### НИУ ИТМО

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	Отчет по лабораторной работе №2	
по лиси	иплине Алминистрирование систем и сете	·й

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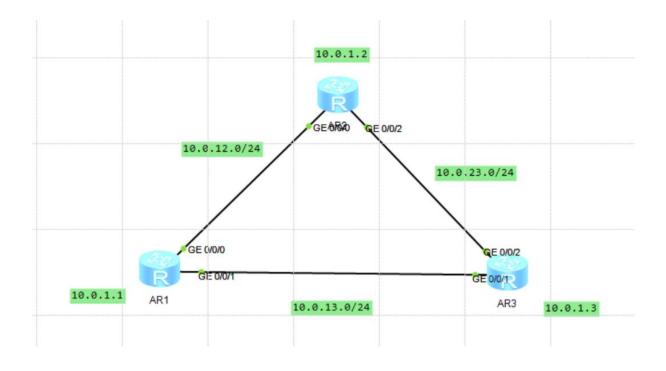
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# Топология



## Конфигурация

## 1 Задание имён устройств

```
<Huawei>syste
<Huawei>system-view
Enter system view, return user view with Ctrl+Z.
[Huawei]sy
[Huawei]sysname AR1
[AR1]
[Huawei]sysname AR2
[AR2]
[Huawei]sysname AR3
[AR3]
```

## 2 Диагностика AR1

```
[AR1]display ip interface brief
*down: administratively down
^down: standby
(1): loopback
(s): spoofing
The number of interface that is UP in Physical is 3
The number of interface that is DOWN in Physical is 1
The number of interface that is UP in Protocol is 1
The number of interface that is DOWN in Protocol is 3
Interface
                                               IP Address/Mask
                                                                            Physical up aowa down down
                                                                             Physical Protocol
                                              unassigned
GigabitEthernet0/0/0
GigabitEthernet0/0/1
                                              unassigned
GigabitEthernet0/0/2
                                               unassigned
                                                                             down
                                                                                             down
                                              unassigned
                                                                                           up(s)
                                                                             up
[AR1]
[AR1]display ip rou
[AR1]display ip routing-table
Route Flags: R - relay, D - download to fib
Routing Tables: Public
            Destinations : 4
                                             Routes : 4
Destination/Mask
                         Proto Pre Cost Flags NextHop
                                                                                           Interface

      127.0.0.0/8
      Direct
      0
      0
      D
      127.0.0.1
      InLoopBack0

      127.0.0.1/32
      Direct
      0
      0
      D
      127.0.0.1
      InLoopBack0

      127.255.255.255/32
      Direct
      0
      0
      D
      127.0.0.1
      InLoopBack0

      255.255.255.255/32
      Direct
      0
      0
      D
      127.0.0.1
      InLoopBack0

[AR1]
```

#### 3 Настройка IP-адресов для физических устройств

#### 3.1 Настройка ІР

```
[AR1]interface Giga
[AR1]interface GigabitEthernet 0/0/0
[AR1-GigabitEthernet0/0/0]ip add
[AR1-GigabitEthernet0/0/0]ip address 10.0.12.1 24
[AR1-GigabitEthernet0/0/0]
Sep 13 2024 19:18:03-08:00 AR1 %%011FNET/4/LINK STATE(1)[2]:The line protocol IP
on the interface GigabitEthernet0/0/0 has entered the UP state.
[AR1-GigabitEthernet0/0/0]quit
[AR1]interfa
[AR1]interface Giga
[AR1]interface GigabitEthernet 0/0/1
[AR1-GigabitEthernet0/0/1]ip add
[AR1-GigabitEthernet0/0/1]ip address 10.0.13.1 24
Sep 13 2024 19:18:34-08:00 AR1 %%01IFNET/4/LINK STATE(1)[3]:The line protocol IP
on the interface GigabitEthernet0/0/1 has entered the UP state.
[AR1-GigabitEthernet0/0/1]quit
[AR1]
[AR2]inter
[AR2]interface Gig
[AR2]interface GigabitEthernet 0/0/0
[AR2-GigabitEthernet0/0/0]ip ad
[AR2-GigabitEthernet0/0/0]ip address 10.0.12.2 24
Sep 13 2024 19:19:24-08:00 AR2 %%01IFNET/4/LINK STATE(1)[0]:The line protocol IP
on the interface GigabitEthernet0/0/0 has entered the UP state.
[AR2-GigabitEthernet0/0/0]quit
[AR2]inte
[AR2]interface Giga
[AR2]interface GigabitEthernet 0/0/2
[AR2-GigabitEthernet0/0/2]ip add
[AR2-GigabitEthernet0/0/2]ip address 10.0.23.2 24
Sep 13 2024 19:19:43-08:00 AR2 %%01IFNET/4/LINK STATE(1)[1]:The line protocol IP
on the interface GigabitEthernet0/0/2 has entered the UP state.
[AR2-GigabitEthernet0/0/2]quit
[AR2]
[AR3]inte
[AR3]interface Gig
[AR3]interface GigabitEthernet 0/0/1
[AR3-GigabitEthernet0/0/1]ip ad
[AR3-GigabitEthernet0/0/1]ip address 10.0.13.3 24
Sep 13 2024 19:20:23-08:00 AR3 %%01IFNET/4/LINK STATE(1)[0]:The line protocol IP
on the interface GigabitEthernet0/0/1 has entered the UP state.
[AR3-GigabitEthernet0/0/1]quit
[AR3]inter
[AR3]interface Gig
[AR3]interface GigabitEthernet 0/0/2
[AR3-GigabitEthernet0/0/2]ip add
[AR3-GigabitEthernet0/0/2]ip address 10.0.23.3 24
Sep 13 2024 19:20:37-08:00 AR3 %%01IFNET/4/LINK STATE(1)[1]:The line protocol IP
on the interface GigabitEthernet0/0/2 has entered the UP state.
[AR3-GigabitEthernet0/0/2]quit
[AR3]
```

### 3.2 Проверка связи

```
[AR1]ping 10.0.12.2
 PING 10.0.12.2: 56 data bytes, press CTRL_C to break
   Reply from 10.0.12.2: bytes=56 Sequence=1 ttl=255 time=90 ms Reply from 10.0.12.2: bytes=56 Sequence=2 ttl=255 time=30 ms
    Reply from 10.0.12.2: bytes=56 Sequence=3 ttl=255 time=30 ms
    Reply from 10.0.12.2: bytes=56 Sequence=4 ttl=255 time=20 ms
   Reply from 10.0.12.2: bytes=56 Sequence=5 ttl=255 time=20 ms
 --- 10.0.12.2 ping statistics ---
   5 packet(s) transmitted
    5 packet(s) received
    0.00% packet loss
    round-trip min/avg/max = 20/38/90 ms
[AR1]
[AR1]ping 10.0.13.3
 PING 10.0.13.3: 56 data bytes, press CTRL_C to break
   Reply from 10.0.13.3: bytes=56 Sequence=1 ttl=255 time=80 ms
    Reply from 10.0.13.3: bytes=56 Sequence=2 ttl=255 time=20 ms
   Reply from 10.0.13.3: bytes=56 Sequence=3 ttl=255 time=20 ms
    Reply from 10.0.13.3: bytes=56 Sequence=4 ttl=255 time=20 ms
   Reply from 10.0.13.3: bytes=56 Sequence=5 ttl=255 time=30 ms
  --- 10.0.13.3 ping statistics ---
   5 packet(s) transmitted
    5 packet(s) received
    0.00% packet loss
   round-trip min/avg/max = 20/34/80 ms
[AR1]
```

#### 3.3 Таблица маршрутизации AR1

ns : 10		Routes :	10		
Proto	Pre	Cost	Flags	NextHop	Interface
Direct	0	0	D	10.0.12.1	GigabitEthernet
Direct	0	0	D	127.0.0.1	GigabitEthernet
Direct	0	0	D	127.0.0.1	GigabitEthernet
Direct	0	0	D	10.0.13.1	GigabitEthernet
Direct	0	0	D	127.0.0.1	GigabitEthernet
Direct	0	0	D	127.0.0.1	GigabitEthernet
Direct Direct Direct Direct	0 0 0	0 0 0	D D D	127.0.0.1 127.0.0.1 127.0.0.1 127.0.0.1	InLoopBack0 InLoopBack0 InLoopBack0 InLoopBack0
	Proto Direct	Proto Pre Direct 0	Proto Pre Cost  Direct 0 0  Direct 0 0	Proto         Pre         Cost         Flags           Direct         0         0         D           Direct         0         0         D	Proto         Pre         Cost         Flags NextHop           Direct         0         0         D         10.0.12.1           Direct         0         0         D         127.0.0.1           Direct         0         0         D         127.0.0.1

[AR1]

## 4 Создание LoopBack интерфейсов

#### 4.1 Создание интерфейсов

```
[AR1]interface LoopBack0
[AR1-LoopBack0]ip addr
[AR1-LoopBack0]ip address 10.0.1.1 32

[AR2]interface LoopBack0
[AR2-LoopBack0]ip add
[AR2-LoopBack0]ip address 10.0.1.2 32

[AR3]interface LoopBack0
[AR3-LoopBack0]ip add
[AR3-LoopBack0]ip add
[AR3-LoopBack0]ip address 10.0.1.3 32
```

#### 4.2 Таблица маршрутизации AR1

```
[AR1]display ip routing-table
Route Flags: R - relay, D - download to fib
Routing Tables: Public
        Destinations : 11
                               Routes : 11
Destination/Mask
                                         Flags NextHop
                   Proto Pre Cost
       10.0.1.1/32 Direct 0
                                0
                                            D 127.0.0.1
                                                                LoopBack0
     10.0.12.0/24 Direct 0
                                           D 10.0.12.1
                                                                GigabitEthernet
0/0/0
     10.0.12.1/32 Direct 0
                                            D 127.0.0.1
                                                                GigabitEthernet
0/0/0
                                             D 127.0.0.1
    10.0.12.255/32 Direct 0
                                                                GigabitEthernet
0/0/0
     10.0.13.0/24 Direct 0
                                             D
                                                10.0.13.1
                                                                 GigabitEthernet
0/0/1
     10.0.13.1/32 Direct 0
                                             D 127.0.0.1
                                 Ω
                                                                 GigabitEthernet
0/0/1
    10.0.13.255/32 Direct 0
                                            D 127.0.0.1
                                                                 GigabitEthernet
0/0/1
     127.0.0.0/8 Direct 0
                              0
                                           D 127.0.0.1
                                                                InLoopBack0
127.0.0.1/32 Direct 0 0
127.255.255.255/32 Direct 0 0
255.255.255.255/32 Direct 0 0
                                          D 127.0.0.1
                                                                InLoopBack0
                                           D 127.0.0.1
D 127.0.0.1
                                                                InLoopBack0
                                                                InLoopBack0
```

[AR1]

#### 4.3 Проверка связи

```
[AR1]ping -a 10.0.1.1 10.0.1.2
PING 10.0.1.2: 56   data bytes, press CTRL_C to break
Request time out
--- 10.0.1.2 ping statistics ---
5 packet(s) transmitted
0 packet(s) received
100.00% packet loss
[AR1]
```

### 5 Настройка статических маршрутов

#### 5.1 Создание статических записей в AR1

```
[AR1]ip route-static 10.0.1.2 32 10.0.12.2 [AR1]ip route-static 10.0.1.3 32 10.0.13.3
```

#### 5.2 Таблица маршрутизации

```
[AR1]display ip routing-table
Route Flags: R - relay, D - download to fib
     Routing Tables: Public
        Destinations: 13
                             Routes : 13
Destination/Mask
                 Proto Pre Cost
                                      Flags NextHop
                                                             Interface
                                       D 127.0.0.1
RD 10.0.12.2
      10.0.1.1/32 Direct 0 0
10.0.1.2/32 Static 60 0
                                                            LoopBack0
                                                             GigabitEthernet
0/0/0
      10.0.1.3/32 Static 60
                             Ο
                                        RD 10.0.13.3
                                                             GigabitEthernet
0/0/1
     10.0.12.0/24 Direct 0
                                          D 10.0.12.1
                                                             GigabitEthernet
0/0/0
     10.0.12.1/32 Direct 0
                                          D
                                             127.0.0.1
                                                             GigabitEthernet
0/0/0
   10.0.12.255/32 Direct 0
                                          D
                                             127.0.0.1
                                                             GigabitEthernet
     10.0.13.0/24 Direct 0
                                          D
                                              10.0.13.1
                                                             GigabitEthernet
0/0/1
     10.0.13.1/32 Direct 0
                                             127.0.0.1
                                                             GigabitEthernet
                               Ω
                                          D
0/0/1
   10.0.13.255/32 Direct 0
                                          D 127.0.0.1
                                                             GigabitEthernet
0/0/1
     127.0.0.0/8 Direct 0
                             Ω
                                         D 127.0.0.1
                                                             InLoopBack0
                                       D 127.0.0.1
127.0.0.1/32 Direct 0 0
127.255.255.255/32 Direct 0 0
255.255.255.255/32 Direct 0 0
                                                            InLoopBack0
                                        D 127.0.0.1
D 127.0.0.1
                                                             InLoopBack0
                                                             InLoopBack0
```

#### 5.3 Проверка связи

```
[AR1]ping -a 10.0.1.1 10.0.1.2
PING 10.0.1.2: 56   data bytes, press CTRL_C to break
Request time out
--- 10.0.1.2 ping statistics ---
5 packet(s) transmitted
0 packet(s) received
100.00% packet loss
```

[AR1]

[AR1]

#### 5.4 Создание статической записи в AR2

[AR2]ip route-static 10.0.1.1 32 10.0.12.1

## 5.5 Проверка связи

```
[AR1]ping -a 10.0.1.1 10.0.1.2

PING 10.0.1.2: 56 data bytes, press CTRL_C to break

Reply from 10.0.1.2: bytes=56 Sequence=1 ttl=255 time=30 ms

Reply from 10.0.1.2: bytes=56 Sequence=2 ttl=255 time=20 ms

Reply from 10.0.1.2: bytes=56 Sequence=3 ttl=255 time=20 ms

Reply from 10.0.1.2: bytes=56 Sequence=4 ttl=255 time=30 ms

Reply from 10.0.1.2: bytes=56 Sequence=5 ttl=255 time=30 ms

--- 10.0.1.2 ping statistics ---

5 packet(s) transmitted

5 packet(s) received

0.00% packet loss

round-trip min/avg/max = 20/26/30 ms
```

#### 5.6 Создание остальных статических записей

```
[AR2]ip route-static 10.0.1.3 32 10.0.23.3 [AR3]ip route-static 10.0.1.1 32 10.0.13.1 [AR3]ip route [AR3]ip route-[AR3]ip route-static 10.0.1.2 32 10.0.23.2
```

## 6 Настройка маршрута от AR1 к AR2 через AR3

#### 6.1 Статические маршруты

```
[AR1]ip route-static 10.0.1.2 32 10.0.13.3 preference 100 [AR2]ip route-static 10.0.1.1 32 10.0.23.3 preference 100
```

## 6.2 Таблицы маршрутизации

[AR1]display ip routing-table
Route Flags: R - relay, D - download to fib

Routing Tables: Destin	Routes : 13					
Destination/Mas	k Proto	Pre	Cost	Flags	NextHop	Interface
10.0.1.1 10.0.1.2 0/0/0		0 60	0	D RD	127.0.0.1 10.0.12.2	LoopBackO GigabitEthernet
10.0.1.3	/32 Static	60	0	RD	10.0.13.3	GigabitEthernet
10.0.12.0	/24 Direct	0	0	D	10.0.12.1	GigabitEthernet
10.0.12.1	/32 Direct	0	0	D	127.0.0.1	GigabitEthernet
10.0.12.255	/32 Direct	0	0	D	127.0.0.1	GigabitEthernet
10.0.13.0	/24 Direct	0	0	D	10.0.13.1	GigabitEthernet
10.0.13.1	/32 Direct	0	0	D	127.0.0.1	GigabitEthernet
10.0.13.255	/32 Direct	0	0	D	127.0.0.1	GigabitEthernet
127.0.0.0 127.0.0.1 127.255.255.255	/32 Direct /32 Direct	0 0 0	0 0 0	D D D	127.0.0.1 127.0.0.1 127.0.0.1	InLoopBack0 InLoopBack0 InLoopBack0
255.255.255.255	/32 Direct	0	0	D	127.0.0.1	InLoopBack0

[AR1]

[AR2]display ip routing-table
Route Flags: R - relay, D - download to fib Routing Tables: Public

Routing	g Tables: Pub. Destination			Routes :	13		
Destina	ation/Mask	Proto	Pre	Cost	Flags	NextHop	Interface
0/0/0	10.0.1.1/32	Static	60	0	RD	10.0.12.1	GigabitEthernet
0/0/0	10.0.1.2/32 10.0.1.3/32	Direct Static	0 60	0 0	D RD	127.0.0.1 10.0.23.3	LoopBackO GigabitEthernet
	10.0.12.0/24	Direct	0	0	D	10.0.12.2	GigabitEthernet
	10.0.12.2/32	Direct	0	0	D	127.0.0.1	GigabitEthernet
-, -, -	.0.12.255/32	Direct	0	0	D	127.0.0.1	GigabitEthernet
	10.0.23.0/24	Direct	0	0	D	10.0.23.2	GigabitEthernet
	10.0.23.2/32	Direct	0	0	D	127.0.0.1	GigabitEthernet
- , - ,	.0.23.255/32	Direct	0	0	D	127.0.0.1	GigabitEthernet
127.255	127.0.0.0/8 127.0.0.1/32 5.255.255/32 5.255.255/32	Direct Direct Direct Direct	0 0 0	0 0 0	D D D	127.0.0.1 127.0.0.1 127.0.0.1 127.0.0.1	InLoopBack0 InLoopBack0 InLoopBack0 InLoopBack0
	. , , , , , , , , , , , , , , , , , , ,		•	-	-	–	<u>F</u> =

[AR2]

#### 6.3 Отключение интерфейса

[AR1]interface GigabitEthernet 0/0/0

[AR1-GigabitEthernet0/0/0] shutdown

Sep 13 2024 19:40:17-08:00 AR1 %%01IFPDT/4/IF\_STATE(1)[4]:Interface GigabitEther net0/0/0 has turned into DOWN state.

[AR1-GigabitEthernet0/0/0]

[AR1-GigabitEthernet0/0/0]

Sep 13 2024 19:40:17-08:00 AR1 %%01IFNET/4/LINK\_STATE(1)[5]:The line protocol IP on the interface GigabitEthernet0/0/0 has entered the DOWN state.

[AR1-GigabitEthernet0/0/0]

## 6.4 Таблицы маршрутизации

[AR1]display ip routing-table

Route Flags: R - relay, D - download to fib

-----

Routing Tables: Public

Destinations: 10 Routes: 10

Destination	n/Mask	Proto	Pre	Cost	Flags	NextHop	Interface
	0.1.1/32	Direct Static	0 100	0 0	D RD	127.0.0.1 10.0.13.3	LoopBackO GigabitEthernet
10.0	0.1.3/32	Static	60	0	RD	10.0.13.3	GigabitEthernet
0/0/1 10.0. 0/0/1	.13.0/24	Direct	0	0	D	10.0.13.1	GigabitEthernet
-, -,	.13.1/32	Direct	0	0	D	127.0.0.1	GigabitEthernet
-, -,	3.255/32	Direct	0	0	D	127.0.0.1	GigabitEthernet
127.0	0.0.0/8	Direct	0	0	D	127.0.0.1	InLoopBack0
127.255.25		Direct Direct	0	0	D D	127.0.0.1 127.0.0.1	InLoopBack0 InLoopBack0
255.255.255	5.255/32	Direct	0	0	D	127.0.0.1	InLoopBack0

[AR1]

 $[{\tt AR2}] \, {\tt display} \, \, {\tt ip} \, \, {\tt routing-table}$ 

Route Flags: R - relay, D - download to fib

<u>-</u>

Routing Tables: Public

Destinations : 10 Routes : 10

Destina	ation/Mask	Proto	Pre	Cost	Flags	NextHop	Interface
0/0/2	10.0.1.1/32	Static	100	0	RD	10.0.23.3	GigabitEthernet
	10.0.1.2/32 10.0.1.3/32	Direct Static	0 60	0	D RD	127.0.0.1 10.0.23.3	LoopBack0 GigabitEthernet
0/0/2							
0/0/2	10.0.23.0/24	Direct	0	0	D	10.0.23.2	GigabitEthernet
0/0/2	10.0.23.2/32	Direct	0	0	D	127.0.0.1	GigabitEthernet
-, -, -	.0.23.255/32	Direct	0	0	D	127.0.0.1	GigabitEthernet
- , - ,	127.0.0.0/8	Direct	0	0	D	127.0.0.1	InLoopBack0
1	127.0.0.1/32	Direct	0	0	D	127.0.0.1	InLoopBack0
127.255	5.255.255/32	Direct	0	0	D	127.0.0.1	InLoopBack0
255.255	5.255.255/32	Direct	0	0	D	127.0.0.1	InLoopBack0

[AR2]

#### 6.5 Проверка связи

```
[AR1]ping -a 10.0.1.1 10.0.1.2

PING 10.0.1.2: 56 data bytes, press CTRL_C to break
Request time out
Reply from 10.0.1.2: bytes=56 Sequence=2 ttl=254 time=20 ms
Reply from 10.0.1.2: bytes=56 Sequence=3 ttl=254 time=40 ms
Reply from 10.0.1.2: bytes=56 Sequence=4 ttl=254 time=30 ms
Reply from 10.0.1.2: bytes=56 Sequence=5 ttl=254 time=30 ms
--- 10.0.1.2 ping statistics ---
5 packet(s) transmitted
4 packet(s) received
20.00% packet loss
round-trip min/avg/max = 20/30/40 ms
```

#### 6.6 Трассировка маршрута

```
[AR1]tracert -a 10.0.1.1 10.0.1.2

traceroute to 10.0.1.2(10.0.1.2), max hops: 30 ,packet length: 40,press CTRL_C

to break

1 10.0.13.3 30 ms 10 ms 20 ms

2 10.0.23.2 20 ms 20 ms 20 ms

[AR1]
```

## 7 Настройка маршрутов по умолчанию

#### 7.1 Включить интерфейсы

```
[AR1]interface GigabitEthernet 0/0/0
[AR1-GigabitEthernet0/0/0]undo shutdown
[AR1-GigabitEthernet0/0/0]quit
Sep 13 2024 19:45:07-08:00 AR1 %%01IFPDT/4/IF_STATE(1)[6]:Interface GigabitEther net0/0/0 has turned into UP state.
[AR1-GigabitEthernet0/0/0]quit
Sep 13 2024 19:45:07-08:00 AR1 %%01IFNET/4/LINK_STATE(1)[7]:The line protocol IP on the interface GigabitEthernet0/0/0 has entered the UP state.
[AR1-GigabitEthernet0/0/0]quit
[AR1]undo ip route-static 10.0.1.2 255.255.255.255 10.0.12.2
[AR1]undo ip route-static 10.0.1.2 255.255.255.255 10.0.13.3 preference 100
```

## 7.2 Таблица маршрутизации

[AR1]display ip routing-table Route Flags: R - relay, D - download to fib

Routing Tables: Pub Destinatio	Routes : 12					
Destination/Mask	Proto	Pre	Cost	Flags	NextHop	Interface
10.0.1.1/32 10.0.1.3/32 0/0/1	Direct Static	0 60	0	D RD	127.0.0.1 10.0.13.3	LoopBackO GigabitEthernet
10.0.12.0/24	Direct	0	0	D	10.0.12.1	GigabitEthernet
10.0.12.1/32	Direct	0	0	D	127.0.0.1	GigabitEthernet
10.0.12.255/32	Direct	0	0	D	127.0.0.1	GigabitEthernet
10.0.13.0/24	Direct	0	0	D	10.0.13.1	GigabitEthernet
10.0.13.1/32	Direct	0	0	D	127.0.0.1	GigabitEthernet
10.0.13.255/32 0/0/1	Direct	0	0	D	127.0.0.1	GigabitEthernet
127.0.0.0/8 127.0.0.1/32	Direct Direct	0	0	D D	127.0.0.1 127.0.0.1	InLoopBack0 InLoopBack0
127.255.255.255/32 255.255.255.255/32	Direct Direct	0	0	D D	127.0.0.1 127.0.0.1	InLoopBack0 InLoopBack0

### 7.3 Настройка маршрута

[AR1]ip route-static 0.0.0.0 0 10.0.12.2

## 7.4 Таблица маршрутизации

[AR1]display ip routing-table
Route Flags: R - relay, D - download to fib

Routing Tables: Pub	lic					
Destinatio			Routes :	13		
Destination/Mask	Proto	Pre	Cost	Flags	NextHop	Interface
0.0.0.0/0	Static	60	0	RD	10.0.12.2	GigabitEthernet
10.0.1.1/32	Direct	0	0	D	127.0.0.1	LoopBack0
10.0.1.3/32	Static	60	0	RD	10.0.13.3	GigabitEthernet
0/0/1						
10.0.12.0/24	Direct	0	0	D	10.0.12.1	GigabitEthernet
0/0/0		_	_			
10.0.12.1/32	Direct	0	0	D	127.0.0.1	GigabitEthernet
0/0/0 10.0.12.255/32 0/0/0	Direct	0	0	D	127.0.0.1	GigabitEthernet
10.0.13.0/24	Direct	0	0	D	10.0.13.1	GigabitEthernet
0/0/1						-
10.0.13.1/32	Direct	0	0	D	127.0.0.1	GigabitEthernet
0/0/1						
10.0.13.255/32	Direct	0	0	D	127.0.0.1	GigabitEthernet
0/0/1						
127.0.0.0/8	Direct	0	0	D	127.0.0.1	InLoopBack0
127.0.0.1/32	Direct	0	0	D	127.0.0.1	InLoopBack0
127.255.255.255/32	Direct	0	0	D	127.0.0.1	InLoopBack0
255.255.255.255/32	Direct	0	0	D	127.0.0.1	InLoopBack0

#### 7.5 Проверка связи

```
[AR1]ping -a 10.0.1.1 10.0.1.2

PING 10.0.1.2: 56 data bytes, press CTRL_C to break

Reply from 10.0.1.2: bytes=56 Sequence=1 ttl=255 time=30 ms

Reply from 10.0.1.2: bytes=56 Sequence=2 ttl=255 time=20 ms

Reply from 10.0.1.2: bytes=56 Sequence=3 ttl=255 time=10 ms

Reply from 10.0.1.2: bytes=56 Sequence=4 ttl=255 time=20 ms

Reply from 10.0.1.2: bytes=56 Sequence=5 ttl=255 time=20 ms

Reply from 10.0.1.2: bytes=56 Sequence=5 ttl=255 time=20 ms

--- 10.0.1.2 ping statistics ---
5 packet(s) transmitted
5 packet(s) received
0.00% packet loss

round-trip min/avg/max = 10/20/30 ms

[AR1]
```