

Data Architecture in enterprise architecture is the design of data for use in defining the target state and the subsequent planning needed to hit the target state. It is usually one of several architecture domains that form the pillars of an enterprise architecture or solution architecture.

A data architecture describes the data structures used by a business and/or its applications. There are descriptions of data in storage and data in motion; descriptions of data stores, data groups and data items; and mappings of those data artifacts to data qualities, applications and locations.

Essential to realizing the target state, Data Architecture describes how data is processed, stored, and utilized in a given system. It provides criteria for data processing operations that make it possible to design data flows and also control the flow of data in the system.

During the definition of the target state, the Data Architecture breaks a subject down to the atomic level and then builds it back up to the desired form. The Data Architect breaks the subject down by going through 3 traditional architectural processes:

- Conceptual - Represents all business entities.
- Logical - Represents the logic of how entities are related.
- Physical – The realization of the data mechanisms for a specific type of functionality.