

Date: 22/08/2023

Lab Practical #05:

Study the application layer protocol DNS, DHCP, FTP.

Practical Assignment #05:

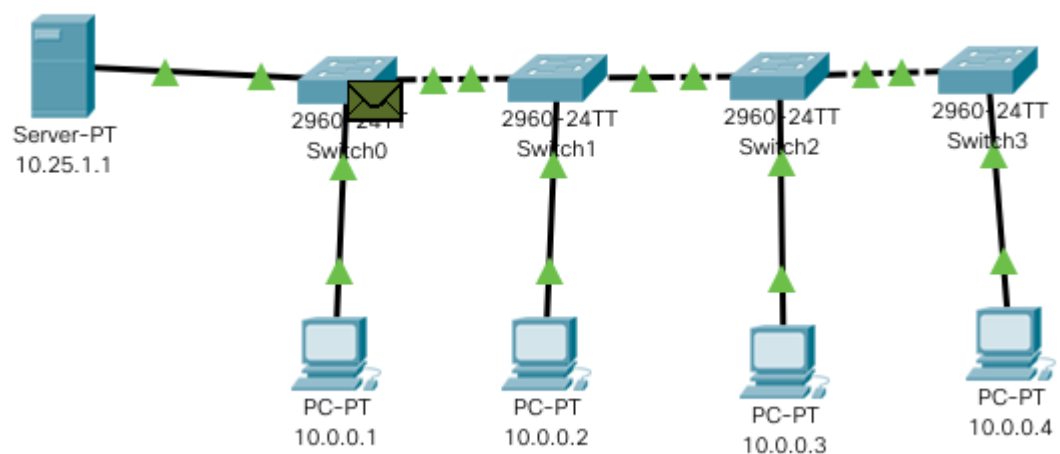
1. Implement the application layer protocol DNS, DHCP, and FTP. Also check connectivity between them using ping command or PDU utility.

Instructions:

1. Protocol-wise configuration setup screenshot.
2. Mention IP address of each pc as label.
3. Ping command or PDU screenshot between two pcs.

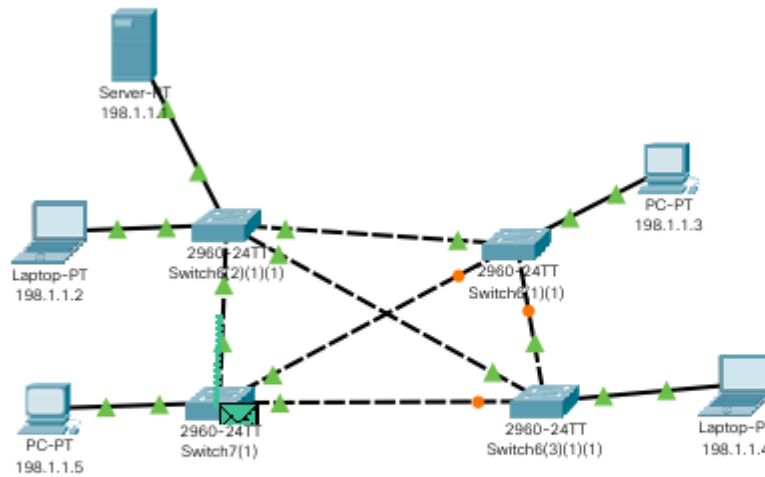
TOPOLOGYS DHCP USING

1. Bus Topology

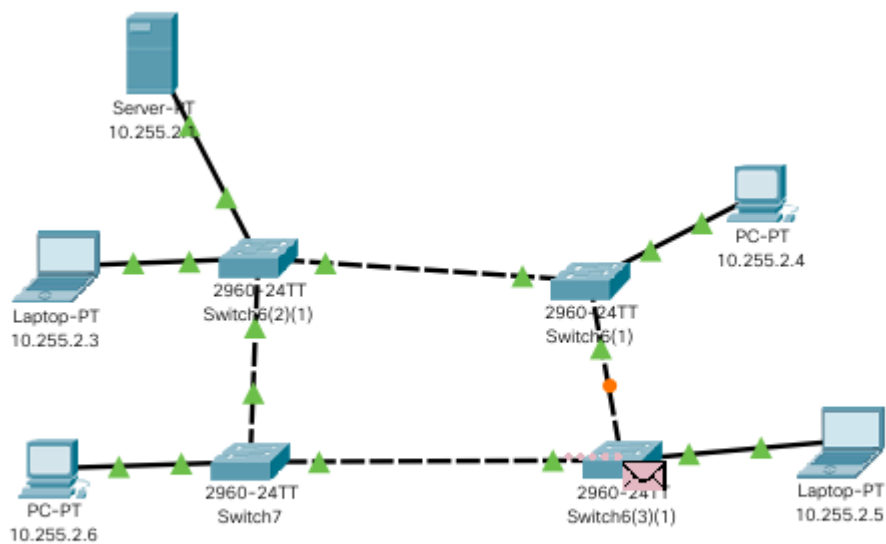


2. Mesh Topology

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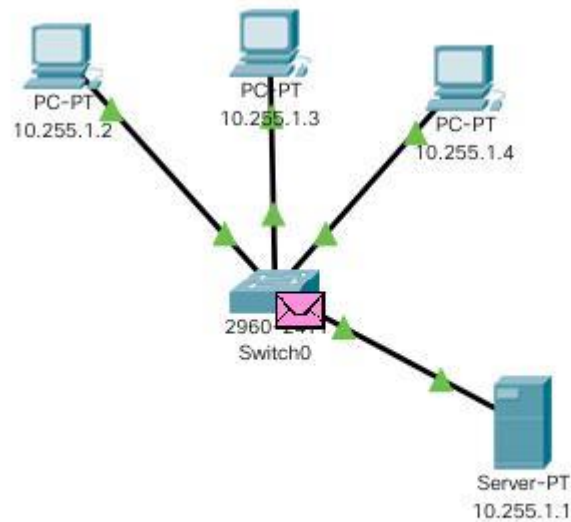


3. Ring Topology

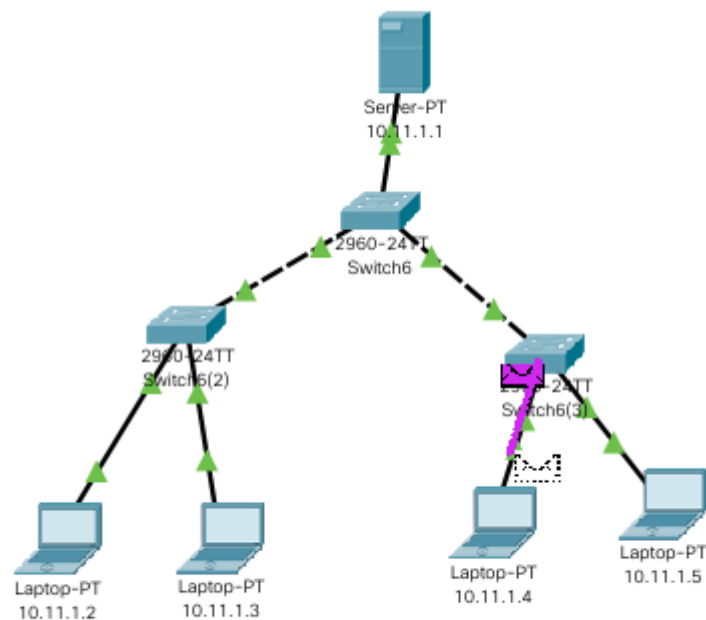


4. Star Topology

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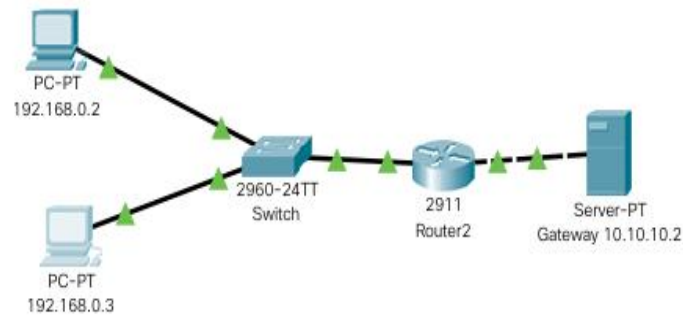


5. Tree Topology



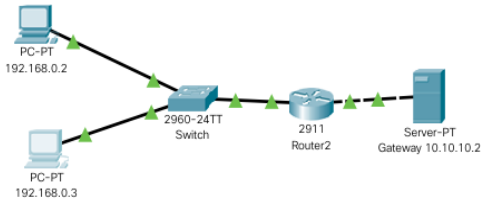
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DNS Implement



FTP Implement

Physical x: 146, y: 172



The diagram shows a network topology for FTP implementation. It includes two PC-PTs with IP addresses 192.168.0.2 and 192.168.0.3, connected to a 2960-24TT Switch. The switch is connected to a 2911 Router2, which is in turn connected to a Server-PT with Gateway 10.10.10.2.

Physical Config Desktop Programming Attributes

Command Prompt

```
331- Username ok, need password
Password:
230- Logged in
(passive mode On)
ftp>get demo.txt

Reading file demo.txt from 10.10.10.2:
File transfer in progress...

[Transfer complete - 14 bytes]

14 bytes copied in 0.012 secs (1166 bytes/sec)
ftp>quit

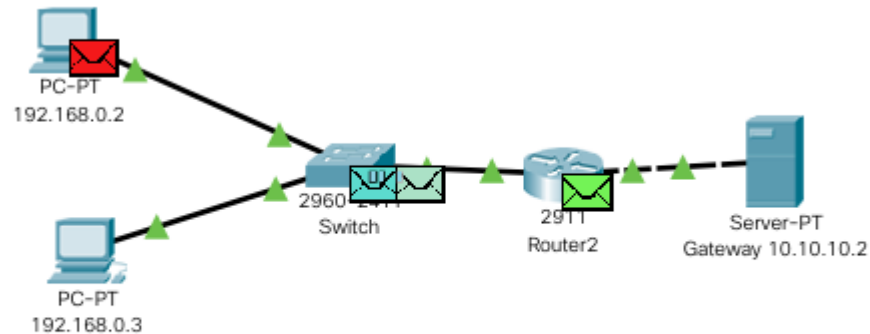
221- Service closing control connection.
C:\>dir

Volume in drive C has no label.
Volume Serial Number is 5E12-4AF3
Directory of C:\

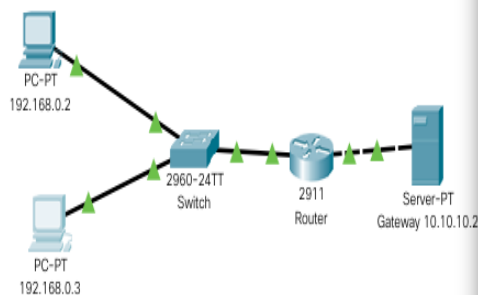
1/1/1970  5:30 PM      14      demo.txt
1/1/1970  5:30 PM      26      sampleFile.txt
               40 bytes      2 File(s)
```

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PDU Screenshot



Ping Command



```
1/1/1970 5:30 PM 26 sampleFile.txt
40 bytes 2 File(s)
C:\>ping 192.168.0.2

Pinging 192.168.0.2 with 32 bytes of data:

Reply from 192.168.0.2: bytes=32 time=1ms TTL=128
Reply from 192.168.0.2: bytes=32 time<1ms TTL=128
Reply from 192.168.0.2: bytes=32 time<1ms TTL=128
Reply from 192.168.0.2: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms
```