

Abubakkar Abdullah

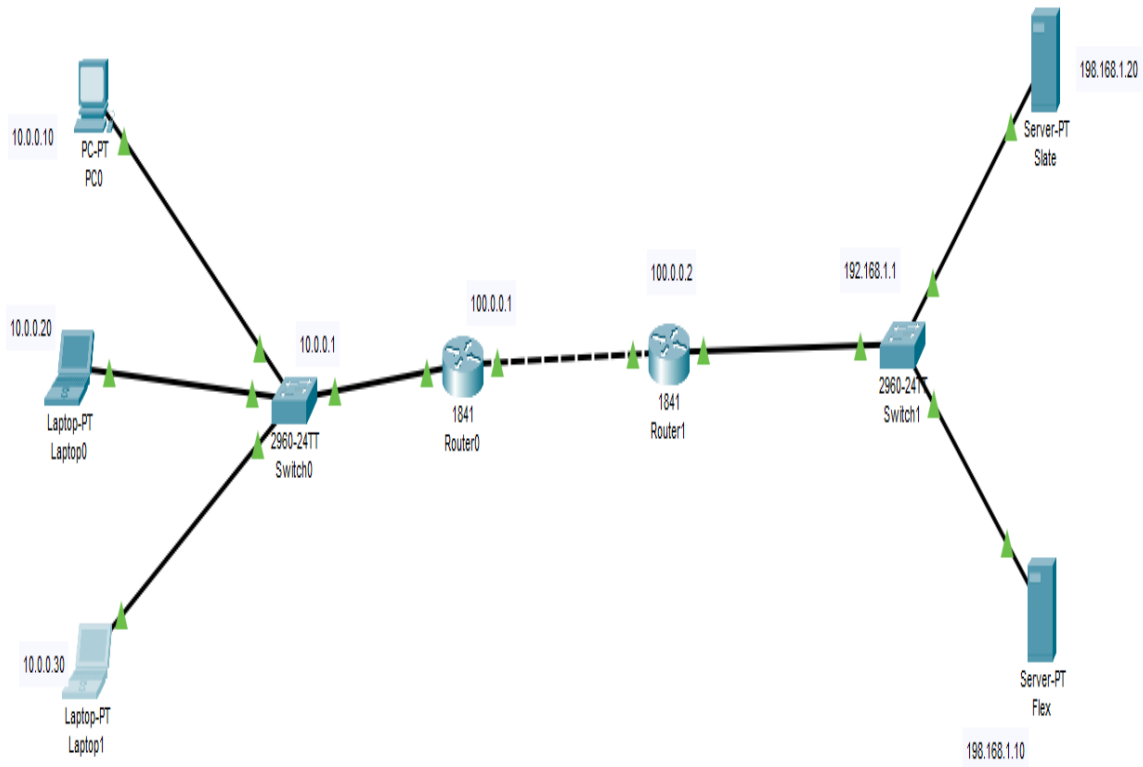
20p-0045

Section-5B

BCS

Lab-12 Task

Diagrammatically:



Diagrammatically:

The screenshot shows a network management interface with tabs: Physical, Config, Services, Desktop, Programming, and Attributes. The 'Desktop' tab is selected. A window titled 'IP Configuration' is open, showing the following settings:

IP Configuration	
<input type="radio"/> DHCP	<input checked="" type="radio"/> Static
IPv4 Address	198.168.1.20
Subnet Mask	255.255.255.0
Default Gateway	198.168.1.1

The screenshot shows the same network management interface with the 'Desktop' tab selected. The 'IP Configuration' window is open, displaying both IPv4 and IPv6 configuration sections. The '802.1X' section is also visible.

IP Configuration	
<input type="radio"/> DHCP	<input checked="" type="radio"/> Static
IPv4 Address	192.168.1.10
Subnet Mask	255.255.255.0
Default Gateway	192.168.1.1
DNS Server	0.0.0.0
IPv6 Configuration	
<input type="radio"/> Automatic	<input checked="" type="radio"/> Static
IPv6 Address	
Link Local Address	FE80::20B:BEFF:FE88:9C8B
Default Gateway	
DNS Server	
802.1X	
<input type="checkbox"/> Use 802.1X Security	
Authentication	MD5
Username	
Password	

Diagrammatically:

```
Router0
Physical Config CLI Attributes
IOS Command Line Interface
191K bytes of NVRAM.
63408K bytes of ATA CompactFlash (Read/Write)
Cisco IOS Software, 1841 Software (C1841-ADVIPSERVICESK9-M), Version 12.4(15)T1, RELEASE
SOFTWARE (fc2)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2007 by Cisco Systems, Inc.
Compiled Wed 18-Jul-07 04:52 by pt_team

Press RETURN to get started!

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up

R1>en
R1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#int fa0/0
R1(config-if)#ip add
% Incomplete command.
R1(config-if)#exit
R1(config)#interface FastEthernet0/0
R1(config-if)#ip address 10.0.0.1 255.0.0.0
R1(config-if)#ip address 10.0.0.1 255.0.0.0
R1(config-if)#
R1(config-if)#exit
R1(config)#interface FastEthernet0/0
R1(config-if)#
R1(config-if)#exit
R1(config)#interface FastEthernet0/1
R1(config-if)#ip address 100.0.0.1 255.0.0.0
R1(config-if)#ip address 100.0.0.1 255.0.0.0
R1(config-if)#
```

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```
Router1

Physical Config CLI Attributes

IOS Command Line Interface

Processor board ID FTX0947218E
M860 processor: part number 0, mask 49
2 FastEthernet/IEEE 802.3 interface(s)
191K bytes of NVRAM.
63488K bytes of ATA CompactFlash (Read/Write)
Cisco IOS Software, 1841 Software (C1841-ADVIPSERVICESK9-M), Version 12.4(15)T1, RELEASE
SOFTWARE (fc2)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2007 by Cisco Systems, Inc.
Compiled Wed 18-Jul-07 04:52 by pt_team

Press RETURN to get started!

*LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
*LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

R2>en
R2#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R2(config)#
R2(config)#interface FastEthernet0/0
R2(config-if)#ip address 192.168.1.1 255.255.255.0
R2(config-if)#ip address 192.168.1.1 255.255.255.0
R2(config-if)#
R2(config-if)#exit
R2(config)#interface FastEthernet0/0
R2(config-if)#
R2(config-if)#exit
R2(config)#interface FastEthernet0/1
R2(config-if)#ip address 100.0.0.2 255.0.0.0
R2(config-if)#ip address 100.0.0.2 255.0.0.0
R2(config-if)#
```

NAT Working:

```
R1(config-if)#
R1(config-if)#
R1(config-if)#
R1(config-if)#
R1(config-if)#
R1(config-if)#
R1(config-if)#
R1(config-if)#
R1(config-if)#
R1(config-if)#
R1(config-if)#R1(config)#ip nat inside source s^Z
R1#
%SYS-5-CONFIG_I: Configured from console by console

R1#en
R1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#ip nat inside source static 10.0.0.10 50.0.0.10
R1(config)#interface FastEthernet 0/0
R1(config-if)#ip nat inside
R1(config-if)#exit
R1(config)#
R1(config)#interface FastEthernet 0/1
R1(config-if)#ip nat outside
R1(config-if)#exit
R1(config)#ip nat inside source static 10.0.0.20 50.0.0.20
R1(config)#ip nat inside source static 10.0.0.30 50.0.0.30
R1(config)#
```

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NAT WORKING FOR ROUTER 2:

```
R1(config-if)#
R1(config-if)#
R1(config-if)#
R1(config-if)#
R1(config-if)#
R1(config-if)#
R1(config-if)#
R1(config-if)#
R1(config-if)#
R1(config-if)#
R1(config-if)#R1(config)#ip nat inside source s^Z
R1#
%SYS-5-CONFIG_I: Configured from console by console

R1#en
R1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#ip nat inside source static 10.0.0.10 50.0.0.10
R1(config)#interface FastEthernet 0/0
R1(config-if)#ip nat inside
R1(config-if)#exit
R1(config)#
R1(config)#interface FastEthernet 0/1
R1(config-if)#ip nat outside
R1(config-if)#exit
R1(config)#ip nat inside source static 10.0.0.20 50.0.0.20
R1(config)#ip nat inside source static 10.0.0.30 50.0.0.30
R1(config)#
```

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```
Physical  Config  Desktop  Programming  Attributes
Command Prompt X

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

FastEthernet0 Connection:(default port)

    Connection-specific DNS Suffix...:
    Link-local IPv6 Address . . . . .: FE80::260:2FFF:FE95:580D
    IPv6 Address . . . . .: ::
    IPv4 Address . . . . .: 10.0.0.10
    Subnet Mask . . . . .: 255.0.0.0
    Default Gateway . . . . .: ::
                                10.0.0.1

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:\>ping 200.0.0.10

Pinging 200.0.0.10 with 32 bytes of data:

Request timed out.
Request timed out.
Reply from 200.0.0.10: bytes=32 time=11ms TTL=126
Reply from 200.0.0.10: bytes=32 time=11ms TTL=126

Ping statistics for 200.0.0.10:
```

```
C:\>ping 192.168.1.20

Pinging 192.168.1.20 with 32 bytes of data:

Reply from 10.0.0.1: Destination host unreachable.
Reply from 10.0.0.1: Destination host unreachable.
Reply from 10.0.0.1: Destination host unreachable.
Reply from 10.0.0.1: Destination host unreachable.

Ping statistics for 192.168.1.20:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>
```



```
regent  
C:\>ping 192.168.1.10  
  
Pinging 192.168.1.10 with 32 bytes of data:  
  
Reply from 10.0.0.1: Destination host unreachable.  
Reply from 10.0.0.1: Destination host unreachable.  
Request timed out.  
Reply from 10.0.0.1: Destination host unreachable.  
  
Ping statistics for 192.168.1.10:  
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),  
  
C:\>
```

PING TEST BETWEEN COMPUTERS IS SUCCESSFULL