1. Initial Setup.

A screenshot of a computer

Description automatically generated

1. Adding components and adding their labels:

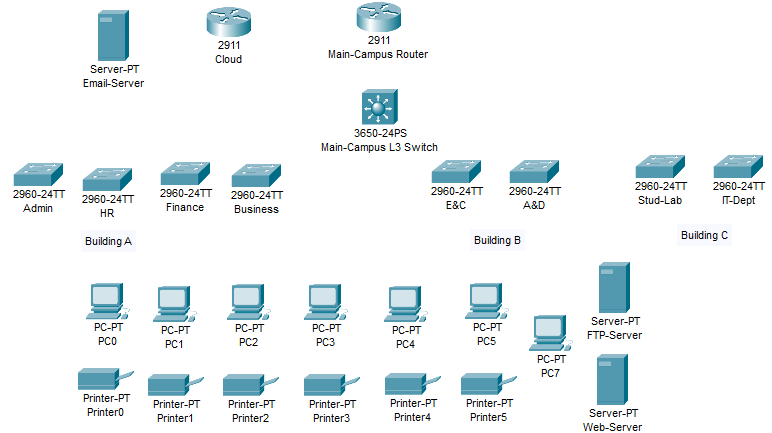
2911-Router - 2

3650-24PS-Switch – 1

2960-24TT – 8

PC - 8

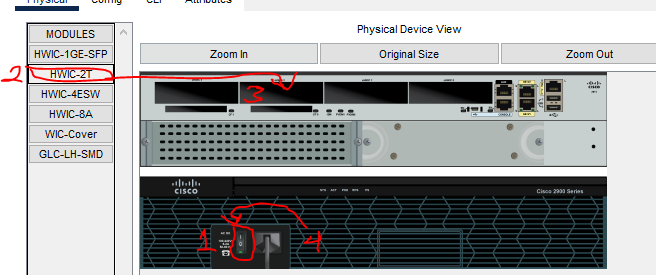
Server - 3



1. Serial Connection to Main Router and Cloud.

A group of blue circular objects with numbers and symbols

Description automatically generated



On Main Router, switch it off first, then move the HWIC-2T module to an empty slot then turn on again. Same process to 2911 Cloud Router.

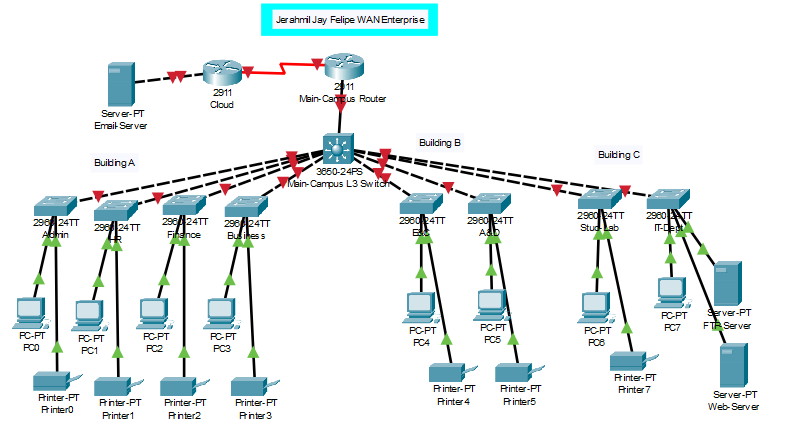
A screenshot of a computer

Description automatically generated

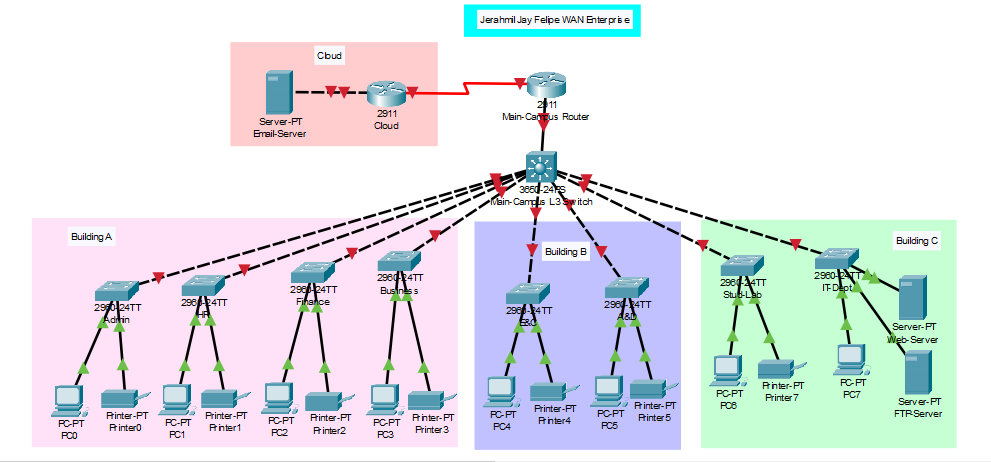
A screenshot of a computer

Description automatically generated

1. Use automatic wires to connect other Devices.



1. Design on preference.

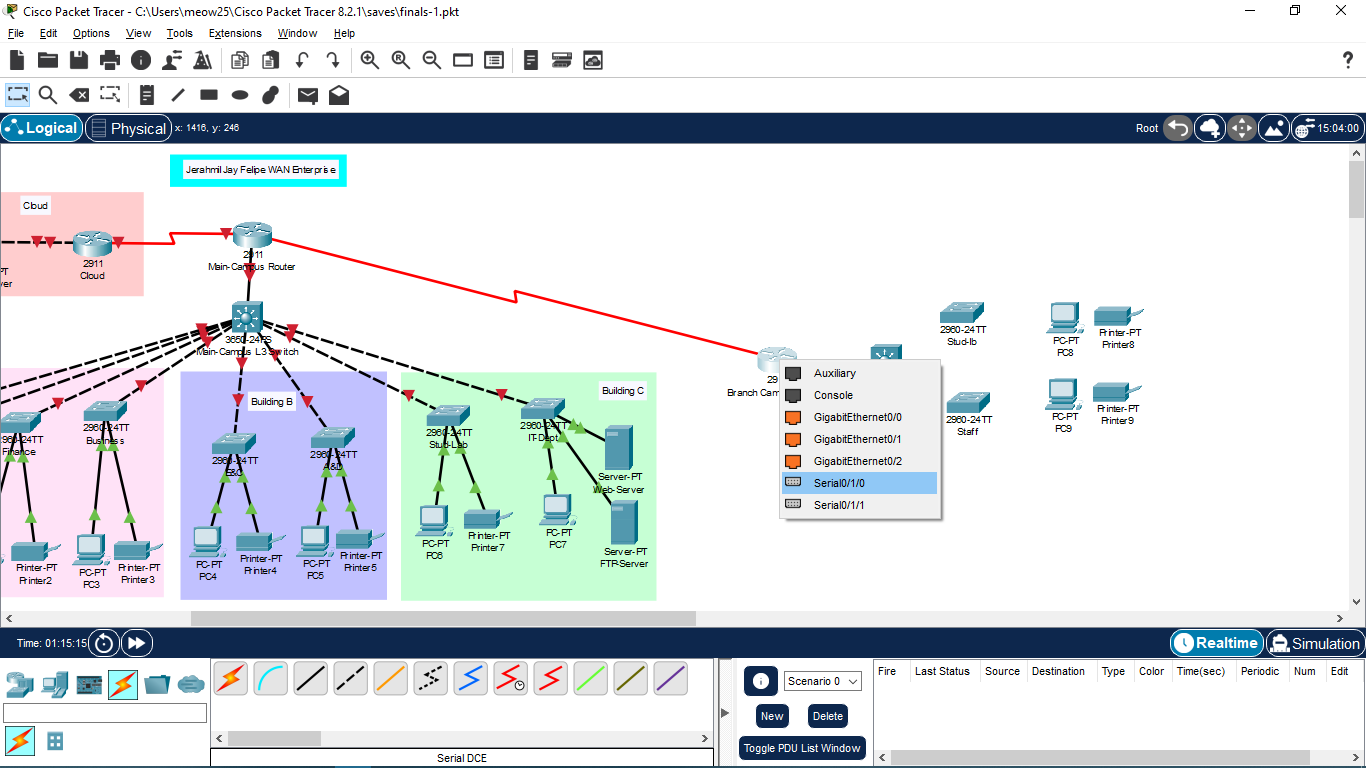


1. Add the Branch Devices.

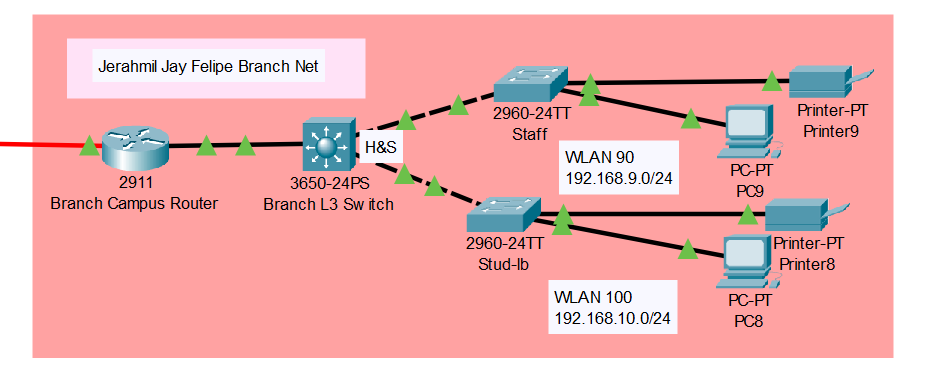
A group of blue computer icons

Description automatically generated

1. Configure the 2911 Switch Branch here as Main-Campus Router to use series connection and connect it.



1. Design and Correct Labels for configuration.



A computer parts with text

Description automatically generated with medium confidence

A red arrow pointing to a red line

Description automatically generated

1. Configuration, set routers on.

A screenshot of a computer

Description automatically generated

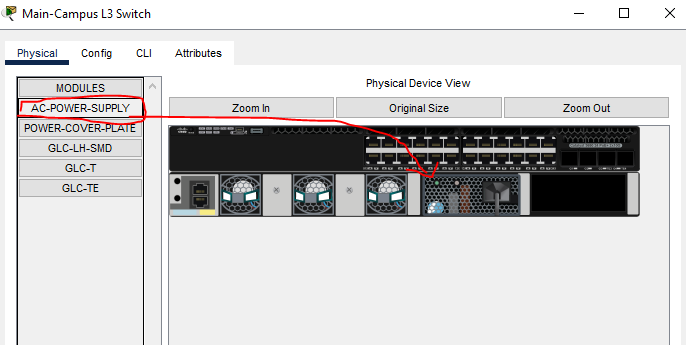
A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

1. Add Powersupply to 3650-24PS-Switches (both for Main and Branch).



A screenshot of a computer

Description automatically generated

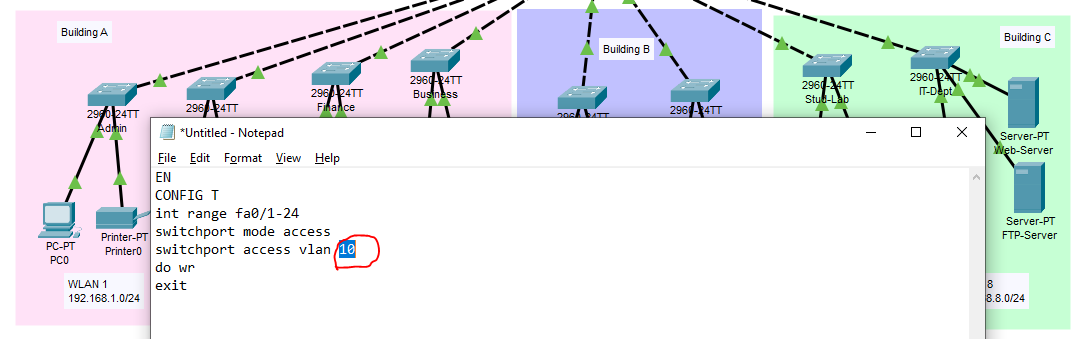
1. Configure the main router for its’ serial connection.

A screenshot of a computer

Description automatically generated

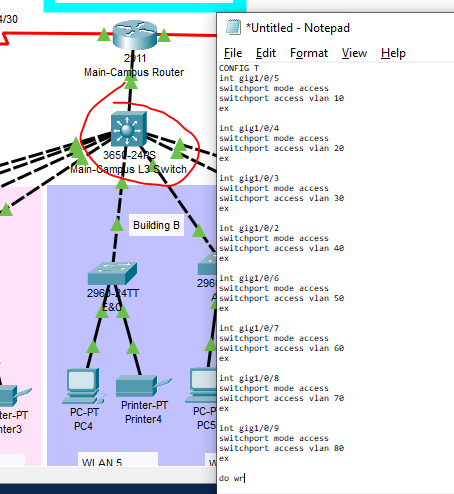
1. VLAN Configuration. (Admin, HR, Finance, Business, E&Q, A&D, Stud-Lab, IT-Dept) Switches.

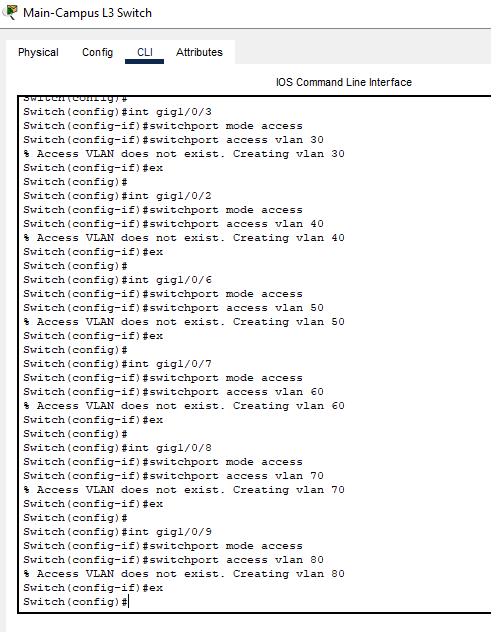
Copy text from notepad and apply to all switches.



Note: Same configuration is used, it just varies on the WLAN IP Address. If on ADMIN then VLAN is 10, if on HR VLAN is 20, and so on.

1. Configure Main Switch.





1. Config the Branch Net. Start with Switch.

A screenshot of a computer

Description automatically generated

A screenshot of a computer

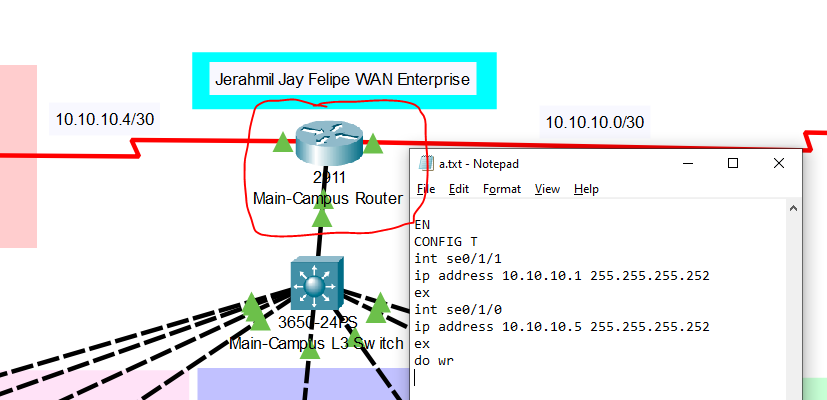
Description automatically generated

1. Trunk Connection to the Layer Switches
2. A computer screen shot of a computer

   Description automatically generatedA screen shot of a computer

   Description automatically generated
3. Sub interface for IP.

Main Router:

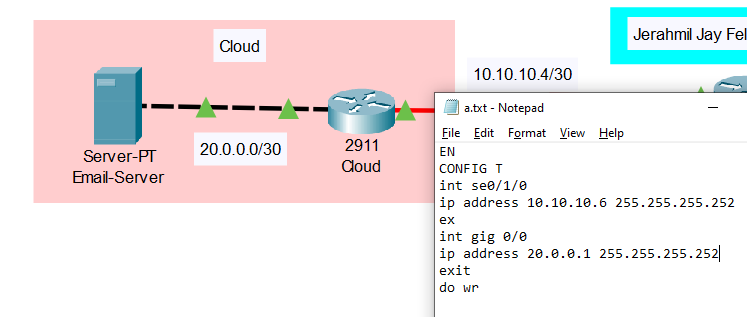


Branch Router:

A screenshot of a computer

Description automatically generated

Cloud Router:



1. Apply IP to server Statically.

A screenshot of a computer

Description automatically generated

1. Inter-VLAN for Branch devices and use DHCP for dynamic IP Addressing.

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

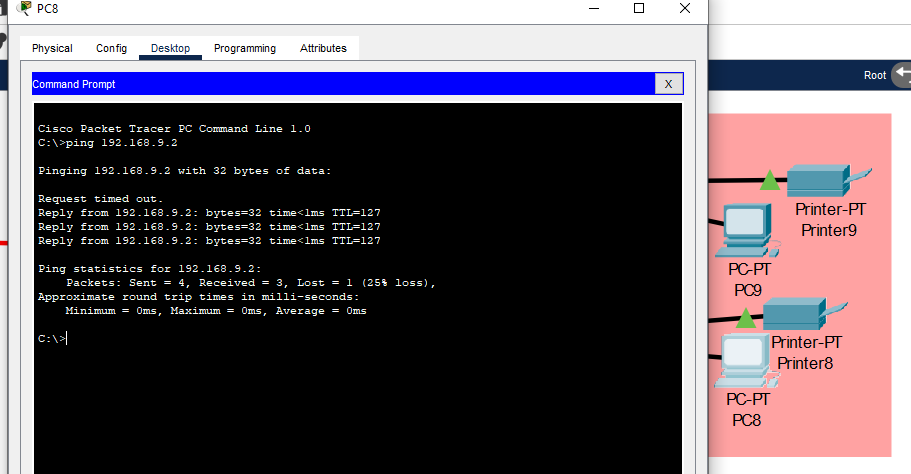
A screenshot of a computer program

Description automatically generated

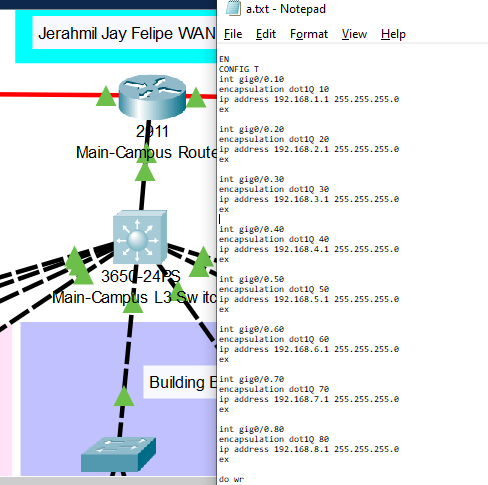
A computer screen shot of a computer screen

Description automatically generated

1. Testing Ping: PC9 to PC8



1. Do the same in Main Network: Creating sub interface in the router.



A computer screen shot of a computer

Description automatically generated

1. Configure all PC with DHCP.

A screenshot of a computer

Description automatically generated

1. Testing Ping.

PC0 to PC7:

A computer screen shot of a program

Description automatically generated

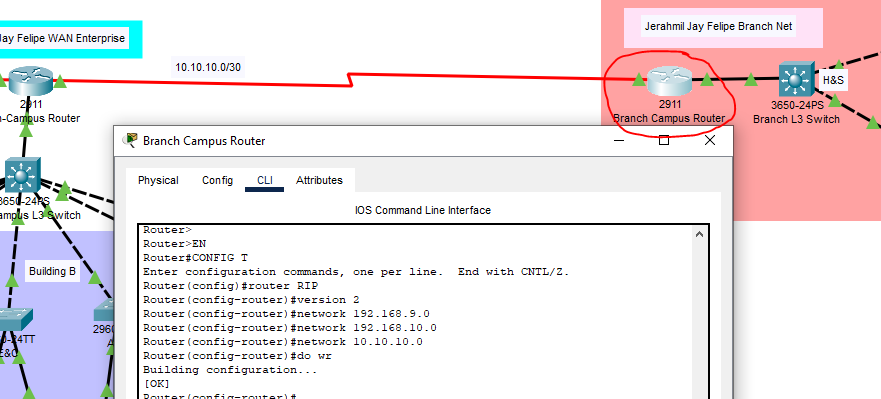
PC4 to PC9:

A computer screen shot of a computer program

Description automatically generated

Note: Communicating to other branch will lead to an unreachable connection.

1. Solving the communication problem of Main and Branch network.



A screenshot of a computer

Description automatically generated

1. Testing Ping.

PC4 to PC9:

A computer screen shot of a computer program

Description automatically generated

PC8 to PC0:

A computer screen shot of a computer program

Description automatically generated

1. Configure Cloud.

A screenshot of a computer

Description automatically generated

1. Testing Ping to the Cloud. PC 8 to Server.

A computer screen shot of a program

Description automatically generated

Overall Output

A diagram of a computer network

Description automatically generated