

DEVELOPMENT OF DATA WAREHOUSING, REPORTING AND PERFORMANCE MANAGEMENT SOLUTION FOR A FORTUNE 500 LOCOMOTIVE MANUFACTURING COMPANY IN USA



Industry: Manufacturer

Customer Profile

Client is a global technology leader and supplier to the railroad, marine, drilling, wind and mining industries. Client provides freight and passenger locomotives, railway signaling and communications systems, information technology solutions, marine engines, motorized drive systems for mining trucks and drills, high-quality replacement parts and value added services.

Client Situation

- The client's customers are equipped with the 3M hardware and software on their handheld devices
- The maintenance personal perform routine maintenance tasks to a piece of personal protective equipment (PPE) identified by an RFID tag. When they synchronize their handheld, the data moves to the ODS of the hosted Application Servers
- Support Performance Improvement team through provision of site safety data
- Improve maintenance process by analyzing, understanding and reporting
- Aid SXO Compliance for safety equipment
- Support increasingly stringent Regulatory Reporting of Maintenance Tasks

Congruent's Solution

- Design a data warehouse that will support a hosted model
- Create a data extraction system (ETL) from the Operational Data Sources into the Data Warehouse.
- Design and meet the entire reporting requirement
- Design Analysis Services Database to support Performance Point Server capabilities
- Design Key Performance Indicators and Performance Point Server Dashboards

Key Challenges

- Cater to the hosted model warehouse
- RFID data
- Hand held data and SQL CE
- Data Quality

Benefits

- Improved decision making
- Compliance monitoring
- Easier Regulatory Maintenance
- Easier Track and Trace of Assets

Key Metrics

- Operational sources – 1200
- Warehouse – 5 TB
- Users – 60
- Load – Daily 2 million records

Technology Used

SQL Server Integration Services (SSIS)
 Microsoft SQL Server 2005
 SQL Server Reporting Services (SSRS)
 Microsoft Visio
 3M Capacitive Touch screen and RFID tracking pad model 870, 13.56 MHz
 RFID tags
 3M Hand Held software
 SQL Server CE
 SQL Server Analysis Services
 Performance Point Server 2007
 Share Point Server 2007

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