

Industry Solution

Descartes for Propane Gas Providers

Companies that supply bulk or cylinder propane gas must balance the pressure to reduce costs with accurate and efficient service delivery to ensure residential and commercial customers always have an available gas supply. An added challenge is that bulk delivery schedules are dynamic, while cylinder deliveries follow a fixed schedule.

For both types of operations however, the inability to accurately forecast customer inventory is a significant factor in increasing the cost of delivery. Making more frequent deliveries to increase buffers does ensure customers are never without gas. However, this approach quickly drives up transportation, inventory and labor costs. The key for this highly competitive sector is to find ways to improve service, while at the same time improve operational efficiencies.

Challenges in Reducing Costs and Improving Service Delivery

Forecasting: While many propane companies use predictive modeling to estimate what a client's short-term consumption rates might be, it is challenging to establish a routing and scheduling plan based on these models. Since unpredictable traffic delays, seasonal weather and other exceptions must be taken into consideration, dynamic planning is essential to accommodate changes and drive operational efficiencies.

Increased Service Frequency: The lack of confidence in forecasting systems creates a unique set of challenges for operators, many of which have an impact on transportation budgets. For example, propane providers tend to over-service residential and commercial customers to ensure they do not run out of gas unexpectedly. More frequent deliveries however, drive up delivery costs exponentially and result in low fill rates.

High Cost of Providing Effective Customer Service: For both bulk and cylinder operations, topping up gas inventories for commercial and residential customers is a labor intensive process that requires multiple activities at each stop, such as safety and pressure checks. The already high cost of servicing each customer is rising as a result of unnecessary increases in service frequency.

Transport Impact of Varying Consumption Rates: Since customers use gas at a different rate, it is difficult for gas operators to effectively synchronize deliveries according to utilization and location. The key is finding the right balance between filling geographically approximate locations, transportation costs and inventory needs.

Descartes offers a strategic solution for the Propane Gas industry that streamlines the process of planning fixed and dynamic routes and managing fleets in the field. With the Descartes route planning and scheduling solution, operators can optimize their routes, centralize route planning, improve delivery execution, and synchronize operations to more effectively drive costs down while improving service efficiency.



Descartes Route Planning and Scheduling

Territory Creation and Route Balancing: Descartes enables propane gas operators to evaluate the geographic distribution and sales potential for each customer, and create optimal territory and route definitions. An optimization engine uses historical delivery information to determine the most effective order clusters and help balance the daily work load across drivers in multiple regions and branches. Once the master plan is created in a visual format, users can perform deeper analysis to evaluate ideal resource requirements and the impact of changes such as branch consolidation.

Continuous Route Optimization: By integrating the optimization engine with a provider's existing forecasting systems, route plans can be continually updated through to the point of dispatch. Modifications are automatically made based on updates to forecasted consumption rates; changes to orders in the delivery pool; and other variable batch or incremental data updates received from the forecasting system.

Multi-day Planning: Descartes enables propane gas operators to look up to two weeks ahead on their order schedule and build a finely tuned route plan. Adjustments can be made to more effectively balance customer inventory with the delivery of more gas per mile traveled.

Intra-day Planning and Real-time Execution: In addition to advanced route planning, propane gas operators can also optimize and adjust routes according to intra-day customer requests. With visibility into all assets on the road, dispatchers can easily re-optimize routes and recharge tanks to accommodate emergency orders.

Fleet-wide Visibility in Real Time: GPS tracking provides dispatchers with real-time visibility into driver location, what inventory has been delivered, and how much residual capacity remains in the delivery vehicle. With real-time visibility into vehicle activity, dispatchers can easily identify the most suitable route and driver to respond to any last minute orders, and create dynamic route changes to accommodate any additions or exceptions. This visibility also sets the stage for performance reporting.

Benchmarking and Performance Reporting: Once routes have been planned for optimal efficiency, the key to balancing costs with service delivery is effective labor management and performance reporting on activities in the field. Descartes enables propane gas operators to set performance benchmarks by measuring on-time driver percentages; comparing planned vs. actual miles driven; and using trend reporting to measure gallons of gas delivered per mile traveled and number of stops per mile traveled. Reports can also be used to identify route deviations and unplanned stops.

Technology Centralization: Descartes provides a highly effective way for propane gas operators to centralize their route planning and optimization, yet still provide branch users with fast and easy access to critical delivery information. This approach provides a low cost of ownership, since it eliminates the need for software to be installed or supported locally.

Flexible Deployment Model: Descartes provides propane gas operators with the flexibility to choose between two different deployment options: a perpetual license, or a hosted, software-as-a-service model.

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Descartes (TSX: DSG) (NASDAQ: DSGX) is the global leader in logistics technology. If logistics is critical to your business, Descartes connects the people and technology to put your organization in motion. We extend the command of logistics operations, helping the world's largest and most connected logistics community to quickly reduce costs, improve service and comply with customs and transportation regulations.

Descartes' Logistics Technology Platform uniquely combines the power of The Global Logistics Network, the world's most extensive multi-modal network, with the industry's broadest array of modular and interoperable web and wireless logistics applications. At our core, Descartes' team of industry-leading logistics experts is dedicated to delivering innovative solutions while working closely with our customers to help ensure their success.

Descartes is headquartered in Waterloo, Ontario, Canada and has offices and partners around the world.

Learn more at www.descartes.com.