LAB – 10

18MIS7250

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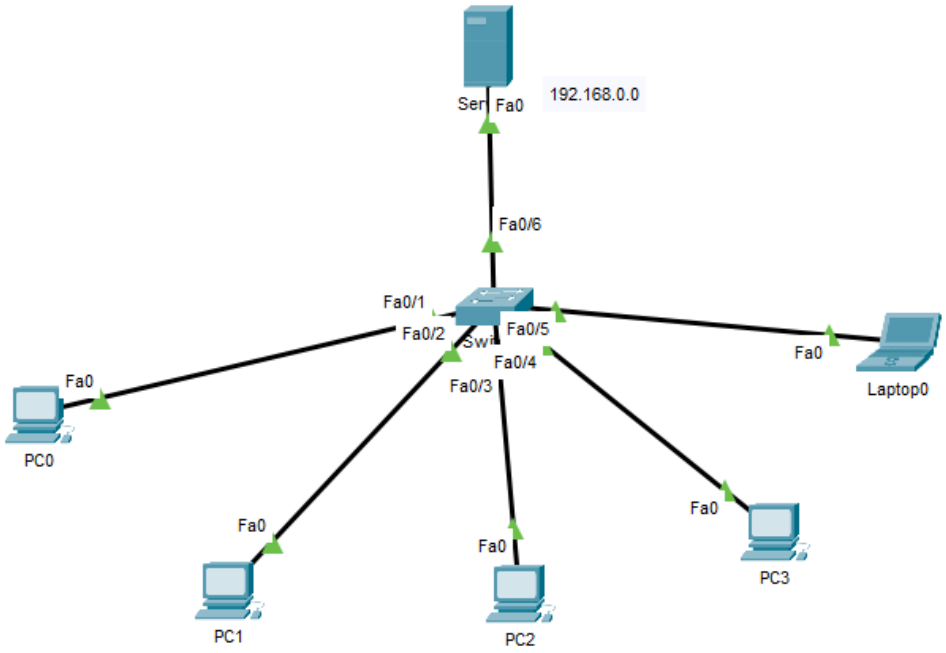
DHCP

Dynamic Host Configuration Protocol (*DHCP*) is a network management protocol used to automate the process of configuring devices on IP networks, thus allowing them to use network services such as DNS, NTP, and any communication protocol based on UDP or TCP.



As the requesting client has no IP address when joining the network, it broadcasts the request. The protocol is thus used in a very early stage of IP communication. If such dynamic protocol is not used to get an IP address, the client has to use a predefined IP address generally called “static IP address”, which is manually configured on the client network interface in configuration files or with a specific command.

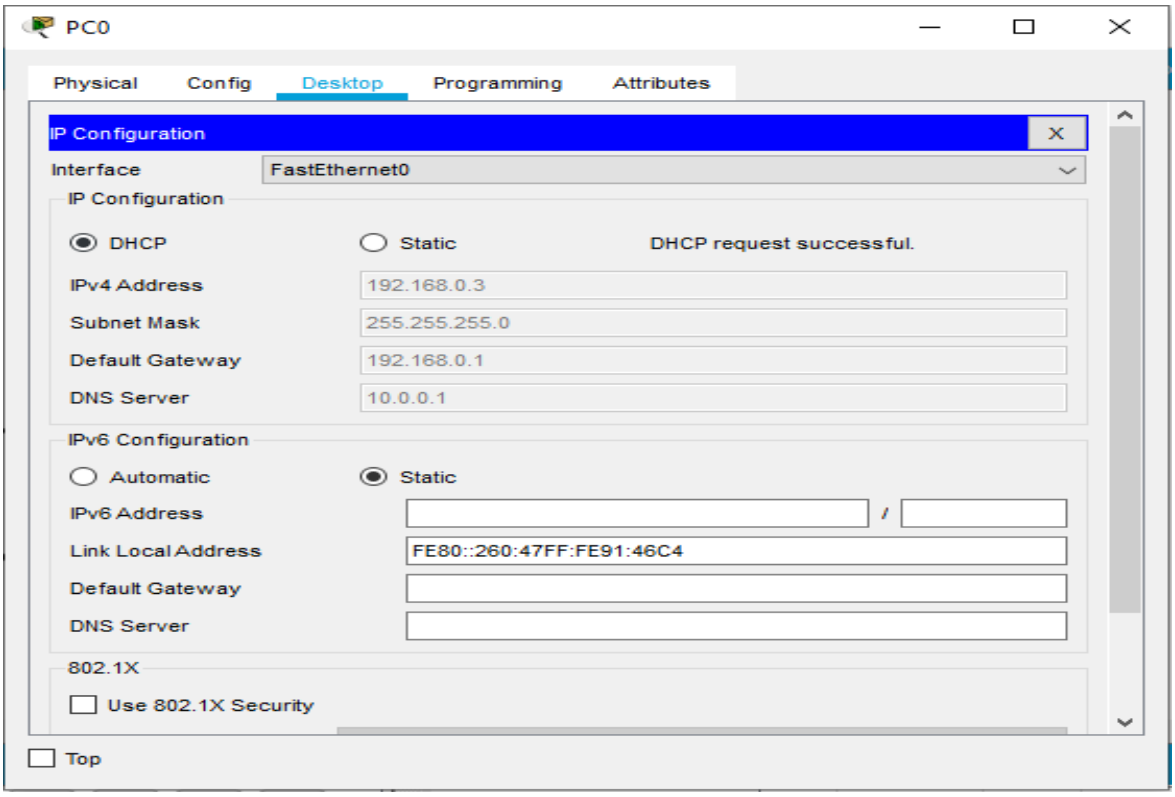
The DHCP service brings three key values:

1) Operation tasks are reduced: the network administrator no longer needs to manually configure each client before it can use the network

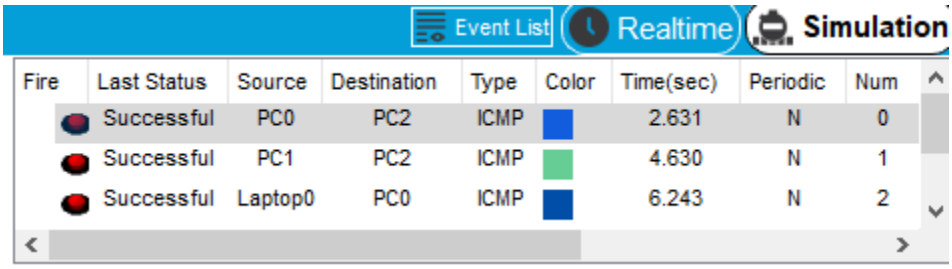
2) The IP addressing plan is optimized: addresses no longer being used are freed up and made available to new clients connecting

3) User mobility is easily managed: the administrator doesn’t need to manually reconfigure a client when its network access point changes.

Configuring DHCP in all PC’s and laptop



Verifying the DHCP network by running in simulation



Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num
	Successful	PC0	PC2	ICMP		2.631	N	0
	Successful	PC1	PC2	ICMP		4.630	N	1
	Successful	Laptop0	PC0	ICMP		6.243	N	2

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num
	Successful	Laptop0	PC0	ICMP		6.243	N	2
	Successful	Laptop0	PC3	ICMP		6.249	N	3
	Successful	PC3	PC0	ICMP		11.568	N	4