

DELL INC.

FSJ PLANT LEAN TRANSFORMATION

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Dell is one of the largest privately held multinational companies that provide a broad range of technology products. To support its North American business, Dell currently contracts with electronics manufacturer Foxconn in San Jerónimo (FSJ), Mexico, to provide the final (L10) assembly operation of desktops and servers. The business is faced with fierce competition with stringent service level requirements and severe downward margin pressure. To reduce production cycle time, eliminate waste, and mostly important to foster a lean culture in the plant, the Tauber team was asked to work with Dell and Foxconn on strategies, tactics, implementation, and culture changes to help FSJ embark on its lean transformation journey.

The biggest challenge for the project is the variability of products under the Configure to Order (CTO) model. Each unit put into production can have a different configuration and requires a different time to assemble. The variability creates challenges in designing line and staffing models. In addition, the FSJ plant doesn't have a lean legacy, and the front lines are not used to the continuous improvement mindset.

To deal with these challenges, the Tauber team used a data-driven approach to measure key data such as cycle time, value added time in the end-to-end processes (including receiving – assembly – burn-in – packing – dispatch) and then drew value stream mapping for the Servers and Desktops lines, respectively. The team then deep dived into time study on station level and variability, utilization, and time (VUT) to further identify bottlenecks within the process.

After analysis of the data, the team identified key areas for improvement and held a kaizen town hall with engagement from front line and the management team to brain storm improvement ideas. The team chose six out of the 47 ideas based on an evaluation of the impact and effort required. The pilot implementations were used to role-model how efficiency can be gained through kaizen. To sustain the gains, the team also proposed an organization structure consisting of governance, project, functional, and frontline teams so as to further drive for kaizen and culture change to a lean mindset.

The kaizen projects implemented are projected to have 10% productivity improvement on Servers and 12% improvement for Desktops at FSJ, equaling a productivity gain of \$3 million per year.