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The CIA Triad

The article gave a descriptive breakdown of the CIA triad and the importance of its components in the world of cybersecurity. Additionally, the article went further to describe its history starting in the mid-1970s and becoming more widespread in the late-1980s. The CIA triad is an ever-evolving system that revolves around the core fundamentals of confidentiality, integrity, and availability.

What is it?

The CIA triad is a system of guidelines and polices to secure information within an organization. It is comprised of the ideas of confidentiality, integrity, and availability which play a key role in ensuring the security of information. For instance, the article explains how confidentiality determines who is authorized to view the information and what they can do with it, integrity ensures that the information is consistent, accurate, and trustworthy in its lifetime, and availability gives authorized users the ability to access the information when needed (Chai, 2022).

Examples of the CIA Triad

According to the University of Delaware, multiple forms of confidentiality include encryption, strong passwords, two-factor authentication, and physically securing the data (Managing data confidentiality 2020). Furthermore, Hevo describes multiple forms of data integrity such as physical integrity by safeguarding the data's completeness and logical integrity

by reducing human error and hackers (*Maintaining Data Integrity: 6 best practices* 2021). Examples of keeping integrity includes a recovery method and taking nonrepudiation measures. Lastly, availability is kept by having additional secure copies of the information, proxy servers, and firewalls.

Authorization & Authentication

Authorization and authentication are two important processes in the confidentiality of information. According to Onelogin, authorization is the process of determining who can access information and what level of access they have to the information. They also describe how authentication is the process of verifying who you claim to be (*Authentication vs. authorization: What's the difference?* 2022). A form of authorization is an access control list in an organizations system while a form of authentication may include biometric systems, physical devices, or passwords (*Authentication vs. authorization: What's the difference?* 2022).

Conclusion

To wrap up, the CIA triad provides a system of guidelines and policies to protect the information within an organization. The CIA triad is made up of confidentiality, integrity, and availability of information. Furthermore, it is an ever-evolving system as hackers find more ways to breach data that must be kept secure.

References

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