

John Heath

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The CIA Triad's Meaning and Purpose

The CIA Triad is a model that represents the basics of developing a cybersecurity system. It consists of Confidentiality, Integrity, and Availability. It can be used as a checklist to ensure the creation of a capable cybersecurity system.

The CIA Triad

The CIA Triad is a foundational model that can help a professional, group, or organization develop sufficient security systems. CIA stands for Confidentiality, Integrity, and Availability. Those three traits are crucial for ensuring capable security systems, as they work together to guarantee system security. By utilizing the CIA Triad, organizations can better manage risks, deal with threats, and guarantee fluidity within their security systems.

Confidentiality

Confidentiality is the act of keeping sensitive information private. There are some differences between confidentiality and privacy, the most important being some of the rights of confidentiality, such as the *Right to be Forgotten*. Confidentiality in cybersecurity can be seen by analyzing online banking security practices. By requiring a routing and account number when using online banking, the bank ensures confidentiality between them and the user, keeping unauthorized users out of the bank account.

Integrity

Integrity involves “maintaining consistency, accuracy, and trustworthiness of data over its entire life cycle” (Chai, 2023). Data integrity is a key aspect of ensuring system security, as the misuse of data can lead to the loss of sensitive information and money. Additionally, upholding data integrity helps build trust with users, employees, and organizational interests.

Availability

Availability’s importance is rather obvious, as systems are completely useless if they are not available. Available systems have “consistency and readily available access for authorized parties” (Chai, 2023). Organizations rely on systems such as databases, networks, and cloud services to be constantly available. If they are not, the company is sure to run into issues in operation and security.

Conclusion

The CIA triad is a vital foundational framework for ensuring system security. It can be used as a “checklist for cybersecurity projects”, guiding organizations to develop confidential systems, display integrity, and be readily available (Crume, 2023). By combining all three components, organizations can create a strong sense of security. Ignoring even one of the three principles within the triad will leave systems vulnerable to attacks, disruptions, and data compromise.

References

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