You are the IT Director of a company (*bigcompnay.com*) that has six different departments, as follows:

1. Human Resources
2. Research and Development
3. Accounts Payable
4. Accounts Receivable
5. Public Relations
6. Payroll

You are building a brand new network (from scratch). For the moment, the assumption is that there is no budget limit. You contacted your ISP and were lucky enough to receive the IP address of 199.128.1.0/24.

You need to subnet your network and the sub-netting must not only allow for a separate subnet for each of the department listed above, it must allow for addition of three more subnets within the next five (5) years. Each of these subnets must be able to support at least 50 users.

It is extremely critical that the Human Resources and Research and Development departments are completely isolated from the rest of the network. You need to design a private IP addressing scheme that will achieve that, in addition to securing the entire private network from outside access. All departments also need fast Internet access so your solution needs to ensure that provisions are made to handle that.

Your Public Relations department will be hosting a web site whereby outside public users can get information about the company’s product and services. It is of utmost importance the public website is not defaced and content is protected.

You also need to design an appropriate DNS Strategy so that both the internal and external names can be successfully resolved by the internal users.

As the IT Directory, you also need to properly manage and monitor all components of the network, including switches, routers, servers, and users’ workstations. Your design and implementation of the network must take this into consideration. You need to describe what you need to accomplish this and how would you about doing it?

Each one of the departments storage needs continues to grow at a very accelerated pace. All these departments need the capability to share data with other departments, while ensuring other data pertaining to them is keep private and secure. Disk read time and write time must be properly optimized and your solution must describe what would you need to do to accomplish this and what type of solution you must implement?

You need to write an essay addressing every single one of the points discussed above, along with a justification and explanation as to why you do it this way? You will get full credit if you answer all points asked and your responses are technical with sufficient explanation. You should be referencing the lecture notes to assist you.

This assignment must be posted in blackboard no later than May 3rd.