Group Assignment

As you have gained experience in the topic of network design and development through this course, the team must design a global organization’s network. This organization has approximately 600 employees distributed evenly among six different departments. Its headquarters is located in Los Angeles, CA, and it has major offices in Madrid, Spain, Tokyo, Japan, and Sydney, Australia. Discuss your IP addressing scheme and whether you implemented subnetting or Classless Inter-Domain Routing (CIDR).

Design the following for availability, reliability, and performance. Explain and support your choices. Include a table of components, quantity, and prices:

* Local area network (LAN) (host to switch using a hybrid of cables and wireless options)
* LAN backbone design (utilizing fiber optics)
* Wide area network (WAN) design with a primary connection and backup connection for redundancy
* IP addressing scheme for the organization’s network (Class B private network address)
* Summation as to how design addresses availability, reliability and performance requirements
* Describe recommendations regarding network security such as hardware and security policy
* Suggest high level disaster recovery or business continuity plan

Prepare a Word document that is between 6–8 body pages in length. Add a title page and abstract. Citations and references must be in APA format. Include diagrams that illustrate your backbone and WAN design. Submit the Word document to the Small Group submission area. Refer to the APA style guide found in the Library for further information.

In the Small Group Discussion Board, deliberate with the other team members about the implications of the LabSim assignments in all units completed to date, including this Unit’s LabSim assignments. Discuss how this knowledge impacted your ability to make the choices that you did in the organization’s network design.

**Assignment Objectives**

Describe the different IP addressing techniques

Define an IP addressing scheme for a small to medium sized organization

Develop a security policy that meets business needs

Apply appropriate techniques, skills, best practices and toolbox to meet business requirements and to solve organizational problems

Summarize tasks necessary to plan for and to complete a group project