



**KHOA CÔNG NGHỆ THÔNG TIN  
BỘ MÔN MẠNG VÀ CÁC HỆ THỐNG THÔNG TIN**

**CHƯƠNG 5 – THỰC HÀNH 02**

**Cấu hình DHCP**

# MỤC TIÊU



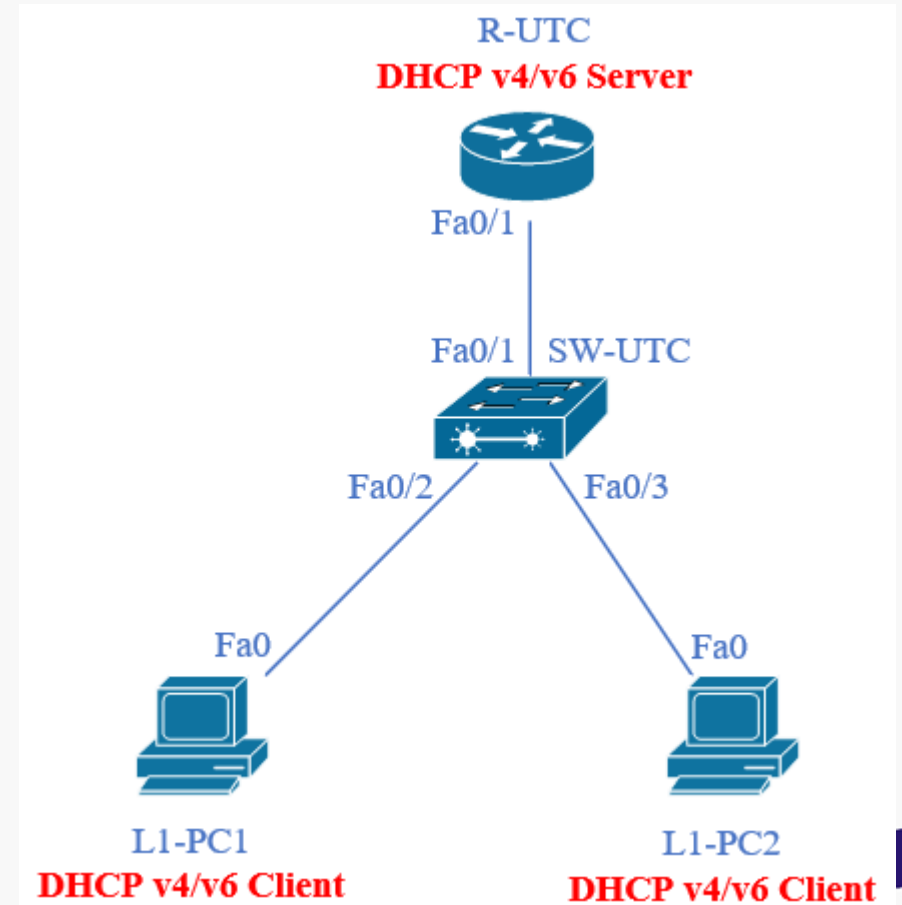
- Hiểu về:
  - ✓ Hoạt động của DHCP
- Cấu hình dịch vụ:
  - ✓ DHCP Server trên Router
  - ✓ DHCP Server trên Máy chủ
  - ✓ DHCP Relay trên Router

- **Phần 1:** Bài tập 01 - Router cung cấp dịch vụ DHCP
- **Phần 2:** Bài tập 02 - Server cung cấp dịch vụ DHCP
- **Phần 3:** Bài tập 03 - Triển khai DHCP qua Router Relay

## Router cung cấp dịch vụ DHCP

### Mô tả yêu cầu

- Tạo Topology mạng (tất cả các thiết bị trên LAN1)
- Cấu hình Bộ định tuyến (R-UTC) cung cấp dịch vụ DHCP v4/v6
- Các PCs nhận IPv4/v6 từ máy chủ DHCP
- Xác định các địa chỉ IPv4/v6 trên các PCs
- Ping v4/v6 từ L1-PC1 đến L1-PC2 và Gateway



# Bài tập 01

## Router cung cấp dịch vụ DHCP

### Mô tả yêu cầu

LAN 1	IPv4 Address	IPv6 Address	Note
Net ID	19.16.20.0/24	2001:DB8:1234:42::/64	
R-UTC	Fa0/1: 19.16.20.1/24	Fa0/1: 2001:DB8:1234:42::1/64	DHCP server
DHCPv4	Pool name: UTC-DHCPv4-pool excluded-address: 19.16.20.1 - 30 network: 19.16.20.0/24 default-router: 19.16.20.1 dns-server: 194.0.1.18		
DHCPv6		Pool name: UTC-DHCPv6-pool interface FastEthernet0/1 network: 2001:DB8:1234:42::/64 dns-server: 2001:678:4::12	
L1-PC1	IPv4 from UTC-DHCPv4-pool	IPv6 from UTC-DHCPv6-pool	DHCP Client
L1-PC2	IPv4 from UTC-DHCPv4-pool	IPv6 from UTC-DHCPv6-pool	DHCP Client

# Bài tập 01

## Router cung cấp dịch vụ DHCP

### Hướng dẫn cấu hình

Cấu hình các địa chỉ trên giao diện FastEthernet0/1 của R-UTC

- R-UTC(config)#interface FastEthernet0/1
- R-UTC(config-if)# ip address 19.16.20.1 255.255.255.0
- R-UTC(config-if)# ipv6 address 2001:DB8:1234:42::1/64
- R-UTC(config-if)# no shut

```
R-UTC#
R-UTC#show ipv6 interface brief
FastEthernet0/0          [administratively down/down]
    unassigned
FastEthernet0/1          [up/up]
    FE80::201:64FF:FE37:C202
    2001:DB8:1234:42::1
Vlan1                    [administratively down/down]
    unassigned
R-UTC#
R-UTC#
R-UTC#show ip interface brief
Interface                IP-Address      OK? Method Status      Protocol
FastEthernet0/0          unassigned      YES unset   administratively down down
FastEthernet0/1          19.16.20.1      YES manual   up          up
Vlan1                    unassigned      YES unset   administratively down down
R-UTC#
```

# Bài tập 01

## Router cung cấp dịch vụ DHCP

### Hướng dẫn cấu hình

#### Cấu hình DHCPv4 Server trên Router

- R-UTC(config)#ip dhcp excluded-address 19.16.20.1 19.16.20.30
- R-UTC(config)#ip dhcp pool UTC-DHCPv4-pool
- R-UTC(dhcp-config)# network 19.16.20.0 255.255.255.0
- R-UTC(dhcp-config)# default-router 19.16.20.1
- R-UTC(dhcp-config)# dns-server 194.0.1.18

```
R-UTC#
R-UTC#show ip dhcp pool UTC-DHCPv4-pool
Pool UTC-DHCPv4-pool :
  Utilization mark (high/low)      : 100 / 0
  Subnet size (first/next)          : 0 / 0
  Total addresses                   : 254
  Leased addresses                  : 0
  Excluded addresses                : 1
  Pending event                    : none

  1 subnet is currently in the pool
  Current index      IP address range      Leased/Excluded/Total
  19.16.20.1         19.16.20.1 - 19.16.20.254  0 / 1 / 254
R-UTC#
R-UTC#
R-UTC#show ip dhcp binding
IP address          Client-ID/      Lease expiration      Type
                   Hardware address
R-UTC#
```

## Router cung cấp dịch vụ DHCP

### Hướng dẫn cấu hình

#### Cấu hình DHCPv6 Server trên Router

- R-UTC(config)#ipv6 dhcp pool UTC-DHCPv6-pool
- R-UTC(config-dhcpv6)# dns-server 2001:678:4::12
- R-UTC(config-dhcpv6)#exit
- R-UTC(config)#interface FastEthernet0/1
- R-UTC(config-if)# ipv6 nd other-config-flag
- R-UTC(config-if)# ipv6 dhcp server UTC-DHCPv6-pool

```
R-UTC#  
R-UTC#show ipv6 dhcp pool  
DHCPv6 pool: UTC-DHCPv6-pool  
DNS server: 2001:678:4::12  
Active clients: 0  
R-UTC#  
R-UTC#  
R-UTC#show ipv6 dhcp binding  
R-UTC#
```



## Router cung cấp dịch vụ DHCP

### Hướng dẫn cấu hình

- Cấu hình clients (L1-PC1, L1-PC2) nhận địa chỉ IPv4/v6 từ dịch vụ DHCP

L1-PC1 Before configuring DHCP

Physical Config Desktop Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address

Subnet Mask

Default Gateway 0.0.0.0

DNS Server 0.0.0.0

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address /

Link Local Address

Default Gateway

DNS Server

L1-PC1 After configuring DHCP

Physical Config Desktop Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☒ DHCP ☐ Static DHCP request successful.

IPv4 Address 19.16.20.31

Subnet Mask 255.255.255.0

Default Gateway 19.16.20.1

DNS Server 194.0.1.18

IPv6 Configuration

☒ Automatic ☐ Static Ipv6 request successful.

IPv6 Address 2001:DB8:1234:42:2E0:B0FF:FE30:59CE / 64

Link Local Address FE80::2E0:B0FF:FE30:59CE

Default Gateway FE80::201:64FF:FE37:C202

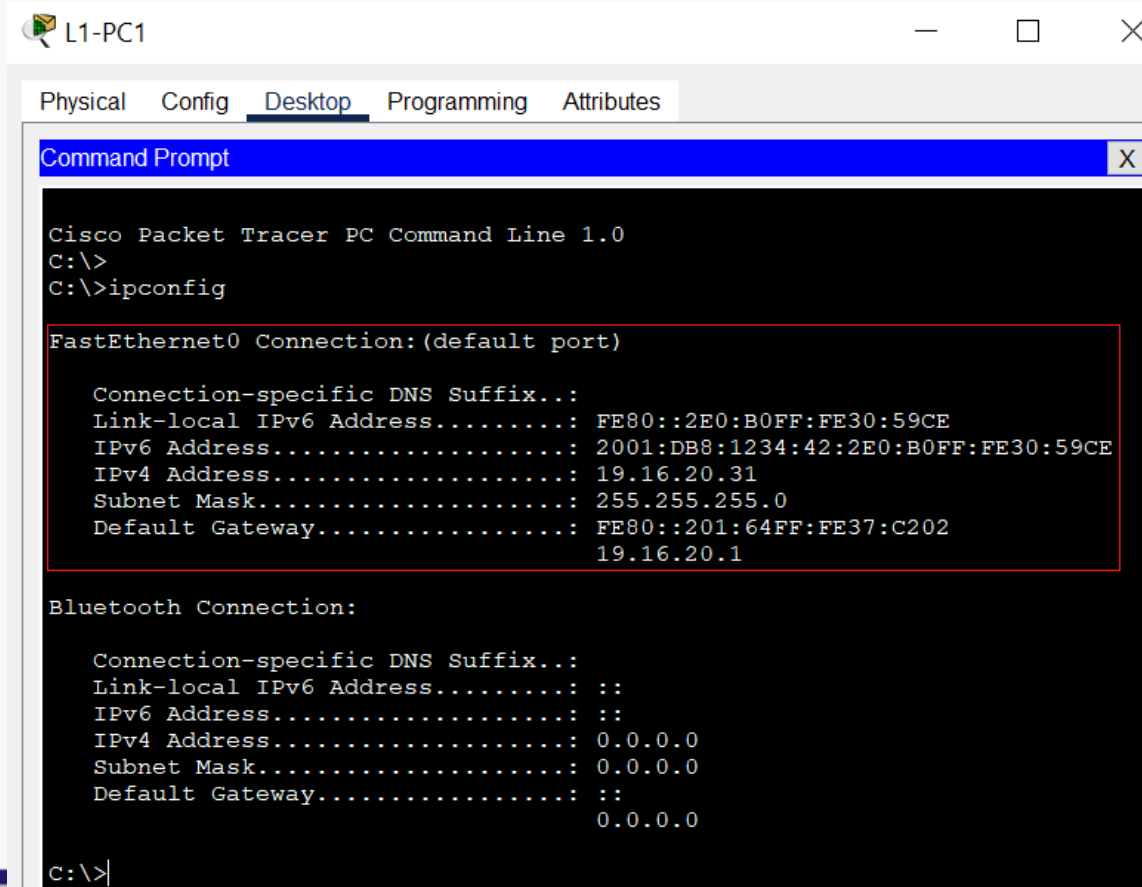
DNS Server 2001:678:4::12

# Bài tập 01

## Router cung cấp dịch vụ DHCP

### Kết quả

- Kiểm tra địa chỉ IP và kết nối giữa hai PCs



```
Cisco Packet Tracer PC Command Line 1.0
C:\>
C:\>ipconfig

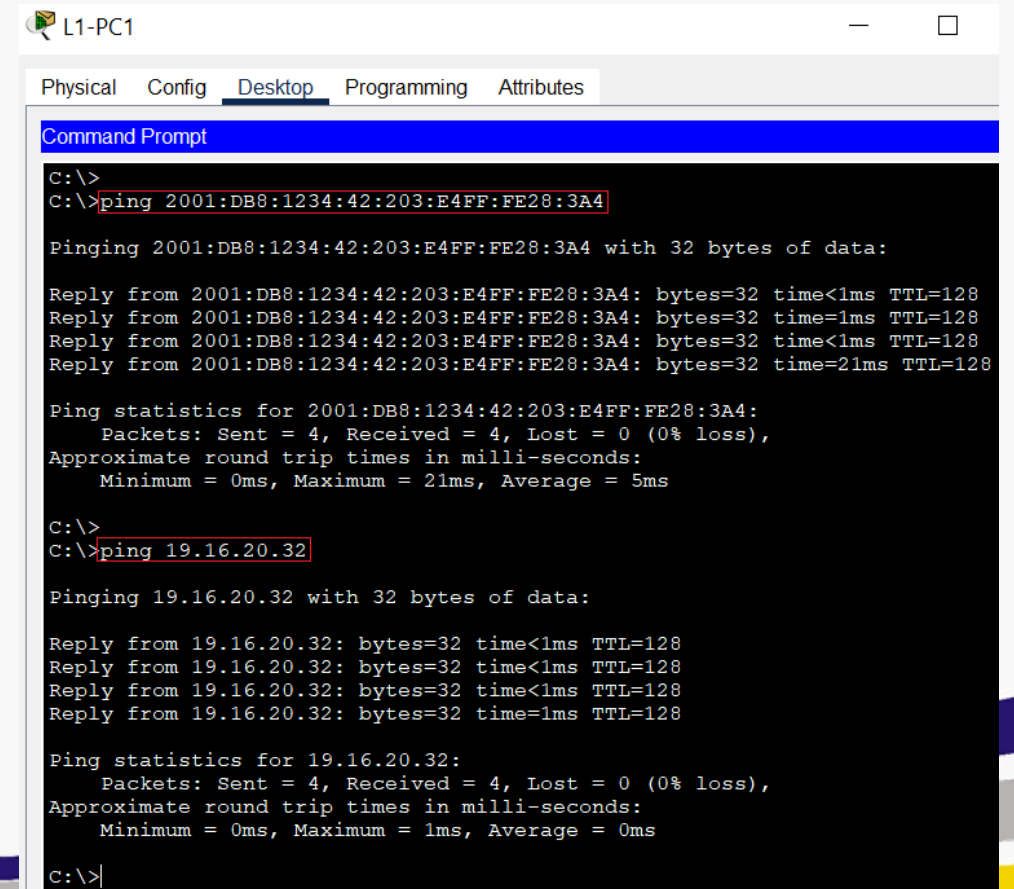
FastEthernet0 Connection:(default port)

    Connection-specific DNS Suffix...:
    Link-local IPv6 Address . . . . .: FE80::2E0:B0FF:FE30:59CE
    IPv6 Address . . . . .: 2001:DB8:1234:42:2E0:B0FF:FE30:59CE
    IPv4 Address . . . . .: 19.16.20.31
    Subnet Mask . . . . .: 255.255.255.0
    Default Gateway . . . . .: FE80::201:64FF:FE37:C202
                                19.16.20.1

Bluetooth Connection:

    Connection-specific DNS Suffix...:
    Link-local IPv6 Address . . . . .: ::
    IPv6 Address . . . . .: ::
    IPv4 Address . . . . .: 0.0.0.0
    Subnet Mask . . . . .: 0.0.0.0
    Default Gateway . . . . .: ::
                                0.0.0.0

C:\>
```



```
C:\>
C:\>ping 2001:DB8:1234:42:203:E4FF:FE28:3A4

Pinging 2001:DB8:1234:42:203:E4FF:FE28:3A4 with 32 bytes of data:

Reply from 2001:DB8:1234:42:203:E4FF:FE28:3A4: bytes=32 time<1ms TTL=128
Reply from 2001:DB8:1234:42:203:E4FF:FE28:3A4: bytes=32 time=1ms TTL=128
Reply from 2001:DB8:1234:42:203:E4FF:FE28:3A4: bytes=32 time<1ms TTL=128
Reply from 2001:DB8:1234:42:203:E4FF:FE28:3A4: bytes=32 time=21ms TTL=128

Ping statistics for 2001:DB8:1234:42:203:E4FF:FE28:3A4:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 21ms, Average = 5ms

C:\>
C:\>ping 19.16.20.32

Pinging 19.16.20.32 with 32 bytes of data:

Reply from 19.16.20.32: bytes=32 time<1ms TTL=128
Reply from 19.16.20.32: bytes=32 time<1ms TTL=128
Reply from 19.16.20.32: bytes=32 time<1ms TTL=128
Reply from 19.16.20.32: bytes=32 time=1ms TTL=128

Ping statistics for 19.16.20.32:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>
```

## Router cung cấp dịch vụ DHCP

### Kết quả

```
R-UTC#  
R-UTC#show ip dhcp binding  
IP address          Client-ID/  
                    Hardware address      Lease expiration      Type  
19.16.20.31         00E0.B030.59CE         --                     Automatic  
19.16.20.32         0003.E428.03A4         --                     Automatic  
R-UTC#  
R-UTC#show ipv6 dhcp binding  
R-UTC#
```

## Server cung cấp dịch vụ DHCP

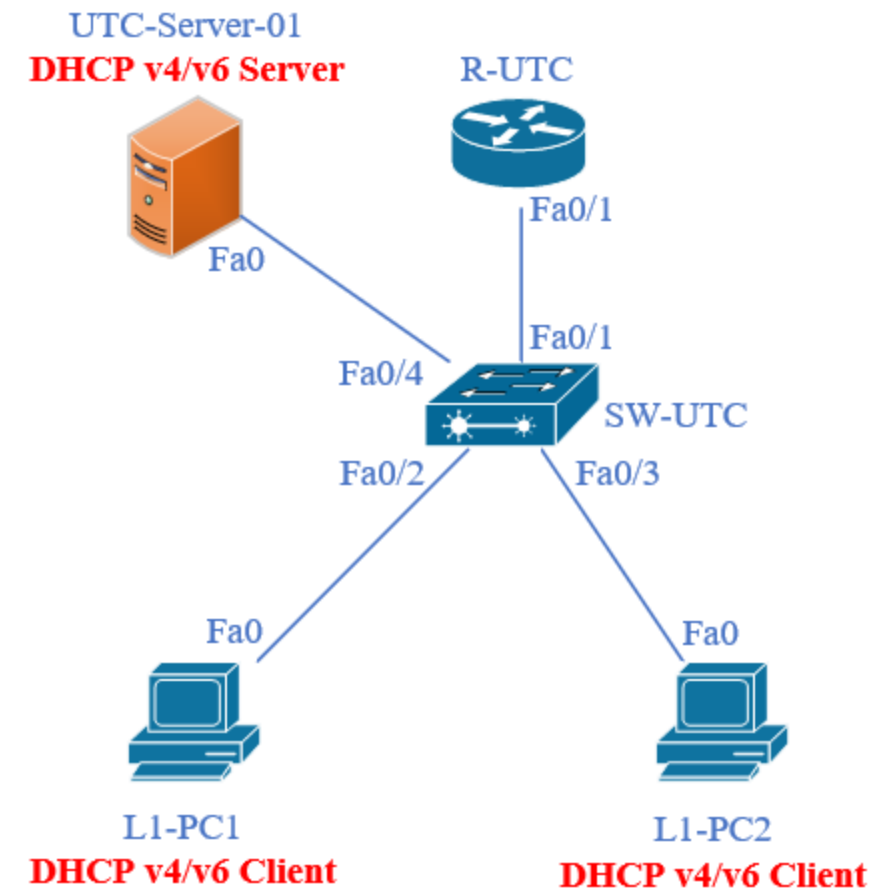
### Mô tả yêu cầu

- Tạo Topology mạng (tất cả các thiết bị trên LAN1)
- Cấu hình UTC-Server-01 làm máy chủ DHCP v4/v6
- Các PCs nhận IPv4/v6 từ máy chủ DHCP
- Xác định các địa chỉ IPv4/v6 trên các PCs
- Ping v4/v6 từ L1-PC1, L1-PC2 tới Gateway, DHCP Server

### Chú ý:

Sau khi kết nối trực tiếp với giao diện đã kích hoạt IPv6 của Router

- Default gateway của host sẽ tự sinh bởi tính năng SLAAC trong IPv6



# Bài tập 02

## Server cung cấp dịch vụ DHCP

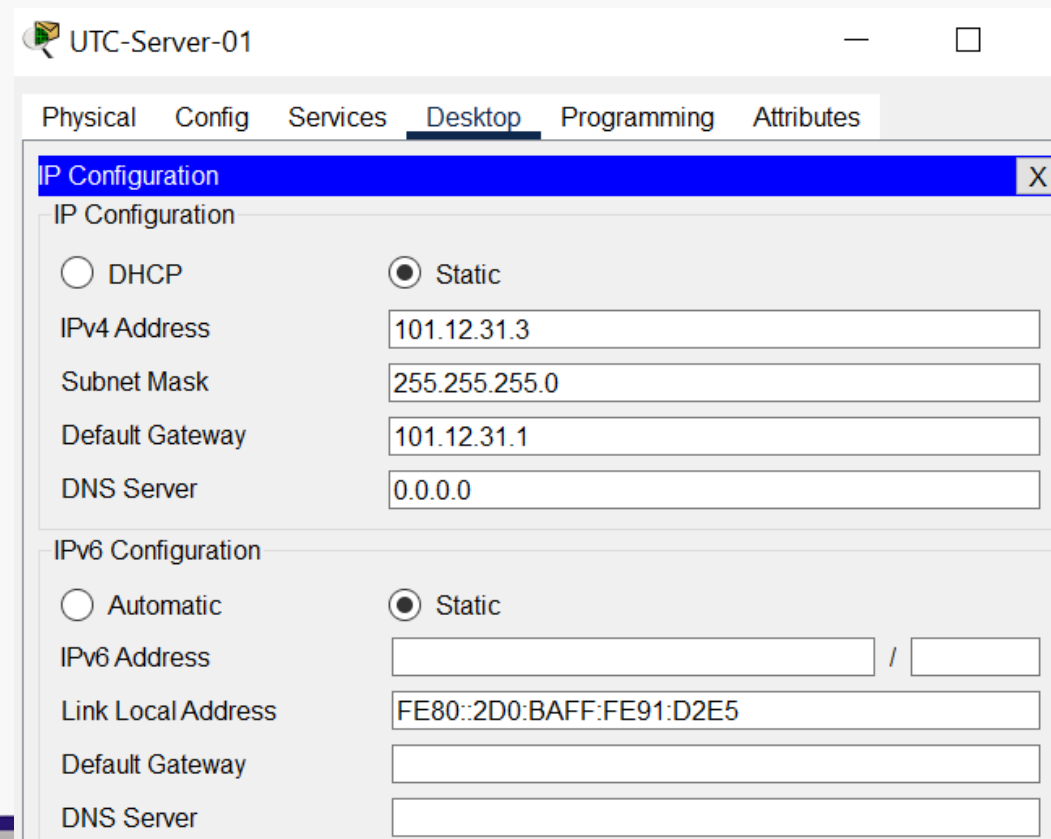
### Mô tả yêu cầu

LAN 1	IPv4 Address	IPv6 Address	Note
Net ID	101.12.31.0/24	20AB:6D:1:E2::/64	
R-UTC	Fa0/1: 101.12.31.1/24	Fa0/1: 20AB:6D:1:E2::1/64	
UTC-Server-01	Fa0: 101.12.31.3/24		
UTC-Server-01 DHCPv4	Pool name: serverPool default gateway: 101.12.31.1 DNS server: 203.119.73.105 Start IP address: 101.12.31.40 Subnet Mask: 255.255.255.0 Maximum Number of Users: 20		DHCPv4 Server
UTC-Server-01 DHCPv6		Pool name: serverPool-v6 DNS server: 2001:DC8:1:2::105 IPv6 Add Prefix: 20AB:6D:1:E2::/64	DHCPv6 Server
L1-PC1	IPv4 from UTC-Server-01	IPv6 from UTC-Server-01	DHCP Client
L1-PC2	IPv4 from UTC-Server-01	IPv6 from UTC-Server-01	DHCP Client

## Server cung cấp dịch vụ DHCP

Hướng dẫn cấu hình

Cấu hình địa chỉ IP trên UTC-Server-01



UTC-Server-01

Physical Config Services **Desktop** Programming Attributes

**IP Configuration** X

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 101.12.31.3

Subnet Mask 255.255.255.0

Default Gateway 101.12.31.1

DNS Server 0.0.0.0

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address /

Link Local Address FE80::2D0:BAFF:FE91:D2E5

Default Gateway

DNS Server

## Server cung cấp dịch vụ DHCP

### Hướng dẫn cấu hình

### Cấu hình dịch vụ DHCPv4 trên máy chủ UTC-Server-01

UTC-Server-01

Physical Config **Services** Desktop Programming Attributes

**SERVICES**

- HTTP
- DHCP**
- DHCPv6
- TFTP
- DNS
- SYSLOG
- AAA
- NTP
- EMAIL
- FTP
- IoT
- VM Management
- Radius EAP

**DHCP**

Interface: FastEthernet0 Service: ☒ On ☐ Off

Pool Name: serverPool

Default Gateway: 101.12.31.1

DNS Server: 203.119.73.105

Start IP Address : 101 12 31 40

Subnet Mask: 255 255 255 0

Maximum Number of Users : 20

TFTP Server: 0.0.0.0

WLC Address: 0.0.0.0

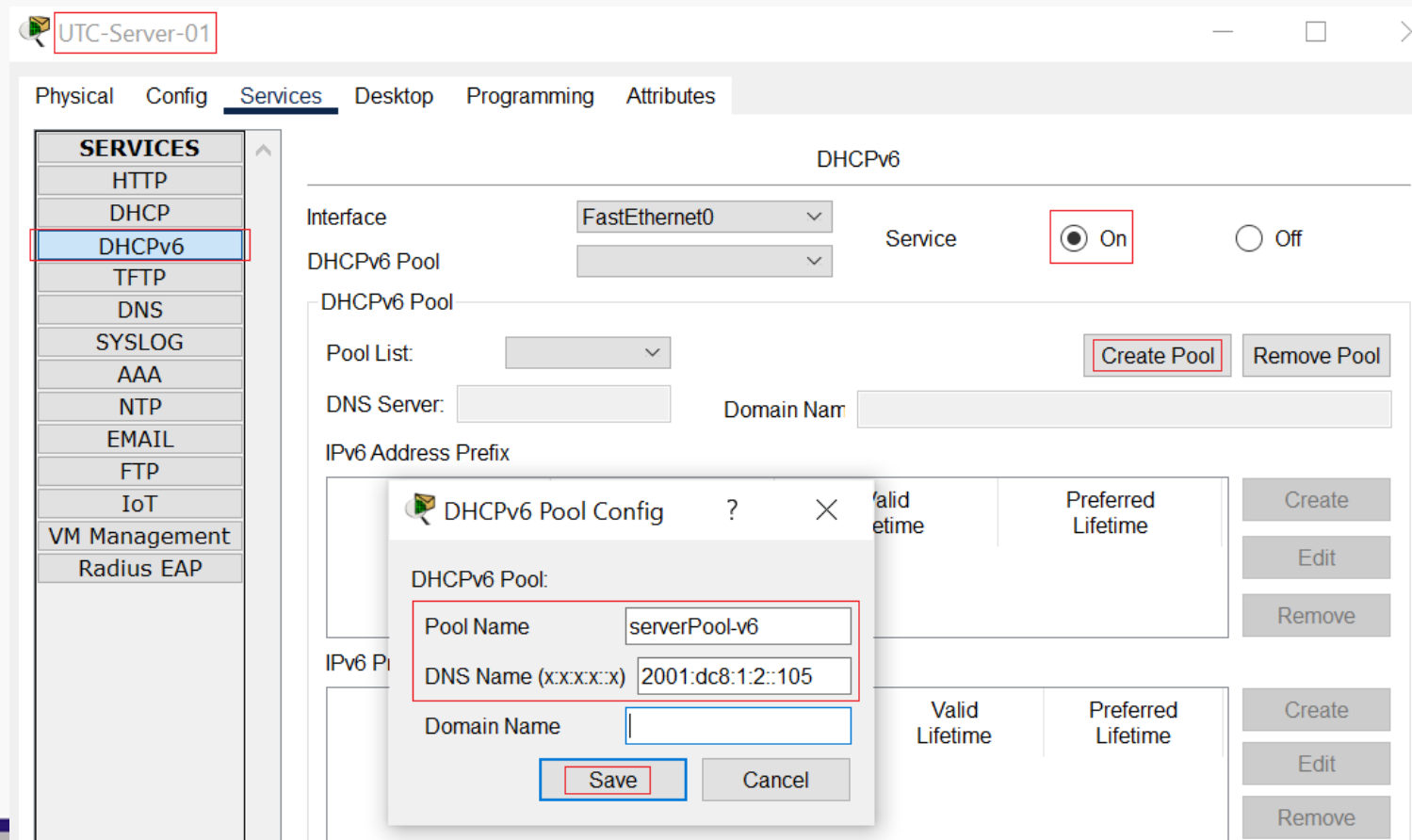
Add Save Remove

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max User	TFTP Server	WLC Address
serverPool	101.12.31.1	203.119.73.105	101.12.31.40	255.255.255.0	20	0.0.0.0	0.0.0.0

## Server cung cấp dịch vụ DHCP

Hướng dẫn cấu hình

Cấu hình dịch vụ DHCPv6 trên máy chủ UTC-Server-01: Create Pool



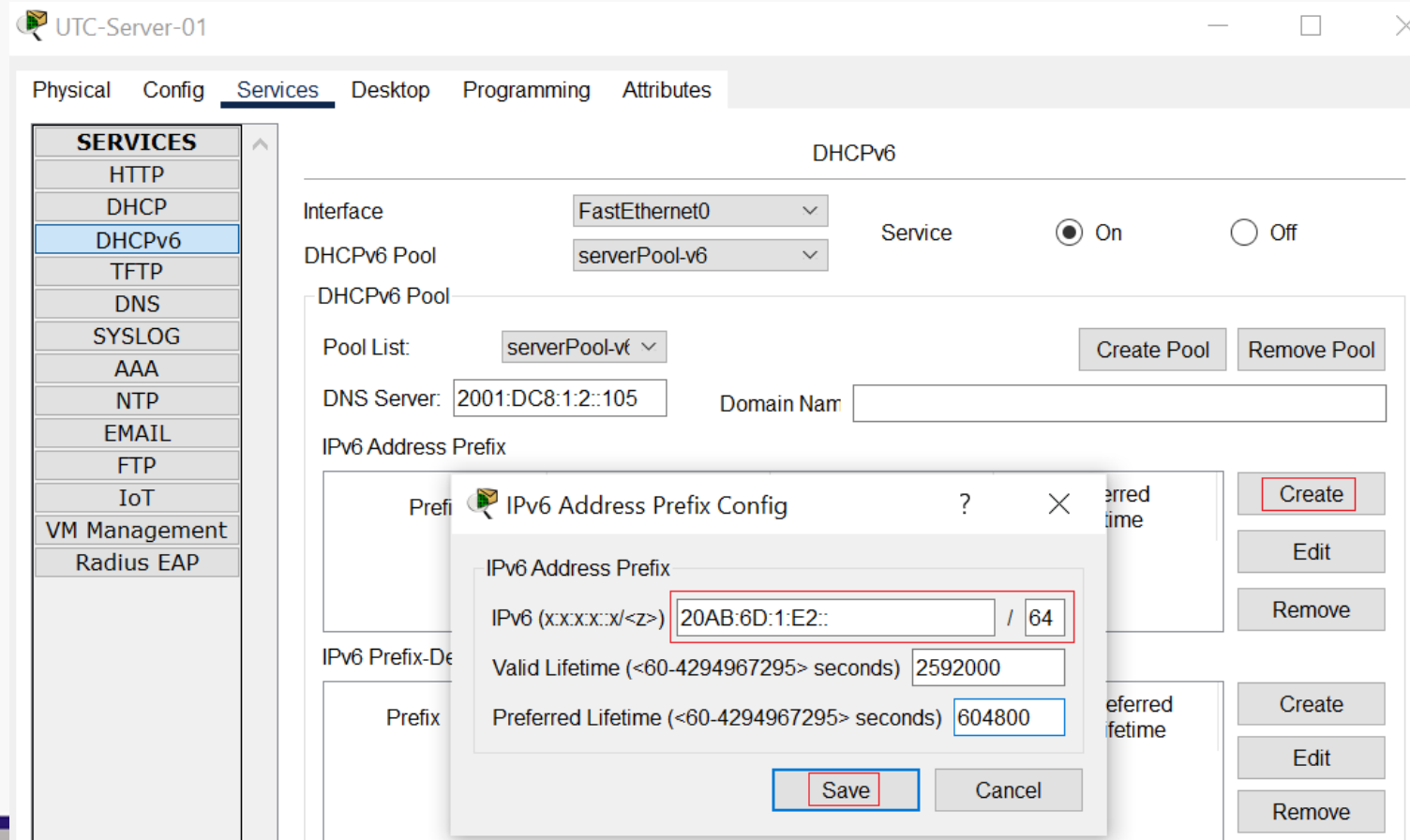
The screenshot displays the configuration interface for UTC-Server-01. The 'Services' tab is selected, and the 'DHCPv6' service is highlighted in the left sidebar. The main configuration area shows the 'Interface' set to 'FastEthernet0' and the 'Service' status set to 'On'. The 'DHCPv6 Pool' section includes a 'Pool List' dropdown, a 'Create Pool' button, and fields for 'DNS Server' and 'Domain Name'. A 'DHCPv6 Pool Config' dialog box is open, showing the 'Pool Name' as 'serverPool-v6', the 'DNS Name (xxxxxx)' as '2001:dc8:1:2::105', and a 'Domain Name' field. The dialog box has 'Save' and 'Cancel' buttons.



## Server cung cấp dịch vụ DHCP

Hướng dẫn cấu hình

Cấu hình dịch vụ DHCPv6 trên máy chủ UTC-Server-01: IPv6 Address Prefix Config



The screenshot displays the configuration interface for UTC-Server-01, specifically the **Services** tab. The **DHCPv6** service is selected in the left-hand menu. The main configuration area shows the **DHCPv6** settings for the **FastEthernet0** interface. The **Service** is set to **On**. The **DHCPv6 Pool** is **serverPool-v6**. The **Pool List** shows **serverPool-v6** with **Create Pool** and **Remove Pool** buttons. The **DNS Server** is **2001:DC8:1:2::105** and the **Domain Name** is empty. The **IPv6 Address Prefix** section is highlighted, and a dialog box titled **IPv6 Address Prefix Config** is open. The dialog box contains the following fields:

- IPv6 Address Prefix**: **20AB:6D:1:E2::** / **64**
- Valid Lifetime (<60-4294967295> seconds)**: **2592000**
- Preferred Lifetime (<60-4294967295> seconds)**: **604800**

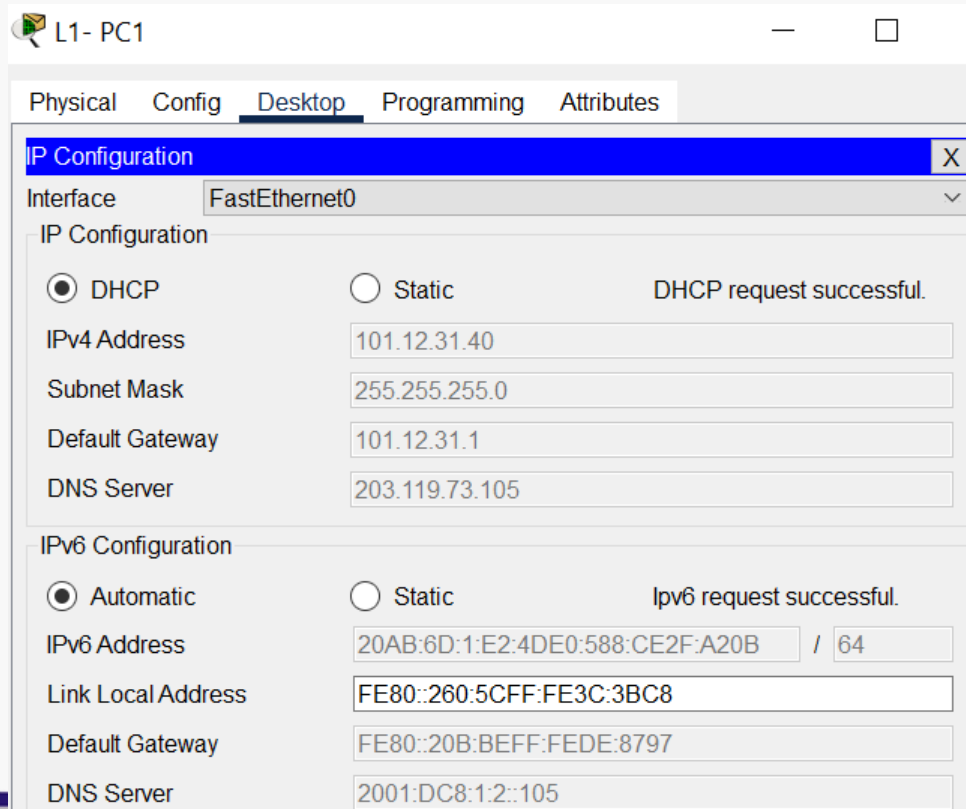
The **Save** button is highlighted in the dialog box. The **Create** button is also highlighted in the background interface.

# Bài tập 02

## Server cung cấp dịch vụ DHCP

### Hướng dẫn cấu hình

Cấu hình clients (L1-PC1, L1-PC2) nhận địa chỉ IPv4/v6 từ dịch vụ DHCP



L1- PC1

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☒ DHCP ☐ Static DHCP request successful.

IPv4 Address 101.12.31.40

Subnet Mask 255.255.255.0

Default Gateway 101.12.31.1

DNS Server 203.119.73.105

IPv6 Configuration

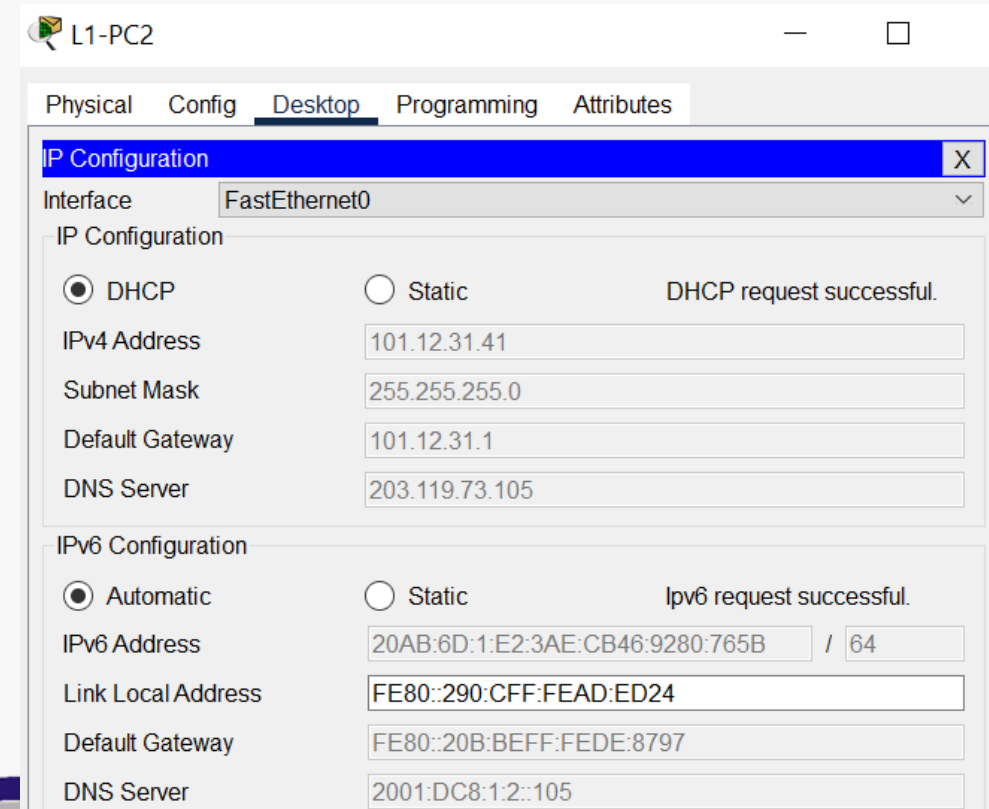
☒ Automatic ☐ Static Ipv6 request successful.

IPv6 Address 20AB:6D:1:E2:4DE0:588:CE2F:A20B / 64

Link Local Address FE80::260:5CFF:FE3C:3BC8

Default Gateway FE80::20B:BEFF:FEDE:8797

DNS Server 2001:DC8:1:2::105



L1- PC2

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☒ DHCP ☐ Static DHCP request successful.

IPv4 Address 101.12.31.41

Subnet Mask 255.255.255.0

Default Gateway 101.12.31.1

DNS Server 203.119.73.105

IPv6 Configuration

☒ Automatic ☐ Static Ipv6 request successful.

IPv6 Address 20AB:6D:1:E2:3AE:CB46:9280:765B / 64

Link Local Address FE80::290:CFF:FEAD:ED24

Default Gateway FE80::20B:BEFF:FEDE:8797

DNS Server 2001:DC8:1:2::105

# Bài tập 02

## Server cung cấp dịch vụ DHCP

### Hướng dẫn cấu hình

Cấu hình các địa chỉ trên giao diện FastEthernet0/1 của R-UTC

- R-UTC(config)#interface FastEthernet0/1
- R-UTC(config-if)# ip address 101.12.31.1 255.255.255.0
- R-UTC(config-if)# ipv6 address 20AB:6D:1:E2::1/64
- R-UTC(config-if)# no shut

```
R-UTC#
R-UTC#show ipv6 int brief
FastEthernet0/0      [administratively down/down]
    unassigned
FastEthernet0/1      [up/up]
    FE80::20B:BEFF:FE9C:A902
    20AB:6D:1:E2::1
Vlan1                [administratively down/down]
    unassigned
R-UTC#
R-UTC#
R-UTC#show ip int brief
Interface            IP-Address      OK? Method Status      Protocol
FastEthernet0/0      unassigned      YES unset   administratively down  down
FastEthernet0/1      101.12.31.1     YES manual   up          up
Vlan1                unassigned      YES unset   administratively down  down
R-UTC#
```

## Server cung cấp dịch vụ DHCP

### Kết quả

Ping từ R-UTC tới tất cả các hosts trên LAN1

```
R-UTC#  
R-UTC#ping 101.12.31.255  
  
Type escape sequence to abort.  
Sending 5, 100-byte ICMP Echos to 101.12.31.255, timeout is 2 seconds:  
  
Reply to request 0 from 101.12.31.3, 0 ms  
Reply to request 0 from 101.12.31.40, 0 ms  
Reply to request 0 from 101.12.31.41, 0 ms  
Reply to request 1 from 101.12.31.40, 0 ms  
Reply to request 1 from 101.12.31.41, 0 ms  
Reply to request 1 from 101.12.31.3, 10 ms  
Reply to request 2 from 101.12.31.3, 0 ms  
Reply to request 2 from 101.12.31.40, 1 ms  
Reply to request 2 from 101.12.31.41, 0 ms  
Reply to request 3 from 101.12.31.3, 0 ms  
Reply to request 3 from 101.12.31.40, 1 ms  
Reply to request 3 from 101.12.31.41, 0 ms  
Reply to request 4 from 101.12.31.3, 0 ms  
Reply to request 4 from 101.12.31.40, 1 ms  
Reply to request 4 from 101.12.31.41, 0 ms  
  
R-UTC#
```

## Triển khai DHCP qua Router Relay

### Mô tả yêu cầu

- Tạo Topology mạng (tham khảo: Chương 3-Thực hành 02-Bài tập 02)
- Cấu hình máy chủ N1-SevUTC-1 cung cấp dịch vụ DHCPv4 cho mạng N2
- Cấu hình Bộ định tuyến R-UTC2 có chức năng DHCPv4 Relay
- Các N2-PCs nhận IPv4 từ máy chủ DHCPv4
- Ping v4/v6 từ các PC trong mạng N1 tới các host trong mạng N2

### Chú ý:

- Router 2811 (Cisco Packet Tracer Ver 8.1.1) không hỗ trợ DHCPv6 Relay

# Bài tập 03

## Triển khai DHCP qua Router Relay

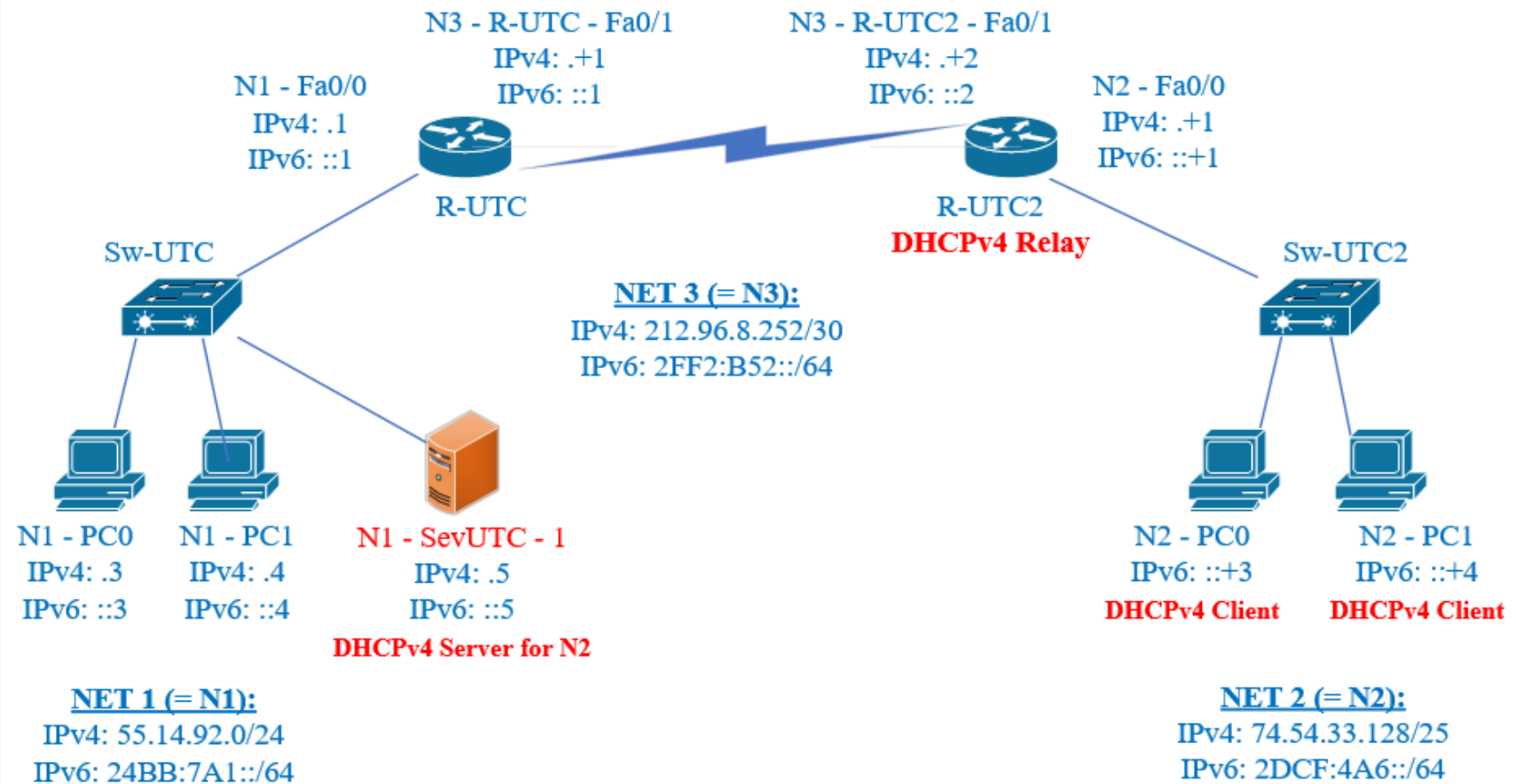
### Mô tả yêu cầu

#### N1-SerUTC-1

- IPv4: 55.14.92.5/24
- IPv6: 24BB:7A1::5/64

#### N1-SerUTC-1: DHCPv4 Server

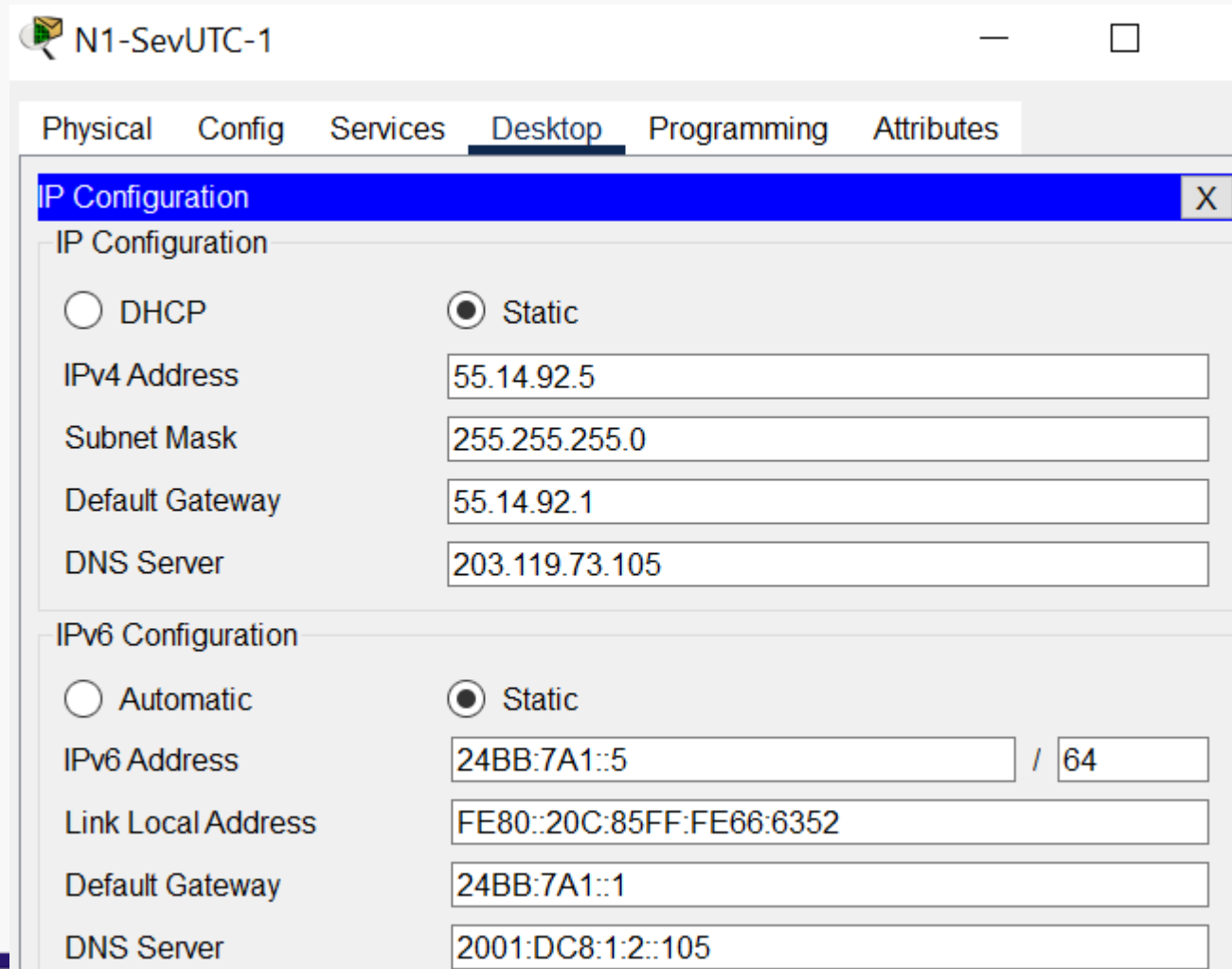
- Pool name: serverPool
- Default gateway: 74.54.33.129
- DNS server: 202.47.142.105
- Start IP address: 74.54.33.149
- Subnet Mask: 255.255.255.128
- Maximum Number of Users: 30



## Triển khai DHCP qua Router Relay

Hướng dẫn cấu hình

Cấu hình địa chỉ IP trên N1-SerUTC-1



The screenshot shows the configuration window for N1-SerUTC-1. The 'Desktop' tab is selected. The 'IP Configuration' section is expanded, showing the following settings:

Configuration Type	IPv4 Address	Subnet Mask	Default Gateway	DNS Server
<input type="radio"/> DHCP				
<input checked="" type="radio"/> Static	55.14.92.5	255.255.255.0	55.14.92.1	203.119.73.105

The 'IPv6 Configuration' section is also expanded, showing the following settings:

Configuration Type	IPv6 Address	Link Local Address	Default Gateway	DNS Server
<input type="radio"/> Automatic				
<input checked="" type="radio"/> Static	24BB:7A1::5 / 64	FE80::20C:85FF:FE66:6352	24BB:7A1::1	2001:DC8:1:2::105

# Bài tập 03

## Triển khai DHCP qua Router Relay

Hướng dẫn cấu hình

Cấu hình dịch vụ DHCPv4 trên máy chủ N1-SerUTC-1

N1-SerUTC-1

Physical Config **Services** Desktop Programming Attributes

**SERVICES**

- HTTP
- DHCP**
- DHCPv6
- TFTP
- DNS
- SYSLOG
- AAA
- NTP
- EMAIL
- FTP
- IoT
- VM Management
- Radius EAP

**DHCP**

Interface: FastEthernet0 Service: ☒ On ☐ Off

Pool Name: serverPool

Default Gateway: 74.54.33.129

DNS Server: 202.47.142.105

Start IP Address: 74 54 33 149

Subnet Mask: 255 255 255 128

Maximum Number of Users: 30

TFTP Server: 0.0.0.0

WLC Address: 0.0.0.0

Add Save Remove

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max User	TFTP Server	WLC Address
serverPool	74.54.33.129	202.47.142.105	74.54.33.149	255.255.255.128	30	0.0.0.0	0.0.0.0



## Triển khai DHCP qua Router Relay

### Hướng dẫn cấu hình

#### Cấu hình DHCP Relay trên R-UTC2

- R-UTC2(config)#interface Fa0/0
- R-UTC2(config-if)#ip helper-address 55.14.92.5

```
interface FastEthernet0/0
 ip address 74.54.33.129 255.255.255.128
 ip helper-address 55.14.92.5
 duplex auto
 speed auto
 ipv6 address 2DCF:4A6::1/64
```

## Triển khai DHCP qua Router Relay

Hướng dẫn cấu hình

Cấu hình DHCPv4 Clients

N2-PC1

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☒ DHCP ☐ Static

IPv4 Address 74.54.33.151

Subnet Mask 255.255.255.128

Default Gateway 74.54.33.129

DNS Server 202.47.142.105

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address 2DCF:4A6::4 / 64

Link Local Address FE80::260:3EFF:FE7B:B566

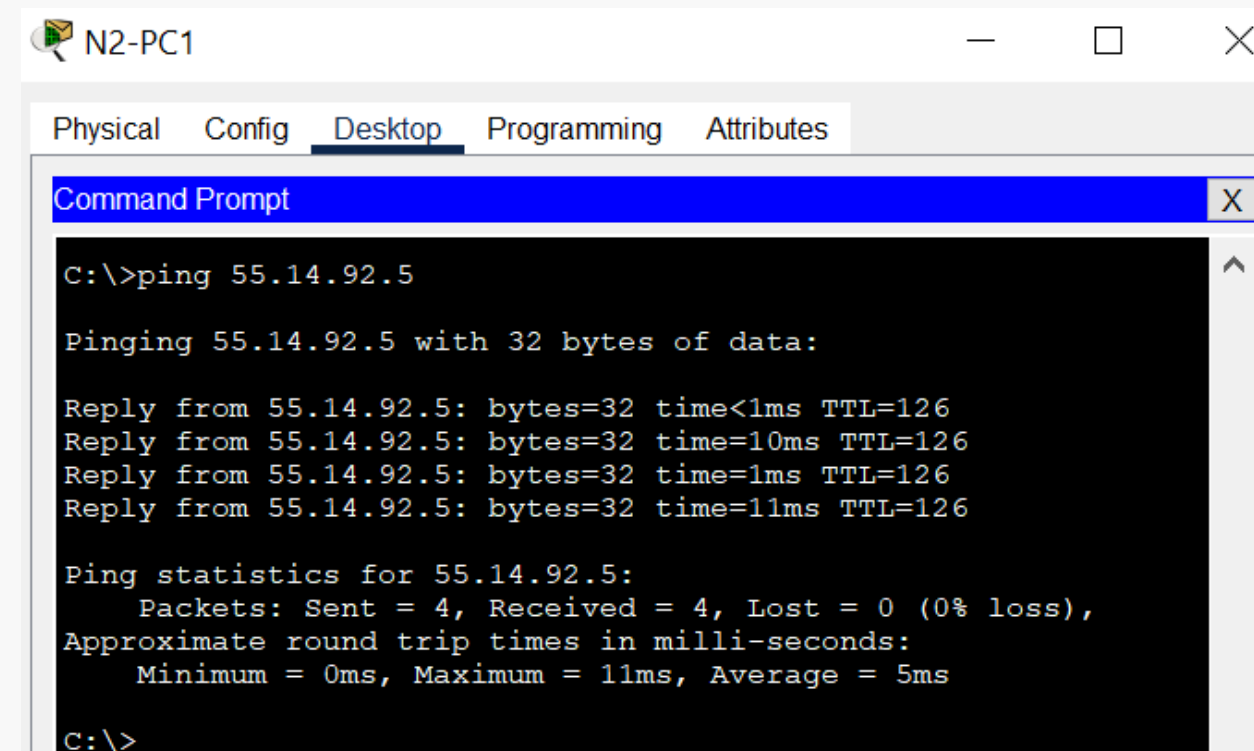
Default Gateway 2DCF:4A6::1

DNS Server 2001:dc8:6000::105

## Triển khai DHCP qua Router Relay

### Kết quả

Ping từ N2-PC1 tới tất cả các host trong mạng N1



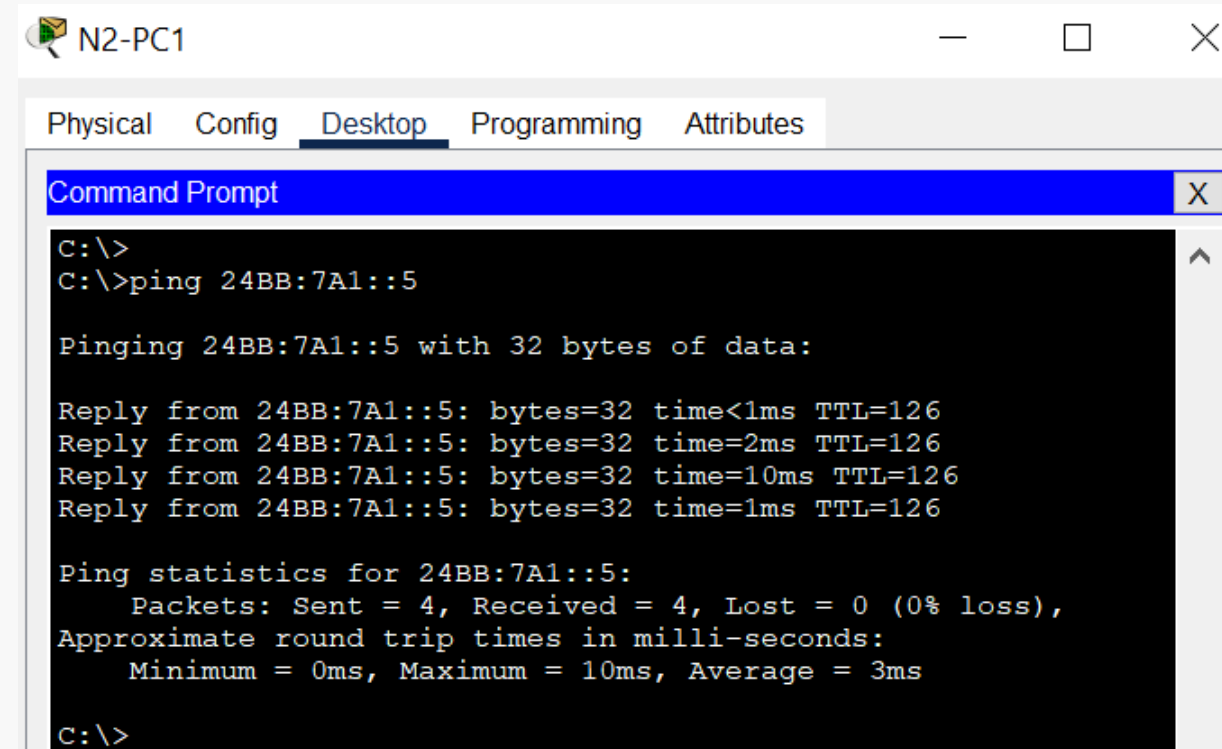
```
N2-PC1
Physical Config Desktop Programming Attributes
Command Prompt
C:\>ping 55.14.92.5

Pinging 55.14.92.5 with 32 bytes of data:

Reply from 55.14.92.5: bytes=32 time<1ms TTL=126
Reply from 55.14.92.5: bytes=32 time=10ms TTL=126
Reply from 55.14.92.5: bytes=32 time=1ms TTL=126
Reply from 55.14.92.5: bytes=32 time=11ms TTL=126

Ping statistics for 55.14.92.5:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 11ms, Average = 5ms

C:\>
```



```
N2-PC1
Physical Config Desktop Programming Attributes
Command Prompt
C:\>
C:\>ping 24BB:7A1::5

Pinging 24BB:7A1::5 with 32 bytes of data:

Reply from 24BB:7A1::5: bytes=32 time<1ms TTL=126
Reply from 24BB:7A1::5: bytes=32 time=2ms TTL=126
Reply from 24BB:7A1::5: bytes=32 time=10ms TTL=126
Reply from 24BB:7A1::5: bytes=32 time=1ms TTL=126

Ping statistics for 24BB:7A1::5:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 10ms, Average = 3ms

C:\>
```

# **Trao đổi và Thảo luận**