

KINGDOM OF XYZ

In Planet XYZ, there are seven kingdoms as follows where network needs to be setup along with the hosts number for each kingdom:

1. The Northerns – (2200)
2. The Valley –(80)
3. The Hammers – (1024)
4. The Midlands – (250)
5. The Unreachables – (760)
6. The Yogurts – (540)
7. The Antiques – (230)

While creating the network infrastructure, there are certain rules that you need to follow:

- Consider the kingdoms mentioned above as Routers.
- There should be connections between some of the kingdoms in the following way:
 - The Northerns to The Hammers
 - The Northerns to The Midlands
 - The Midlands to The Valley
 - The Midlands to The Unreachables
 - The Yogurts to The Antiques
 - The Antiques to The Midlands
- The Northerns will be directly connected to The Antiques.
- The Antiques will again be connected to The Unreachables.
- Using the network address **53.35.128.0/17**, create subnets to assign to each kingdom so that the least amount of IP addresses are wasted.
- **The Unreachables** and **The Valley** will use **static IP addresses** to ensure security while the other kingdoms will get their IP addresses through a **dedicated DHCP server**. This DHCP server will be

present in the kingdom of **The Midlands** server.

- The **Antiques** will have a **web server**. It will host the official website of the kingdom, which says '**Welcome to The Antiques!**' (excluding the quotations) whenever the website is visited from any kingdom network.
- A **DNS server** will be set up in the kingdom of **The Northerns**, which will translate the kingdom of **The Antiques** website URL to an IP address.
- The Northerns and the Antiques will be communicating a lot, which is why they will require Email servers to be set up so that they can exchange mail among themselves. Make sure the email configurations are all set up for sending mail, receiving mail and replying to mail.
- All servers must be configured **manually**.
- Routing in the whole network should follow these rules:
 - Static routing must be present in at least two networks except **The Yogurts**.
 - There must be a floating static route configured between **The Midlands** to **The Unreachables**.
 - Default routes cannot be configured.
 - Showing 2 end devices per network is good enough to represent the whole population
 - You need to be able to ping each place from another after all the configurations are complete.

Deliverables

- The network mentioned above should be implemented in Cisco Packet Tracer, with the necessary devices and complete configuration.
- After completion, you should be able to test the conditions imposed.
- You will have to submit the followings:
 - Network topology diagram with proper labels
 - The configuration commands of all the routers that you have implemented.
 - VLSM tree
 - IP address table