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Fleet Management Delivers Big Savings

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AKI Group leverages routing/scheduling technology to save \$1 million annually in transportation costs.

Al Khayyat Investments (AKI Group), a Dubai-based conglomerate that operates in the United Arab Emirates (UAE), has saved nearly \$1 million annually in transportation costs, thanks to a new automated routing and scheduling solution that has improved fleet management visibility and efficiency.



AKI Group is a family-owned company that operates multiple business units, including retail, consumer, contracting, healthcare, strategic investments, and automotive. The \$1.6-billion company also operates a state-of-the-art logistics center, along with an in-house transport operation that is responsible for providing delivery services across its business units. From the company's logistics center in Dubai, the transport team is responsible for logistics across the seven emirates.

In 2018, the company rolled out a new routing and scheduling solution to help better manage this internal fleet. The AKI Group processes around 25,000 orders per month, typically equating to 12,500 deliveries each month to up to 5,500 customer sites across the UAE, including hospitals, pharmacies, shopping malls, retail stores, and restaurants.

The company's previous manual scheduling operation created significant inefficiencies. "A lot of our planning was manually done," says Gary Grindlay, Group Head of Logistics at AKI. "We had street maps, and our dispatchers would use those to set up the routes. We had a few thousand documents to shuffle around, and it was increasingly inefficient."

Despite the relatively small size of its 80+ vehicle fleet, it took four people to plan the routes manually. "It was a significant cost, and we had no visibility," Grindlay says. "The drivers

would go out, and whether they had one drop or ten drops, they'd all come back at the same time. It was impossible to measure productivity, and we were averaging just 4.7 drops per vehicle."

Each vehicle is operated by a driver, along with support staff that are expected to unload the order. This increases the staff overhead for the fleet and could contribute to unexpected delays. The company needed an accurate routing and scheduling solution to help address these issues.

Grindlay had used a fleet management solution from Texas-based Paragon Software Systems at a previous organization, and he knew that it was the solution he wanted to help improve operations at AKI. "It was the right package for us, and it could manage the complexity of our business and the complexity of operating in the UAE. We needed a tool and a technology that would make it easy to maximize efficiencies."

AKI selected Paragon's routing and scheduling software, route execution, street-level mapping, and average road speed data functionality.

Regulations Complicate Routing

Grindlay says implementation went smoothly. The company advised the drivers that there would be technology in place to provide visibility and improve efficiency. "We told them it would help them out, because if we're not operating cost-effectively, we might outsource the logistics operation," Grindlay says.

In the UAE, there are strict regulations governing commercial vehicles used to transport food, nonfood, and pharmaceutical loads. The AKI Group operates a mixed fleet of 4.5-, 10-, and 12-ton delivery vehicles for different business units. The transport team is able to use the features in the new software to automatically factor in vehicle restrictions when planning deliveries, so the company can increase capacity while achieving regulatory compliance.

Paragon integrated easily with AKI's Oracle ERP system, so that order data could be easily mapped. "The complexity involved was not systems-driven, but more about ensuring we built the Paragon solution on the right parameters," Grindlay says. "For example, we deliver consumer products and pharmaceutical products. Each vehicle has a different license, and we have four different emirates that require licenses to enter their regions. We can't put food with nonfood items, and we can't ship pharmaceutical products with anything else. With Paragon, we can take all of our data and ensure the right product goes in the right truck. Without that capability, we could be facing large fines if we were found to have mixed products on a vehicle."

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Grindlay says it took roughly four weeks for the company to deploy the solution, along with a few weeks of fine-tuning and testing the system.

Real-Time Fleet Visibility

AKI's operating divisions enter their product orders into the Oracle system, and the logistics operation guarantees next-day delivery, as long as orders are received by 5 p.m. "By 5:20, we have a route schedule from Paragon with exceptions marked on it," Grindlay says. "Those exceptions may require a person to look at them and set the final schedule. Paragon gets us about 98 percent of the route, and then there is some massaging to finalize it."

A Microlise GPS solution has been installed in the trucks, which is integrated with Paragon. "The drivers get a schedule, and the truck is loaded," Grindlay says. "Because of the scheduling efficiency, we have also gained productivity in the warehouse because of the sequence loading that has been enabled."

When a route is planned, the warehouse receives a pick list based on the route. Once the trucks are loaded, the drivers begin their routes. AKI has full tracking, along with drop time windows for each stop. "We have live information feeding into the screen in the transportation office," Grindlay says. "We get alerts if they are off their route or running behind. That links to the customer service team, who can advise stores if we are running behind schedule."

\$1 Million In Annual Savings

As a result of the new software solution and improved route and scheduling optimization, AKI Group has increased average deliveries per vehicle by 164 percent (from 4.7 to 12) and lowered the average cost per delivery by 65 percent. In addition, the company has reduced its fleet size by 38 percent (down to just over 50 trucks). In total, the new routing/scheduling approach has provided an annual savings of nearly \$1 million in transport costs. The solution is also enabling the AKI Group to better manage delivery volume peaks, which see around 45% of orders being placed in the last four days of the month.

"This has also really benefited our customers and our merchandisers," Grindlay says. "In our consumer division, we have merchandisers who go to the stores and manage the merchandise on the shelf. In the past, they would never know when the drivers were arriving with the delivery. Now they get a message and a route schedule. They know when the drop is, and the whole merchandising team's role is more efficient than it used to be."

"By better managing our vehicles and drivers, we have dramatically improved the productivity and efficiency of our transport operation, making annual savings of more than \$1 million," Grindlay says. "Changes in the economy of the UAE are forcing supply chain operations in the region to get more focused on cost savings and improved productivity. We are bringing together the best technology solutions available to address these challenges."

AKI Group was also able to consolidate its planning operations into a single, centralized team, having previously operated four independent sets of planners. The new team is responsible for managing all deliveries, monitoring transportation in real time, and analyzing planned versus actual performance.

The next phase of the Paragon deployment will involve the 120 pharmacies that AKI operates in the UAE. “We are about to launch home delivery, and we’ll leverage the next module of Paragon for that,” Grindlay says. “We will run some pilot trials on home delivery. Once we are up and running, customers can order online, and we will deliver to their home in a one-hour time window.”

Grindlay expects those benefits to continue to expand for the company. “The solution has helped us maximize the return on our investment. As a result, we have already achieved significant value and expect further gains moving forward,” Grindlay says.