Enterprise Data Warehouse Framework and Development

The concept of Enterprise Data Warehouse (EDW) is complex and relatively new. EDW detailed design and formal implementation framework and guidance is yet to mature. Businesses seeking EDW roadmap to leverage information for smart decision making in a dynamic marketplace are faced with complex challenges. A complex task leaves room for pitfalls and failures. Our info-cycle solutions provide formal framework and design methods for EDW implementation as a guiding mechanism and a safety net to ensure success.

EDW is an enterprise data repository that helps leverage information to present a complete and authoritative view of the business. EDW data is free from people, process and applications expressed as comprehensive set of data elements at granular level. The flexibility offered through this design help render answer to virtually any business question. EDW is thus an ultimate business plan to address unexpected business demands above and beyond regular business needs. A better view of enterprise data enables new business insight. New business insights suggest business transformation. A changed strategy can easily be embraced by an enterprise with the help of EDW thus increase enterprise agility. Business Intelligence from EDW increase productivity and reduce overall business cost. Hence, EDW draws the interest of research and business communities because of its benefits and its central role in organization’s typical Enterprise Data Architecture as illustrated below in figure 1.

The benefits can only be seen with a successful EDW implementation. The implementation itself is a challenging task. Without guiding principles and robust EDW design project may face serious setbacks. Quality of Data in EDW must improve. The Extract, Transform, and Load (ETL) process must be carefully mapped out. Data must be granular, historically complete and reflect single view of the business. EDW changes must be carefully funneled without losing sight of over all business vision. EDW must be scalable, maintainable and available at all times. Strong governance by the use of program management office, steering committee and business-IT collaboration will ensure continued EDW success. Businesses are faced with complex EDW challenges due to lack of guiding framework and/or robust EDW design.

Figure 1: EDW's Role in Enterprise Data Architecture
Many businesses have engaged in desperate efforts to join data to extract actionable information. Some initiatives are Enterprise Application Integration, Data Federation and/or functional Data Marts. While these efforts provide some relief all business questions in a dynamic marketplace cannot be satisfactorily answered. EDW is the ultimate answer to facilitate joining of data to answer any business question. A grand promise such as this comes with great challenges. Data warehouse and BI vendors have failed to deliver to this promise. The marketplace needs EDW guidance. The challenge is of governance, guidance, planning, data transformation and a robust design strategy to prevent failures and move customer in the right direction. Enterprise e-Support’s Info-cycle solutions are the answer.

The core idea of our proposed framework as illustrated in the figure 2 below is to engage business, information and technology communities to collaborate and develop a data repository by setting goals to realize business vision, drill down into business questions and possible scenarios to lay out comprehensive set of data elements that will store data at atomic level. A complete, granular representation of data is easy to join to meet and even exceed business needs by answering any possible scenario. Our approach will assist customer focus on the basics of EDW design and development and provide means to extract actionable information from it. Our approach is unique in DW/BI space and no formal framework or EDW designer process exist as of today that guides customer through EDW design and development process.

The proposed framework would lead to develop an optimized EDW design and assist in an effective EDW implementation, which would consequently help increase productivity at all levels. It would present a 360 degree view of customer and business. As a result, businesses understand and serve it’s customers well and offer improved product and services in future.

Figure 2: EDW Design framework