

CIA Triad Write Up

The CIA triad stands for Confidentiality, Integrity, and Availability. These three concepts form the basis of every good cybersecurity relationship in a company. Confidentiality refers to safeguarding data stored online. This can be done through two factor authentication, encryption, or biometric verifications. A good practice is to train employees in the importance of handling sensitive documents and keep access lists and permissions up to date. Integrity revolves around maintaining the privacy and confidentiality of data. Having firewalls to detect changes in traffic or data as well as backups in cases of emergencies. Availability consists of using servers to access the data that someone is authorized to access. This is done through having up to date hardware that functions properly and securely. Having an authorized access list allows the proper users to access the correct data without breaches of privacy. It is also important to have backups stored in a protected area and extra security measures, such as firewalls to prevent data from being hacked or breached.

Many people might get authentication and authorization mixed up. Authentication is the process of verifying who someone is. The goal is to make sure you are exactly who you say you are. This is done through passwords, biometric data, and Ids. This prevents another person from pretending to be you and stealing information online. An example of authentication is the face id on your phone. This application allows the phone to digitally recognize you using facial recognition and allows you to open your phone. If someone else were to try and open your phone, it would not let them because their identity is not confirmed.

Authorization determines what information or resources a person can access. Many companies have information that certain jobs need access to but could be irrelevant to others. Being able to access certain information means that someone has the authorization to see those materials. The military has a good example of this. Everyone who has access to a military base has a DOD identification card. To access the base, a security guard must scan it and allow you onto the base. This is important so that unauthorized users do not get inside the base and steal military secrets or information.

Sources:

MKS075. “Difference between Authentication and Authorization.” *GeeksforGeeks*, 1 Sept. 2022, <https://www.geeksforgeeks.org/difference-between-authentication-and-authorization/>.

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