

Business Intelligence – Saving the Healthcare Sector

Introduction

For an enterprise, information is one of the most key resources. The importance of making decisions based on timely and accurate information can not be stressed enough. Business intelligence (BI), which refers to a broad category of expert information, knowledge, applications and technologies for gathering and analyzing data to help enterprises make better business decisions, has become imperative for businesses in order to have a comprehensive and in-depth knowledge of all of the factors affecting it and to make effective and good quality business decisions.

Advantage BI

A source of competitive advantage, BI enables enterprises become aware of crucial factors such as customers, competitors, business partners, economic environment and internal operations, and make well informed business decisions. Enterprises are able to analyze information gathered from indicators in the external environment and make accurate forecasts about future trends or economic conditions. BI helps improve the timeliness and quality of information, which helps enterprises quickly respond and adapt to the ever-changing environment. BI enhances the communication within as well as outside of the organization, and enables enterprises to respond quickly to changes in financial conditions, customer preferences, and supply chain operations, thereby improving the overall performance.

The application softwares pertaining to BI convert key enterprise data into valuable information that helps it make crucial and on-time decisions. These technologies gather, store, analyze, and provide access to the data, present this data in a simple, useful manner, and aid in Business performance management by making accurate, current, and relevant information available when needed.

BI and the Healthcare Sector

While latest clinical information technologies are bringing a whole host of clinical benefits in the healthcare sector such as error reduction, safety improvements, enhanced chronic disease management and improved clinical decision-making, they are also creating silos of data, without any effective means of extracting valuable information from it. It is here that innovative Business Intelligence technology comes into picture. BI can help the healthcare providers transform raw data into smart information. BI enables healthcare providers converge latest revolutionary technologies with the evolutionary changes in the medical field and their valuable research and use this rich information for improved diagnosis and therapeutics.

The importance of healthcare providers managing the mountains of data produced by increasing clinical technologies can't be stressed enough. The industry, by nature of its work, is brimming with data because of its need for gathering, storing, processing, analyzing and distributing information. However, a structured analysis of this fragmented data is a challenge and innovative BI applications and technologies such as real-time data warehousing, predictive modeling and pattern analysis are already providing a lifeline by addressing these problems and contributing to a healthy bottom-line for the healthcare enterprise and, in turn, saving lives.

CTE's BI expertise

Cambridge Technology Enterprises provides the whole range of BI application visualization, prototyping, rapid development and implementation, so enterprises can respond to the patterns created by the analyzed information and make "real-time" decisions. In fact, CTE is innovating solutions aimed at transforming the way scientists do Genomic, Proteomic and Metabolomic

research for improving efficiency, reducing their time to market, and creating new intellectual property. CTE's BI applications for the healthcare sector provide a crucial life-line for the industry that saves lives.

Case In Point

CTE helps a healthcare major build BI solution to transform research capabilities

The Healthcare major, a global leader in the pet food marketplace, is revolutionizing the animal foods industry with nutrigenomic research. Nutrigenomics involves researching which chemicals in foods have the ability to turn on and off certain genes that are responsible for disease prevention. Rather than treating symptoms, this technique involves creating cures through diet. But, this company's revolutionary approach is not without challenges. Creating a world class nutrigenomic research center has challenged existing processes and testing techniques. In addition, existing information systems are incapable of managing the terabytes of data created each year. Nutrigenomics is about finding the needle-in-the-haystack and the company lacked the sophisticated data collection and discovery tools needed to succeed.

CTE has provided a complete end-to-end hosted solution consisting of new operational systems to manage nutrigenomic research, biological tissues, and animal data. This solution is built on Oracle Fusion leveraging Portal, BPEL, SSO, OID, 10G AS, Database and Enterprise Manager. SOA Integration is also used to connect these systems to the disparate array of existing information management systems built on Sybase, MS-Access, Oracle, and text files. The solution also includes a data warehouse, built using Oracle 10g Warehouse Builder and Oracle Discoverer. This solution, complete with operational systems and data warehouse, provides the company with the sophisticated tools needed for data mining, analysis and discovery. These tools provide it with the ability to discover the basic scientific connection between food and health, thereby prolonging the special relationship between people and their pets.
