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8-2 Journal: Portfolio Reflection

CS-405

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Without a secure coding standard, there is no benchmark against which to gauge how well an application safeguards information and services. By baking security in from the start, the upfront cost is offset by the reduction in "long-term costs which may arise if an exploit results in the leak of sensitive information of users." (Morrow, 2024)

In order to properly secure an information system and its data, a risk assessment must be conducted in order to understand what is important to secure, and how by whom it might be exploited. This includes understanding the motivations of the different types of hackers from script-kiddies who have limited skills and may only be seeking social credibility, to criminals seeking financial gain, to hacktivists trying to gain a political result and state-level actors conducting espionage and preparing access for physical impacts. There are tradeoffs in terms of money, time and effort when it comes to security. Most companies do not have unlimited financial resources to secure their systems; a risk assessment helps identify areas to focus on preserving and how to do preserve them.

Zero trust is a complete 180 from the goals of the early internet, which was to provide connectivity, access and redundancy across disparate systems. Zero trust has several

implications- do not trust any user or device with any service or data they are not authenticated for and authorized to use. Second, assume the network is already breached; segregate systems and networks to limit the impact of a breach. Every access request needs to be authenticated, authorized and even encrypted. Requests should be treated as if they come from an outside network.

Security policies have an up-front cost, but rarely cost more than a breach and recovery efforts. They should be tailored to the specific needs and constraints of the data and systems being protected. They should be clear, but not overly prescriptive lest they develop a false sense of security; just because security policies are developed and followed doesn't mean all risks are eliminated.

Bibliography

Morrow, S. (2024, 09 19). *What is Secure Coding and Why is It Important*. Retrieved from vpnoverview.com: https://vpnoverview.com/internet-safety/business/what-is-secure-coding/