Voice over IP, noise filtering & data logging

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V.o.i.p Application

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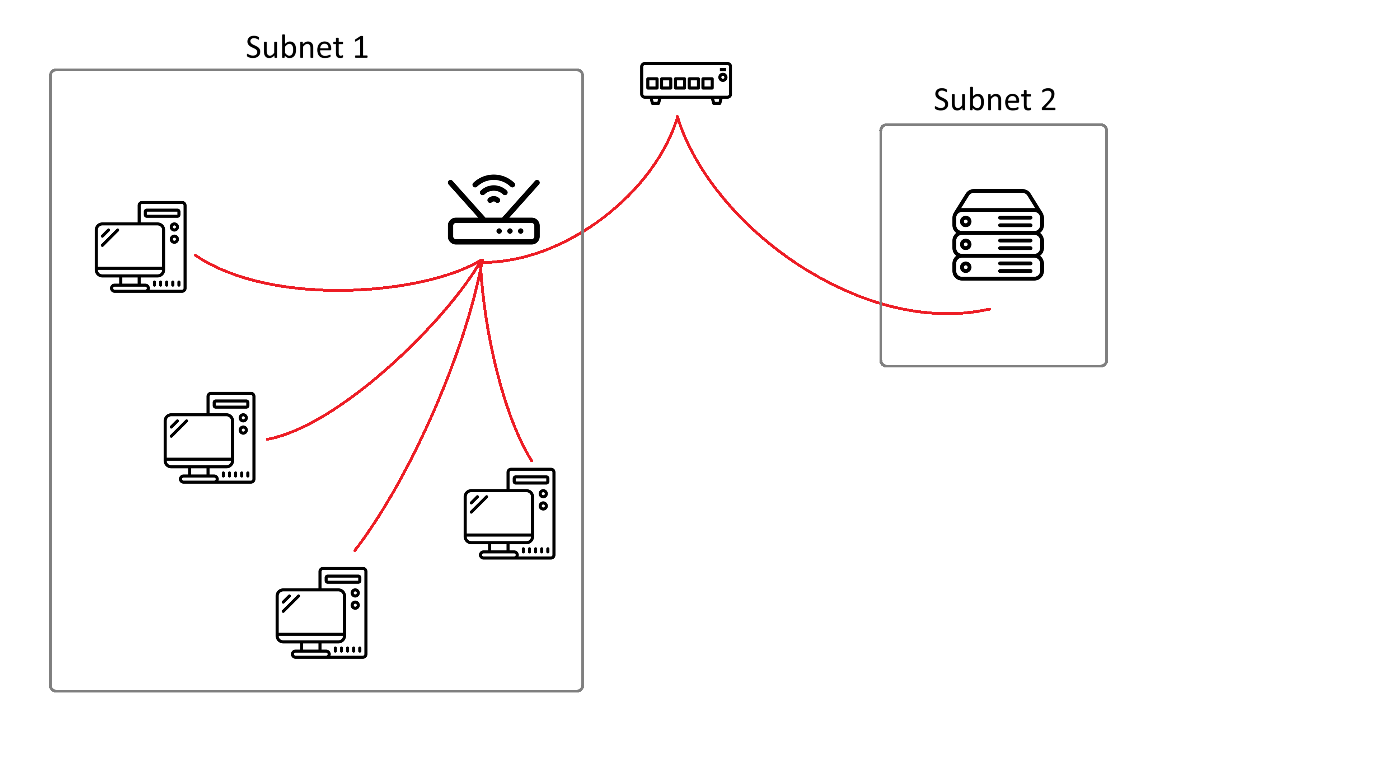
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# Network



## IP Management

The network’s end-user IP addresses will be assigned by the DHCP server, which is hosted on the main network provided by the switch. The router as well as the server will be assigned a static IP address.

The ranges will be 192.168.0.x – 192.168.1.x

The end-users connected to the router in subnet 1 can be assigned a dynamic IP address.  
This can be configured by assigning an IP address to the server and the router through the interface of the DHCP server. This method ensures that these devices will always be reached through the same address.

## Security

To improve network security a firewall will be deployed on both subnets. The router comes with an integrated firewall and allows for NAT. The server will only allow traffic allocated to the following ports and its corresponding services:

* Port 80/TCP (apache2 / http)
* Port 53/TCP&UDP (DNS)
* Port 443/TCP (apache2 / https)
* Port 5000/UDP (VoIP service)

## Services

The network will be provided with an additional webserver. This could potentially be used to access the database.

# 2. Database

## 2.1 Analysis

The purpose of