



® The Supply Chain Results Company™

Network Planning, Optimization & Transparency

i2 CIS

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**Moscow
September 23, 2008**

Agenda



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- **i2 Company profile**
- **Opportunities for strategic planning**
- **Definition of i2 Supply Chain Strategist**
- **How to derive value from Supply Chain Strategist**
- **Typical Supply Chain Strategist benefits**
- **Success Stories**
- **Appendixes**

i2 Company profile



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I2 Technologies, Inc.

- A leading provider of new-generation “best-of-breed” supply chain management solutions
- A proven track record to solve the most complex supply chain problems
- Industry-focused solution domain expertise
- i2 has the most advanced and mature intellectual property for supply chain management

I2 CIS

- i2 CIS is the first and only specialized supply chain consulting company in Russia and CIS countries.
- Since 2002 more than 70 Russian and CIS companies have become i2 CIS clients. Among them are: Severstal, Mechel Steel Group, United Metallurgical Company, Coca Cola, SABMiller, Baltica, Perno Ricard Rouss, BAT, JTI, Kalina, Meatland, Russian Post, X5 Retail Group, Victoriya Group, 36,6, Euroset, MIR, Tablogix and more.

i2 Technologies Corporate Offices Dallas, Texas





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Business challenges: Opportunities for optimization



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- Rapid growth is (or soon will be) exceeding current capacity
- Recent or future merger or acquisition
- Considering capital investment in systems, production, or facilities
- Expanding into new markets or new products
- Need to reduce redundancy in the supply chain
- Evaluating a web-centric “go-direct” model rather than the traditional channel strategy
- Need to create optimal “1 – n” year strategic plan

Pain points: Opportunities for optimization



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- **Decreased customer service levels and market share**
- **Inefficient or inflexible supply chain configuration**
- **High operating (manufacturing, transportation, storage, manpower, promotions) costs**
- **No systematic, repeatable process for planning for demand growth (capacity planning)**
- **Cannot conduct strategic war gaming “what if” scenarios when external factors or requirements change**

Current practices: Spreadsheet opportunities for Supply Chain Strategist



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■ Lack of Optimization

- Yielding non-optimal or only locally optimal results
- Unrealistic/infeasible plans

■ Lack of Flexibility

- No power to solve overall network strategy

■ Lack of “what-if” capabilities

- No strategic war-gaming capability

■ Unrepeatable process

- Lacks speed
- Lacks formality

■ Lack of scalability

- Network evolves in an unplanned, sub-optimal manner



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Opportunities for strategic planning

Areas of Application

Common strategic manufacturing problems



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- Where should I locate manufacturing centers?
- Should any manufacturing sites be closed or re-tooled for other products?
- What products should I produce in each facility?
- How much capacity is needed? Number/types of lines? Number of shifts?
- When should capacity be added?
- Should I add manufacturing or storage capacity, or both? When?
- What are the cost and service tradeoffs of alternative manufacturing strategies?

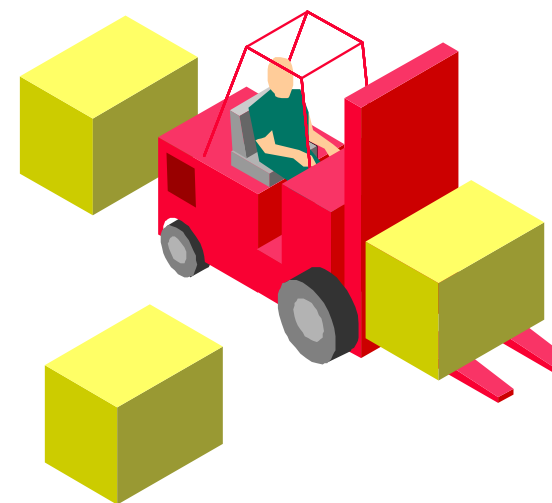


Common strategic distribution problems



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- What types of logistics facilities are required to support finished goods distribution? Distribution centers? Cross-docks? Drop-lots?
- Where should current and new facilities be located? How large should they be?
- Are any of the current facilities redundant?
- Which customers and products should be served from each facility?
- As a result of a recent or proposed merger, what would an optimal, combined distribution network look like?
- What are the cost and service tradeoffs of alternative distribution strategies?



Common strategic transportation problems



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- What transport modes and lanes should be used to move products through out the network?
- Which ports should be used to bring product into and out of a country?
- Should hubs be used for consolidating products flowing into manufacturing centers? For replenishing DCs? For delivery to customers?
- Which products, if any, should move directly from manufacturing centers to consumers?
- What are the cost and service tradeoffs of alternative transportation strategies?



Common strategic procurement problems



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- From where should raw materials, components, and sub-assemblies be sourced?
- With what strategic vendors should I contract given my demand projections and my current supply chain network?
- Are there synergies between my supply chain and my vendors' that can be exploited to reduce costs?
- Is my current supplier network capable of supporting my planned product rollouts?
- When should I change sources due to seasonality of costs, demand, or product availability?
- What are the cost and service tradeoffs of alternative procurement strategies?

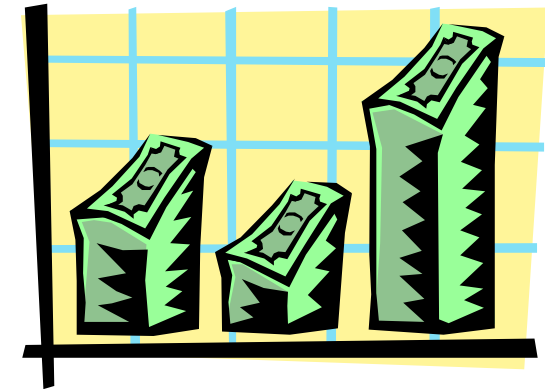


Common strategic market planning problems



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- What products should I sell and customers should I serve to maximize my profit contribution?
- Should I maintain my current channel-focused strategy, adopt a “go-direct” model, or some combination of the two?
- Into what new markets or marketplaces should I expand or from which should I withdraw?
- How much discretionary demand should be served for a given demand region in a given month to maximize overall profitability?
- How will proposed changes in pricing affect the overall profitability of the supply chain?





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Definition of i2 Supply Chain Strategist

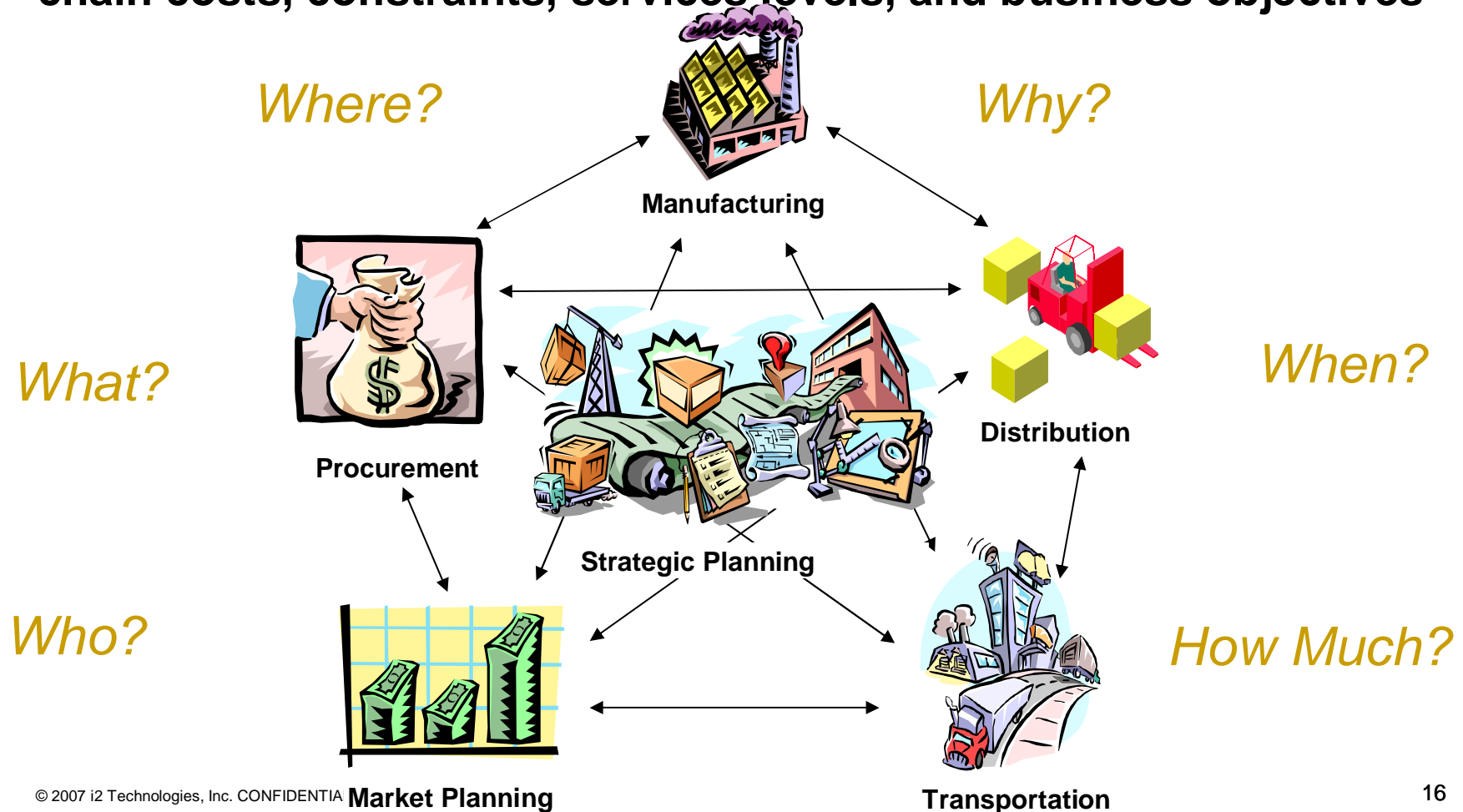
- **i2 Supply Chain Strategist is a strategic planning tool addressing business problems including:**
 - Strategic network design with seasonal demand, capacity, and costs
 - Network expansion models
 - Capital capacity planning
- **Supply Chain Strategist...**
 - Constructs and manipulates “what-if” scenarios
 - Provides a means to quickly represent complexities and interdependencies of the entire value chain
 - Supports rapid strategic planning with an intuitive graphical user interface

Simultaneous Consideration of Trade-offs in the Supply Chain



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- The key to strategic network optimization with the i2 solution is the ability to simultaneously consider the appropriate supply chain costs, constraints, services levels, and business objectives





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Supply Chain Strategist Project Approach



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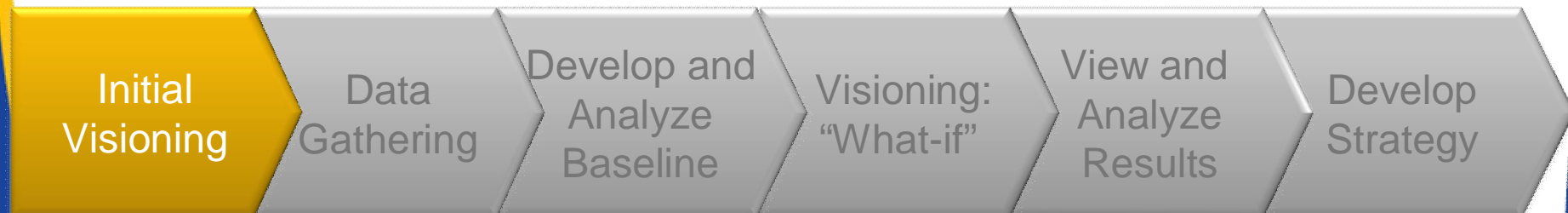


Business Assessment and Initial Visioning



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- **Scope of the project is defined**
 - Review current network strategy
 - Understand the goals
 - Identify cost drivers
 - Analyze constraints, and customer service issues
 - Identify logistics processes and enablers
- **Conceptual SCS model is built**
- **Who is involved**
 - All team members, especially including senior level client and i2 personnel

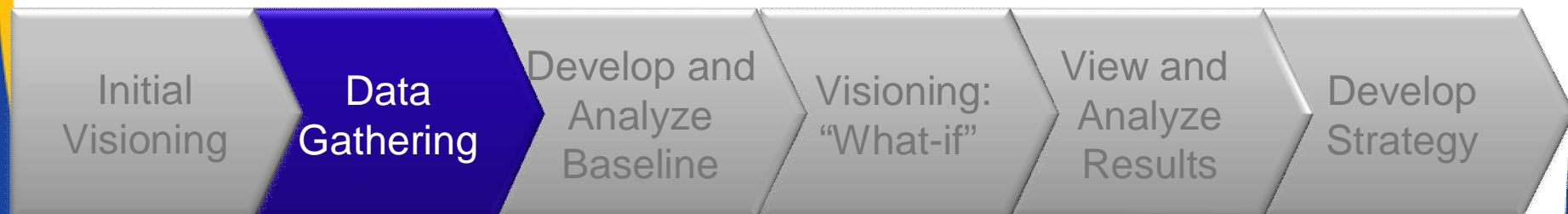


Information Assessment and Data Gathering



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- Data requirements of the model are defined
 - Granularity
 - Format
 - Technology
- Depending on availability of data, sound approaches to estimate missing data is developed
- Data collection is done
- Countless number of verification and validation stages
- Who is involved
 - Typically, handled by client personnel





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Baseline Development

- Data is loaded into the model, baseline SCS model is built
- Data load is done through a repeatable process
- Run scenario analysis on baseline model, validate data, establish consensus for baseline
- Analyze and revise baseline data
- Hands-on model building is done by analysts
- Who is involved
 - Senior level client personnel involvement is required for the sign off



Visioning “What if”



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- Strategic objectives and business goals are confirmed
- Strategic and operational alternatives are developed, aligned with strategic objectives
- Visioning is done and revised concurrently during every stage of the project, avoid s.c. here
- Who is involved
 - Senior level client personnel is required

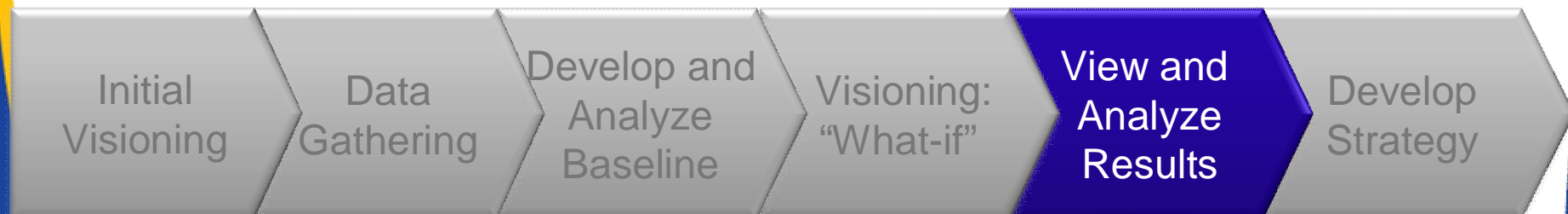


Alternative Optimization and Scenario Analysis



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- **Optimize current logistics network**
- **Optimize, analyze, and sensitize alternative logistics network strategies**
- **Perform cross-alternative sensitivity analysis**
- **Revise SCS model(s) as needed**
- **Who is involved**
 - **Mostly hands-on analyst work, minimal involvement from senior level**

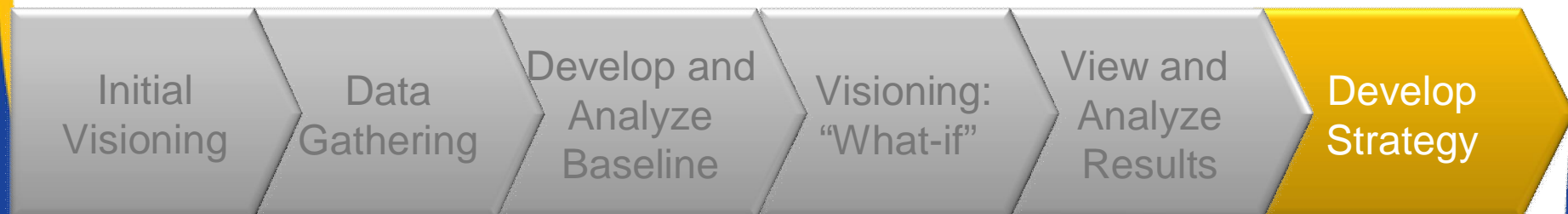




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Strategy Development

- Review optimization and alternative analysis with management
- Develop additional requirements and perform analysis
- Determine the network strategies to be suggested
- Conduct financial analysis - net present value, cash flow analysis, etc.
- Identify short-term improvements for each strategy
- Who is involved
 - All team members, especially including senior level client and i2 personnel





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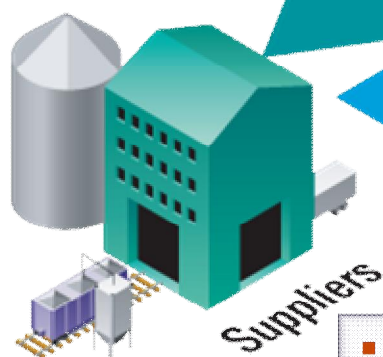
Solution benefits

- Increase shareholder value



- Increase revenue by meeting the most profitable demand quickly, reliably, and at competitive prices

- Choose optimal location for production and distribution
- Reduce fixed and operating costs
- Improve asset utilization

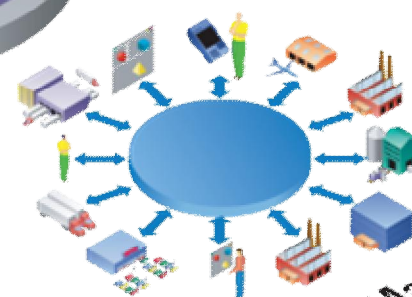


Goods & Services

Enterprise

Cash Flow

Customers



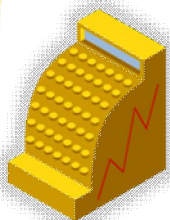
Digital Marketplaces

- Collaborate with suppliers to minimize TOTAL cost, not just procurement costs
- Reduce procurement and inbound costs

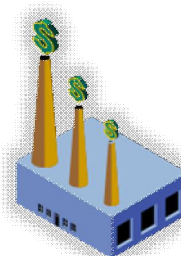


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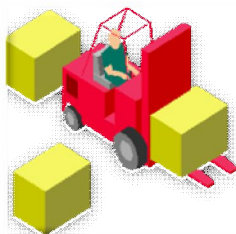
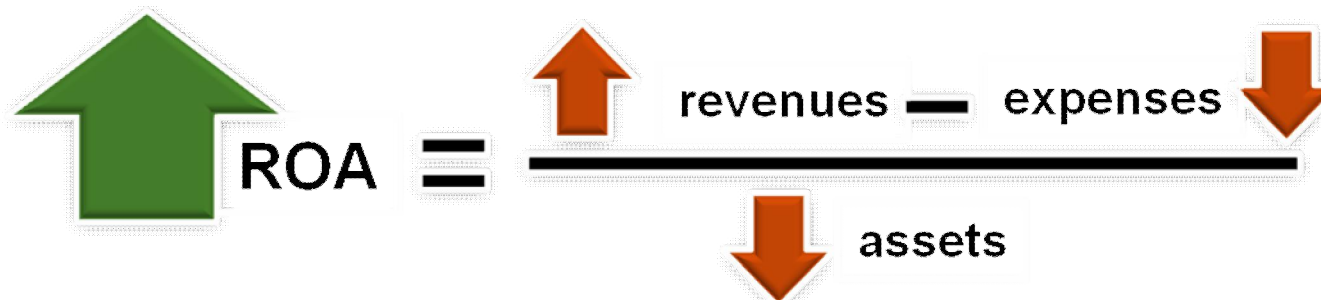
Quantified benefits



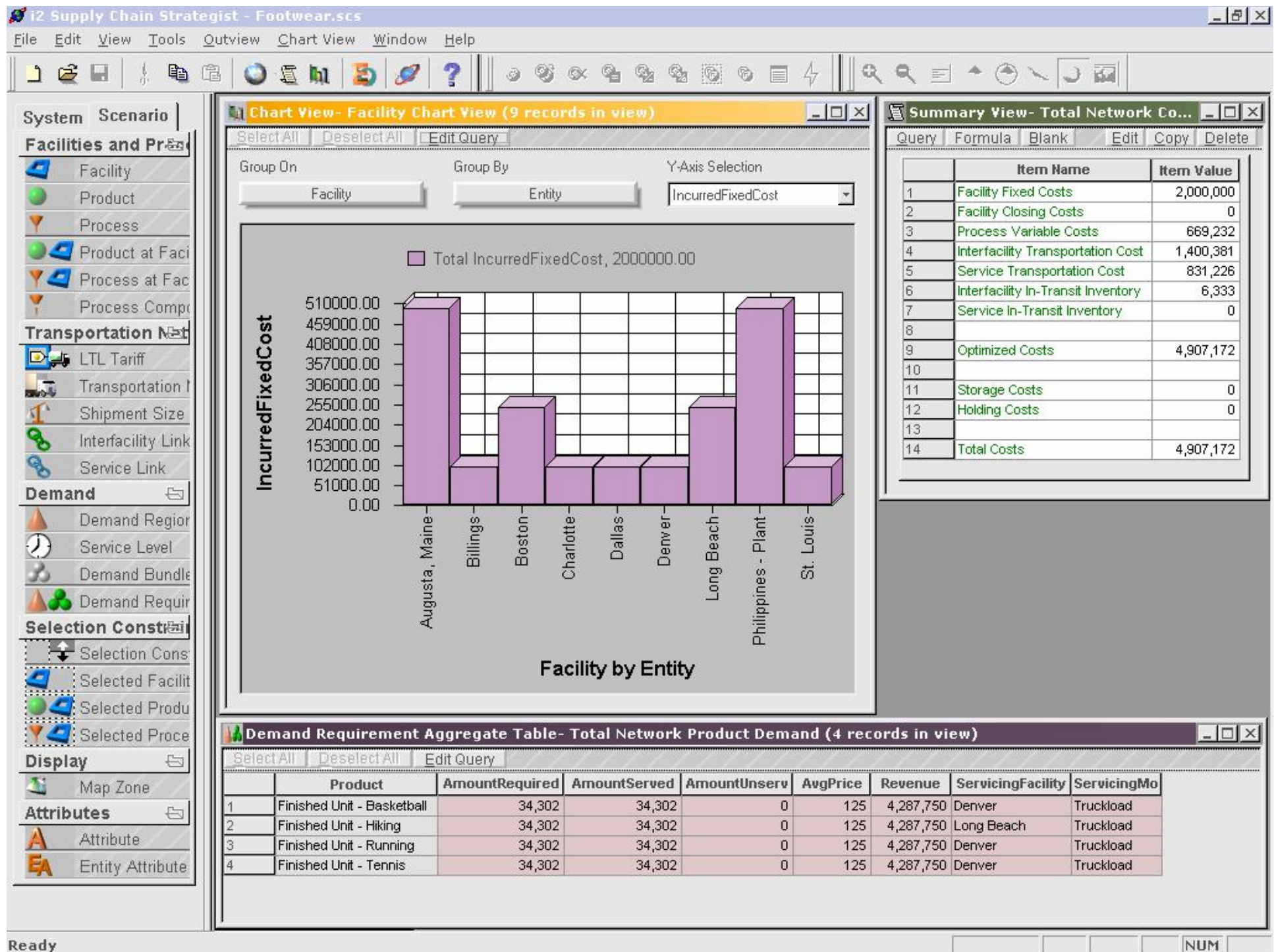
- Increase customer service levels 1% to 5%
- Maximize service of profitable customers >95%

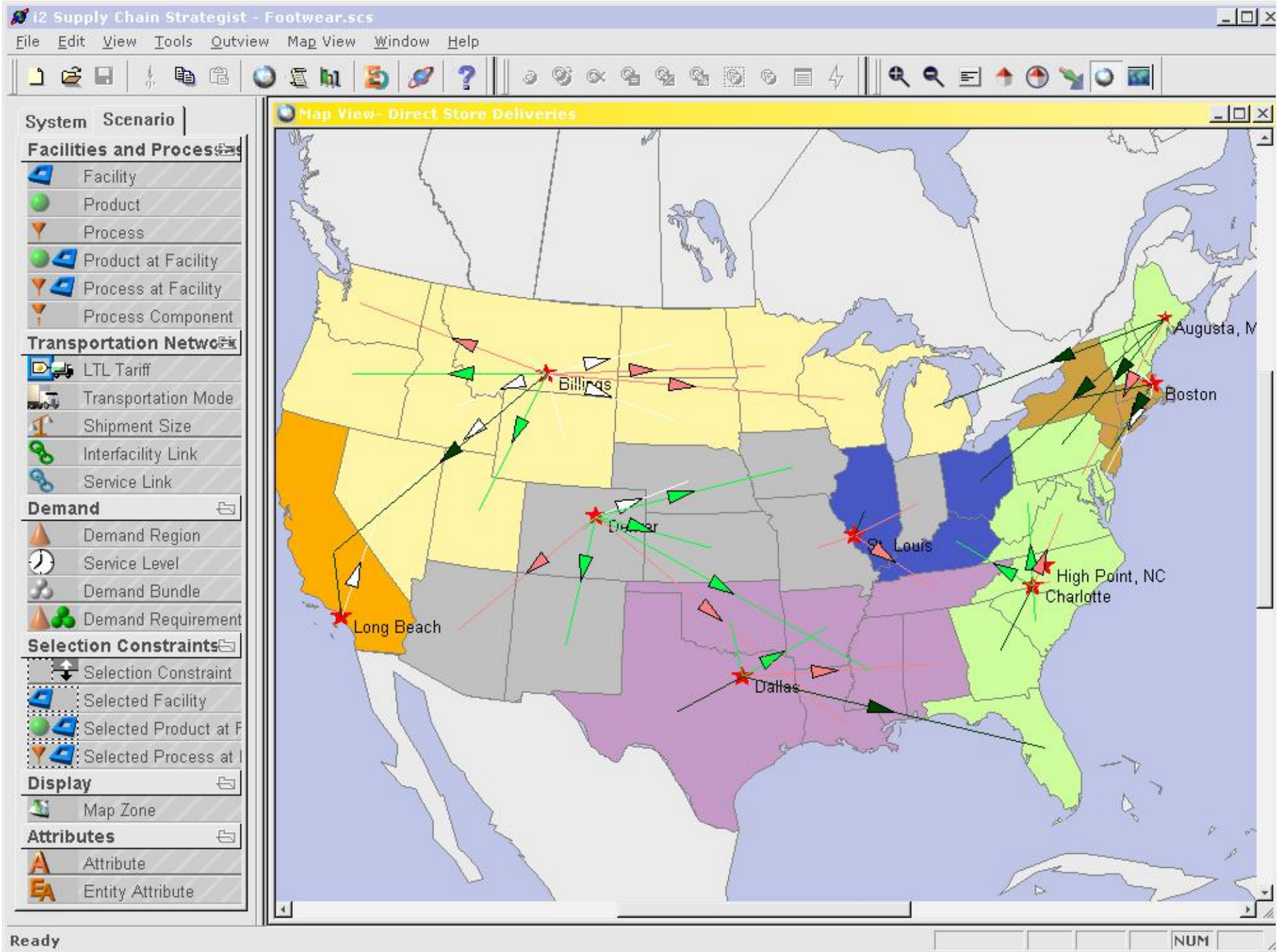


- Reduce operating costs (freight, handling, manufacturing, procurement) 5% to 10%



- Reduce facility and in-transit inventory (raw materials, WIP, FG) 20% to 30%
- Reduce fixed assets (consolidate warehouses, plants, production lines) 2% to 5%







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Success stories



- Domestic and export product flow optimization
- Investment policy definition
- Planning cycle reduction
- Scenario analysis (5-, 15-, 20-year horizons)



- Recommendation for optimal investment in new manufacturing and storage facilities
- New product investment efficiency evaluation
- Transport optimization including own and rent railway and automotive transport



- Finding of new plant location
- New facilities investment proving



- Finding of new automotive assortment centers locations and capacities
- Transport optimization including own and rent railway and automotive transport
- Recommendation for optimal investment in new automotive assortment centers



- Domestic and export product flow optimization
- Supply chain bottleneck analysis and optimization
- Investment strategies definition



- The analysis and optimization of Kazakhstan logistics infrastructure to provide international container cargo transit



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Appendix I – World Wide Customer Case Studies

SCS Customers

Sample customers



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INDUSTRY	SELECTED CUSTOMERS
High Tech	IBM, Sprint, Dell, Nokia
CG&R	Shaw's Supermarkets, Home Depot, Best Buy, Sears, Tropicana, Avery Dennison, Coca Cola
Auto and Industrial	Cooper Tire, Pacific Dunlop
Distribution and Transportation	USF, UPS, Hub Group, Penske Logistics, Ryder
Process & Healthcare	Occidental, Polyone, PSS Medical, Tyco Healthcare

Dell Computer

Case study



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Business Overview

- Headquartered in Austin, Texas, Dell is the world's No. 1 computer systems company
- Annual revenue of \$25 billion
- Over 35,000 employees worldwide
- A truly global company with production in Austin, TX; Nashville, TN; Penang, Malaysia; Xiamen, China; Limerick, Ireland; Porto Alegre, Brazil
- Dell sells customized computer systems and support services directly to customers

Business Objectives

- Grow Dell's advantage in a competitive marketplace
- Minimize supply chain costs from suppliers to factories to customers
- Reduce inventory, increase throughput, improve velocity

SCS Approach and Benefits

- Pinpoints sourcing, manufacturing, and warehousing locations
- Optimally allocates manufacturing and warehousing resources
- Contributes to Dell's ability to implement strategic solutions through a fast, flexible, maintainable analysis process

Dell has identified value in excess of \$1 billion over the 4 year planning horizon with SCS

Shaw's Supermarkets

Case study



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Business Overview

- 185 stores in New England (MA, CT, VT, ME, RI, NH)
- More than \$4 billion in sales
- Number 1 or 2 in all markets
- Two distribution centers

Business Objectives

- Realignment of distribution after acquisitions
- Re-evaluate third-party distributor locations
- Re-evaluate item positioning (grocery items)
- Evaluate transportation alternatives

Results of Study

- Closure of East Bridgewater, Lakeville Distribution Centers
- Change in third-party distribution locations
- Opportunity to re-evaluate item positioning (grocery items)
- Re-visit store/distribution center alignments
- Optimized volume between suppliers of fast moving items
- More than \$2 million savings opportunity
- Distribution costs
- Transportation savings

Cooper Tire & Rubber Company

Case study



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Business Overview

Tire Group

- 2001 revenue of \$1.7 billion
- Five tire manufacturing locations
- Focus on North America passenger and light truck replacement tire market

Automotive Group

- 2001 revenue of \$1.5 billion
- 50 manufacturing locations in 13 countries
- Strategic focus on three OE product lines
- Sealing Products
- Fluid Systems
- NVH Control Products

Business Objectives

- Aggressive acquisition strategy has led to redundant and overlapping networks. Rationalize network to eliminate redundancies.
- Determine whether stocking and producing locations are properly aligned with current and emerging demand regions. If not, determine optimal alignment
- Promote operational synergy and economies-of-scale
- Reduce "total delivered cost"

Results of Study

- 8 facility closures
- 2 regional DC additions
- 2 DC consolidations
- Direct ship lanes identified
- Central US service improved
- Freight spend reduced
- Cycle time reduced

PolyOne

Case study



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Business Overview

- World's largest polymer services company
- Aggressive owner of a network of businesses, providing value added products and services that link fabricators and consumers
- \$ 3.3 billion in annual revenue

Business Objectives

- Create a responsive, flexible supply chain that delivers superior service at the lowest total supply chain cost
- Enhance asset utilization across the network

Results of Study

- Cost avoidance (fixed assets)
 - Before i2: Supply Chain assets
 - With i2: 7.7 million
- Fixed costs: Reduced \$5.3 million
- Variable costs: Reduced \$20.7 million
- Logistics costs:
 - Before i2: Inefficient supply chain network
 - With i2: Reduced \$1 million
- Indirect material costs: Reduced \$0.7 million

**PolyOne unleashed value
in excess of \$30 million with i2**

Sara Lee Underwear

Case study



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Business Overview

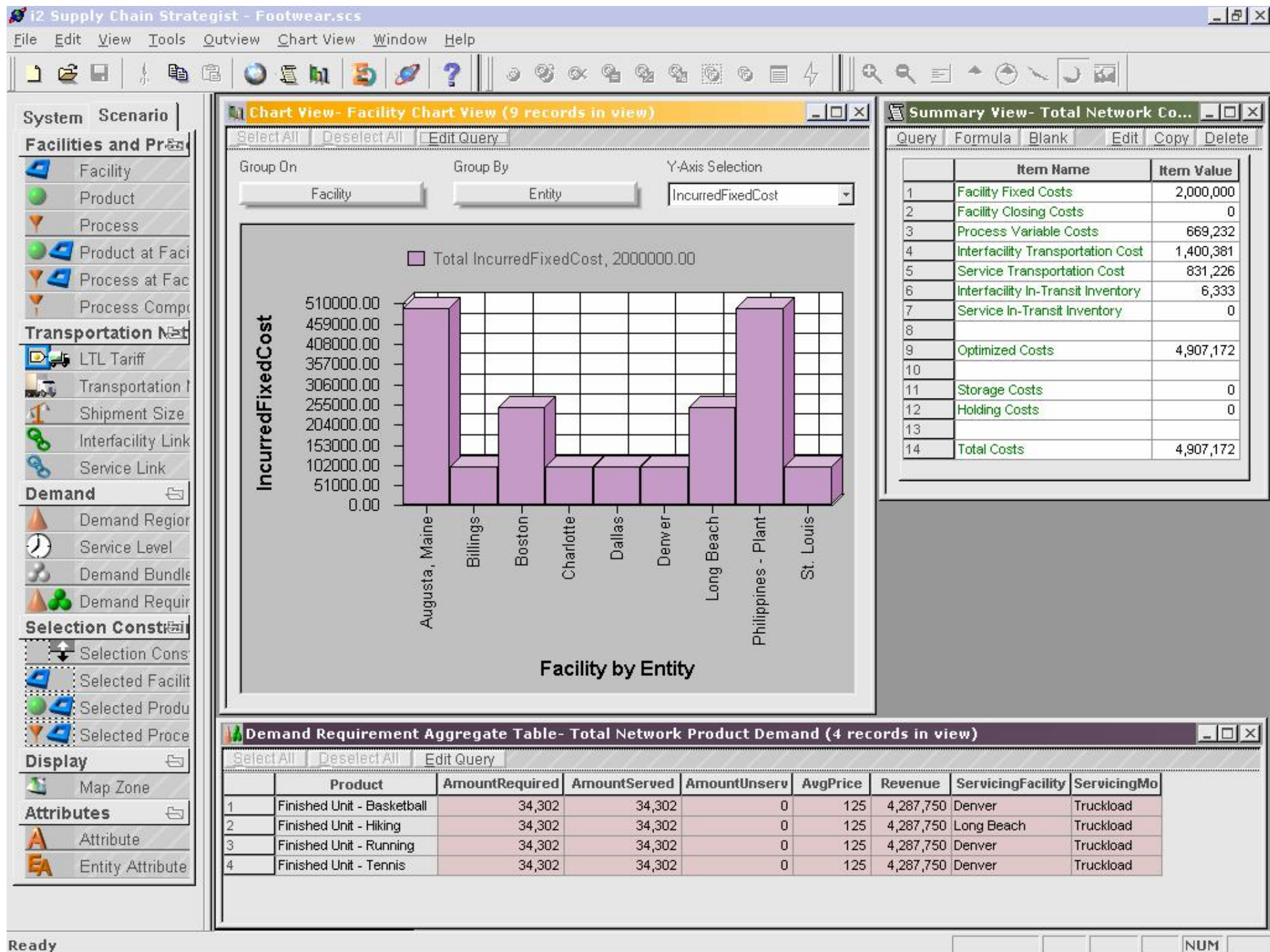
- Sara Lee Underwear holds over one third of the market share in men's and women's underwear. Brands include Hanes and Polo. Production for North American demand is mostly offshore in Central America and the Caribbean. They were faced with rising operating costs for critical Club Store customers due to:
 - Prepaid freight policy
 - Growth in demand
 - Increase in logistics costs
 - Demand for customer specific styles

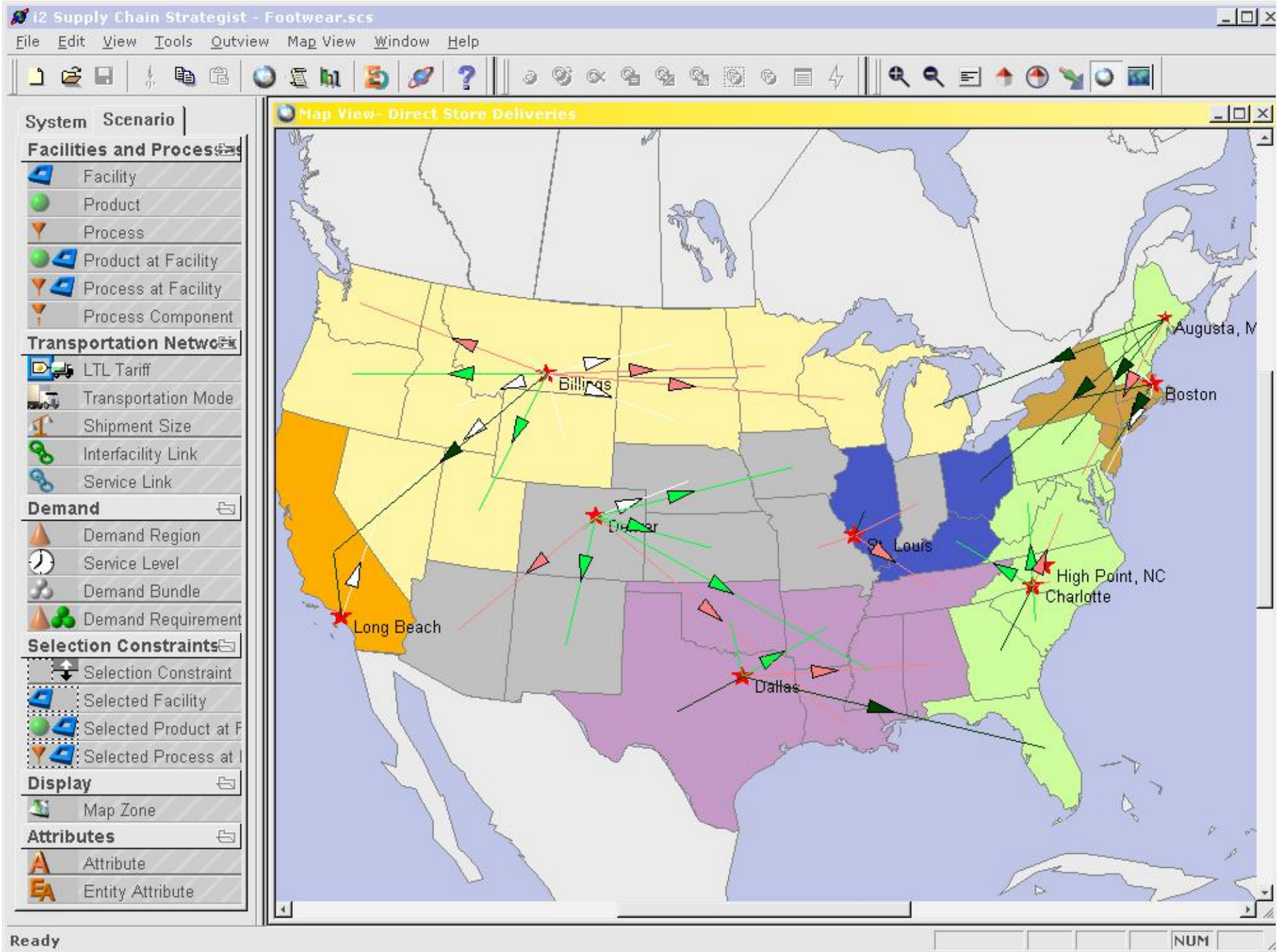
Key Solution Enablers

- Sourcing Strategy for North America
- What ports of entry to use
- What DC locations to use in North America
- To what degree should alternative modes be used including inter-modal shipments
- What would the impact be of plants direct shipping to key customers?.

Specific Value Derived

- Savings on various scenarios ranged from 5 – 34% of modeled supply chain costs
- Savings from first analysis generated immediate ROI on software purchase







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Appendix II – i2 Total Logistics Management



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The i2 Total Logistics Management Practice

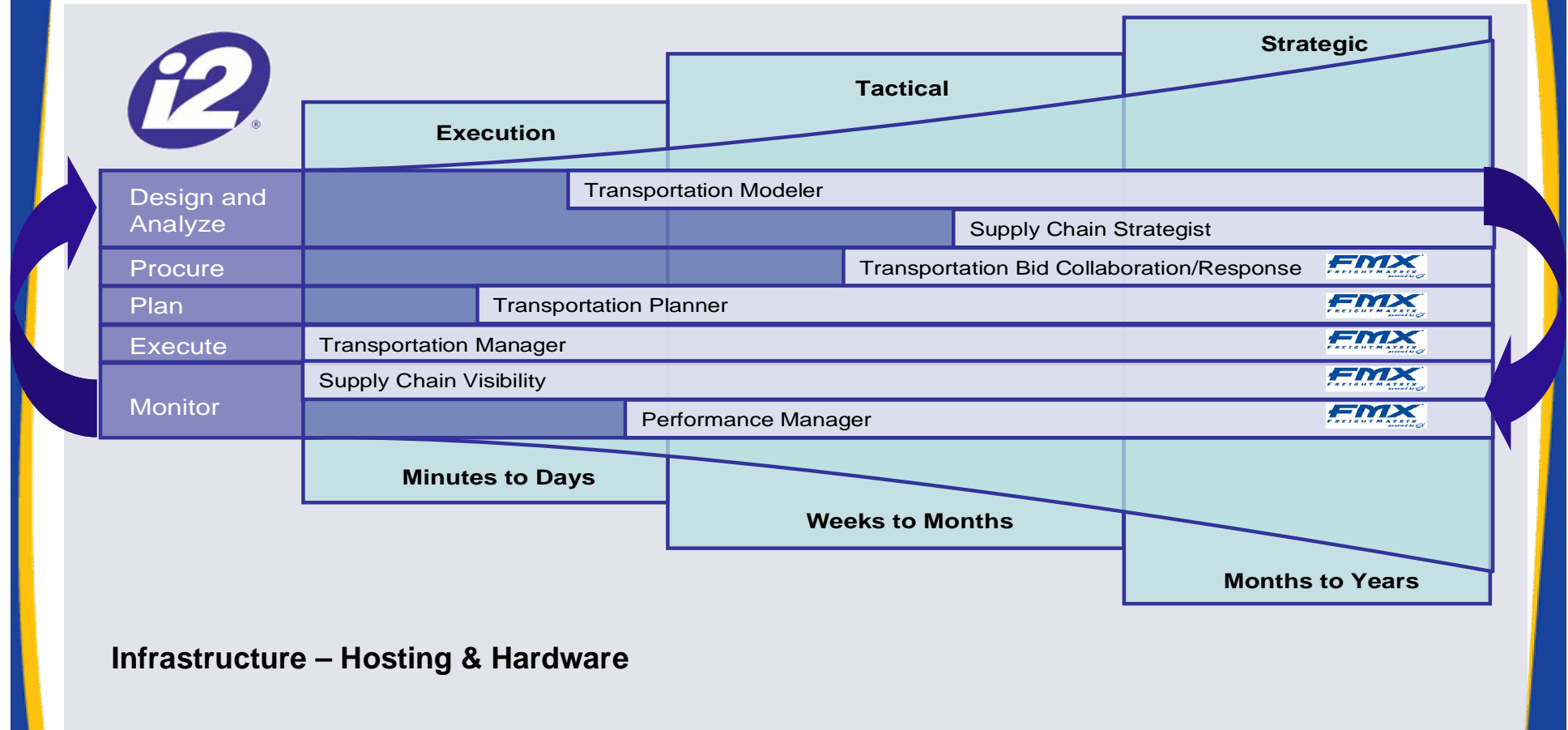
- Established logistics solution in 1991
 - More than 200 transportation solution customers globally representing more than \$45 billion in combined annual freight spend
- Proven inbound and outbound solution with successful customers
 - Large shippers including JCPenney, Costco, Gap, Samsung, LG Electronics, PepsiCo, Kimberly Clark, Nestle, Anheuser-Busch, General Motors, Cardinal Healthcare, Texas Instruments, etc.
 - Global 3PLs including Ryder, Penske Logistics, YRC Logistics, Wincanton, CEVA Logistics, UTi, etc.
- Holistic solution with transaction and optimization scalability for complex networks
- Logistics strategy, process and implementation consulting services
- FreightMatrix hosted, subscription based deployment option
- Managed services related to network modelling, transportation procurement, load planning, freight audit and payment, visibility and analytical services



i2 Total Logistics Management Solutions



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i2 FreightMatrix



- Hosted, ASP based deployment of i2 TMS solution
- Ongoing subscription fees based on volume of transactions
- No additional maintenance fees, access to customer support and new software releases

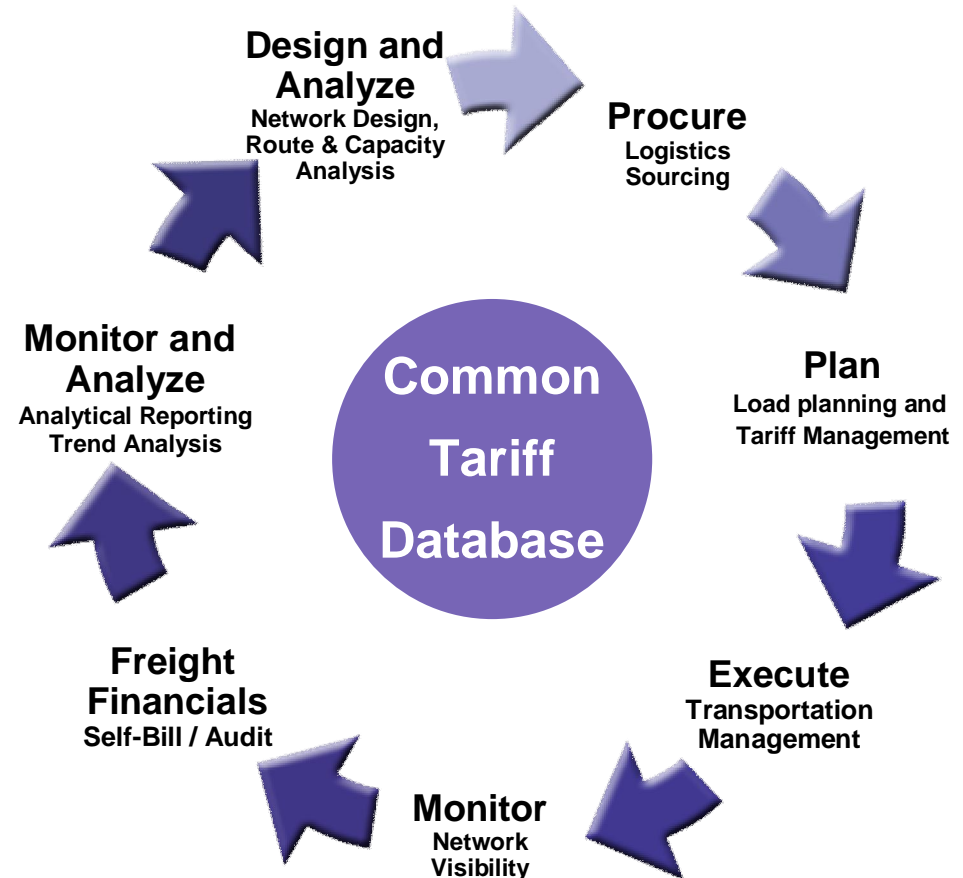
i2 Closed-loop Process

Solutions for Total Logistics Management



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- Logistics processes are not functional islands
- Each process provides an input into the next until the loop is closed
- This best practice approach provides :
 - Network leverage for procurement
 - Contract enforcement
 - Optimal cost versus service
 - Service compliance
 - Accurate accruals and resolution
 - Feedback mechanism
- Our mission is to deliver Supply Chain Results in all areas of logistics for our customers





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