A comprehensive techno-commercial feasibility study for MES Implementation for a large Food & Beverage Company

Engineering and Manufacturing Solutions

Manufacturing Execution System is an information technology system that manages production in plants. It is a system between ERP and plant-floor control system which effectively links the two layers together and enables them to speak to each other. MES connects the enterprise system to plant systems for real time visibility and control. It helps in reducing manufacturing costs, increase productivity and reduces efforts involved in compliance and governance.

Cognizant’s - ‘Feasibility Analysis for MES’

Feasibility Analysis for MES Implementation is used to study the plant operations which include understanding of the current process across all the major departments, automation assessment, and current IT system landscape understanding by conducting interviews and discussions with SMEs and stakeholders, plant visits, existing documentation study, and comparing key performance metrics with industry peers (best/average). It helps manufacturers identify their strong and weak areas, discover applicable best practices and define improvement road maps.

Approach for Feasibility Analysis

Cognizant Feasibility Analysis is conducted in three phases: Assess Analyze and Define. The diagram (Figure 2) illustrates each of the steps and the key activities performed in it.
Key Recommendation and Deliverables

CBC-EMS undertook the study and following key benefits were identified and the business case was built around the same:

- Reliability and quality benefits such as reliable plant operations, less uncertainty in planning, tight control on quality and better response to regulatory authorities & customer complaints
- Increased output benefits such as better line and capacity utilization
- Future scalability benefits such as ability to "quickly" introduce new products (low time to volume), faster operation stabilization on new lines, faster training on manpower and better supplier collaboration
- Cumulative benefit of 7.5 million USD over a period of 5 years

The feasibility analysis also provided the client a MES Implementation Road Map and MES functionality selection based on client’s priority and need. An MES Functionality selection matrix based on the priority and business benefit identified the key functionalities to be implemented for the Pilot.

The Pilot line selection was based on the key parameters like pain points, KPIs performance, challenges and the business objective. Around 2 years of data was analyzed for to identification of the Pilot Line. The recommendation was accepted by the client and has now embarked on an MES Implementation.

About Cognizant

Cognizant (NASDAQ: CTSH) is a leading provider of information technology, consulting, and business process outsourcing services, dedicated to helping the world’s leading companies build stronger businesses. Headquartered in Teaneck, New Jersey (U.S.), Cognizant combines a passion for client satisfaction, technology innovation, deep industry and business process expertise, and a global, collaborative workforce that embodies the future of work. With over 50 delivery centers worldwide and over 118,000 employees as of June 30, 2011, Cognizant is a member of the NASDAQ-100, the S&P 500, the Forbes Global 2000, and the Fortune 500 and is ranked among the top-performing and fastest growing companies in the world.

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