



Achieve operational **excellence**
by designing a **profitable** supply chain



Viewlocity Supply Chain Design Engine

Do you want to operate a low cost, responsive supply chain?

Which **market** and **sourcing strategies** will generate the best financial performance?

What are the best **manufacturing** and **distribution strategies** to achieve the highest level of responsiveness?

Successful supply chain design is all about deploying assets in ways that enhance profitability and shareholder value. Often, however, there are multiple factors to consider before you can design and implement a successful supply chain for your business. Competing inventory and customer satisfaction goals, combined with the sheer volume of products at varying levels of profitability and maturity tend to take true supply chain design out of the realm of spreadsheets and into the realm of an advanced planning application.

The Viewlocity Supply Chain Design Engine shows you exactly how and where to deploy assets for optimal operational and financial performance. Using advanced mathematical optimization technology that considers your business objectives, resource constraints and financial impact, Viewlocity Supply Chain Design Engine defines your optimal supplier-to-customer supply chain structure – one that dramatically cuts controllable costs and increases revenue and profitability. The solution will enable you to regain control of your supply chain, add dollars to the bottom line, and strengthen shareholder value.

“The software (Viewlocity Supply Chain Design Engine) permits the maximization of capital assets utilization to the company, its clients and its supply chain vendors.”

Alexandre Di Sesso, Strategic Planning Specialist, Ambev

Model the impact of financial decisions

The Viewlocity Supply Chain Design Engine goes beyond traditional planning applications to incorporate both variable and fixed costs into the planning process. For example, when considering a new facility you must consider the relationship between the output and the cost to run the plant. Some expenses, such as construction and land acquisition, are obvious from the beginning. Each ensuing step, i.e. increasing production capacity, hiring staff and buying machinery, requires additional investment. Costs such as labor and materials tend to be linear, moving up and down with fluctuations in output.

The Viewlocity Supply Chain Design Engine enables you to anticipate and model your plan with precise accuracy instead of assuming a strictly linear increase. Our solution also lets you consider the impact of shut down costs, duties and tariffs on your bottom line.

Manage risk without investing resources

The Viewlocity Supply Chain Design Engine helps you to predict how alternative strategies will impact your performance and allows you to adjust to unforeseen marketplace changes, before you commit time, capital and other resources. It is easy to make profitable decisions using our “what if” scenarios to confirm or reevaluate assumptions made during the initial design process.

For example, perhaps your optimized design reflects a projection that 30 percent of the demand for your products will come from Asia. What happens if you sell less? Do you keep your distribution center open overseas or can you fulfill demand at another facility? The Viewlocity Supply Chain Design Engine enables you to consider the impact of key decisions before you actually invest time or money.



your supply chain **empowered**

Accurate supply chain representation

The Viewlocity Supply Chain Design Engine allows you to represent single or multi-tiered manufacturing, distribution and transportation processes. The software takes the guesswork out of evaluating trade-offs between multiple options, including the impact on costs by facility, process and product level. This is especially critical in today's global economy where companies need to make buy, build or partner decisions for multiple markets. You can create the best design for international logistics networks and choose between profit-maximum objectives and cost-minimum problems with confidence.

Using our solution, you can execute plans for responsive new capabilities such as build-to-order, direct shipment or postponement. Our software helps you to "unscramble" supply chains riddled with inefficiencies related to mergers, acquisitions or just plain inertia. The system's flexible and easy-to-use graphical modeling lets you represent optimal locations as pinpoint coordinates on a map.

The solution also lets you factor in carbon emissions when you design the supply chain so that you can compare the true total costs of opening a facility in China as opposed to the United States. In recent times, there is more near-shoring as companies that went off-shore are now trying to have shorter lead time supply chains and staying close to their customer segments. Is that the right strategy for you?

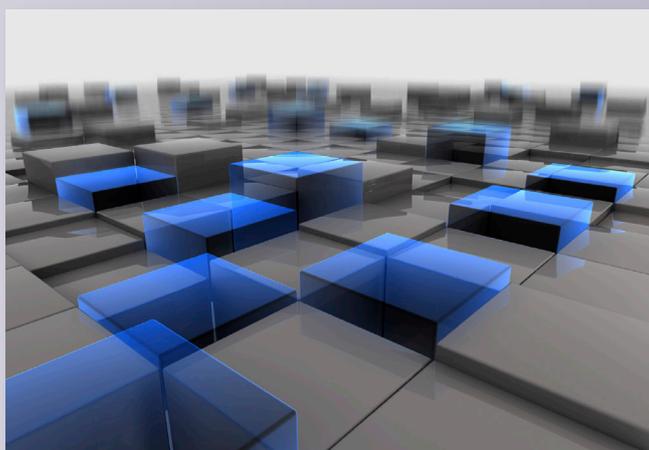
Viewlocity Supply Chain Design Engine can help answer that question and many more, relating to product mix, supplier selection, procurement strategy, etc.

Key Benefits

- Lower total supply chain costs
- Optimal product mix decisions
- Select lowest cost sourcing options
- Low cost network design to optimally fulfill demand

Customer Results

- A food manufacturer and distributor identified savings of \$22.5M or 14% of controllable costs
- A specialty chemicals company achieved \$4M in savings in logistics cost in the first year
- A computer manufacturer saved 9.3% (\$81M) of their purchasing costs in the first year



**Transform your supply chain to achieve
operational excellence and financial goals.**



Viewlocity Supply Chain Design Engine offers the following features:

- Optimal solution to each scenario using mixed integer programming
- Models cost and capacity structures at facility, process, and product level
- Includes both operational and financial constraints
- Models fixed and variable purchasing, manufacturing, warehousing, and inventory costs as functions of quantity
- Users have a choice of objectives: maximize profit, minimize cost, minimize emissions, and maximize market share
- Provides for explicit inclusion of tax and/or emission calculations within an optimal solution
- Ability to easily manage and manipulate multiple scenarios
- Selection of various reports and business graphics associated with single scenario and cross-scenario analysis

Core Benchmark Report

Network Review Realized Benefits	Average Improvement Level	Highest Improvement Level
Improved Order Fill Rate	21.4%	37.5%
Reduced Order Cycle Time	12.1%	37.5%
Investment Return (ROI)	10.0%	50.0%
Capacity Increase (Throughput)	6.6%	30.0%
Reduced Transportation Cost	5.6%	12.0%
Inventory Turns	5.0%	20.0%
Reduced Distribution Costs	3.8%	12.0%

Source: Supply Chain Consortium, 2008

Viewlocity Technologies, a wholly-owned subsidiary of Constellation Software Inc., is a global provider of supply chain software solutions and services. Constellation Software, an international provider of software and services to a variety of industries across the public and private sectors, is listed on the Toronto Stock Exchange (CSU). Viewlocity Technologies provides supply chain visibility, planning, and optimization solutions that help companies operate efficiently in an increasingly complex supply chain landscape. Global companies such as Pfizer, GE Oil & Gas, Ford Motor Company, UK Ministry of Defense and Planar use Viewlocity solutions to establish responsiveness within their supply chains and maintain a competitive advantage.

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