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9/18/22

## The CIA Triad, Authentication and Authorization.

*The CIA Triad is a cybersecurity model that was created in order to help guide businesses and organizations when making information security policies. The three pillars of the CIA triad are, Confidentiality, Integrity, and Availability.*

### The CIA Triad.

Designed to help guide companies in security policy creating the CIA triad comes down to three basic principals.

The first of these three principals is Confidentiality or, privacy. Often times this can be as simple as additional password requirements and two factor authentication, or sometimes it can include additional training for people that may be required to access sensitive information. The main goal of confidentiality however is to make sure that information is secure both in storage and in transit until authorized users need to access it.

The second principal is Integrity. Integrity measures include things from file permissions to user access controls. Another part of Integrity is backups and failsafes, the most common function for these failsafes are to provide backups in the event that important information is accidentally deleted or lost in during a server crash.

The third principal of the CIA triad is Availability. One of the best ways to maintain availability is proper upkeep of software and hardware. This can be ensured by regular maintenance along with proper testing and keeping consistent with upgrades across

multiple platforms. Another core part of availability is to make sure that authorized users are able to access information whenever and wherever they may be. Often times security can be a challenge when trying to make information available to the users as they may be connecting from different locations a networks.

## Authentication and Authorization.

While not being one of the three main points in the CIA Triad, authentication and authorizations are involved with all there points in their own way, thus it is important to know the difference and where each one comes into play.

Authentication is used when verifying either the identity of users or services. This is why two factor authentication was created, as a way of confirming that the account logging in is actually in the hands of the correct user.

While authentication is used to confirm the identity of a user, authorization is what determines the information that a user can access. The important thing to remember is that authentication always comes before authorization.

## Conclusion

Overall the CIA triad is a very important tool when it comes to making information security policies, and each of its core principals plays an equally important roll when it comes to the end result. Another thing to keep in mind is the roll that authentication and authorization play in each of the three parts of the CIA triad, while not being named with one their own outside of the other functions, authentication and authorization are arguably just as important.

## Sources

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