Whitepaper

Data Conversion and Reporting Aspects of an ERP Implementation

Threshold Consulting Services

The benefits of an Enterprise Resource Planning (ERP) system, like SAP, are numerous and already understood by any company considering a purchase. The part that is most misunderstood, however, is the data conversion and reporting aspect of the implementation.

ERP systems come with an inherent data structure, to which the organization must convert its data. It is important that the data conversion effort not been seen as “byte pushing”, but instead as the transfer of an organization’s single most valuable asset. To this point, we can look at the data conversion as consisting of three parts;

- The conversion of the transaction data from the legacy system to the ERP system,
- The integration of data not transferred to the ERP system from a legacy system, or other system utilized by the organization outside the ERP system (EAI), and,
- The ability to port the data to reporting and web enabled commerce systems.

Each of these parts carries considerations for the organization, as well as risk. In order to reduce that risk, the organization must look at these three parts all at once, as well as at the individual detail level. By looking at the “big picture”, an organization will find itself addressing the following issues;

- How much data (history) must be transferred to ensure business process continuity?
- Where is my data dictionary of the legacy systems?
- How will data be passed between application systems?
- How will the data be reported to the business users from the ERP system?
- How will the data from legacy or other external systems be reported along with the ERP data?
- How can I leverage the work put into the data conversion and configuration effort into a reusable gain?

Each of the above questions requires resources, time, and money. It is no coincidence that the history question is listed first, as it will consume the most resources. Legacy systems have been patched and adjusted, often for many

years. Business rules which once applied to the data may no longer apply and changed to reflect the changing needs of the business.

So, how does an organization transfer the business processes of data both past and current to an ERP system, while meeting the needs of the ERP conversion and the business users? The answer is a data warehouse.

Surprisingly, few organizations realize that the methods of a data warehouse to extract, transform, and load the data, are similar to the methods used in data conversion to an ERP system. Business analysis must be performed, data quality and sourcing established, and the loading processes created. However, the data conversion is a one-time effort. It will meet the needs of the first part (conversion) identified before, but not the other two (EAI and reporting).

The data warehouse however meets all the needs above. In addition, though it may not save resources at the onset, the data warehouse saves many resources later. Let's use history as the example again. An organization can move all the data, and apply the historic and current business rules as required, and then pass only the data needed to enable the ERP system. This reduces the time to implementation and improves the efficiency of the ERP by reducing the data load at onset. Overloading the ERP database is commonly listed as a limiting factor of implementation success.

The data warehouse now assumes a new aspect for the organization. For too many organizations, a data warehouse is viewed as a stagnant repository of data, used to keep business users from ITs doorstep. In the scenario we have outlined, the data warehouse is dynamic;

- Contains the business rules and data of the organization, which can be easily passed to external systems or web-enabled commerce systems.
- Quickly enables operational and analytic reporting.
- Provides a buffer for implementation delays.

Many organizations find that as the ERP implementation develops, it will require starts and restarts. These delays usually mean that the data conversion effort is stopped. However, since the data warehouse conversion is not dependent immediately on the ERP system, the conversion can continue while the ERP implementation issues are more clearly decided.

- Clarifies the organizational metadata.

The metadata is the last aspect of the data warehouse discussed here. Metadata is easily stated as "data about data". However, in its truest incarnation, metadata provides the "business language" of the organization. By clarifying the metadata at the earliest opportunity, the organization can more clearly and easily identify the data needed in the ERP system, thus strengthening the analytical portion of the implementation. It is much clearer indicate the need for the standard cost than the field STCST.

The following table quickly outlines the points identified above.

	Data Conversion	Data Warehouse
Enables data to be transferred to the ERP system	Y	Y
Enables the transfer of all data while maintaining the integrity of previous business rules	N	Y
Enables the continued integration of external application systems	Maybe	Y
Enables ad-hoc reporting of the ERP system	Maybe	Y
Enables ad-hoc reporting of external systems with ERP data	N	Y
Clarifies the metadata of an organization	Y	Y
Is not affected by delays in the implementation process	Maybe	Y

About Threshold

Threshold Consulting Services is a leader in Data Warehousing (DW) and Business Intelligence (BI) solutions. Since 1995 Threshold consultants have delivered pragmatic solutions that leverage corporate data to deliver insights and improve business results. Threshold understands how to acquire information, edit it, organize it, store it and make it easily accessible to those who need it – when they need it. We utilize a tools-centric, cost-effective approach which leverages industry leading solutions and minimizes labor intensive programming.

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