**Illustration on Establishing Connection between different inter-cities using Packet Tracer.**

Inter-cities: Nairobi, Mombasa, Kisumu

**Components in each Office in Different inter-cities**

* 5Offices each having one PC and an IP phone
* 3Laptops
* 2Tablets (Wireless each)
* An Access Point
* A Smoke detector
* A Web Camera in each building in all the different inter-cities
* A Ceiling fan each in one building in all the different inter-cities.
* A router each in every intercity connected to the switch.
* A Server

**Procedure used establishing connection between different intercity.**

1. First Establish three inter-cities and name them Nairobi, Mombasa and Kisumu. In the three inter-cities created, create a new building in those inter-cities and using a background image set up an office.
2. Set up a Switch 2960 in order to connect the wired PC’s to the switch using a copper straight through cable.
3. Set up and connect One PC in each of the five offices then configure then pc’s using an IP address. For example, in Nairobi the first PC IP address was (192.168.0.1) and Mombasa (192.169.0.1) and in Kisumu was (192.170.0.1). Connect them to the switch using a copper straight through cable.
4. Set up One IP phone in each office and power them on then configure to make sure they communicate in different offices.
5. Set up Three Laptops each and set an IP configuration of each Laptop, in one room then using a copper straight through cable, connect them to the switch 2960.
6. Set up a router4331 then, to the router, using a copper straight through cable, connect the router to the switch and configure the router in the GigabitEthernet0/0/0 by setting an IP address in order for the switch and the router to communicate.
7. Set up a Web Camera in the office then set it to DHCP automatic configuration then connect it to the switch 2960 using a copper straight through cable.
8. Set up a Ceiling fan in the office the configure it to DHCP automatic configuration then connect it to the switch 2969 using an automatic connection.
9. Set up the two tablets and an Access Point and using an automatic connection, connect the access point to the switch then an automatic connection will be established from the two tablets to the Access Point
10. Set up a Smoke detector and configure it using DHCP and using an automatic connection, connect it to the switch
11. Set up a Server and set an automatic configuration from the switch to the server so than when message is sent to the switch, it is then sent to the server in order to communicate out of the city to other inter-cities.
12. Lastly try sending a complex PDU from one IP for example 192.168.0.2 to another destination 192.170.0.5.

Results: A message will be sent from that IP address to the other which means that the connection will be successful from the different inter-cities.

-THANK YOU-