Министерство образования и науки РФ

Федеральное государственное автономное

образовательное учреждение высшего образования

«Национальный исследовательский университет ИТМО»

**факультет программной инженерии и компьютерной техники**

**ЛАБОРАТОРНАЯ РАБОТА №2**

по дисциплине

‘Администрирование систем и сетей’

***Выполнил:***

Студент группы P34312

Соболев Иван Александрович

***Желаемая оценка:*** 3

***Преподаватель:***

Афанасьев Дмитрий Борисович



Санкт-Петербург, 2024

Адресация и маршрутизация IPv4

[Топология 3](#_Toc176615180)

[Конфигурация 3](#_Toc176615181)

[Настройка адресов для физических интерфейсов 3](#_Toc176615182)

[Проверка связи с помощью ping 6](#_Toc176615183)

[Создание loopback-интерфейсов 7](#_Toc176615184)

[Таблица маршрутизации R1 8](#_Toc176615185)

[Проверка связи между loopback-интерфейсами 8](#_Toc176615186)

[Настройка статических маршрутов 8](#_Toc176615187)

[Таблица маршрутизации R1 9](#_Toc176615188)

[Проверка связи между loopback-интерфейсами 10](#_Toc176615189)

[Настройка маршрута от R1 к R2 через R3 в качестве резервного маршрута от LoopBack0 R1 к LoopBack0 R2 10](#_Toc176615190)

[Настройка статических маршрутов R1, R2 10](#_Toc176615191)

[Таблица маршрутизации R1 (до выключения g0/0/0) 11](#_Toc176615192)

[Отключение интерфейса GigabitEthernet0/0/0 на маршрутизаторе R1 11](#_Toc176615193)

[Таблица маршрутизации R1 (после выключения g0/0/0) 11](#_Toc176615194)

[Трассировка маршрута, по которому передаются пакеты с данными 12](#_Toc176615195)

[Настройка маршрутов по умолчанию для установления связи между интерфейсом LoopBack0 маршрутизатора R1 и LoopBack0 R2. 12](#_Toc176615196)

[Включение интерфейсов и удаление настроенных маршрутов 12](#_Toc176615197)

[Таблица маршрутизации R1 13](#_Toc176615198)

[Настройка маршрута по умолчанию на R1 13](#_Toc176615199)

[Таблица маршрутизации R1 13](#_Toc176615200)

[Проверка наличия связи между LoopBack0 маршрутизатора R1 и LoopBack0 маршрутизатора R2 14](#_Toc176615201)

[Вывод 14](#_Toc176615202)

Адресация и маршрутизация IPv4

# Топология

Изображение выглядит как текст, диаграмма, снимок экрана, линия

Автоматически созданное описание

# Конфигурация

## Настройка адресов для физических интерфейсов

R1:

<R1>system-view

Enter system view, return user view with Ctrl+Z.

[R1]interface GigabitEthernet0/0/0

[R1-GigabitEthernet0/0/0]ip address 10.0.12.1 24

Sep 7 2024 17:23:00-08:00 Huawei %%01IFNET/4/LINK\_STATE(l)[0]:The line protocol

IP on the interface GigabitEthernet0/0/0 has entered the UP state.

[R1-GigabitEthernet0/0/0]quit

[R1]interface GigabitEthernet0/0/1

[R1-GigabitEthernet0/0/1]ip address 10.0.13.1 24

Sep 7 2024 17:26:56-08:00 Huawei %%01IFNET/4/LINK\_STATE(l)[1]:The line protocol

IP on the interface GigabitEthernet0/0/1 has entered the UP state.

[R1-GigabitEthernet0/0/1]quit

[R1]display ip interface brief

\*down: administratively down

^down: standby

(l): 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 3

The number of interface that is DOWN in Protocol is 1

Interface IP Address/Mask Physical Protocol

GigabitEthernet0/0/0 10.0.12.1/24 up up

GigabitEthernet0/0/1 10.0.13.1/24 up up

GigabitEthernet0/0/2 unassigned down down

NULL0 unassigned up up(s)

R2:

<R2>system-view

Enter system view, return user view with Ctrl+Z.

[R2]interface GigabitEthernet0/0/0

[R2-GigabitEthernet0/0/0]ip address 10.0.12.2 24

Sep 7 2024 17:33:30-08:00 Huawei %%01IFNET/4/LINK\_STATE(l)[0]:The line protocol

IP on the interface GigabitEthernet0/0/0 has entered the UP state.

[R2-GigabitEthernet0/0/0]quit

[R2]interface GigabitEthernet0/0/1

[R2-GigabitEthernet0/0/1]ip address 10.0.23.2 24

Sep 7 2024 17:35:05-08:00 Huawei %%01IFNET/4/LINK\_STATE(l)[1]:The line protocol

IP on the interface GigabitEthernet0/0/1 has entered the UP state.

[R2-GigabitEthernet0/0/1]quit

[R2]display ip interface brief

\*down: administratively down

^down: standby

(l): 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 3

The number of interface that is DOWN in Protocol is 1

Interface IP Address/Mask Physical Protocol

GigabitEthernet0/0/0 10.0.12.2/24 up up

GigabitEthernet0/0/1 10.0.23.2/24 up up

GigabitEthernet0/0/2 unassigned down down

NULL0 unassigned up up(s)

R3:

<R3>system-view

Enter system view, return user view with Ctrl+Z.

[R3]interface GigabitEthernet0/0/0

[R3-GigabitEthernet0/0/0]ip address 10.0.13.3 24

Sep 7 2024 17:39:15-08:00 Huawei %%01IFNET/4/LINK\_STATE(l)[0]:The line protocol

IP on the interface GigabitEthernet0/0/0 has entered the UP state.

[R3-GigabitEthernet0/0/0]quit

[R3]interface GigabitEthernet0/0/1

[R3-GigabitEthernet0/0/1]ip address 10.0.23.1 24

Sep 7 2024 17:40:09-08:00 Huawei %%01IFNET/4/LINK\_STATE(l)[1]:The line protocol

IP on the interface GigabitEthernet0/0/1 has entered the UP state.

[R3-GigabitEthernet0/0/1]quit

[R3]display ip interface brief

\*down: administratively down

^down: standby

(l): 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 3

The number of interface that is DOWN in Protocol is 1

Interface IP Address/Mask Physical Protocol

GigabitEthernet0/0/0 10.0.13.3/24 up up

GigabitEthernet0/0/1 10.0.23.1/24 up up

GigabitEthernet0/0/2 unassigned down down

NULL0 unassigned up up(s)

|  |  |  |
| --- | --- | --- |
| **Маршрутизатор** | **Интерфейс** | **IP-адрес / маска** |
| R1 | GigabitEthernet0/0/0 | int g0/0/0 ip ad 10.0.12.1 24 |
| GigabitEthernet0/0/1 | int g0/0/2 ip ad 10.0.13.1 24 |
| R2 | GigabitEthernet0/0/0 | int g0/0/0 ip ad 10.0.12.2 24 |
| GigabitEthernet0/0/1 | int g0/0/1 ip ad 10.0.23.2 24 |
| R3 | GigabitEthernet0/0/0 | int g0/0/1 ip ad 10.0.13.3 24 |
| GigabitEthernet0/0/1 | int g0/0/2 ip ad 10.0.23.1 24 |

### Проверка связи с помощью ping

R1-R2:

<R1>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=110 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=10 ms

Reply from 10.0.12.2: bytes=56 Sequence=4 ttl=255 time=10 ms

Reply from 10.0.12.2: bytes=56 Sequence=5 ttl=255 time=30 ms

--- 10.0.12.2 ping statistics ---

5 packet(s) transmitted

5 packet(s) received

0.00% packet loss

round-trip min/avg/max = 10/38/110 ms

R1-R3:

<R1>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=30 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 = 20/24/30 ms

R2-R3:

<R2>ping 10.0.23.1

PING 10.0.23.1: 56 data bytes, press CTRL\_C to break

Reply from 10.0.23.1: bytes=56 Sequence=1 ttl=255 time=30 ms

Reply from 10.0.23.1: bytes=56 Sequence=2 ttl=255 time=40 ms

Reply from 10.0.23.1: bytes=56 Sequence=3 ttl=255 time=20 ms

Reply from 10.0.23.1: bytes=56 Sequence=4 ttl=255 time=20 ms

Reply from 10.0.23.1: bytes=56 Sequence=5 ttl=255 time=20 ms

--- 10.0.23.1 ping statistics ---

5 packet(s) transmitted

5 packet(s) received

0.00% packet loss

round-trip min/avg/max = 20/26/40 ms

## Создание loopback-интерфейсов

R1:

[R1]interface LoopBack0

[R1-LoopBack0]ip address 10.0.1.1 32

R2:

[R2]interface LoopBack0

[R2-LoopBack0]ip address 10.0.1.2 32

R3:

[R3]interface LoopBack0

[R3-LoopBack0]ip address 10.0.1.3 32

|  |  |  |
| --- | --- | --- |
| **Маршрутизатор** | **Интерфейс** | **IP-адрес / маска** |
| R1 | LoopBack0 | int LoopBack0 ip ad 10.0.1.1 32 |
| R2 | LoopBack0 | int LoopBack0 ip ad 10.0.1.2 32 |
| R3 | LoopBack0 | int LoopBack0 ip ad 10.0.1.3 32 |

#### 

### Таблица маршрутизации R1

|  |
| --- |
| <R1>display ip routing-table  Route Flags: R - relay, D - download to fib  ------------------------------------------------------------------------------  Routing Tables: Public  Destinations : 11 Routes : 11  Destination/Mask Proto Pre Cost Flags NextHop Interface  10.0.1.1/32 Direct 0 0 D 127.0.0.1 LoopBack0  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 Direct 0 0 D 127.0.0.1 GigabitEthernet  0/0/0  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 |

### Проверка связи между loopback-интерфейсами

|  |
| --- |
| **[R1]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  Request time out  Request time out  Request time out  Request time out  --- 10.0.1.2 ping statistics --5 packet(s) transmitted  0 packet(s) received  100.00% packet loss |

## Настройка статических маршрутов

|  |
| --- |
| [R1]ip route-static 10.0.1.2 32 10.0.12.2  [R1]ip route-static 10.0.1.3 32 10.0.13.3 |
| [R2]ip route-static 10.0.1.1 32 10.0.12.1  [R2]ip route-static 10.0.1.3 32 10.0.23.1 |
| [R3]ip route-static 10.0.1.1 32 10.0.13.1  [R3]ip route-static 10.0.1.2 32 10.0.23.2 |

### Таблица маршрутизации R1

|  |
| --- |
| [R1]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  10.0.1.1/32 Direct 0 0 D 127.0.0.1 LoopBack0  10.0.1.2/32 Static 60 0 RD 10.0.12.2 GigabitEthernet  0/0/0  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 Direct 0 0 D 127.0.0.1 GigabitEthernet  0/0/0  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 |

### Проверка связи между loopback-интерфейсами

|  |
| --- |
| **[R1]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=10 ms  Reply from 10.0.1.2: bytes=56 Sequence=3 ttl=255 time=30 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  --- 10.0.1.2 ping statistics ---  5 packet(s) transmitted  5 packet(s) received  0.00% packet loss  round-trip min/avg/max = 10/22/30 ms  **[R1]ping -a 10.0.1.1 10.0.1.3**  PING 10.0.1.3: 56 data bytes, press CTRL\_C to break  Reply from 10.0.1.3: bytes=56 Sequence=1 ttl=255 time=30 ms  Reply from 10.0.1.3: bytes=56 Sequence=2 ttl=255 time=20 ms  Reply from 10.0.1.3: bytes=56 Sequence=3 ttl=255 time=30 ms  Reply from 10.0.1.3: bytes=56 Sequence=4 ttl=255 time=20 ms  Reply from 10.0.1.3: bytes=56 Sequence=5 ttl=255 time=30 ms  --- 10.0.1.3 ping statistics ---  5 packet(s) transmitted  5 packet(s) received  0.00% packet loss  round-trip min/avg/max = 20/26/30 ms |

## Настройка маршрута от R1 к R2 через R3 в качестве резервного маршрута от LoopBack0 R1 к LoopBack0 R2

### Настройка статических маршрутов R1, R2

[R1]ip ro 10.0.1.2 32 10.0.13.3 preference 100

[R2]ip ro 10.0.1.1 32 10.0.23.1 preference 100

### Таблица маршрутизации R1 (до выключения g0/0/0)

|  |
| --- |
| [R1]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  10.0.1.1/32 Direct 0 0 D 127.0.0.1 LoopBack0  10.0.1.2/32 Static 60 0 RD 10.0.12.2 GigabitEthernet  0/0/0  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 Direct 0 0 D 127.0.0.1 GigabitEthernet  0/0/0  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 |

### Отключение интерфейса GigabitEthernet0/0/0 на маршрутизаторе R1

|  |
| --- |
| [R1]interface GigabitEthernet0/0/0  [R1-GigabitEthernet0/0/0]shutdown  Sep 7 2024 19:06:12-08:00 R1 %%01IFPDT/4/IF\_STATE(l)[0]:Interface GigabitEthern  et0/0/0 has turned into DOWN state. |

### Таблица маршрутизации R1 (после выключения g0/0/0)

|  |
| --- |
| [R1]display ip routing-table  Route Flags: R - relay, D - download to fib  ------------------------------------------------------------------------------  Routing Tables: Public  Destinations : 10 Routes : 10  Destination/Mask Proto Pre Cost Flags NextHop Interface  10.0.1.1/32 Direct 0 0 D 127.0.0.1 LoopBack0  10.0.1.2/32 Static 100 0 RD 10.0.13.3 GigabitEthernet  0/0/1  10.0.1.3/32 Static 60 0 RD 10.0.13.3 GigabitEthernet  0/0/1  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 |

### Трассировка маршрута, по которому передаются пакеты с данными

|  |
| --- |
| [R1]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 40 ms 20 ms 20 ms  2 10.0.23.2 40 ms 40 ms 10 ms |

## Настройка маршрутов по умолчанию для установления связи между интерфейсом LoopBack0 маршрутизатора R1 и LoopBack0 R2.

### Включение интерфейсов и удаление настроенных маршрутов

[R1]interface GigabitEthernet0/0/0

[R1-GigabitEthernet0/0/0]

[R1-GigabitEthernet0/0/0]undo shutdown

[R1-GigabitEthernet0/0/0]

Sep 7 2024 19:36:48-08:00 R1 %%01IFPDT/4/IF\_STATE(l)[0]:Interface GigabitEthern

et0/0/0 has turned into UP state.

[R1-GigabitEthernet0/0/0]

Sep 7 2024 19:36:48-08:00 R1 %%01IFNET/4/LINK\_STATE(l)[1]:The line protocol IP

on the interface GigabitEthernet0/0/0 has entered the UP state

[R1]undo ip ro 10.0.1.2 32 10.0.12.2

[R1]undo ip ro 10.0.1.2 32 10.0.13.3

### Таблица маршрутизации R1

|  |
| --- |
| **[R1]display ip routing-table**  Route Flags: R - relay, D - download to fib  ------------------------------------------------------------------------------  Routing Tables: Public  Destinations : 12 Routes : 12  Destination/Mask Proto Pre Cost Flags NextHop Interface  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 Direct 0 0 D 127.0.0.1 GigabitEthernet  0/0/0  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 |

### Настройка маршрута по умолчанию на R1

[R1]ip ro 0.0.0.0 0 10.0.12.2

### Таблица маршрутизации R1

|  |
| --- |
| **[R1]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  0.0.0.0/0 Static 60 0 RD 10.0.12.2 GigabitEthernet  0/0/0  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 Direct 0 0 D 127.0.0.1 GigabitEthernet  0/0/0  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 |

### Проверка наличия связи между LoopBack0 маршрутизатора R1 и LoopBack0 маршрутизатора R2

|  |
| --- |
| **[R1]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=60 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=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 = 20/28/60 ms |

# Вывод

В ходе выполнения лабораторной работы я познакомился со средой eNSP и её настройкой, создал первую топологию и назначил адреса и статические маршруты.