

# Mobility Solutions

## iPad-CASE STUDY

### Client's Business:-

Client is US's leading device manufactures required for the electrical industry in the generation, transmission, and distribution of electrical energy. They also specialize in products like complete line of high-voltage indoor and outdoor switches including disconnects, transfers, interrupters, and disruters for single and group operations.

Client constructs mobile transformers that can be used for a number of different purposes, which include serving as temporary substations during emergencies or as a safeguard against power outages resulting from malfunctioning transformers. Their industrial transformers are used for secondary load centers, unit substations, distribution services, power substations and hazardous locations.

### Challenges:-

- Client required an Enterprise scale iPad mobile application that has to be integrated with the shop floor hardware which communicates with their ERP suite.
- Also client required a comprehensive back end web portal for administration with Microsoft Dynamics AX that should be synchronized with an iPad mobile application.
- This mobile application should enable their shop floor employee's sign in / sign out time, job work updates, manager login and admin settings to ensure balanced resources maximize productivity and eliminate paper work at every stage.
- This system should replace the existing paper works done from the employee's end, which was error prone due to large engineering works to be done with complex machines.
- It also needs to enable service engineers to update live data for the process assigned by the managers across the shop floor area. Live data are to be synced with the clients ERP.
- Managers, Admin & employees should have separate and unique login screen and based on their designation level screens should be updated.
- Shop-floor online management should play a significant role in the standardization of manufacturing process to all the levels of the shop floor staffs.
- Other challenges involved,
  - o *Live Synchronization of deliveries with production process*
  - o *Overall resource effectiveness*
  - o *Staff should be able to enter the real time work updates in the mobile application which should be directly synched to the ERP system*
  - o *Tracking the staffs work updates, sign-in / sign out time and assigned jobs*
  - o *Timely production reports for the job work assigned*

## Solution Provided:-

- We proposed and developed an enterprise grade iPad application right from designing the user interface, integration to their back-end ERP system, mobile testing to application deployment.
- Through Microsoft Dynamics AX powered back end application web portal, the client able to administer various activities such as, task management, live sync of data with mobile application.
- User Authentication – A unique login for each user is provided and user managements can be done by admin. Only the authorized users are allowed to use this application.
- All the manual process including paper work has been completely eliminated through this application.
- Fast and efficient real time data are shared immediately to the iPad device from the ERP system which resulted in higher productivity and the staffs got access to their daily work programs in their respective work location.
- Using the iPad device, staffs were able to update their real time work immediately, in which their work progress made easy, eliminating inaccurate and time consuming manual methods.
- Live updates of individual staff's daily work status, attendance data and other activities are handled effectively, which enabled the managers to easily cross verify the work progress of an individual staff and generate reports for the same.
- History against a task is recorded, which helped the managers to track the complete information about the tasks very easily.
- Reports and data are automatically updated on a daily basis and synched to the central ERP system for analysis & processing which improved their overall efficiency.
- Complete shop floor management is incorporated into this solution allowing the client to monitor, manage and take decisions in a much effective way.

## Architecture:-

