Understanding the factors associated with successful cyber attacks allows for professionals to gain a better conceptual knowledge of trends and methodologies used by malicious actors. In this assignment, we will identify the methodologies used by attackers from a technological standing and research preventive measures that could have protected our systems.

View the "Cyber Operations Case Studies" video within the "Video Playlist: Penetration Testing and Risk Management," located in the topic Resources.  
Research a recent (within the past 5 years) cyber operation conducted by an Advanced Persistent Threat (APT) within an academic journal. Write a 1,200- to 1,500-word case study and address the following:

* Potential motivations that may have prompted an entity to perform the cyber operation.
* Specific phases of a cyber operation in a network traffic and which phases were utilized by the APT against the target.
* How might the targeted organization utilize a penetration test to identify flaws from documentation and how could the penetration test have helped secure the network or system?
* How does a penetration test help support intellectual property from the perspective of the CIA triad?
* Summarize the laws that provide US entities the authority to perform cyber operations.
* Do the laws provide the organization that was attacked with the legal authority to hack back? Justify your answer.
* What appropriate business strategies would you implement to ensure sustainability, availability, and reliability of your network? How are these strategies relevant to stakeholders within your organization?
* How would you apply appropriate qualitative and quantitative analytic methodologies to predict trends and communicate security strategies to meet business objectives?
* From a foundational position, how would the use of various tools, technologies, and concepts of a penetration test support confidentiality, integrity, and availability?

Prepare this assignment according to the guidelines found in the APA Style Guide, located in the Study Success Center.

This assignment uses a rubric. 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.