Client

An Inland water transportation, shipping and logistics company.

Challenge

Our client faced major discrepancies and inconsistencies in the planning and operations of their cargo delivery.

Data was being captured manually in Excel files and on blackboards. There was an absence of an organised reporting processes, inconsistency in recording ship arrivals, and inefficient use of multiple vessel types and route optimisation.

Further aggravating the situation were the maintenance of multiple vessels, and the pilferage and inefficient usage of fuel.

Business decisions were being made on delayed and incomplete reporting.

The client required a reliable cloud based system to capture, report and analyse data based on complex operational scenarios.

Solution

We delivered a layered solution in three phases.

- Phase One: We developed and installed FleetOps, a customised software application that captures and monitors planning and operations of data. The application automates all data recording related to operations and other back office functions including the movement of all ship types (ocean going vessels, trans-shipment vessels, daughter vessels, barges, and tugs), loading and unloading of cargo, fuel consumption, and the cargo ledger.

- Phase Two: We deployed the business intelligence system Qlik Sense® for daily and management reporting. Qlik Sense is a data visualisation tool that provides graphical reporting for a variety of operations. Clients can now easily access daily/weekly/monthly/yearly reports on cargo delivery. They can see the timeline and activities performed during ocean-going vessel (OGV) evacuation on a Gantt chart. Qlik Sense also produces Google maps showing the exact location of each ship. The map color-codes the different ship types and offers forecast vs actual time taken to deliver the cargo for OGV evacuation.

- Phase Three: We implemented data analytics that offer dependable and actionable information regarding management of multiple vessel types, route optimisation, asset performance, on-time maintenance, fuel usage and weather delay planning.

Impact

- The client successfully reduced the gap between planned and actual deliveries.
- Route and maintenance optimisation led to a significant reduction in the delivery time of cargo. Specialised software and data analytics optimised cargo planning.
- This qualitative increase in data monitoring minimised fuel wastage.
- In addition, predictive maintenance techniques, designed to help determine the condition and maintenance needs of in-service equipment, maximised cargo throughput.