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**Objective:**

Upon completion of this activity, you will be able to identify components of virtual private networks and evaluate vpns along various effectivity criteria.

**Student Instructions:**

1. Research online at least three VPN products. Identify components: how do they protect the data? Rank each product in terms of desirability as it complies with the three principles of cybersecurity: Confidentiality, Availability, and Integrity.
2. Submit it through your **Assignment** link provided.
3. This assignment is worth 45 points.

When evaluating VPNs for secure browsing, it’s important to consider not just the brand name, but how well the service aligns with the core principles of cybersecurity: confidentiality, integrity, and availability. While many VPNs promise privacy, not all deliver equal protection. Based on current research and testing, Mullvad, TunnelBear, and Proton VPN stand out—each offering a unique mix of features designed to protect your data while maintaining usability. Understanding how each VPN approaches privacy and security can help users make informed decisions, especially when trust and transparency are paramount.

Mullvad is a standout choice for privacy-focused users. Unlike most VPNs, it doesn’t require an email or password—just a randomly generated account number. This anonymity-first approach extends to payment methods, with even cash-by-mail accepted. Mullvad supports strong encryption protocols like WireGuard and OpenVPN, offers features such as split tunneling, multi-hop connections, and a built-in kill switch that stays on by default. Regular third-party audits, public leadership, and a clearly written privacy policy all add to its trustworthiness. Though it limits users to five devices and has fewer server locations than some competitors, its balance of affordability and transparency makes it a top-tier option.

TunnelBear takes a friendlier approach to VPN usage, pairing strong security standards with an approachable design. Its playful interface makes it accessible to users who might otherwise feel intimidated by VPNs. But beneath the surface, TunnelBear is serious about privacy. It’s one of the few VPNs with a long-standing record of annual third-party audits and includes core protections like a kill switch, obfuscation, and support for multiple protocols. What sets it apart is its unlimited device support and ease of use. It lacks advanced features like multi-hop routing, and its server network is slightly smaller than average, but for most users, it’s more than enough—especially if you value simplicity and trust.

Proton VPN offers the most generous free plan available, making it a strong budget-friendly choice. While most free VPNs come with steep limitations or questionable privacy policies, Proton VPN bucks the trend. It imposes no data caps and is backed by a well-respected security company. Free users are limited to one device and a smaller set of servers, and advanced features like multi-hop routing are reserved for paid plans. Still, it supports modern encryption protocols, includes a kill switch, and even offers access to the Tor network. It’s not as streamlined or consistent as Mullvad or TunnelBear, but its free tier alone makes it a valuable option—especially for those looking to add an extra layer of privacy without paying upfront.

In short, all three VPNs serve different needs. Mullvad is best for users who want maximum privacy and transparency. TunnelBear is ideal for those who prioritize ease of use and a welcoming experience. Proton VPN is a solid choice for those seeking reliable protection on a budget. No matter which one you choose, ensuring your VPN is backed by sound security practices is what truly matters.

References:

[1]

M. Eddy, “The Best VPN Service,” *Wirecutter: Reviews for the Real World*, Apr. 27, 2018. <https://www.nytimes.com/wirecutter/reviews/best-vpn-service/> (accessed Apr. 03, 2025).