

The CIA Triad and Authentication

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The CIA triad was designed to guide policies for information security in organizations. The CIA triad model is made up of three core principles. The first principle is confidentiality, to ensure that the sensitive information is only accessible to authorized individuals. Strong measures must be implemented to prevent unauthorized access, data, and identity theft.

The second core principle is integrity. To make sure that the data is and remains accurate, consistent, and most importantly trustworthy to the customers using the service. Protecting data from unauthorized use and being able to detect and prevent it.

The third core principle is availability. Ensuring that the data and services are accessible and usable by the authorized users whenever needed. Making sure to minimize downtime and making sure they have timely access to the service. Recovery plans, system backups and monitoring the network are needed.

Authentication and Authorization are closely related concepts in security but serve different purposes. Authentication is the process of verifying the identity of the user trying to access the system of the service. To make sure the user is who they are claiming to be. Things like passwords and other multi-factor authentication measures would be in use.

Authorization is the process of determining what actions and resources user can access after the authentication was successful. It involves granting and denying permission based on the user's identity.

In summary, while authentication verifies the identity of users, authorization determines what actions or resources they are allowed to access within a system. Both authentication and authorization are crucial components of access control mechanisms in information security architectures.

Work Cited

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