Cygnet Infotech

Network view predictions of the UK-based public transport service provider increased by **95%**, and operational efficiency enhanced by **70%**

COUNTRY
UK

INDUSTRY
Travel & Transport

About Client

The client is an end-to-end system provider with state-of-the-art smart transportation solutions delivering multi-model transport integrated solutions into the Smart Cities implementation. The client is a UK-based ISV that is focused on delivering intelligent and deeply integrated Traffic and Public Transport solutions tailored to the requirements of traffic managers, emergency planners, and passengers across UK and Australia.

Business Requirement

Build a new product with advanced features and facilities such as:

- Give a higher level of traveler care through enhanced & accurate information on public transport services
- Consider bus operator objectives i.e., to monitor not only the movements of their vehicles but also have an on-hand report on the key performance indicator of their business ranging from patronage, traffic, adherence to system performance at every hour at every minute, analyze every position sent by vehicle for a journey and algorithmic work done against it
- Enable commuters to optimally plan their journey based on real-time traffic and location-based data
- Integration with environmental sensors to help with measurement of air quality and facility of detecting the level of carbon dioxide
- Seamless transition of fleet operation information from varied transportation systems for enhanced operational efficiency
- Facilitate management of road infrastructure by triggering real-time alerts on roadblocks, congestion, accidents on-road routes, etc.

Our Solution

- **Real-Time Transport System with Advanced Analytics**
  - » Planning and scheduling
  - » Automatic vehicle location system
  - » Public portal and mobile app
  - » Incident management
  - » HR and payroll
  - » Reporting
- **Traffic Management**
  - » Operate for traffic signals and Junctions to manage the priorities, movement of traffic and management of services
  - » AI implementation with the help of ANN Deep Learning techniques
  - » Integrated IoT devices and sensors installed within the city to monitor traffic and public safety conditions
- **Bus Stand Operations**
  - » Bus stand operations to manage 1000+ journeys per hour and 1,00,000+ passengers per day
  - » AI Implementation to dynamically assess & identify the traffic conditions within the bus port and suggest the route trajectory for bus drivers & operators

Tools & Technologies

Business Outcome

- Increased accuracy by **95%** in whole network view predictions
- Improved operational efficiency by **70%** at bus terminals
- Cumulative revenue increased up-to **£460,000+**
- Increased B2C users by **1 million+** passengers/day in 24*7 mode
- Increased B2B customers; covered **50+** counties of UK & Australia
- Optimized road networks and controlled passenger flow

Cygnet Infotech

Established in 2000, Cygnet Infotech works with clients across 35 countries and has a strong team of over 1000 employees. Cygnet Infotech's offerings range from IT Services, Technology Products, and Tax Technology solutions. Aligned with its vision of providing technology enabled business solutions, Cygnet Infotech delivers end-to-end solutions for clients' most pressing business needs.

Cygnet Infotech's Technology Services enables clients to accelerate growth and optimize business operations through, Product Engineering, Bespoke Solutions, IT Modernization, Automation, Implementation Services, Risk Mitigation Services, Information Security & Compliance Services, and IT Staff Augmentation.

Cygnet DIGITAL ENGINEERING SERVICES

Cygnet DES is a partner to clients in the competitive market space and deploys a consultative and customer-centric approach. Its solutions range from standalone bespoke development and managed services to building connected ecosystems across the enterprise and developing smart systems by leveraging emerging technologies like AI, Blockchain, and Hyperautomation.

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