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CIA Triad

BLUF: The CIA triad serves as a foundational framework for cybersecurity professionals.

Significance of the CIA Triad

CIA stands for Confidentiality, Integrity, and Availability. The CIA triad is fundamental to cybersecurity, providing essential knowledge for anyone advancing in the field.

Confidentiality

Confidentiality ensures privacy, safeguarding your personal information from unauthorized access. Data is classified by its risk of degree if acquired by an unauthorized party. The data's classification determines the level of security measures implemented.

Integrity

Integrity focuses on maintaining the accuracy and reliability of data, preventing unauthorized modifications. This concept ensures that data remains unchanged by unauthorized figures in transit. It acts as a second line of defense if confidentiality is breached.

Availability

Availability ensures that authorized individuals can access and modify data as needed while maintaining the necessary hardware and infrastructure. Data is easily and readily accessible to authorized parties in this concept.

Authentication

In addition to the CIA triad, Authentication verifies your identity and determines if you have the right to access specific information or services. Examples include passcodes or Face ID on an iPhone.

Authorization

Differing from Authentication, Authorization ensures that only specific individuals can access certain information, such as sharing a file with a friend where only you and they can view it. Authorization decides what data the authorized person is allowed to access, whereas Authentication checks the authority and credibility of a user before allowing them access to data.

Conclusion

Anyone looking to advance in the field of cybersecurity must understand the fundamental knowledge provided by the CIA triad.