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The CIA triad Fundamentals

BLUF

This write up covers a brief synopsis of what the CIA triad is with reference to Wesley Chai's article.

Additionally describing the difference between authentication and authorization as they are in fact different.

CIA Triad Breakdown

CIA triad is short for Confidentiality, Integrity, and Availability. However, it is best to remember it by AIC as not to mix up the Central Intelligence Agency. For the information security side of an organization, this is an important model to guide policies. Confidentiality is your privacy and there can be a large amount of data associated like personally identifiable information, but measures are put into place so this information cannot be damaged or leaked. Integrity is often seen as “consistency, accuracy and trustworthiness of data must be maintained over its entire lifecycle...” and requires no alterations be made in transit from unauthorized users (i.e., data breaches). Availability is on the simpler side of “consistently and readily accessible for authorized parties.” This in term means holding and displaying information by maintaining hardware, infrastructure, and systems. This is a security model that has deemed these three letters important and foundational. Some people will disagree and want to adopt a new framework, but the CIA triad has helped with evaluating and focusing on how these areas remain the focus.

What is the Difference?

When we think of authentication and authorization, they sound alike. However, the meaning behind them is different. Authentication is verifying an identity of a user where people can use extra measures by

confirming they are the said person by using two factor authentication which can be seen commonly with school accounts, Microsoft, government type of accounts and more. Authorization on the other hand is more of, should this person be allowed access, do they have a need to know for this information, and what level access do they have and should they be given for systems and data. There is often an obvious distinction when working with a larger organization or government between these.

Conclusion

In conclusion, the CIA triad is a crucial factor for an organizations security model and policy while it is still a stable and working framework. For authentication in short, it is like asking who you are? While authorization is determining if you have a need to know, or if you are allowed to access data within a system.

References

Chai, W. (2023, December). *What is the CIA triad (confidentiality, integrity and availability)?*. TechTarget. <https://www.techtarget.com/whatis/definition/Confidentiality-integrity-and-availability-CIA>