



Department of Computer Science and Engineering
Data Science

Academic Year: 2023-2024

Semester: V

Class / Branch: CSE(DS)

Subject: WCN

Name of Instructor: Prof. Ashwini Rahude

Name of Student: Diya Thakkar

Student ID: 22107040

Date Of Performance: 16/9/24

Date Of Submission: 10/10/24

Experiment No. 7

Aim:- To design and simulate the environment for Dynamic routing using Cisco packet tracer/ GNS3.

Router 0

Device Name: Router0
Device Model: Router-PT
Hostname: Router

Port	Link	IP Address	IPv6 Address	MAC Address
FastEthernet0/0	Up	72.0.0.1/8	<not set>	0001.96CD.4C2E
FastEthernet1/0	Down	<not set>	<not set>	0050.0F75.B717
Serial2/0	Up	10.0.0.2/8	<not set>	<not set>
Serial3/0	Up	40.0.0.2/8	<not set>	<not set>
FastEthernet4/0	Down	<not set>	<not set>	0005.5E32.EA36
FastEthernet5/0	Down	<not set>	<not set>	0050.0F76.A470

Physical Location: Intercity > Home City > Corporate Office > Main Wiring Closet > Rack > Router0





PARSHWANATH CHARITABLE TRUST'S
A.P. SHAH INSTITUTE OF TECHNOLOGY
Department of Computer Science and Engineering
Data Science



Router0

Physical Config CLI Attributes

GLOBAL

- Settings
- Algorithm Settings

ROUTING

- Static
- RIP

INTERFACE

- FastEthernet0/0
- FastEthernet1/0
- Serial2/0
- Serial3/0
- FastEthernet4/0
- FastEthernet5/0

Serial2/0

Port Status: ☒ On

Duplex: ☐ Full Duplex

Clock Rate: 2000000

IP Configuration

IPv4 Address: 10.0.0.2

Subnet Mask: 255.0.0.0

Tx Ring Limit: 10

Router0

Physical Config CLI Attributes

GLOBAL

- Settings
- Algorithm Settings

ROUTING

- Static
- RIP

INTERFACE

- FastEthernet0/0
- FastEthernet1/0
- Serial2/0
- Serial3/0
- FastEthernet4/0
- FastEthernet5/0

Serial3/0

Port Status: ☒ On

Duplex: ☐ Full Duplex

Clock Rate: 2000000

IP Configuration

IPv4 Address: 40.0.0.2

Subnet Mask: 255.0.0.0

Tx Ring Limit: 10

**Router 2**

Device Name: Router2
Device Model: Router-PT
Hostname: Router

Port	Link	IP Address	IPv6 Address	MAC Address
FastEthernet0/0	Up	192.168.10.1/24	<not set>	0003.E492.BBC2
FastEthernet1/0	Down	<not set>	<not set>	000A.F343.2A2C
Serial2/0	Up	30.0.0.3/8	<not set>	<not set>
Serial3/0	Up	20.0.0.3/8	<not set>	<not set>
FastEthernet4/0	Down	<not set>	<not set>	0050.0F89.B3A9
FastEthernet5/0	Down	<not set>	<not set>	0060.47B5.EB8A

Router2

Physical Config CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

INTERFACE

FastEthernet0/0

FastEthernet1/0

Serial2/0

Serial3/0

FastEthernet4/0

FastEthernet5/0

FastEthernet0/0

Port Status: On

Bandwidth: 100 Mbps

Duplex: Full Duplex

MAC Address: 0003.E492.BBC2

IP Configuration

IPv4 Address: 192.168.10.1

Subnet Mask: 255.255.255.0

Tx Ring Limit: 10

Serial2/0

Port Status: On

Duplex: Full Duplex

Clock Rate: 2000000



Router0

Physical **Config** CLI Attributes

GLOBAL

- Settings
- Algorithm Settings
- ROUTING**
- Static
- RIP**
- INTERFACE**
- FastEthernet0/0
- FastEthernet1/0
- Serial2/0
- Serial3/0
- FastEthernet4/0
- FastEthernet5/0

RIP Routing

Network

Add

Network Address
10.0.0.0
40.0.0.0
72.0.0.0

Router1

```
Router1(config)#router rip
Router1(config-router)# network 10.0.0.0
Router1(config-router)# network 20.0.0.0
Router1(config-router)# network 172.100.0.0
```

Router1

Physical **Config** CLI Attributes

GLOBAL

- Settings
- Algorithm Settings
- ROUTING**
- Static
- RIP**
- INTERFACE**
- FastEthernet0/0
- FastEthernet1/0

RIP Routing

Network

Add

Network Address
10.0.0.0
20.0.0.0



```
PC0
Physical Config Desktop Programming Attributes
Command Prompt
C:\>ipconfig

FastEthernet0 Connection:(default port)

Connection-specific DNS Suffix...:
Link-local IPv6 Address...: FE80::20D:BDFF:FE40:757C
IPv6 Address...: ::
IPv4 Address...: 72.0.0.10
Subnet Mask...: 255.0.0.0
Default Gateway...: ::
72.0.0.1

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:\>ping 192.168.10.12

Pinging 192.168.10.12 with 32 bytes of data:

Reply from 192.168.10.12: bytes=32 time=13ms TTL=125
Reply from 192.168.10.12: bytes=32 time=12ms TTL=125
Reply from 192.168.10.12: bytes=32 time=12ms TTL=125
Reply from 192.168.10.12: bytes=32 time=12ms TTL=125

Ping statistics for 192.168.10.12:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 12ms, Maximum = 13ms, Average = 12ms
```

Simulation Panel				
Event List				
Via	Time(sec)	Last Device	At Device	Type
0.000	-	-	PC0	ICMP
0.001	PC0	Switch0	ICMP	
0.002	Switch0	Router0	ICMP	
0.003	Router0	Router1	ICMP	
0.004	Router1	Router2	ICMP	
0.005	Router2	Switch2	ICMP	
0.006	Switch2	PC8	ICMP	
0.007	PC8	Switch2	ICMP	
0.008	Switch2	Router2	ICMP	
0.009	Router2	Router3	ICMP	
0.010	Router3	Router0	ICMP	
0.011	Router0	Switch0	ICMP	
0.012	Switch0	PC0	ICMP	

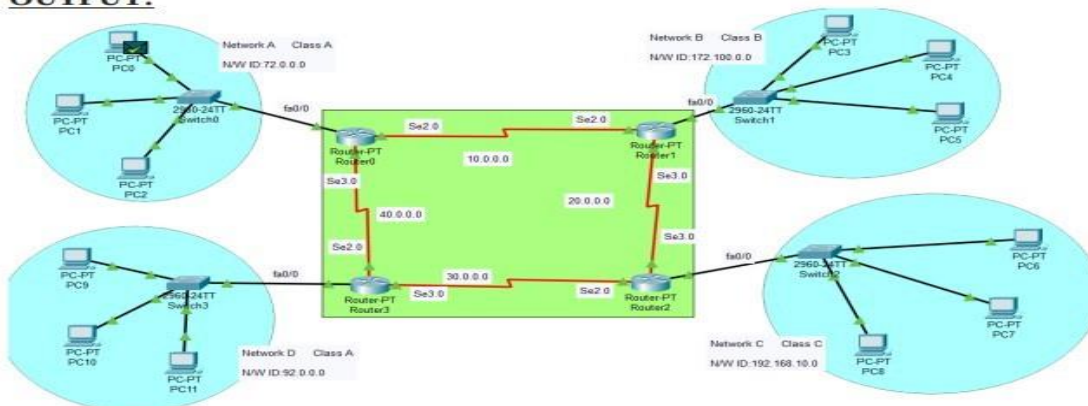
Reset Simulation ☒ Constant Delay

Captured No. 224 419 s.

Play Controls



OUTPUT:



Conclusion: hence, performed successfully the experiment.



PARSHWANATH CHARITABLE TRUST'S
A.P. SHAH INSTITUTE OF TECHNOLOGY
Department of Computer Science and Engineering
Data Science





PARSHWANATH CHARITABLE TRUST'S
A.P. SHAH INSTITUTE OF TECHNOLOGY
Department of Computer Science and Engineering
Data Science

