



# SOLVOYO



## Planning Application to Help a Logistics Provider Do Better



## The Customer

This case study highlights Solvoyo's work with Newgistics, a B2C and C2B transport and logistics services provider. Newgistics specializes in providing omni-channel e-commerce retailers affordable customer delivery and returns services, helping retailers keep shipping costs down while offering improving turnaround time.

Using its nationwide distribution center terminals network and smart label service, Newgistics leverages USPS pick-up and delivery services to create an integrated value-added service network, helping e-commerce retailers satisfy rapidly changing consumer expectations for expedited, lower-cost, guaranteed shipping and timely delivery and returns.

## The Customer Challenge

Because of their complex business model, preparing for volume peaks without any service degradation was Newgistics' greatest challenge. To develop a plan that both forecasted and prepared them for inevitable peaks, the company needed a platform to consider the range of probable volumes, shift schedules, inter-facility connections to run and dedicated vs. multi-stop loads, as well as contingency planning for unforeseen events like weather delays, unplanned shut downs and lane closures. Without reliable forecasts, appropriate resource allocation for all related components would be next to impossible.

In addition to the operational challenges related to planning for peaks, Newgistics needed analytical horsepower to support analysis for the continuous improvement of their network: looking at distribution center capacities and locations, shift additions, transportation lanes, and emerging customer concentrations and alignments that could affect their network's performance.

To complicate matters more, the business development team at Newgistics regularly needed support in evaluating prospective customers. This included being able to accurately and quickly estimate the cost and capacity requirements to the Newgistics network to support prospective customers, assess the 'good fit' of prospects to the existing network, and most importantly demonstrate the potential benefits to a prospect from switching to Newgistics.

The diverse and continuous need for network analytics and optimization problem solving was putting increasing pressure on Newgistics' Transportation and Network Strategy Group making them prime candidate for an improved approach to forecasting, modeling and planning. As a young company striving for rapid growth, Newgistics wanted a solution that didn't require significant capital or time investment that would detract from their mission of growing the company. At the same time however – they needed a solution that was nimble and intelligent to understand and solve their complex analytical requirements.

## The Goal

Newgistics' immediate objective was to gain a detailed representation of their current operations including hourly shift scheduling, route definition and timing. Next, Newgistics' wanted to implement a peak planning and execution process that reduced operating costs and while improving overall customer satisfaction.

Newgistics also wanted to develop a solution that had the bandwidth to support their business development needs while providing continuous insights into more long-term strategic network enhancements that would make the Newgistics' network more competitive.

## The Solvoyo Solution

Solvoyo, along with the Newgistics Transportation and Network Strategy Group, developed a detailed network optimization and planning application. The Solvoyo Elevation Platform provided a robust analytical decision support capability to address Newgistics' operational, tactical and strategic considerations, as well as support what-if scenario analysis to understand the impact of specific network stressors.

### Tactical & Operational Benefits

- **Service and delivery.** By understanding the impact of operational elements like sort and delivery windows, facility operating times and average processing times, Newgistics is now better able to evaluate standard and peak efficiency requirements, with sensitivity to retailer service requirements.
- **Short horizon planning.** Peak is a short-term anomaly in Newgistics' standard baseline operation that required its own optimized plan. Solvoyo was able to accommodate flexible planning horizon within the more longer-term holistically optimized network plans. This ability allowed Newgistics to maintain service requirements without incurring premium charges during the non-typical short-term peaks where volume can double.
- **Lane transportation modes, configurations and additions.** The optimization capabilities provided by Solvoyo's Elevation Platform aided Newgistics in performing on-the-fly what-if analyses to identify the most efficient means of answering questions related to routing, which modes of transportation best served a specific lane, volume justification for modes and when/where multi-stop routes could reduce costs.
- **Inclusion of group parcel shipping.** Newgistics needed the flexibility to optimize through an almost infinite array of solution combinations of mode, carrier, time and cost. This functionality is native to Solvoyo's platform.

### Strategic Benefits

- **Cost and Service.** For Newgistics, the dynamic balance between cost and service metrics directly impacts big picture network decisions. Solvoyo delivered concurrent optimization of costs related to distribution center terminals location and capacities, transportation, delivery, lane additions/management and shift utilization while maintaining customer satisfaction based on five and ten year growth projections.
- **Inter-facility lane addition.** Solvoyo's Elevation Platform provided the ability to determine when and where lanes should be added and optimized for any new set of variables, a critically important feature as Newgistics' customers' requirements change and new customers and industries are added.
- **Cost & volume impact on the network.** Elevation Platform solved for a goal; in Newgistics' case the scenario goal was to lower costs and higher peak volumes shipped, allowing their network team

users to perform what-if scenarios to solve for current conditions while also considering a future with changing variables related to growth rates and customer mix.

## The Results

The Solvoyo platform effectively integrated significant operational, sales and financial data in a logical and user-friendly interface delivered via the cloud that provided rapid scenario development and tangible results supporting operational and tactical planning decisions.

The greatest value Newgistics sees today is Elevation Platform's support in decision-making in both day-to-day operations and ongoing/long-term scheduling. The combination of complex data modeling representing every operational capability of Newgistics' system and Solvoyo's advanced analytics leads to meaningful insight into strategic network enhancements and tactical planning for peak operations and growth. It's also greatly reduced the turnaround time required for analysis; what used to take three days to solve can now be done in less than an hour.

Since implementing Solvoyo's Elevation Platform as their supply chain planning platform, Newgistics has experienced greater than 20% volume growth without incurring additional network operations costs. With the enhanced ability to respond more quickly to prospects with accurate estimates of costs, Newgistics' business development team is more confident than ever to aggressively pursue growth opportunities.

## About Solvoyo

Solvoyo is an enterprise software company based in Boston, MA, and Istanbul, Turkey. We bring your business significant value through the use of innovative supply chain optimization techniques that help you minimize costs while you maximize customer service and profit.

We offer the only platform that allows you to perform your strategic, tactical, and operational supply chain planning -- and with a common data model. We are unique in being able to plan inventory, orders, and transportation concurrently. By optimizing across your entire network, as opposed to individual silos, you get business results and benefits that are multiples of traditional solutions. Concurrent planning, combined with the speed of our models, allows us to implement Closed-Loop Operational Management Solutions.

We make it easy for you to get immediate benefits -- our Software-as-a-Service based Elevation platform is implemented very quickly. When combined with our pay-as-you-go business model, you get an extremely short time-to-benefit and at a minimum up-front cost. The Elevation platform is based on the latest technology and uses state-of-the-art operations research methods to provide you with a cloud-based offering that integrates seamlessly with existing operational management systems.

We have a Rapid Assessment methodology that will quickly identify your key issues and an economic model that will provide you with order-of-magnitude benefits. We have documented cases where our technology has solved complex, high-volume problems that competitors could not solve at all!

You can obtain more information about us from our website: [www.solvoyo.com](http://www.solvoyo.com)