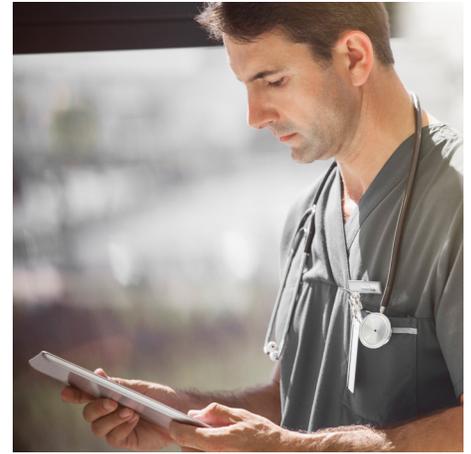# Barnes-Jewish Hospital

OpenText delivers adaptive data warehouse and AI-supported data-driven decision making.

Overview

Barnes-Jewish Hospital at Washington University Medical Center is the largest hospital in Missouri and the largest private employer in the St. Louis region. An affiliated teaching hospital of Washington University School of Medicine, Barnes-Jewish Hospital has a 1,800 member medical staff with many who are recognized as *Best Doctors in America*. They are supported by residents, interns, and fellows, in addition to nurses, technicians, and other health-care professionals.

Challenge

Barnes-Jewish Hospital's mission is to take exceptional care of people by providing world-class healthcare in a compassionate, respectful, and responsive way. The Barnes-Jewish Data Management team aims to support this by enabling data-driven decision making at all levels of healthcare delivery.

The Data Management team looked for a solution to integrate data with its sources in an easily reusable fashion, structuring the data according to analysis requirements. Business rules, use cases, and vocabulary are changing continuously, and so this model needs to be flexible enough to adapt easily. The technical challenges the team was facing included an incumbent database with very wide tables (greater than 570 columns), a reporting challenge with dozens of table joins, billions of rows of raw data, and a system with high CPU and memory consumption.

Solution

The team designed a new adaptive data warehouse, with common, linkable vocabulary. The data warehouse takes source data from financial, administrative, HR, Electronic Health Records (EHR), operational, and departmental systems. These previously siloed systems all come together in the data warehouse to be leveraged by all clinical business functions.

The data warehouse is underpinned by OpenText™ Vertica™ Analytics Platform, using Tableau as a presentation layer. Tableau extends OpenText™ Vertica™ with fine-grained, visual analysis. This seamless integration provides quick and easy big data visualization with interactive dashboards that let users drill-down, to ask real-time questions and receive answers.

Comprehensive data governance has established a clear accountability structure. Team roles and responsibilities, as well as tasks and goals, are clearly defined and agreed. Everyone involved with the data works according to established information sharing policies and data use agreements. A data dictionary and data quality management tools were introduced.

At a Glance

- **Industry**
  Healthcare and Medical

- **Location**
  Missouri, United States

- **Challenge**
  Enable data-driven decision making at all levels of healthcare delivery by providing timely information to clinical partners.

- **Products and Services**
  Vertica Analytics Platform

- **Results**
  + Close integration between OpenText and Tableau provides interactive dashboards that let users drill-down and ask questions in real-time
  + Integration of disparate data from departmental systems for business decision support
  + Performance, cost, agility, and ease-of-use expectations exceeded

With standardized reports and scorecards throughout the process, data and business owners have joint responsibility for the data quality.

Results

By closely collaborating with frontline clinical business partners, prioritizing goals, modernizing the infrastructure to allow a data-driven approach, and automating processes, the Data Management team supports operational needs while complying with Barnes-Jewish Hospital's strict security guidelines.

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