**Virtualization Assignment**

Virtualization began in the 1960s, as a method for logically dividing the system resources provided by mainframe computers between different applications. Since then, the meaning of the term has broadened. Today, virtualization refers to the ability to create multiple independent instances of servers and desktops with disparate operating systems running on a single physical computer.

Research and write a 500- to 750-word report discussing virtualization and properly use vocabulary associated with cybersecurity. Address the following:

· Describe the fundamental concepts of the cybersecurity discipline and use them to provide system security.

· Describe the main components of confidentiality, integrity, availability, access, authentication, authorization, nonrepudiation, and privacy.

· Define and contrast the terms host and guest operating system.

· Define the term hypervisor and explain how you would examine attack indicators and attack timing.

· Compare and contrast the different types of hypervisors, how they are used, and the advantages and disadvantages of each.

· Discuss the advantages and disadvantages of a virtualized computing environment.

· Describe how virtualization can assist a cybersecurity analyst in exploring malware.

Support your report with at least 3 scholarly resources.

While APA style is not required for the body of this assignment, solid academic writing is expected, and documentation of sources should be presented using APA formatting guidelines, which can be found in the APA Style Guide, located in the Student Success Center.

This assignment uses a rubric. Please review the rubric prior to beginning the assignment to become familiar with the expectations for successful completion.

You are required to submit this assignment to LopesWrite. A link to the LopesWrite technical support articles is located in Class Resources if you need assistance.