Consolidating processes and optimizing yard operations to manage increase in volumes for a major automobile manufacturer in Japan

About the Client
The client is a US multinational automaker that was incorporated in 1903. The company sells automobiles and commercial vehicles across the world. They also produce heavy trucks, tractors and automotive components.

In the process of expanding global operations, the client established a manufacturing facility in the port city of Yokohama, Japan in 1925 where vehicles were assembled using imported knock-down kits. The factory subsequently produced vehicles up to 1936. After World War II, the client did not have a presence in Japan. In 1982 a partnership with a Japanese automaker helped the client establish a sales channel to sell its vehicles manufactured in North America. Till today, the client maintains a healthy market share and operates out of its regional office in Tokyo, Japan.

Challenges
The client was in the process of consolidating all its different vehicle distribution centers in Japan, each having different processes and IT systems. As a result, they wanted an application which can help them consolidate processes and optimize yards to manage their increasing volumes efficiently.
Key pain areas:

- Tracking vehicles and bays - The client was unable to track vehicles for monitoring purposes and to carry out field service operations. The activity of receiving vehicles manually into the yard was time consuming and error-prone.

- Prioritization of vehicles - Current planning practices did not allocate resources efficiently, such as allocating parking based on vehicle type and size, and giving priority to vehicles for reallocation, access management and special services. This lead to increased delivery times and inventory.

- Real time data capture – Tracking of activities performed on vehicles could not be monitored as the operations were managed manually. This increased the user’s effort and resulted in delivery delays.

Solution

Cognizant’s Yard Management Solution, Yardelligent was proposed to the client. The client found Yardelligent to be an exact fit for their business as it was specially designed for automating and optimizing operations at finished vehicle yards. Yardelligent provided the client the desired level of real-time visibility and control of vehicles at the yard, thereby making the automotive supply chain truly optimized and efficient.

The modules in Yardelligent include Vehicle Receipt, Visual Inspection, Workshop/PDI, Shipment, Ranking, Billing, Warranty Approvals, Dealer Management, Reports and Port Processes.

Additional capabilities of Yardelligent include interfacing capabilities (with both internal and external systems), wireless access, offline capability, RFID capability, audit trail capture and a visual yard map.
Yardelligent helped the client overcome its key challenges by providing:

- Flash based vehicle silhouette for vehicle inspection
- Ranking logic implemented for effective vehicle prioritization
- Monitoring stock maintenance schedules
- Integration to different manufacturer's systems for vehicle information, parts and warranty

**Benefits**

- Reduced yard operations cost due to high level of automation and efficient processes.
- Increased yard productivity leading to faster vehicle throughput.
- Easy traceability of vehicles within yard due to real time tracking.
- Wireless operations in both online and offline mode ensuring continued yard operations at all times and at all places within the yard.
- Automated scheduling and planning of vehicle processing.
- Flexible architecture allowing for easy functional upgrade and scalability to multiple sites.