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**SECR2013-10 NETWORK COMMUNICATIONS**

**TASK 2: INITIAL DESIGN – PRELIMINARY ANALYSIS**

**GROUP 7 – SUNFLOWER**

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**INTRODUCTION**

**QUESTIONS AND ANSWERS**

1. Why we choose this floorplan?
* We choose this floor plan because it’s so simple and easy to understand by anyone.
1. What type of server that we required on our building?
* For **Network lab** we required to use a server that can install and configure network operating system.
* For **IOT lab** we required to use a server that is connected to many sites and many gateways, and a very large number of nodes. Also, easily interact with the server from personal phones or PCs using a web browser or custom applications.
* For **Computer Security Lab** we required to use a server that can reinstall the operating system so it’s clean but confgured state in case of a virus or simply as maintenance. The server can also be used to filter the external information the clients can access it. Besides, we also use the server that can store the profile of each client and back up their work from session to session.
1. What security that required on our building?
* Security that we required on our building is that can physically secure the network to protect against hackers, bots and viruses.
1. What router we use?
* **Wireless router**. It distributes data packets using one or more antennae. Wireless receiver can then receive radio signals and convert them back into binary code and establishes a wireless local area network (Wi-Fi).
* **Virtual router**. Act as a default router for computers sharing a network not like wireless router.
1. What media that we use?
* **Guided media** (consists of 2 separately insulated conductor wires wound about each other) - Optical fibre cable.
* Features of guided media: high speed, secure and used for comparatively shorter distance (e.g in the same building).
* **Unguided media** (no physical medium or wireless is required for the transmission of electromagnetic signals) – Radiowaves, microwaves, infrared.
* Features of unguided media: signal is broadcasted through air, used for larger distances.
1. How many budget?
* Budget is depend on what requirement or model that we use. The more expensive model that we use, the more budget spending is used.
* The hardware recommends offers the best value for money possible.
1. What is network design for the purpose?
* To satisfy data communication requirements while minimizing expenses.
1. What is the estimated size of network; how many users will use the network service?
* **Wide Area Network (WAN).** Covers large geographic areas and uses multiplexers to connect local and metropolitan networks to global communications networks like the Internet.
1. How important is network security?
* A good network security system helps business reduce the risk of falling victim of data theft and sabotage.
* Protect the workstation from harmful spyware.
1. Does the client have an existing network? and what is its function?
* **Local Area Network (LAN).** As it’s common to have this network that share communication line or wireless link within a small geographic area. Usually, this network has applications and data storage that are shared in common by multiple computer users.
1. What is the maximum bandwidth expected for each labs?
* 100Mbps and above. The higher the capacity of the communication link, or pipe, the more data can flow through it per second.

**FEASIBILITY OF THE PROJECT**

* This proposal is for a Network communication to know what is a client wants and needed. In the interview, the client has agreed with our question and answer and also the client seems interested with our project. But , the client has requested his budget for RM50,000 only. So ,we think the budget is not enough for use to do as his wishes. It’s because the more expensive model that he wish, the more budget spending is used. So we think our project is feasible if the client wanted to upgrade his budget and we can fulfill what the client wishes.