

The wizards are having trouble communicating with each other in the muggle world. As such, by taking advantage of the technology, they want to build a secret network to enable them to communicate. The representation of the requirements is given below. Create a network and use any method needed to enable them to use the internet as per their specification.

Places they need to connect in their network system:

- Platform 9 $\frac{3}{4}$ - Population size: 100 Staff members
 - 20 of the staff members need laptops.
 - Has a DHCP server to support 200 passengers in the station
- Diagon Alley: Population size: 1230, has lots of customers, each shop has one cashier except Gringots. But, they can only afford 5 Real IPs.
 - Gringots - 300 Users
 - Has a server that needs to securely communicate with others.
 - Has 5 booths
 - One network for the following three with one PC in each
 - Weasleys Wizard Wheezes
 - Olivanders Wand
 - Pewters Cauldron
- Dementors Lounge: Size: 200
 - Well, they need a place to relax too.
- Ministry of Magic
 - The border router that will connect to the Hogwarts School of Witchcraft and Wizardry.
 - This won't allow the dementors network to access the school.
 - It won't allow the Weasleys Wizard Wheezes, Olivanders Wand, Pewters Cauldron to have access to the school either.

Overall Specifications:

- Use Routers and Switches where appropriate.
- You may need to apply VLSM more than once
- Have at least one backup route for two cities
- Use summarization if needed anywhere
- Use static routing for at least one network
- Use RIPv2 on other networks
- You may use at max two PCs to represent all the hosts of a network (no need to put in 32 PCs if it says there are 32 people in the area)
- Ministry of Magic has a server that needs to be accessed by others

Deliverables:

The network mentioned above should be implemented in packet tracer, with necessary devices and full configuration.

After completion you should be able to test the conditions imposed.

As hardcopies, you will have to submit the network topology diagram with proper labels and also all the configurations of all the routers that you have implemented.