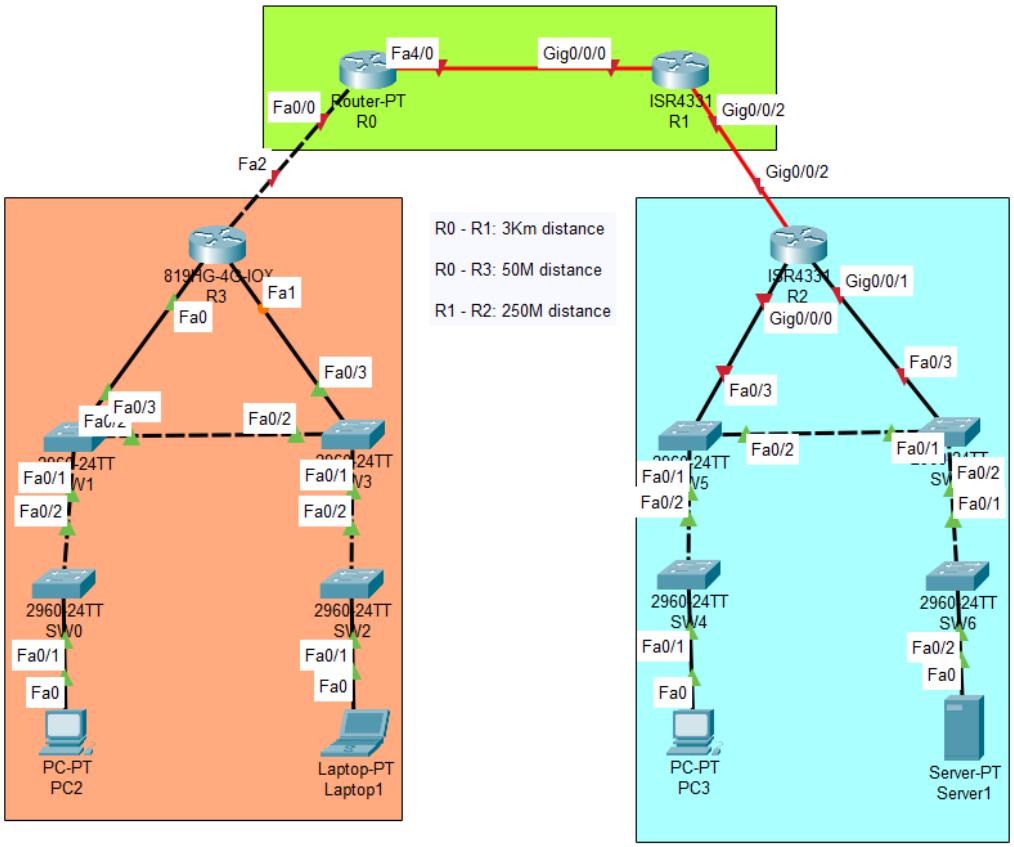
Lab 02: Connecting Network Devices

Contents

Create the topology

- Create the following topology.



Device	Model
R0	Router PT
R1	ISR4331
R2	ISR4331
R3	819HG-4G-IOX
SW0	2960-24TT
SW1	
SW2	
SW3	
SW4	
SW5	
SW6	
SW7	
PC-1	-
Laptop	-
PC-2	-

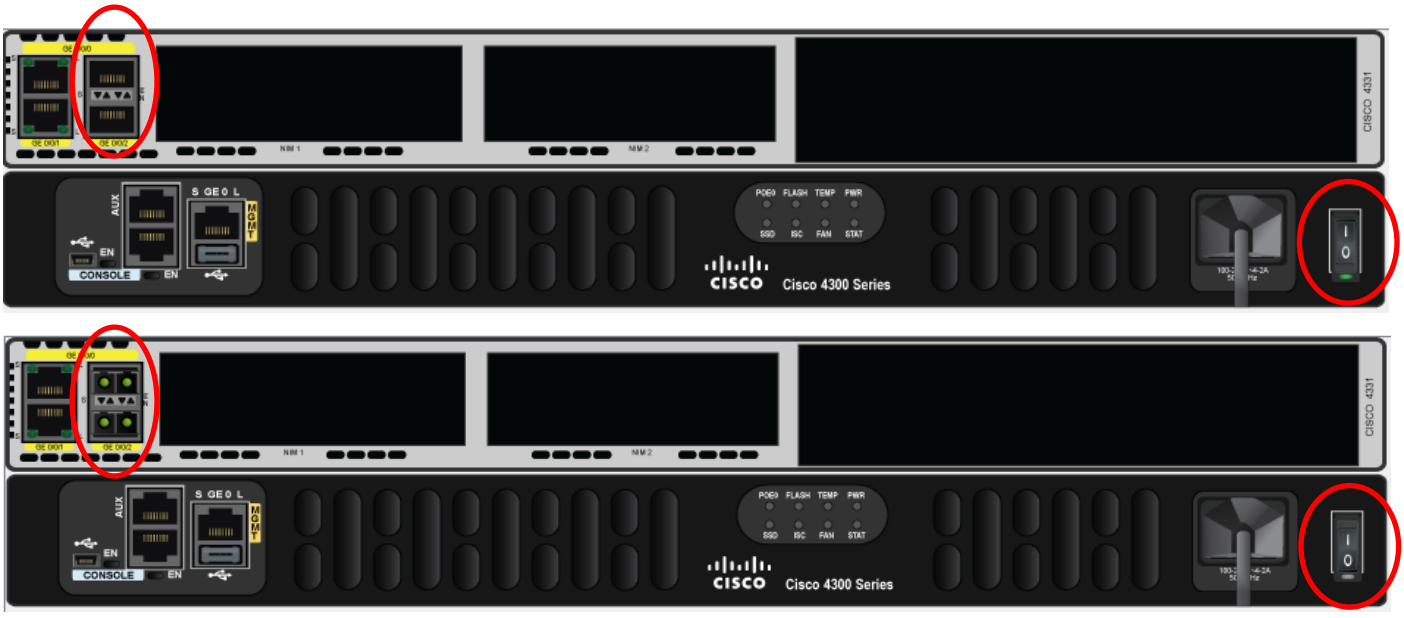
Connecting the devices

	HUB	SWITCH	ROUTER	PC
Hub	Crossover	Crossover	Straight	Straight
Switch	Crossover	Crossover	Straight	Straight
Router	Straight	Straight	Crossover	Crossover
PC	Straight	Straight	Crossover	Crossover

Device to Device	**Cable type**
PC – SW0	Straight through cable
Laptop1 – SW2	
PC3 – SW4	
Server1 – SW6	
SW0 – SW1	Cross over cable
SW2 – SW3	
SW1 – SW3	
SW4 – SW5	
SW6 – SW7	
SW5 – SW7	
SW1 – R3	Straight through cable
SW3 – R3	
SW5 – R2	
SW7 – R2	
R0 – R3	Cross over cable
R0 – R1	Fiber
R1 – R2	Fiber

Inserting Fiber Optic modules

- R0 (Router-PT) has two fiber optic modules inserted into it.
- R3 (819HG-4G-IOX) does not have fiber optic modules, and it does not support them.
- R1 and R2 (ISR-4331) do not have fiber optic modules, however, they support them.
    1. Click on the router.
    2. Turn off the router.
    3. From the MODULES panel, select GLC-GE-100FX module.
    4. Drag the module into one of the ethernet ports.
    5. For R1, insert two fiber optic modules.
    6. For R0, we only need one fiber optic module.
    7. Turn on the router.



Task

- Create the following topology and connect the devices using appropriate connections.
    - Connect R0, R1, and R2 to each other.
    - Connect Laptop 0 to SW0.
    - Connect Laptop 1 to SW1.
    - Connect Server 0 to SW2.
    - Connect PC 0 to SW2.
    - Connect SW0 and SW1 to R0.
    - Connect SW2 to R1.
    - Connect SW0 to SW1.
    - **Note: The distance between R0 and R1 is 3 Km, the distance between R2 and R1 is 2 Km and the distance between R0 and R1 is 90 M. Other devices are in the same area close to each other.**
    - **Use the same devices' models as shown in the screenshot.**