

CIA triad

The CIA Triad is the basis of all IT and cybersecurity information. This triad stands for confidentiality, integrity, and accountability. The first records of the CIA triad date back to 1976, with confidentiality proposed first, followed by integrity in 1987. Finally, in 1987, a paper written by David Clark and David Willison highlighted the need for accounting records and data correctness. This then led to accountability being thought of a year later. The C stands for confidentiality; this means that information should be accessible only to authorised users and out of the reach of unauthorised users. An example of this would be using 2fa to encrypt files. The I stands for integrity; this means users should be able to trust that their data is accurate and has not been tampered with in any way. An example of this would be using backups and recovery software in the case of a technological failure. Finally, the A stands for Availability; this means that authorized users should be readily available to access data when needed. An example of this would be ensuring that all systems and applications are updated to give users the best experiences.

Authentication and authorization also go hand in hand with the CIA triad. Authentication is the process of verifying the identity of a user. Authorization is the process of granting or denying access to a user or device based on their identity or (authentication). The difference between these two is that authentication only checks to make sure that you are who you say you are, but authorization actually gives permission or access to information. An example of this would be sharing a Google Doc. I have to sign in, meaning I have to authenticate myself, then I can go in and make a doc and share it with someone and authorize them to make edits.

Cited sources:

“What Is the CIA Triad_ Definition, Explanation, Examples - TechTarget.pdf.” *Google Docs*,
 What is the CIA Triad_ Definition, Explanation, Examples - TechTarget.pdf
Fortinet. “What Is the CIA Triad and Why Is It Important?” *Fortinet*, 2025,
www.fortinet.com/resources/cyberglossary/cia-triad.