

Data Warehouse Augmentation for a Manufacturing Company

Predictive Maintenance: Introducing Hadoop into your data architecture allows for a richer analytics environment, and the ability to store and process a variety of data to gain new insights with inexpensive hardware.

This case study details a project to augment the Enterprise Data Warehouse (EDW) of a major manufacturing company.

The Problem

A large manufacturing company wanted to improve the reliability of their products by predicting component failure and taking proactive action to repair/replace it. This would result in a saving of millions of dollars for their business operations. Solving the problem required receiving and processing very large amounts of sensor data sent by the components.

The Solution

The solution that was designed and implemented involved creating a modern data architecture using Hadoop to augment a data warehouse built using Teradata. The sensor data was complex and binary in nature. We designed a solution to capture, store, process the data in Hadoop and integrate with Teradata. Parallelizable algorithms were used to process the huge volume of data

that is not suitable for processing in relational databases. The new architecture delivered great performance on interactive analytics functions, improved the capacity and efficiency of the Enterprise Data Warehouse, and saved the client a significant amount of money.

Benefits for our Client

Integrating Hadoop into the client's Data Warehouse had a profound effect on their business. We were able to:

- Build a cost effective solution
- Provide great performance for interactive analytics functions
- Allow for new analyses; leading to new insights, since all raw data was saved in Hadoop

Orzota's Data Warehouse Augmentation Services

If you have an Enterprise Data Warehouse, [Orzota](#) can help improve the efficiency of your data warehouse while bringing in more unstructured data for advanced analytics. For more information about this or other services, contact us at info@orzota.com.