COMPUTER NETWORKS LAB

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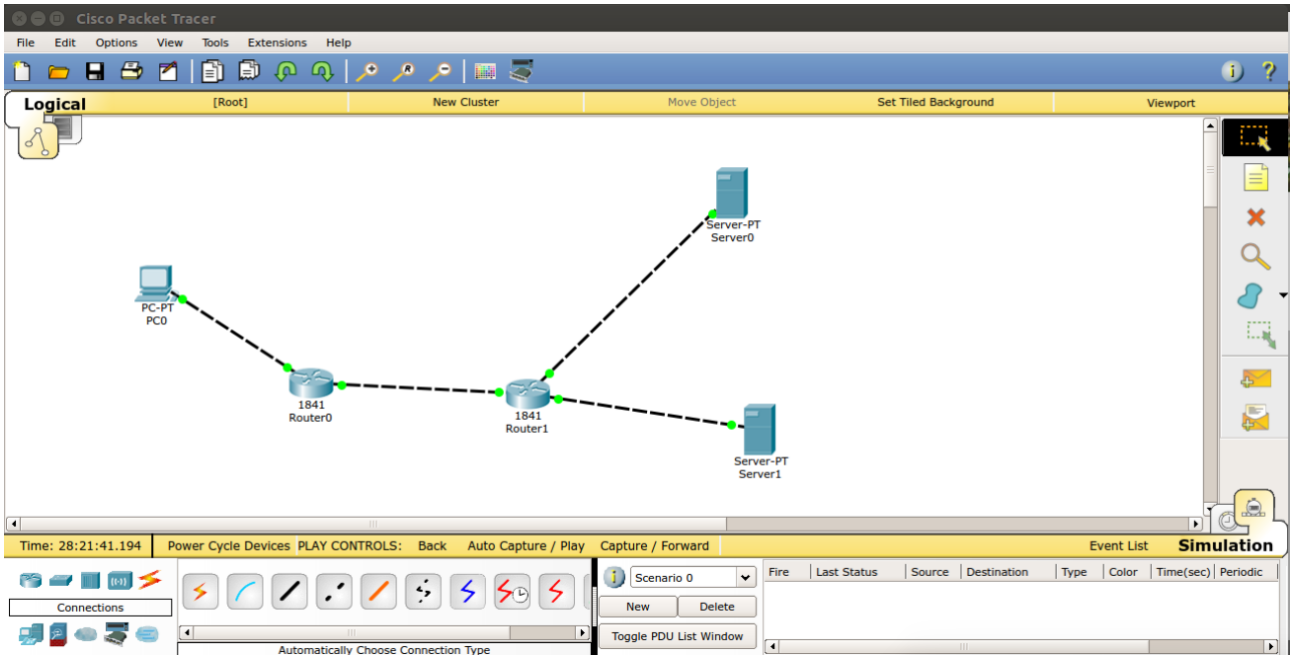
SECTION : I

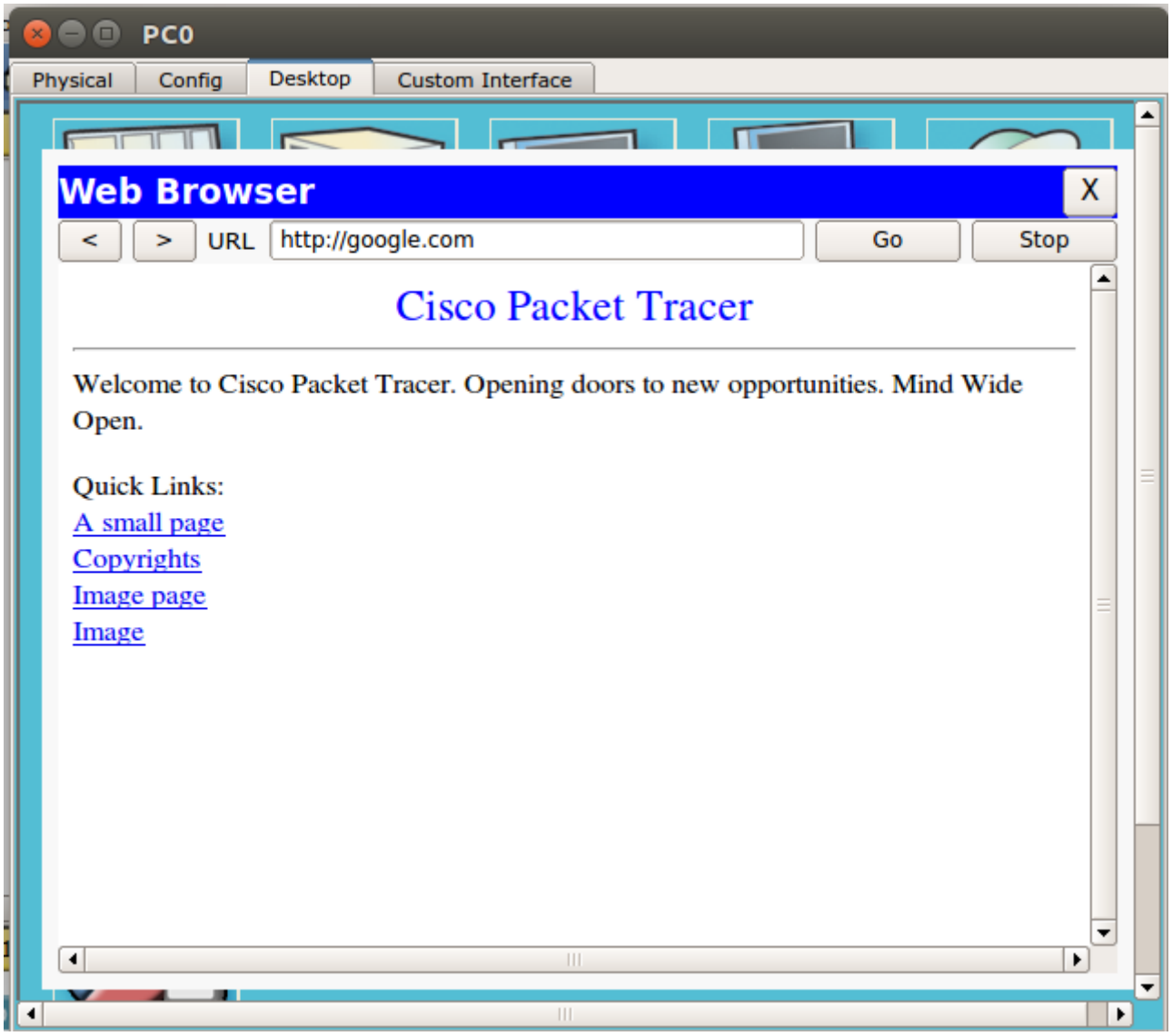
WEEK 9: CISCO PACKET TRACER – 2

Objective :- Using Cisco packet tracer understand the life of a packet in internet.

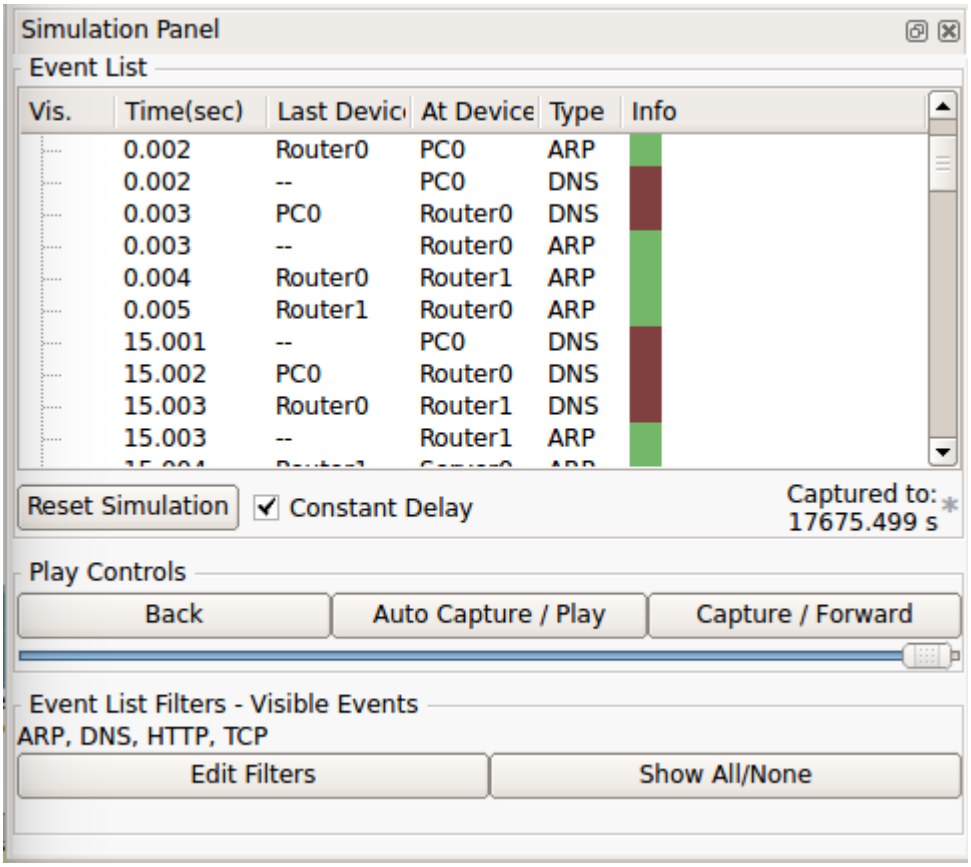
Topology



1) The network devices were organised as shown in the above topology.
2) IP addresses and gateways were assigned to the end devices and the routers.
3) The routing table was added to both the routers.
4) The record was added to the server. (Name : google.com , Address : 192.168.2.2, Type: A (Authoritative record))
5) An index.html file was added onto the server.
6) Then the browser in the PC was used to access the google.com and the packets were captured.



BROWSER WINDOW



SIMULATION PANEL

Configuring Networking and Routing Tables :-

End System	Interface Name	IP Address	Subnet Mask	Gateway	DNS Server
PC0	FastEthernet0	10.10.1.1	255.255.255.0	10.0.0.3	192.168.1.2
Server0-DNS	FastEthernet0	192.168.1.2	255.255.255.0	192.168.1.1	
Server1-Web	FastEthernet0	192.168.2.1	255.255.255.0	192.168.2.1	

Routers :-

Router	Interface Name	IP Address	Subnet Mask
Router0	FastEthernet0/0	10.10.1.2	255.255.255.0
Router0	FastEthernet0/1	10.10.2.1	255.255.255.0
Router1	FastEthernet0/0	10.10.2.2	255.255.255.0
Router1	FastEthernet0/1	192.168.1.1	255.255.255.0
Router1	Ethernet0/0	192.168.2.1	255.255.255.0

Routing Table :-

Router	Destination Network	Next hop
Router0	192.168.1.0	10.10.2.2
Router0	192.168.2.0	10.10.2.2
Router1	10.10.1.0	10.10.2.1

Observations :-

We observe that when we first request the page from the PC it takes more time than it takes when we request the page the second time from the PC. This is because when we first request the page, the DNS record is cached. So when the request is placed once again the record can be directly used since it is cached so it doesn’t need the request to be passed onto the DNS server.