

Date: 25 / 08 /2023

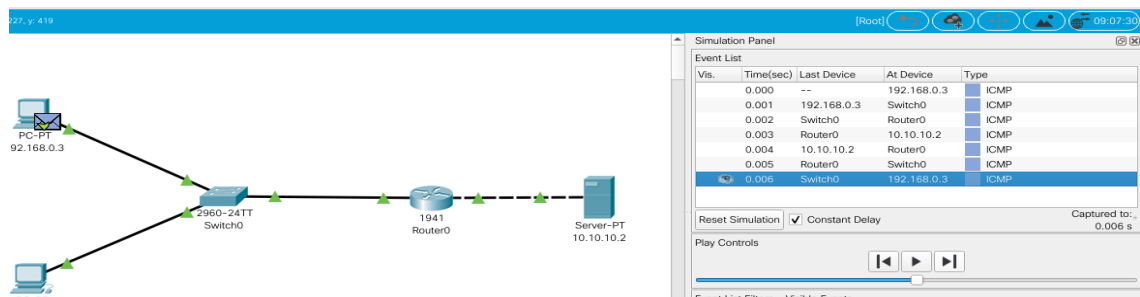
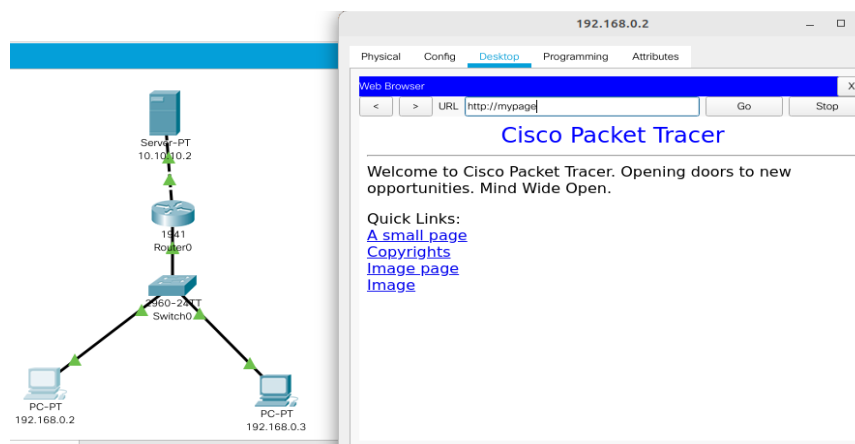
Lab Practical #05:

Study the application layer protocol DNS, DHCP, FTP.

Practical Assignment #05:

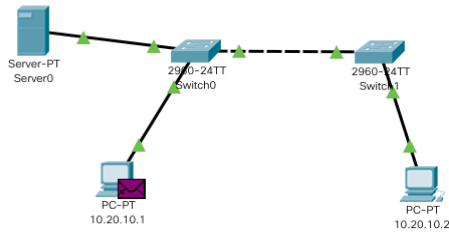
1. Implement the application layer protocol DNS, DHCP, and FTP. Also check connectivity between them using ping command or PDU utility.

1) DNS:



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2) DHCP:



Vis.	Time(sec)	Last Device	At Device	Type
	0.000	--	10.20.10.1	ICMP
	0.001	10.20.10.1	Switch0	ICMP
	0.002	Switch0	Switch1	ICMP
	0.003	Switch1	10.20.10.2	ICMP
	0.004	10.20.10.2	Switch1	ICMP
	0.005	Switch1	Switch0	ICMP
	0.006	Switch0	10.20.10.1	ICMP

Reset Simulation ☒ Constant Delay Captured to: 0.006 s

Play Controls

Event List Filters - Visible Events
ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPSec, ISAKMP, IoT, IoT TGP, LACP, LLDP, Meraki, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP.

PC0

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☒ DHCP ☐ Static DHCP request successful.

IPv4 Address 10.20.10.102

Subnet Mask 255.0.0.0

Default Gateway 10.20.10.101

DNS Server 10.20.10.101

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address /

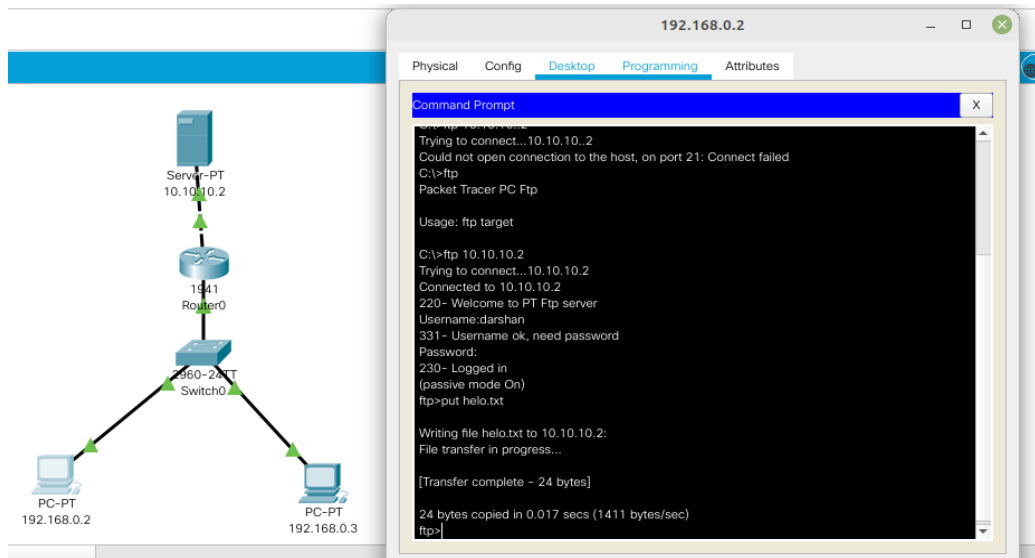
Link Local Address FE80::260:2FFF:FE7:3E04

Default Gateway

DNS Server

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3) FTP



The network diagram shows a topology with a Server-PT (10.10.10.2) connected to a 1941 Router0, which is connected to a 260-26T Switch0. The switch0 is connected to two PC-PTs: 192.168.0.2 and 192.168.0.3.

The Command Prompt window shows the following commands and output:

```

C:\>ftp 10.10.10.2
Trying to connect...10.10.10.2
Could not open connection to the host, on port 21: Connect failed
C:\>ftp
Packet Tracer PC Ftp

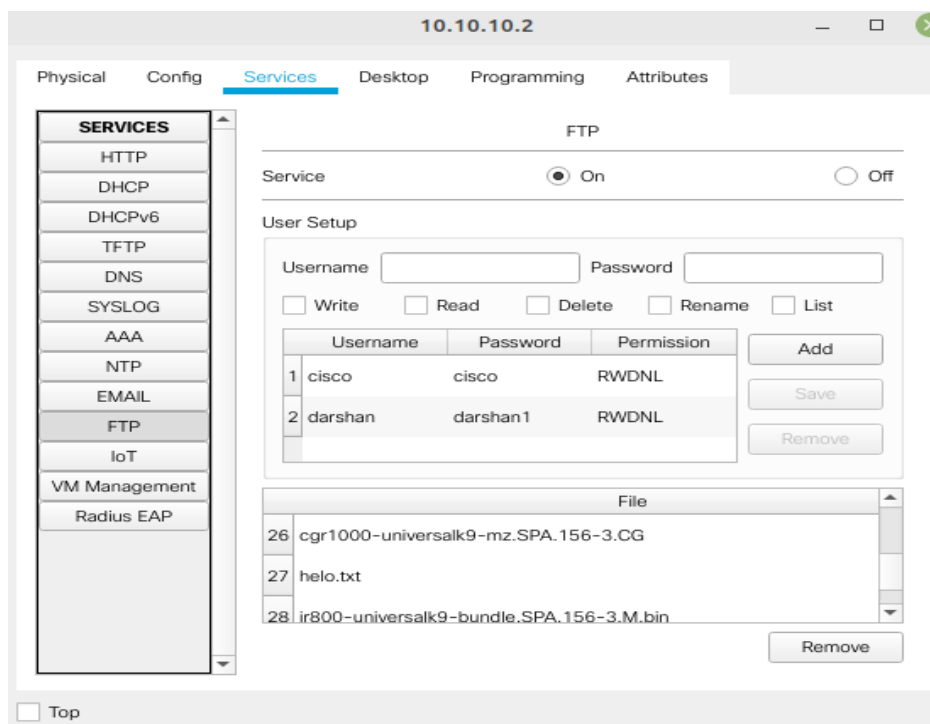
Usage: ftp target

C:\>ftp 10.10.10.2
Trying to connect...10.10.10.2
Connected to 10.10.10.2
220 - Welcome to PT Ftp server
Username:darshan
331 - Username ok, need password
Password:
230 - Logged in
(passive mode On)
ftp>put helo.txt

Writing file helo.txt to 10.10.10.2:
File transfer in progress...

[Transfer complete - 24 bytes]

24 bytes copied in 0.017 secs (1411 bytes/sec)
ftp>
  
```



The Services configuration window for the 10.10.10.2 device shows the FTP service configured as follows:

- SERVICES:** HTTP, DHCP, DHCPv6, TFTP, DNS, SYSLOG, AAA, NTP, EMAIL, **FTP**, IoT, VM Management, Radius EAP.
- FTP Service:** On
- User Setup:**
 - Username: Password:
 - ☐ Write ☐ Read ☐ Delete ☐ Rename ☐ List
 - Table:

	Username	Password	Permission
1	cisco	cisco	RWDNL
2	darshan	darshan1	RWDNL
- File List:**
 - 26 cgr1000-universalk9-mz.SPA.156-3.CG
 - 27 helo.txt
 - 28 ir800-universalk9-bundle.SPA.156-3.M.bin

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