Short Essay

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Network security and cybersecurity are used interchangeably, as they provide a set of rules for securing both computers as well as networks. However, both of these terms are different. This essay will provide arguments regarding why network and cybersecurity are different. Network security comprises of policies and practices that are adopted to prevent and monitor unauthorized access, any misuse, and network-accessible resources. It also facilitates in preventing and protecting against the unauthorized intrusion into various corporate networks (Bishop, 2003). In short, network security is a set of particular rules and protocols that are designed to protect the integrity, accessibility, and confidentiality of computer networks. On the other hand, cybersecurity is a way of defending computers, servers, electronic systems, networks from multiple malicious attacks (Bishop, 2003).

Cybersecurity is a broader term while network security can be considered as the subset of cybersecurity responsible for protecting, not only network, but network-accessible resources from any unauthorized access. The role of network security is to safeguard an organization’s IT infrastructure from multiple cyber threats such as viruses, worms, spyware, adware and other service attacks. Typically, in many organizations, network security teams install hardware and software necessary to protect the security architecture. Several components of network security are there which work together in aiding and improving the security of the network. However, the most common components are Anti-Virus Software, Firewalls, Intrusion Detection & Prevention Systems also known as (IDS/IPS) and VPNs (Virtual Private Networks) (Orchier & Byreddy, 2000). During an attack, when network security is compromised, it is necessary to get the attackers out of the system, as quickly as possible, as the longer attackers stay in the system, the more time they have to steal confidential data.

While discussing cybersecurity, it is the subset of information security that facilitates in defending an organization’s computers, data, and networks from unauthorized digital access or damages, while implementing technologies and various processes and practices. The cybersecurity professionals are responsible for monitoring incoming and outgoing traffic on the network to minimize the risks of cyber-attacks, while protecting the organization from any unauthorized exploitation of systems. Cybersecurity provides a set of rules to not only protect the network but to provide updated information regarding multiple attacks and different methods of attacks that comes under cybersecurity (Craigen & Purse, 2014). It also safeguards the network from outside attacks and avoids unintended breaches from within the organization.

In the context of data, the critical component of both cyber and network security is data integrity, yet, cybersecurity takes monitoring data and threat detection to a greater degree as compared to network security. If an organization is considered a fortified castle, then network security can be considered responsible for maintaining peace and securing inside the castle, thus protecting the sovereignty of an organization from network-related threats. In contrast, cybersecurity is responsible for protecting an organization from various outside threats (Kisor & Calderwood, 2001). It facilitates in protecting an organization from digital attacks such as phishing, in which a hacker attacks through emails or chats to gain confidential information, or pretexting where attacks impersonate an authoritative figure to obtain personal data. Similarly, cybersecurity, also protects from attacks, such as baiting, in which an attacker leaves a malware-infected device that, if used, can facilitate the attacker to access the personal information (Craigen & Purse, 2014)

To conclude this subject, cybersecurity is considered a subset of information security, whereas, network security is considered as a subset of cybersecurity. Cybersecurity deals with the security of data at storage and transit, whereas, network security deals with the protection of the IT infrastructure of an organization while restricting access to the confidential data from any unauthorized entity. Although in many pieces of research, cybersecurity is a term used in a broader sense while network security is merely one aspect of information and cybersecurity.

**References**

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