

Conceptual Data Modelling – Secure Archiving, Auditing, Versioning, and History

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Secure Archiving

Secure Archiving in an Electronic Commerce/EDI environment is often understood to mean the storing of the electronic data as received or sent via the Electronic medium. The need for secure archiving is often driven by a legal requirement to keep an exact copy of data as received in case of litigations.

Typically the data is stored together with a timestamp. Business needs drive the need for other attributes such as the sender, the targeted system within the organisation, etc.

Auditing

Auditing is typically implemented to satisfy audit requirements.

Versioning

Versioning is typically a response to a specific operational requirement identified by the business.

Examples include:

In the context of an application for a grant - the need to record that a document was received and subsequently modified; each version of the document being perceived by the business as a new version. In this context the version carries a legal connotation which may already be covered by Secure Archiving - assuming that all data received by the business are stored on an electronic medium even if originally received on paper.

Some businesses want to store the entire document as a different version whilst others store the other versions as amendments(or deltas) to the original versions. The choice is driven by the business need - what will the business need to do with the data? Will the deltas be analysed? Will the document be retrieved as a complete, current version or should the deltas be readily available at all times?

Historical Data

The need to store historical data is purely driven by operational requirements.

In the case where the data will not be available in its entirety as a searchable resource as it may be the case for some organisations which replicate all historical data in a data warehouse type of environment there is a need for careful analysis of what historical data is needed to successfully carry out daily duties.

The historical data requirement specifies which data is needed for what function and in which summarised form. History entities are subsequently modelled and validated against the process they support.