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THE CIA-TRIAD

Introduction

The purpose of this report is to define what the CIA-Triad is and the differences between Authorization and Authentication. The CIA triad is important because it helps prevent data breaches and organize company information and security. It is an effective and easy to use checklist for the assessment of company security. Authorization and Authentication is important because it is important to make sure company data does not get into the wrong hands.

What is the CIA-Triad

The CIA-Triad stands for Confidentiality, Integrity, and Availability. Confidentiality protects an organization by making sure company data is as hard to access by unknown hackers as possible and easy for the ones who are authorized access. Humans forget and make mistakes. Sometimes things aren't communicated properly and information gets lost, forgotten, or messed up. By using technology that allows you to keep company information confidential but accessible to those who are authorized to have access to it, it helps make life easier for the company.

Examples of confidentiality technology include multi factor-authentication, access control policy, classifying important documents as restricted data, etc.

Integrity protects an organization by ensuring data is reliable and safe from unauthorized changes. When things are sent within a company it is important for the information to be accurate. If not it causes distrust and disorganization within the company. Hackers may try to hack someone's email and ask for confidential information, make unauthorized changes, etc. with integrity verification technology we can make it harder for these unfortunate situations to occur. Some examples of integrity verification technology would be non-repudiation.

Availability protects an organization by making sure information is available to reach to whom the information may concern. There needs to be steps to take in case other forms of accessing important information do not work or if something crashes. To make sure data is always accessible to the right people, organizations can employ backup networks, servers, and applications.

Authorization

Is a procedure that assesses and decides how much access a user or service should have.

Examples of this include access control lists. This means who is allowed to access the data.

Authentication

The process of verifying the identity of someone trying to access confidential information.

Examples of this would be multifactor authentication and biometric authentication. Multifactor

authentication is a way to prove your identity by giving two or more verification factors to get access to certain applications and resources. Biometric authentication is a cybersecurity method that confirms a user's identity by using their distinct biological characteristics like fingerprints, voice, retinas, and facial features.

Conclusion

In this report we discussed the importance of the CIA Triad, authorization, authentication, and the many benefits that come with using this checklist to help keep an organization's data more secure and is always available to access for the right people. Using these concepts makes it easier to avoid miscommunication and human error and life easier for companies in the future.

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