The type of network I would recommend for MilleniAds would be a Client-server Network over a Peer-to-Peer Network (PTP). Due to the different types of employees, I chose the Client-Server in order to protect saved and shared files between the workstation. With PTP, there is no central storage location and it can save onto an employee workstation. Depending on the employee, it can be risky to store edited photos onto a financial accountant’s workstation because accountant might not know what these types of files contain and accidentally delete the graphic designers work. A Client-server is more expensive than a PTP, but it allows multiple networks to be handled at a central location.

The Client-Server will need multiple types of servers such as: File and Print Server, Directory Server, Remote Access Server, VolP server, and a few internet appliances. These types of servers will accomplish handling the problems for each one of MilleniAds’ needs. The Remote Access Server will assist the two mobile employees by allowing them access to stationary company files while the employees are on the road or at their homes. The main base of the MilleniAds will need servers like File and Print Server and Directory Server. The File and Print Server will give the employees the ability to share files with each other and print physical copies for the company.

A Directory Server is needed to store employees’ information, but also give user access with the employees’ saved credentials on the computer. A Directory Server will be used to establish the security protocol for the network created for MilleniAds. With a Directory Server and Client-Server Network, I can create workstation’s setting for all the computers without having to configure each workstation.

In order to obtain and keep up security for the network, A active directory and admin password would be used to protect the files in the network. The admin and active directory will protect the workstations from the user’s actions of downloading any type of malware or viruses from the internet. I would also have the company form a group and create an account for each employee. The remote access server will be needed for the mobile employees to use their account for the group.

The User Account and groups information taught in Test out 12.5.1 allows the employees to have their log in custom to their needs and it also allows the protection to the company by denying access to an individual without the correct credentials to enter the group.

The scenario states the employees tend to use mobile devices to handle professional responsibilities. Due to the mobile hardware, I would use a Wi-Fi network connection with a modem and router to connect the workstations to a LAN network. Depending on the size of the building, unbound network devices will prevent the company the need to bunch the computer workstations closely together and it will also give the company mobility with the less usage of wires.

**Final Recommendations (Network):**

* A Client-Server Network with internal components for File and Print, Directory, and Remote Access. The Client-Server will be more expensive than a PTP style. Average small business server base value: $700.00. Value will increase due to upgrade needs.
* Router will be needed for the Wi-Fi access to the network. Approximately average value of $300.00. Approximate average value for 7 of the top Routers in 2019.
* Modem will keep the businesses connected to the internet. Approximate value $170 for a decent modem.
* Creation for user account and user group for MilleniAds to establish additional security and protection for the company’s files.
* Administrative password to protect the company from its own employees obtaining power to download files into the workstation which could infect the network with viruses, malware, and/or unauthorized accessors.

**REFERENCE**:

1. Cdn.testout.com. (2019). *TestOut LabSim*. [online] Available at: https://cdn.testout.com/client-v5-1-10-574/startlabsim.html [Accessed 4 Oct. 2019].
2. The Balance Small Business. (2019). *The 7 Best Small Business Routers to Buy in 2019*. [online] Available at: https://www.thebalancesmb.com/best-small-business-routers-4171956 [Accessed 4 Oct. 2019].
3. Cable Modems. (n.d.). Retrieved from <https://www.bestbuy.com/site/cable-dsl-modem-voip/cable-modems/pcmcat748302046322.c?id=pcmcat748302046322>.
4. Athow, D. (2019, May 8). Best small business servers of 2019. Retrieved from https://www.techradar.com/news/best-small-business-servers.