

The modern world of data management has moved from being simply for bespoke developments to taking on a corporate view across the entire enterprise. Data is no longer simply contained in in-house systems. With such a complex landscape, how can businesses be sure that data flowing through their sys-

Preventing a data disaster

Data is the lifeblood of any organisation, so why don't we manage it the same way we manage our other business assets? Chris Bradley explores the need to get back to basics with the control, definition and context of business data.



tems is consistent? Who controls the data, its definition and use (or uses) within a business?

A series of four data management webinars between October 2008 and January 2009 (ERP systems, data lineage, metadata and data models for SOA and XML development) were designed to demonstrate a universal and important theme: data modelling is not just for physical databases.

The need to nurture data

With data from so many locations, the need to control data affects businesses right across the board. As systems such as SAP and Seibel software were introduced, organisations often neglected data modelling, assuming the packages were enough and the bigger data management picture was often neglected. Yet data modelling is still essential to control, communicate and define that data within organisations.

Without it, inconsistencies appear in business data shared between sectors. A data management application shows the physical connections in a database, but data modelling provides the blueprint for integration across all the business's applications.

Adding up the numbers

Data is collected and used across various sources and applied in differing ways between separate opera-

tions. For example, the use of the term "customer" could have many meanings. But how can you see how the data flows and transforms from one system to another? This is particularly important when loading data from legacy source systems and is where the process of data lineage fits into the overall data management framework.

New, old and external systems are increasingly required to communicate. As data moves between systems, it can be exposed to re-interpretation. If a business does not understand how data transforms through its systems dramatic consequences can arise. Furthermore understanding how financial data is transformed as it moves through systems is now a requirement of the Sarbanes Oxley Act.

New approaches to data management

Services Orientated Architecture (SOA) is a relatively new approach to building application systems, and brings with it new data management challenges.

The management disciplines of handling data in SOA are not yet widely understood. SOA defines processes and data as separate concepts, which could lead to varying definitions existing across components of the eventual application. Without added data modelling in SOA, the definition and context of data may not always align correctly.

Issues have been seen in the reporting of data from SOA applications. The use of data modelling alongside even the newest of data management systems upholds a basic principle: that the basics of data modelling are still fundamental to data management.

Enterprises need to care for their data in the same way they manage other key enterprise assets. The data must be managed, recorded and communicated clearly across the organisation to prevent regulatory non-compliance or expensive data inaccuracies.

Famous 'data disasters' show the need for traceability of data, especially for financial institutions. The Health Insurance Portability and Accountability Act and Sarbanes Oxley acts have all impacted significantly on data management issues. Such legislation highlights organisational accountability for the recording, control and traceability of data.

IPL made a case for why data modelling is pertinent for SOA technologies in its final webinar in January 2009. Titled "A Sine of the Times: Leveraging data models for SOA and XML development", the session discussed the importance of using a consistent data modelling environment when implementing SOA and XML based development strategies.

To review this, or the previous three webinars, these can be downloaded from www.embarcadero-online.com. ■

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