

Project 2 – Simple Company Networking Project

Introduction

XYZ is a fast-growing company in Eastern Australia with more than 2 million customers globally. The company deals with selling and buying food items, which are basically operated from the **headquarters**. The company **is intending to open a branch** near the local village Bonalbo. The network is intended to **operate separately from de HQ network**.

As a small network, the company has the following requirements during implementation:

- a. **One router and one switch** to be used.
- b. **Three departments:** Admin/IT, Finance/HR, and Customer Service/Reception.
- c. Each department is required to be in **different VLANs**.
- d. Each department is required to have **wireless network for the users**.
- e. Host devices in the network are required to obtain **IPv4 automatically**, use **R0 as DHCP Server**.
- f. Devices in all the departments are required to **communicate with each other**.

Assume the ISP gave out a base network of 192.168.1.0, you as the young network engineer who has been hired, design and implement a network considering the above requirements.

Subnetting

- Base network: **192.168.1.0**
- Number of subnets required: 3 -> Number of subnets needed: 4 -> **Mask /26**

Department	Subnet	Mask	Broadcast	From-to
ADMIN/IT	192.168.1.0/26	255.255.255.192	192.168.1.63	192.168.1.0 – 192.168.1.63
FINANCE/HR	192.168.1.64/26	255.255.255.192	192.168.1.127	192.168.1.64 – 192.168.1.127
CS/RECEPTION	192.168.1.128/26	255.255.255.192	192.168.1.191	192.168.1.128 – 192.168.1.191