

What is the CIA Triad?

In this write up I talk about what the CIA Triad is and the differences between Authentication and Authorization. In the CIA Triad, you have Confidentiality, integrity, and availability. I'm going to be discussing each of the terms in the CIA Triad and what they each mean.

Confidentiality

In the CIA Triad, you first have the “Confidentiality” part of it. Confidentiality is the same thing as “privacy.” Confidentiality has measures to it. The measures are designed to prevent sensitive information from gaining access to unauthorized attempts. Confidentiality is very important because if unauthorized people gain access to something they are not authorized to have access to it becomes a big problem. It can be a problem for huge businesses and organizations. It could also be a huge problem for certain companies and individuals.

Integrity

When you talk about the CIA Triad, you also have to mention “Integrity.” Integrity has to do with keeping the consistency, accuracy, and trustworthiness of data over a long period of time. Steps must be taken to make sure that unauthorized people don't gain access to this confidential information/ data. The data also cannot be changed.

Availability

Also in the CIA Triad, you have “Availability.” Availability is when the information should be quickly and accurately accessible for authorized users. In order to do that you must carefully be able to maintain the hardware and technical infrastructure and systems that hold and show the information.

Authentication v. Authorization

Authentication and authorization are two different things with different meanings.

Authentication is a process that verifies who someone is. On the other hand, Authorization is the process of verifying what the user has access to. Such as files, applications, and data. They both work together to make sure that users can't just go into an application and do what they want. This is a big part of "Information Security." Without those two, your application/ data is not protected.

Conclusion

In conclusion, the CIA triad is very important. You absolutely need Confidentiality, availability, and integrity to work together to protect applications/ data. Without those working together, users would have access to all your information. You also need Authentication and Authorization in place for your security. Authentication is a process that verifies who someone is. Authorization on the other hand is a process that verifies what the user has access to.