Implementing IPsec to Establish Secure Tunnels and Communications

Cyber security has become increasingly important in our everyday lives. Many people are unaware that their private and sensitive information is not secure. Recently, Edward Snowden leaked classified documents from the NSA regarding their surveillance practices of our personal information. These documents revealed that the NSA was spying on millions of Americans and taking away their data privacy. In addition, the Fappening occurred in August, 2014 where many celebrities were victims to a massive invasion of privacy. Approximately 500 private photos of celebrities were obtained from Apple’s iCloud service from hackers and were posted on various websites and social networks such as Imgur and Reddit. This has shown us that our communications aren’t secure. The implementation of a secure internet communication is vital. As a team, our mission is to use IPsec to create secure tunnels to communicate with each other. IPsec uses cryptographic security services and authenticates and encrypts each IP packet to protect communication within a network. We plan to solve this problem by establishing secure tunnels between our computers so our information is protected. This is our strategy to minimize any security vulnerabilities in our computer systems.

*Keywords: Cyber security, Communication, IPsec, Edward Snowden*