настройка маршрутизатора msk-q42-zikarimov-gw1
- Настройка маршрутизирующего коммутатора msk-hostel-zikarimov-gw1
- Настройка маршрутизатора sch-sochi-zikarimov-gw1

```
msk-konkova-zikarimov-gw1#sh ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is 198.51.100.1 to network 0.0.0.0

    10.0.0.0/8 is variably subnetted, 18 subnets, 4 masks
C       10.128.0.0/24 is directly connected, FastEthernet0/0.3
L       10.128.0.1/32 is directly connected, FastEthernet0/0.3
C       10.128.1.0/24 is directly connected, FastEthernet0/0.2
L       10.128.1.1/32 is directly connected, FastEthernet0/0.2
C       10.128.3.0/24 is directly connected, FastEthernet0/0.101
L       10.128.3.1/32 is directly connected, FastEthernet0/0.101
C       10.128.4.0/24 is directly connected, FastEthernet0/0.102
L       10.128.4.1/32 is directly connected, FastEthernet0/0.102
C       10.128.5.0/24 is directly connected, FastEthernet0/0.103
L       10.128.5.1/32 is directly connected, FastEthernet0/0.103
C       10.128.6.0/24 is directly connected, FastEthernet0/0.104
--More-- |
```

```
msk-konkova-zikarimov-gw1>en
Password:
msk-konkova-zikarimov-gw1#conf t
Enter configuration commands, one per line. End with
CNTL/Z.
msk-konkova-zikarimov-gw1(config)#router ospf 1
msk-konkova-zikarimov-gw1(config-router)#router-id
10.128.254.1
msk-konkova-zikarimov-gw1(config-router)#network 10.0.0.0
0.255.255.255 area 0
msk-konkova-zikarimov-gw1(config-router)#exit
msk-konkova-zikarimov-gw1(config)#|
```

Настройка линка 42-й квартал-Сочи

- Настройка интерфейсов коммутатора provider-zikarimov-sw1
- Настройка маршрутизатора msk-q42-zikarimov-gw1
- Настройка коммутатора sch-sochi-zikarimov-sw1
- Настройка маршрутизатора sch-sochi-zikarimov-gw1

```
msk-q42-zikarimov-gw1(config)#interface f0/1.7
msk-q42-zikarimov-gw1(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/1.7, changed
state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface
FastEthernet0/1.7, changed state to up

msk-q42-zikarimov-gw1(config-subif)#enc
msk-q42-zikarimov-gw1(config-subif)#encapsulation dot1q 7
msk-q42-zikarimov-gw1(config-subif)#ip adr
msk-q42-zikarimov-gw1(config-subif)#ip add
msk-q42-zikarimov-gw1(config-subif)#ip address
10.128.255.9 255.255.255.252
msk-q42-zikarimov-gw1(config-subif)#des
msk-q42-zikarimov-gw1(config-subif)#description sochi
msk-q42-zikarimov-gw1(config-subif)#^Z
msk-q42-zikarimov-gw1#
```

```
provider-zikarimov-sw1(config)#vlan 7
provider-zikarimov-sw1(config-vlan)#name q42-sochi
provider-zikarimov-sw1(config-vlan)#exit
provider-zikarimov-sw1(config)#interface vlan7
provider-zikarimov-sw1(config-if)#
%LINK-5-CHANGED: Interface Vlan7, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan7,
changed state to up
exit
provider-zikarimov-sw1(config)#exit
```


Отследить движение пакета ICMP

```
C:\>tracert 10.130.0.200
```

```
Tracing route to 10.130.0.200 over a maximum of 30 hops:
```

1	0 ms	0 ms	0 ms	10.128.6.1
2	0 ms	3 ms	10 ms	10.128.255.6
3	10 ms	10 ms	0 ms	10.130.0.200

```
Trace complete.
```

```
C:\>
```

```
provider-zikarimov-sw1(config)#no vlan 6
provider-zikarimov-sw1(config)#
%LINK-3-UPDOWN: Interface Vlan6, changed state to down

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

provider-zikarimov-sw1(config)#exit
provider-zikarimov-sw1#
%SYS-5-CONFIG_I: Configured from console by console
wr m
Building configuration...
[OK]
provider-zikarimov-sw1#
```

```
Physical  Config  Desktop  Programming  Attributes
Command Prompt
Request timed out.
Reply from 10.130.0.200: bytes=32 time<1ms TTL=125
Reply from 10.130.0.200: bytes=32 time=10ms TTL=125
Reply from 10.130.0.200: bytes=32 time=28ms TTL=125

Ping statistics for 10.130.0.200:
    Packets: Sent = 70, Received = 62, Lost = 8 (12%
    loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 42ms, Average = 8ms

Control-C
^C
C:\>tracert 10.130.0.200

Tracing route to 10.130.0.200 over a maximum of 30 hops:

  1  0 ms    0 ms    0 ms    10.128.6.1
  2  0 ms    0 ms   12 ms    10.128.255.2
  3  0 ms   11 ms   10 ms    10.128.255.10
  4  0 ms   10 ms   10 ms    10.130.0.200

Trace complete.

C:\>
```

```
provider-zikarimov-sw1(config)#vlan 6
provider-zikarimov-sw1(config-vlan)#
%LINK-5-CHANGED: Interface Vlan6, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan6,
changed state to up
exit
provider-zikarimov-sw1(config)#e
```

```
admin
Physical  Config  Desktop  Programming  Attributes
Command Prompt
C:\>ping 10.130.0.200

Pinging 10.130.0.200 with 32 bytes of data:

Reply from 10.130.0.200: bytes=32 time<1ms TTL=126
Reply from 10.130.0.200: bytes=32 time=11ms TTL=126
Reply from 10.130.0.200: bytes=32 time=7ms TTL=126
Reply from 10.130.0.200: bytes=32 time=10ms TTL=126

Ping statistics for 10.130.0.200:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 11ms, Average = 7ms

C:\>tracert 10.130.0.200

Tracing route to 10.130.0.200 over a maximum of 30 hops:

  1  0 ms    0 ms    0 ms    10.128.6.1
  2  0 ms    0 ms    0 ms    10.128.255.6
  3  1 ms    0 ms    0 ms    10.130.0.200

Trace complete.

C:\>
```

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