**WHAT IS SECURITY ARCHITECTURE**

Security architecture is a set of security principles, methods and models designed to align to your objectives and help keep your organization safe from cyber threats. Security architecture translates the business requirements to executable security requirements.

Alternatively, “IT Security architecture is a unified security design that addresses the necessities and potential risks involved in a certain scenario or environment. It also specifies when and where to apply security controls. The design process is generally reproducible” – Technopedia

**PRINCIPLES OF IT SECURITY ARCHITECTURE**

1. Availability - It is important to ensure timely access to information or systems.
2. Defence of Depth- The level of security needed should be determined by applying different layers of security.
3. Identification - Assess access privileges and identify users.
4. Separation from Duties - Maintain separate access rights for tasks and duties. Break it down in steps
5. Data Classification - Organize data into categories ranging from highly confidential to public information.
6. Least Privilege - The right amount of access should be given to systems and users for doing their specific tasks.

**FOUR SOLUTIONS OF SECURITY ARCHITECTURE**

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| Operational Security  The purpose of operational security is to ensure that sensitive information is kept secure and protected from unauthorized access.  Uses In application:  We can implement a standard operations procedures which would run all the day to day operations of the business. This would allow for data access from any needed location without the need to travel. They would allow for data recovery from any major outages and natural disasters. | Data Security  Throughout its entire lifecycle, data security ensures that digital information is secure from unauthorized access, corruption, and theft.  Uses In application:   * Only Government/ University/ Organization can access the admin tools * Only Government/ University/ Organization can set the status of the applications * Only Government/ University/ Organizationcan access the databases of job applicants and grant applications |
| Personal Security  Personal Security in the program allows for user authentication and IT security awareness. This could include passwords, biometrics, card machines or a combined method of units using personal and physical solutions.  Uses In application:   * User/Government/University/Organization login * Only the user that signed in can view their OWN application * Only Government/ University/ Organization and the logged in User can view the documents | Physical Security  This is the overall location security that is implemented to protect the IT processing equipment, networks, control of access to IT equipment. Also protection against fires, media storage and disaster recovery systems. |