Ideas for Leadership in Logistics

The Official Magazine of The Professional Logistics Institute

Volume 8, Issue 4, Winter 2002 | 03

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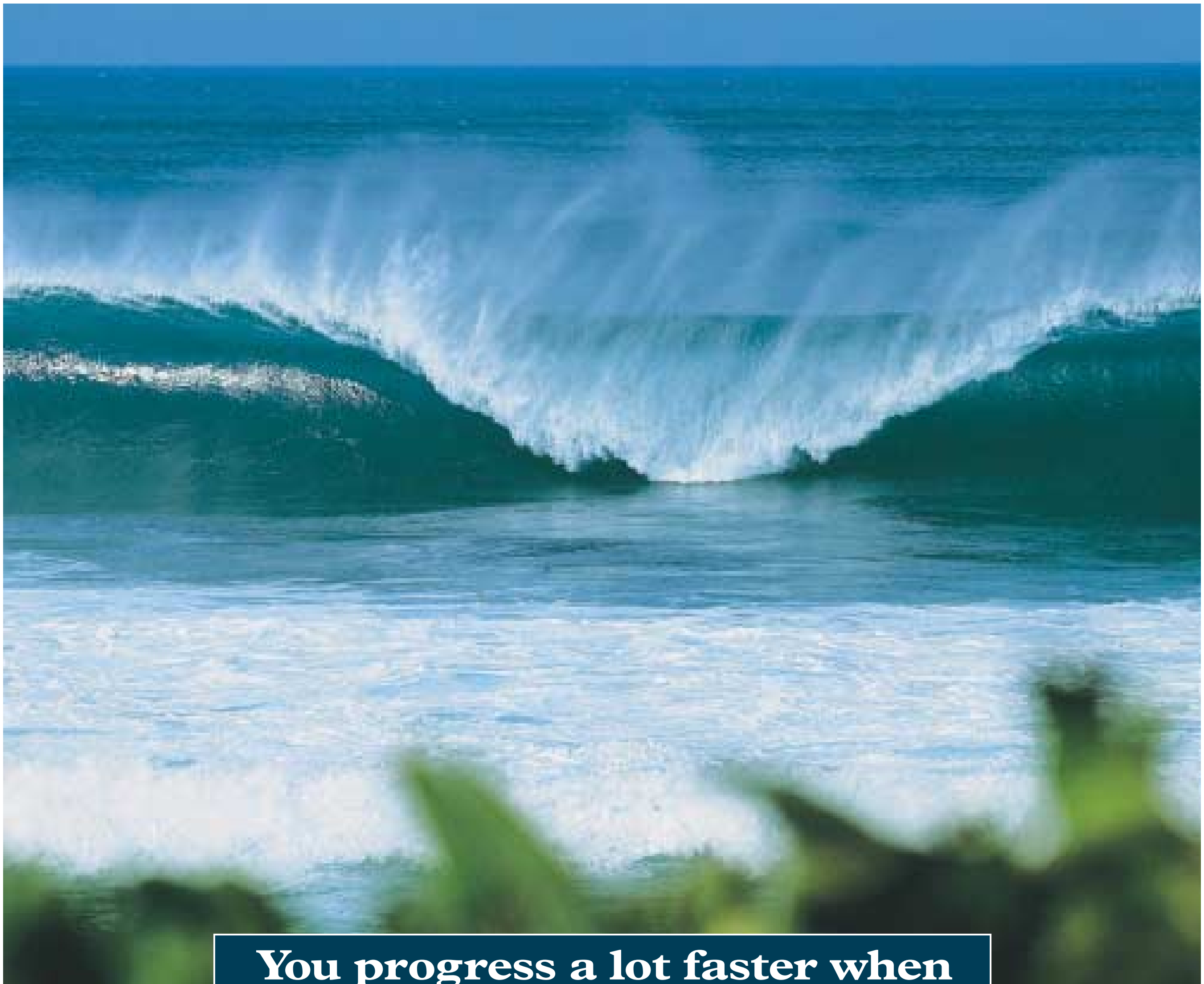


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Page numbers listed indicate the first page of the article in which the company and organization appears — or where there is simply a notation or credit to a company.

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CN's New President

Canadian National's board of directors recently announced the appointment of E. Hunter Harrison as CN's new president and chief executive officer, effective Jan. 1, 2003.

Mr. Harrison, 58, has served as CN's executive vice-president and chief operating officer since March 1998 and joined the company's board of directors on Dec. 6, 1999. Between 1993 and 1998 Mr. Harrison was president and chief executive officer of Illinois Central Corporation (IC) and the Illinois Central Railroad Company (ICRR), and a director of both IC and ICRR.

Mr. Harrison replaces Paul Tellier as CN's president and chief executive officer.

In a press release CN Chairman David McLean notes: "CN's board of directors is delighted to announce Hunter Harrison's appointment. Hunter is the best operating executive in the rail business, the man who designed and implemented the scheduled railroad at CN. Scheduled railroad practices – now being embraced by other major railroads – have made CN the service and efficiency leader of the North American rail industry and allowed it to grow its service-sensitive merchandise businesses at a healthy pace. The industry recognizes Hunter's leadership and innovation – Railway Age magazine in January named him 2002 Railroader of The Year."

Bombardier Designates Paul Tellier President and Chief Executive Officer

At a special meeting on Dec. 12, 2002, Mr. Paul Tellier, was named president and CEO of Bombardier Inc., and it was announced that he will assume his new responsiblilities on Jan. 13, 2003. In the interim, Mr. Laurent Beaudoin, Chairman of the Board and of the Executive Committee of Bombardier, will assume the CEO's functions with Mr. Robert E. Brown leaving the Corporation.

Mr. Tellier has held several top-level positions in the Canadian public service, including Clerk of the Privy Council. He has been president and CEO of the CN since Oct. 6, 1992.

Bombardier Inc., a diversified manufacturing and services company, is a world-leading manufacturer of business jets, regional aircraft, rail transportation equipment and motorized recreational products. It also provides financial services and asset management in business areas aligned with its core expertise. Headquartered in Montréal, Canada, the Corporation has a workforce of some 80,000 people in 24 countries.

Ron Wallace to Retire; David Abney to head UPS International

Ronald G. Wallace, a long-time executive of UPS who for the past five years has driven the growth of UPS's international package operations, has recently announced his retirement. He will be succeeded by David P. Abney, who has helped guide the evolution of UPS's global supply chain management business.

The 47-year-old Mr. Abney, who began his UPS career in 1974 as a part-time employee loading and unloading packages in Mississippi, will assume his new position on Jan. 1, 2003. In leading International package operations, he will join UPS's Management Committee, which includes the company's 11 most senior executives.

"Ron has devoted 37 years of his life to this company and we are all the better for it," said Mike Eskew, UPS's chairman and CEO in a press release. "And with David Abney, we have the strategic thinking and deep knowledge of the company needed to guide our international operations on a continued strong course. David's background in the package distribution business and his recent work in the supply chain arena offer a unique combination that will help sustain UPS's global growth."

Mr. Abney has helped implement new business lines that UPS considers the foundation for its future growth. In 1999, he assumed responsibility for UPS SonicAir®, the same-day delivery arm of UPS. Following that, Mr. Abney launched UPS's Service Parts Logistics, the unit that designs and manages urgent parts networks and return-and-repair operations for customers worldwide. In 2001, Mr. Abney oversaw the integration of UPS's largest acquisition of recent years, the Fritz Companies, which has extensive operations in Asia, Europe and Latin America. He since has played a major role in operating UPS Supply Chain Solutions.

Mr. Wallace, 58, began his UPS career in 1966 as a delivery driver in Idaho. He served as the head of UPS's North German District for six years and then president of UPS Canada for three years. In addition to directing UPS's international operations, Mr. Wallace participates in several global trade organizations and also serves on the National Board of Directors of the Speedway Children's Charity.

FedEx Freight Corporation Names New Presidents

FedEx Freight Corporation has named recently named new presidents of its operating companies.

Patrick (Pat) L. Reed, corporate vice president and chief operating officer for FedEx Freight East, has been named president and CEO of FedEx Freight East, effective December 1, 2002. He replaces Thomas (Tom) R. Garrison, who is retiring. Keith Lovetro, who currently serves as senior vice president of FedEx Freight West, has been named president and CEO of FedEx Freight West, effective January 1, 2003. He replaces Tilton G. Gore, who is also retiring. FedEx Freight is a leader in regional LTL (less-than-truckload) freight services and is a subsidiary of FedEx Corp.

"We are very appreciative of the many contributions that both Tilton and Tom have made to the organization. We wish them well in their retirement," noted Douglas G. Duncan, president and CEO of FedEx Freight Corp in a press release. "I am equally pleased to have Keith and Pat as the new leaders of our operating companies. Both have proven track records in our organization and in the industry. They have already been major architects for our regional service strategy, and I am confident that, going forward, they will enhance value for all of our stakeholders, including our customers, our employees and our shareholders."

Pat Reed

Mr. Reed joined FedEx Freight East, formerly known as American Freightways, in 1996 as a special projects manager and was promoted to regional vice president of operations the same year. In 1997, he was named division vice president of operations. He was promoted to executive vice president of operations in 1999, and was appointed as COO in January 2002.

Tom Garrison

Mr. Garrison joined American Freightways in 1982 as treasurer, establishing the initial accounting and information technology functions. He was elected to the company's board of directors in 1985, and during his 20-year span with the company, Mr. Garrison led various functions throughout the business. He was promoted to president in June of 1998, and assumed the additional position of CEO in June 1999.

Working with a skilled and cohesive team of executive management, FedEx Freight East has, as previously reported, consistently improved year-over-year earnings every quarter since 1997. During that time, FedEx Freight East was recognized as one of America's Most Admired Companies by FORTUNE magazine and as one of America's Best Big Companies by Forbes magazine. In 2001, the American Trucking Associations (ATA) honored the company with its prestigious President's Trophy for outstanding safety performance.

A graduate of the University of Arkansas, Mr. Garrison was named Accountant of the Year in Industry for 2001 by the Sam M. Walton College of Business. Additionally, he serves on the Dean's Executive Advisory Board, the Supply Chain Management Research Center, and the board of directors of the Arkansas Trucking Association.

Keith Lovetro

Mr. Lovetro joined FedEx Freight West, formerly known as Viking Freight, in 1994 as director of marketing. In 1996, he was named director of customer service and was promoted to director of customer service and inside sales in 1997. He was promoted to vice president of marketing in 1998, and was named senior vice president of the company in 2001.

During his career in the transportation industry, he also held positions in sales, pricing and customer service with Emery Worldwide and CF Airfreight. Mr. Lovetro holds an MBA from the University of Santa Clara and a BA from the University of California. He is a member of the American Marketing Association and the Business Marketing Association and has received numerous awards for marketing and advertising excellence.

Tilton Gore

Mr. Gore began his career with Viking in 1986 as director of operations for the southern region. He was promoted to vice president of service center operations in 1989, then was named senior vice president in 2000, and was promoted to president and CEO in February 2001.

During his time with the company, Mr. Gore was instrumental in building its network of service centers throughout the West and its unparalleled on-time performance record. FedEx Freight West has been recognized with numerous customer and industry awards for the quality of its service, including the Quest for Quality award and as the NASSTRAC (National Small Shipment Traffic Conference) Western Regional Carrier of the Year. In 1999 the company received the prestigious President's Trophy from the ATA for its outstanding safety program.

A veteran of the transportation industry, Mr. Gore previously served as vice president of operations and as a member of the board of directors and part owner of System 99 Trucking. He started his career with Thompson Truck Lines in 1963, which was acquired by System 99 in 1967. He went on to hold positions of increasing responsibility in operations, management and information systems and industrial relations.

upcoming events WINTER 2002 | 03

January 2003

January 19 – 22
Global conference for e-business solutions.
Updates and conversations on trends in business applications, from integration and web services, to business intelligence to the role of financial systems in corporate governance. Sponsored by Oracle AppsWorld, San Diego. For more information: www.oracle.com/appsworld/sandiego/registration.

January 28
CLM Toronto Roundtable: Leadership in Transportation - Managing Change in the 21st Century.
Learn about leadership in transportation and discuss trends converging upon logisticians and transportation professionals in a global marketplace. Toronto Airport Marriott Hotel, 5:30 p.m. to 8:30 p.m., includes a buffet dinner. ($70 including tax.) For more information, contact Nina Trifan, Nadiscorp (905)-790-6404 x 220 or Fred Moody, CLM Toronto Roundtable president, (416) 461-8355 fmoody@LogisticsQuarterly.com

February

February 24 – 26
Senior Supply-Chain Executive Retreat
Sponsored by The Supply-Chain Council (SCC). This SCC retreat will be at the Royal Palms Hotel and Casitas, Phoenix, AZ. For more information, contact Melinda Spring, 412-781-4101, ext. 107 or melinda@hakanson.com; http://www.supply-chain.org.

April

April 4 – 6
Professional Education Conference-Europe: "It's All About You in Europe"
Sponsored by Meeting Professionals International (MPI), to be held in Berlin, Germany, Hotel Inter-Continental Berlin. For more information contact MPI Canadian Office, (613) 271-8901

May

May 20 – 22
Distribution/Computer Expo
An exhibition and conference of information technology for logistics, distribution, transportation, warehousing, supply chain management, and e-business applications in all industries. Held at Chicago's Navy Pier. For more information call: 800.338.4112; http://www.logistar2.com.

June

June 15 – 17
TMCA 7th Annual Conference & Educational Forum, (Transportation Marketing Communications Association)
The Crowne Plaza on Hilton Head Island, South Carolina, USA. For more information call: 952/442-5638

August

August 10 – 14
The 38th Annual International Conference and Exhibition, Melding Defense and Commercial Logistics
Sponsored by The International Society of Logistics (SOLE). Hilton Huntsville Hotel, and von Braun Conference Center, Huntsville, Alabama. For more information call: 301-459-8446 or visit www.sole.org

September

Sept. 21 – 24
The 2003 Annual Conference of the Council of Logistics Management (CLM)
Chicago, Illinois at the McCormick Place-Lakeside Center. For more information call: (630)574.0985 or visit www.clm1.org

Sept. 29 – Oct. 3
FIATA's World Congress 2003
Bali International Convention Centre, Nusa Dua -- Bali, Indonesia on Congress Organizer: Pacto Convex Ltd. For more information call (62-21) 570 5800 or E-mail: FWC2003@indosat.net.id

by Victor Deyglio

The Year
in review

Survivor – Canada

The past 15 months were difficult. The events of September 11, 2001 threw the world into a maelstrom of death and destruction. As we broke surface for a gulp of air, we were dealt another blow in the form of Enron and associated incidents of corporate malfeasance. The market meltdown touched everyone.

It would be gross misstatement if I said the Institute did not have a difficult year: why would we be exempt from world events? Our market froze immediately after 9/11. For security reasons, no one traveled. The market meltdown restricted budgets. Fiscal Q1 (Nov/01 to Dec/02) was a disaster. We couldn't give module seats away.

To compound difficulties, this was the first full year of the new certification program. The previous year saw a spurt in registrations at the end of 2000, as candidates scrambled to finish before the new program was officially launched in January 2001. From November 2001 to October 2002, there was no "transition period;" the new program was on its own in the market.

As everybody knows, new product entry has an initial negative impact on your market. We planned for a slow 18-month entry trajectory, with a downturn followed by a gradual upturn, as the market embraced the new modules. By June 2002, that upturn should have started.

That cycle, however, was delayed another six months because of world events. As we enter Q1 of the current fiscal year (Nov/02 to Jan/03), we are in a definite upturn in registrations. Modules are over-sold, as the community realizes distance learning in a web environment is fun. This should have happened in June, leading up to fiscal year end October 31, not in November as the new fiscal year began.

Reviewing year-end statistics, however, I was surprised to discover that we actually had a relatively successful year. Financially, pre-audit reports show an operating break-even, with money in reserve. Not bad in a bad year for a million dollar operation!

Given our preoccupation with the new program and the impact of world events, we were not able to achieve an ROI on the Logistics Gateway. The Gateway is our primary asset, valued on our balance sheet with the intention of establishing it as an "arms length" revenue centre. Plans are now afoot in the new fiscal year to begin this process, but unfortunately we will face an accounting penalty in the last fiscal year's audit because of this delay.

On a brighter side, registrations exceeded 880 for 12 months, even with low registrations in individual modules. This is compared to 990 registrations in the previous year, with that registration spurt. We should anticipate annual registrations to hover between 800 and 900 from now on.

We continue to welcome between 100 and 120 new P.Log.'s into the community, which was our annual average prior to that "spurt." That spurt was a tremendous boost, bringing us to the 1,000 member mark by the 2001 AGM. We are now close to 1,300 professionals, with 1,500 projected by 2006.

The Institute is a mature organization. We have the resilience to recover from external events that impose themselves on us. We are able to align our outcomes with our projections. We are moving away from the fluctuations of a new business into steady growth established on solid foundations.

The Institute continues to enjoy the loyalty of members and corporate sponsors. The members benefit from the commitment of a strategically focused board. The program is strong, and continues to meet the demands of the market. We anticipate a stronger future as we develop new partnerships and ventures.

New Partners

This was the year of memoranda of understanding. We officially signed an MOU on joint membership with the Institute of Industrial Engineers, and will begin to market the benefits of that agreement to renewed professional members.

We negotiated an agreement with the Executive Centre for Logistics & Supply

(President's Viewpoint, *continued on page **26***)

by Pierre Massicotte

INFRASTRUCTURES for Global Strategy

As companies implement their global strategy, they must count on infrastructures and key service providers to support their operations. As an example, companies with international operations and global market require accessibility to ports and airports. It is a key enabler to strategy execution. The services provided by ports and airports must be reliable, flexible, cost efficient and of very high quality. More so, they should be surrounded by a variety of service providers and business partners, who can offer: transportation, customs brokerage, subcontracting, third party logistics and other services.

These logistics hubs benefit all partners. The service providers can count on volume to develop operation synergy and cost efficiency, and the companies can focus on their core competencies to compete.

These infrastructures require major capital investment. The government must provide orientation, funding and develop programs to attract entrepreneurs, companies and service providers.

It sounds good! But… you will say.

Well, the Port of Montreal and the Montreal Foreign Trade Zone are pursuing this model successfully. They already play a very important role in Canadian and North American East Coast logistics and their future is bright.

The Port of Montreal

The Port of Montreal is a bustling hub of international trade. A leader among North Atlantic container ports, it handles all types of cargo in all seasons – approximately 20 million tonnes per year. As the international port closest to North America's industrial heartland, it offers the shortest route between North Europe and the Mediterranean, and the vast markets of North America.

A wide selection of respected international shipping lines link the port to more than 100 countries around the world and offer swift, reliable, door-to-door service at competitive prices. The port offers frequent arrivals and departures, modern infrastructure and high-tech equipment, not to mention careful handling.

The Port of Montreal distinguishes itself from most other ports by its own rail network on port territory, operated by the Montreal Port Authority. Its six locomotives come and go on more than 100 kilometres (60 miles) of track. This port railway network provides the two national railway companies, Canadian National and Canadian Pacific, with access to almost every berth. Every day, trains connect the port to the major metropolitan centres of Toronto, Detroit and Chicago. Trucks also link the port to markets in Central Canada, New England, New York State and all over North America.

The Port of Montreal also welcomes thousands of passengers every year to its Iberville cruise terminal, located in the city's historic district. A major cruise destination, the City of Montreal offers these passengers beautiful sights and – for many visitors – the cachet of Europe without having to cross the ocean.

The Montreal Foreign Trade Zone at Mirabel

A program tailored for logistics

Created by the Quebec government in 1999, in order to enhance the industrial potential and the high quality infrastructures of the Montreal-Mirabel International Airport as well as to promote new investments, the Montreal Foreign Trade Zone at Mirabel has many competitive advantages for the development of logistics-related activities.

The Montreal Foreign Trade Zone at Mirabel is strategically located at an international airport, in operation 24 hours a day with no curfew, and it benefits from the proximity of the North American East Coast market (130 million consumers within a 1,000 km radius). The landing fees are 55 percent to 80 percent lower than in Toronto, Boston, Chicago, Detroit or New York. The operating costs for a distribution centre are amongst the lowest in North America.

The fiscal and financial incentives provided by the Montreal Foreign Trade Zone, for a period of ten years, allows logistics businesses to reduce their set-up costs by 25 percent, with refundable tax credits on the construction of plants or with the acquisition or

(Leadership in Logistics, *continued on page 26*)

by David J Closs

Views of the *Logistics* **Integrator**

Major topics at the recent Council of Logistics Management (CLM) annual meeting included the role, positioning, and trends within the logistics service provider industry. While the sessions used various terms, Third Party Provider (3PL), Lead Logistics Provider (LLP), Fourth Party Provider (4PL), and Logistics Integrator, the question concerning the differences and similarities remains. The sessions of interest ranged from the keynote by Mike Eskew, CEO of United Parcel Service to a number of sessions on tracks. The sessions described the types of business models being used, industry trends, and an outlook from the financial markets as well. These sessions offered a number of perspectives regarding the future of the service providers. This review attempts to synthesize observations from these sessions in terms of definitions, requirements, trends, and ongoing issues.

Definitions

It continues to be apparent that there is no consistent definition regarding the capabilities and services provided particularly for LLP, 4PL, and logistics integrators. The presentation by Benjamin Gordon segments the industry by: 1) Air/Ocean; 2) Asset-based transportation; 3) Value-added Warehouse; 4) Non-asset-based surface transportation; and 5) Software. While this perspective demonstrated some interesting ownership trends, it doesn't offer much direction in terms of service integration. A more institutional perspective was offered by Peter Magill of KPMG Transportation & Distribution. He identified three types of 4PL arrangements. The first arrangement is centered on single shipper with a strategic partnership between it and a logistics service provider at the core. The initial conceptualization of Vector SCM by General Motors illustrates this model. The second is a more expansive relationship as the 4PL entity becomes an industry platform and competes for other supply chain management business within a sector. The industry exchange portals created by the automotive, chemical, and electronic industries illustrate this concept. The third type involves a wider array of service providers establishing partnerships such maintenance firms with transport companies and finance institutions that want to fund the industry. It appears that the Transplace.com collaboration fits into this category. Another perspective evident at CLM were the consulting and software providers positioning themselves to analyze and coordinate supply chain design and flow. While this capability was often offered as a one-time service, supply chain refinements are dynamic so it requires an ongoing coordinating relationship. Such a service offering would provide consulting and software providers with an ongoing stream of revenue.

It remains clear that there is no common definition as many service and information providers are maneuvering to make sure that they can be included. It is also clear that managers continue to be confused about the 4PL, LLP, and Logistics Integrator terminology as well as the potential benefits from these relationships. While the historical focus has been on the management of assets such as facilities, vehicles, and inventory, the shift for 4PL and Logistics Integrators is gradually toward the collection, coordination, and management of information leaving asset management for the 3PLs.

Requirements

Just as the definition is not clear, determining the service requirements for a 4PL or Logistics Integrator is not clear either. A pattern is beginning to emerge, however, based on the Seventh Annual 3PL Study provided by John Langley et al. They summarized the role of the 3PL to include: 1) Resource provider; 2) Resource manager; 3) Problem solver; 4) Transportation Strategist; 5) Distribution Strategist; 6) Supply Chain Strategist; and 7) Orchestrator. While the first two will likely remain the role of 3PL and service providers, the later five will migrate somewhat toward the 4PL or Logistics Integrator. On a limited scale, the Problem Solver and Transportation Strategist roles will also remain with the 3PL providers.

To operationalize these roles, 4PL and Logistics Integrators generally have five characteristics. First, while the differentiation is not absolute, it appears that there is a preference for non-asset based Logistics Integrators. This is a trend continued from the concern regarding the independence of 3PLs controlled by asset-based providers. The desire of 4PL to coordinate a larger percentage of firm volume makes asset independence more desirable. Second, a pre-requisite capability of the 4PL or Logistics Integrator is the multi-firm data warehouse tracking order and shipment history and anticipating future requirements. The ability to effectively collect and synthesize the data from multiple shippers or clients represents a critical asset for the Logistics Integrator. While this requirement is not conceptually difficult to achieve, the practical issues of collecting, cleaning, and synthesizing requirements and shipment data from multiple sources is substantial. Third, 4PL and Logistics Integrators must have access to sophisticated analysis and decision support tools. The focus in the past has been toward logistics and supply chain network analysis tools. This requirement will continue but the new differentiator will be the capability for dynamic supply chain analysis. Dynamic analysis considers the week-to-week or month-to-month changes in requirements and capacity and suggests supply chain refinements to efficiently respond to the changes. Fourth, 4PL and Logistics Integrators must develop and maintain relationships with logistics service providers. This includes the ability to effectively exchange data and develop common consistent performance measures across a wide range of service suppliers. Finally, a major differentiator between 3PLs and Logistics Integrators will be the nature of the expertise. Logistics Integrators will require individuals with expertise closer to consultants than operations managers and service providers. Like consultants, Integrators must be able to complete thorough analyses and conceptualize new strategic alternatives. Unlike consultants, however, Integrators must be able to coordinate the implementation and operationalization of the strategy. The development and maintenance of this unique combination of skills with enough critical mass will continue to be one of the major challenges of Logistics Integrators.

Trends

The CLM sessions suggested four trends that will direct and promote the growth of the 4PL and Logistics Integrator market. The first is a continued movement toward outsourcing non-core activities. Many firms, including some the Fortune 500, have determined that supply chain analysis and coordination is outside their core competency. They do, however, maintain supply chain strategy expertise. Developing and maintaining the data warehouse, tools, and expertise is difficult for a firm when operational experience is critical for advancement. Obtaining the broad range of operational experience required for promotion means individuals must move from analytical to operational positions rapidly so it is difficult for firms to maintain expertise in these non-core areas such as supply chain design and coordination.

The second is substantial consolidation in the logistics service provider industry. The recent acquisitions across modes and geographies by firms such as Danzas, Exel, and UPS Logistics creates logistics service providers with broader scope and capabilities. Benjamin Gordon reported that in the long-term, most logistics services providers will face the following choices:

- Sell: Merge with a larger competitor;
- Bulk up: Develop a highly-differentiated unique value proposition, raise capital, and grow through a mix of acquisitions and organic growth;
- Consolidate: Team up with your most-respected peers and competitors; or
- Harvest: Milk the existing business, but recognize that they will harvest a smaller crop in the future.

While the consolidate trends are apparent, the plans for integration are not. While consolidation brings the corporate and physical resources of the 3PLs together, there is still much work to develop integrated information and analysis systems. It is here that the firms with comprehensive information architectures or substantial information resources will continue to have an advantage. In an era of increasingly consolidated service suppliers, 4PLs or Logistics Integrators may provide an effective means of service supplier management and coordination.

The third is the trend by some Fortune 50 organizations to not wait and develop their own 4PL or Logistics Integrator. The recent creation of Vector SCM by General Motors and a similar move by Nortel establishes carrier and 3PL independent 4PLs with substantial volume and resulting clout. In the case of Vector SCM, GM has delegated the responsibility for the design, coordination, and management for all inbound and outbound logistics. It is anticipated that Vector will control (U.S.) $6 billion of GM's logistics spend which represents 10 percent of the entire outsourced logistics industry to date. While the arrangement has demonstrated significant benefits, there are still concerns regarding the independence and transferability of the concept. However, since such arrangements with organizations the size of GM and Nortel facilitate a higher degree of collaboration and motivation, they will be interesting to watch to determine the potential of the Logistics Integrator.

The CLM sessions suggested four trends that will direct and promote the growth of the 4PL and Logistics Integrator market.

The fourth trend is in response to client firm globalization. As firms extend to global marketing and operations, they are increasingly demanding service providers and coordinators who operate globally as well. Shippers want service providers and coordinators capable of providing visibility and coordination for global movements. The CLM presentations reviewed some of the recent acquisitions and suggested that there will be many more to provide modal and geographic scope.

The sessions continue to predict substantial growth in the 3PL and Logistics Integrator industry with increasing consolidation by major players.

Ongoing Issues

While the trends are reasonably apparent, there were still two issues that merit additional discussion and documentation.

(INTEGRATOR, *continued on page 26*)

by Nicholas Seiersen

VALUE-BASED WAREHOUSING

IS WAREHOUSING A *necessary* evil?

Bearingpoint

Customer requirements are driving warehouse operations of all sizes to improve inventory accuracy, quality and customer service. Manufacturers have mixed feelings about their distribution centers. They dislike these messy appendages to otherwise clean productive operations. They cater to the wacky requirements of crazy sales people, unreasonable customers and money-grabbing financiers anxious to hit quarterly promises to Bay/Wall Street. Non-core to operations, uncertain internal capabilities, changing specifications, add up to uncertainty, and uncertainty precludes investment. Perhaps this is why many manufacturers under-invest financially, technologically, and even intellectually in their distribution centers. And as performance suffers, executives distance themselves.

Sounds like a golden opportunity for outsourcing? Yet many manufacturers cannot find anyone to do the job properly. According to an Accenture survey (quoted in Inbound Logistics), they are uncomfortable with:

- Losing control (nearly half);
- Cultural barriers (19 percent);
- Cost (14 percent);
- Long-term dependency on an external organization (11 percent);
- Diminished vendor relationships and collaboration (6 percent).

For many, it is a zero-sum game. Value is created by the 3PL by using lower wage and benefit packages, and taking lower returns on capital.

Outsourcing warehousing may no longer be a no-win situation. I recently visited a third party operated warehouse operation that challenges conventional thinking about manufacturers' warehouses and outsourcing, the Schenker Stinnes Logistics operated consumer package goods fulfillment center in Brampton, Ontario.

What is so special about what they have done? Their first step was to segment product flows by handling characteristics:

- Unit picks – for employee sales, through a web-front end ordering system;
- Case picks – the bulk of volumes, includes layer picks currently;
- Layer picks – a new process has been defined, but is not yet in place;
- Full pallets;
- Cool picks – products that require temperature control;
- Exception or Z picks – products that are beyond parameters of the system (e.g. oversized boxes, unreadable SCC codes, etc.), where the manufacturer and the operator must work together to first accommodate, then bring into mainstream processes;

• Individual picks are then merged back to customer orders for shipment.

The next step was to perform a root-cause analysis of points of failure in each stream of these warehousing operations. They considered similar types of operation across the Schenker world and across the consumer goods industry. Among the findings, the main points of failure are:

• 99 percent of order non-conformities are due to conventional case-pick errors;

• 90 percent breakages due to forklifts/end riders driving into products in racks.

From the results of this analysis, they focused on how to engineer the processes, with automation and systems where appropriate, to provide new levels of productivity and quality and the truly perfect customer order:

• Right product – over 99.95 percent;

• On-Time – over 99.5 percent;

• Damage-free – over 99.95 percent;

• Configured to customer requirements (that is your service promise);

• Lowest possible cost;

• Providing accurate information and documentation;

The core mindset is not how to make the systems work, but how to make the processes work, engineering to six-sigma quality (less than three defects per million, or 99.9997 percent).

For case picking, the tasks are driven by multiple-order waves of bar-coded labels that are "slapped" onto cases, as they are picked by order of weight for pallet quality, and placed on a conveyor. The sortation scanner reads two labels – the pick label and the factory placed SPC label that incorporates lot and date information. If there is a match, the cases are sent to the pallet building stations. In order to respect the optimal pallet building logic that will limit transportation breakage, the system recirculates cases until it is their turn to be palletized, driven by algorithms written by the in-house operations research team. This process also allows full-lot traceability by customer and even delivery. And it is efficient. Grocery picking rates will typically be between 150-225 cases/hour; this system routinely provides picking/palletizing rates well above 300 cases/hour (picked, palletized and staged).

Picking by layer. This process will use specially designed hardware to enable full layers to be picked and weighed. The weight parameters at the level of a pallet are significant, so weight is an effective verification tool in this usage. Layer pallets are far more tidy and robust, which further reduces breakage. Finally, productivity that is three to five times the rate of conventional picking is expected. Given these advantages, the manufacturer would be well advised to actively sell pallet layers to their retailer customers.

Warehouse damage is further reduced by the use of flexible modular layouts with automated shuttle high-density storage systems for bulk storage. With slots of up to 25 pallets each, the forklift operator places palettes at the entrance. A self-guided radio shuttle then repositions the palette behind the last palette in the accumulation rack, while the forklift operator is free to work elsewhere. The shuttles can be quickly and easily transferred between different storage racks, by a conventional forklift truck. The system is set up as a FIFO feed from one side, pick from the opposite side. This shuttle-rack system costs four times that of conventional racking, or about twice that of drive-in storage systems. The payback comes from a high rate of capacity utilization and a high rate of accessibility of the goods because each level can take different products. A 300,000 square-foot facility stores the factory output and ships 26 million cases a year. The bulk storage system provides additional value in productivity and safety (the system is unattended and quiet), energy efficiency, and reduces breakage (no forklifts go near the product stored).

Assemble in Warehouse (AIW) or postponement allows plants to manufacture efficiently while special products and promotions can be customized to order offline, in the DC, as and when they are needed, without costly inventory commitment, or interfering with the production dynamics: Costco special packs, pallets that go directly onto sales floor.

On-time delivery is engineered in a traditional route-driven plan, aiming to get all orders picked, packed and staged for the deadline. A dash-board

shows when the wave must be complete, and the supervisor can redeploy his crew as the shift progresses. At the end of the picking wave, the team helps palletize, ship and then clean-up, before the next wave is released.

Low cost is achieved through the low-cost design of these high-productivity processes, the sustainability of the quality (no rework), the use of systems that assure sustainability and information to focus improvements, a "cost-plus" financial arrangement that guarantees transparency and, finally, the use of targeted key performance indicators that ensure the control and accountability of the operator to deliver on their service-level promise. Systems, such as the SoliNet WMS used here, also manage the fulfillment to each customer's requirements, such as minimum shelf life remaining on all products shipped, or fulfillment rules such as fill and kill, hold backorders, hold orders for complete delivery. Some sophisticated ERP packages used by manufacturers cannot manage these rules by customer, or pallet logic (e.g. one product/pallet) to ensure each product's characteristics (e.g. odor emission and absorption) are taken account of. For example, this ensures that tea is not stored next to perfumed soap, slow-moving products are overridden for new products or promotions, fire-risk product (oil, aerosol) density is taken into consideration such that critical concentrations are not reached that would require expensive in-rack sprinklers. These are the glue that synchronize the processes, and along with the innovative algorithms, constitute the secret formula behind compelling success. Continued low cost is also achieved through modular, easy-to-scale-up design. The warehouse racking and picking can accept a new level that can double throughput with minimal additional capital expenditure, and the facility can be expanded to handle twice that volume again (100 million cases/year).

Trust is further built by managing the operation to an agreed upon service promise, measured jointly by key performance indicators. Predictability of performance, quality and cost become a solid foundation to build a durable relationship. The significant investment made creates a very powerful incentive for the operator to commit and perform.

Eric Dewey, the Vice President of Logistics at Schenker, to whom this operation reports, says, "We have an excellent employee proposition too:

• Very limited heavy lifting;

• Fast training of new employees (15 are enough to be effective on the pick line);

• Excellent retention of our employees (the picking workload is visible. We can easily deploy more people to the line if there is a surge in volume, plus the work is varied – the same team picks, packs, stages and cleans-up the line for each picking wave);

• A quiet and safe environment (this was a key factor in our "hardware" selection decision);

This makes it easier to keep good people."

This value-based warehousing approach addresses key concerns around outsourcing – control, predictability, cost visibility and control. Mutual dependability is achieved through long-term contracts and significant investments. Even if you do not want to outsource, there is plenty here for you. Doing things right is not easy, but it can be very worthwhile when you consider costs, waste, health and safety, noise, energy consumption and happy customers. There is hidden value in warehouse operations.

There is also tangible value: A study by GMA estimated the supply chain cost/case shipped in error to be US$27. At 26 million cases per year, moving from 98 percent to 99.5 percent accuracy is worth over $10 million. Engineering idiot-proof processes with adapted automation can provide significant improvements to operations and processes, if a systemic approach such as the one illustrated here, is taken.

Eric Dewey sums it up this way: "For some time we have seen large retailers investing in warehouse technology and automation to increase the speed and efficiency of their supply chains. For some of them this has provided a competitive advantage."

What is stopping manufacturers from doing the same?

NICHOLAS SEIERSEN *is a Senior Manager, BearingPoint, Toronto.*

For Your Calendar:

CLM Toronto Roundtable is pleased to announce its sponsorship of a tour of Schenker of Canada's new value-added warehouse facility. Don't miss this exciting event – February 18, 5:30 p.m., 2003.

For more information, contact Nina Trifan, Nadiscorp (905)-790-6404 x 220 trifan@nadiscorp.com or Fred Moody, CLM Toronto Roundtable president, (416) 461-8355 fmoody@LogisticsQuarterly.com

Preregistration for this tour is obligatory and due to competitive issues the host reserves the right to screen delegates and may withdraw invitation(s) to this round table event in some instances.

By Dale Ross & Jerry Forsythe

Supply Chain Efficiency **through** *Collaboration*

There has been an evolution of initiatives over the years to improve the efficiency of the supply chain. It began with computerized software to help companies manage and control their internal data flows to support larger and more complex manufacturing facilities. This included but was not limited to Material Requirements Planning (MRP), Distribution Resource Planning (DRP), statistical forecasting systems, etc. The emphasis was on low-cost production through economies of scale based on sales forecasts supported by large inventories to ensure high service levels. Integrated plans relied on a Sales and Operations Planning process to ensure the specific goals of the organization were in-sync across functional groups.

Over time companies developed "Best Practices" in which businesses operated in a total "Closed Loop Supply Chain" where demand prompted supply and supply satisfies demand. The goal was to move from a make-to-stock towards a make-to-order environment in which the consumer's purchase would trigger the production of a replacement unit in the factory and ripple back through the supply chain to the raw material suppliers. The pipeline or supply chain includes the production and movement of raw and packaging materials from vendors to manufacturing sites, the conversion of raw and packaging to finished goods, the movement of finished goods to distribution centers, and the monitoring of finished goods to the ultimate consumers.

Developments such as Electronic Data Interchange (EDI) allowed manufacturers to forge information links with key customers, effectively exchanging information in a timely manner. This customer connectivity further improved the efficiency of the pipeline but in most cases still operated in a make-to-stock business model. Other enablers such as bar coding and Advance Shipping Notices (ASN's), similarly improved the speed and accuracy of exchanging information and thereby increased the integrity of the data in the pipeline.

Seeking further improvements, end users introduced new business processes such as Just-in Time (JIT) in the automotive industry, Quick Response (QR) for general merchandise, and Efficient Consumer Response (ECR), for grocery distributors and retailers. Continuous replenishment plans such, as Vendor Managed Inventories (VMI) were among the results. The major benefits from all of these programs are reduced inventories, fresher product, reduced stock outs and a quicker, more nimble supply chain. This reduces many of the indirect costs such as damages, aged inventory, and obsolescence, as well as the administration related to each of these activities.

Typically, the process change initiatives have been driven by the end users, as it has been relatively easy for them to achieve immediate results that benefited their bottom line. Suppliers and manufacturers have had a more difficult time obtaining tangible benefits. In many cases the result has been a shift of costs from the end user further back in the supply chain.

Real benefits can be achieved by reducing cycle times and by having a more accurate sales forecast. Many plants were built to support a make-to-stock strategy and to achieve the lowest possible manufacturing costs. They tend to be large inflexible operations that cannot respond quickly to changing demand. Reducing their cycle times and improving speed of throughput requires time and considerable resources to improve their response capabilities.

Real benefits can be achieved by reducing cycle times and by having a more accurate sales forecast.

Even with a make-to-order strategy, considerable reductions in finished goods inventories are possible with accurate sales forecasts. Robust data will allow the internal processes to be optimized, assuming that the organization has the systems and tools to support the use of this information. The key is the accuracy and quality of the forecast. This is the true benefit of Collaborative Planning Forecasting and Replenishment or CPFR. It assumes that this process will result in a superior forecast; keeping supply and demand in greater balance.

Most assume that this requires elaborate systems and technology but this is not always the case. Some industries such as dairies and bakeries that produce products with a short shelf life already have informal collaborative systems in place because of necessity. They already support a make-to-order strategy with flexibility and surge capacity that allows them to make variable production requirements. Some have standing orders by retail location that are modified daily, based on actual consumer off-take. A more formal arrangement may improve the results, but the good performers already have a competitive edge.

Intuitively we all believe that collaboration will improve the forecast. This requires that we are willing to share information, which is not always practised. Some end users, especially retailers, view this data as proprietary. It provides them with a competitive advantage by having superior market intelligence and consumer insight for category management, promotional programs and support for their own private label programs. Another extreme is the largest retailer in the world sharing daily point of sale data by store location.

There is considerable debate over the pros and cons of both positions, but as logistics practitioners we support the elimination of waste wherever it can be achieved in the total pipeline. While it may not be possible to share the potential benefits because of unequal negotiating power, lower costs should ultimately result in lower prices to the end consumer. Staying competitive is the best method of ensuring long term survival.

Collaborative Planning, Forecasting and Replenishment

CPFR is the next stage of supply chain initiatives that has been developed in search of the goal for a seamless pipeline supply. Sharing of information such as sales, inventory levels, promotions etc. allows for co-managing the business processes and integration of the distribution network to meet the shared goals of superior service at the least total cost of operation. The assumption is, like the ripples of the waves that result from throwing a stone in a pond, the closer you are to the center of action, the smaller the chance of turbulence.

The primary benefit is the reduction of inventory levels and associated costs throughout the system releasing resources for other investments. Secondary benefits are also substantial and in the long run may even be greater than the inventory reduction, but are not possible without achieving the first goal. Reduced complexity, administration, and improved speed to market are only a benefits. Accurate forecasts are the result of collaboration that makes these benefits possible. Accurate forecasting is the critical factor that is needed to obtain the desired results. Technology is the enabler that has allowed this to occur, by providing the capability to manage the ever-increasing volumes of information linking the total supply chain.

Incentives for Change

To provide a means to express the CPFR opportunity for the manufacturer, a hypothetical assumption has

Hypothetical Sample Size

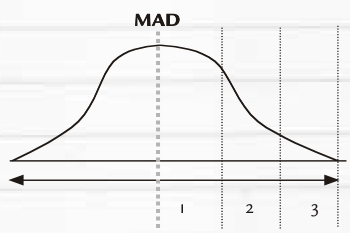
Periods	Forecast	Actual	Error	Deviation (MAD)	(AE-MAD)	(AE-MAD)2	Accuracy (SFA)
1	190	176	13.6	22.4	-8.8	77.0	93%
2	200	221	20.5	22.4	-1.9	3.5	90%
3	205	183	21.7	22.4	-0.6	0.4	89%
4	235	227	7.6	22.4	-14.7	217.0	97%
5	250	269	18.5	22.4	-3.9	14.8	93%
6	270	263	7.4	22.4	-15.0	225.4	97%
7	290	239	50.9	22.4	28.5	812.7	82%
8	250	183	66.7	22.4	44.4	1968.5	73%
9	225	208	17.2	22.4	-5.1	26.3	92%
10	215	227	12.4	22.4	-10.0	100.2	94%
11	210	192	17.9	22.4	-4.5	19.8	91%
12	200	164	36.3	22.4	14.0	195.1	82%
	2740	2552	22.4			3660.8	90% Average

Standard Deviation Calculation

$$\text{Standard Deviation} = \sqrt{\frac{3660.8}{12}} \quad \text{equals} \quad 17.5$$

Directional Relationship to Inventories

A) To ensure a 99% service level to the customer, a table is used to define the number of standard deviations required to support the noted service. The service factor is 2.33 deviations from the MAD.



- An example of a normal distribution

B) To relate this data to a degree of safety stock, the average demand (1640.5 / 12), 136.7 cases will be used to define future forecast.

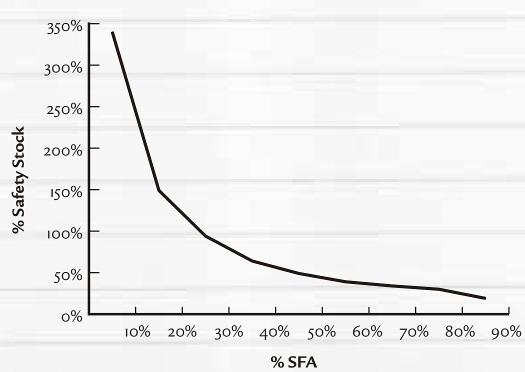
C) Therefore, if the standard deviation is 23.2 cases and the service factor is 2.33, this particular example would require 54 cases of safety stock to protect 99% customer service @ a 90% sales forecast accuracy.

D) To build on this point, if the 54 cases were reflected against average demand (136.7 cases), as a percentage, 39% of the average demand would be tied up in safety stock.

E) Going one step further, assume the same distribution with different sales forecast accuray positions from 10 to 100% return, the plotted data would equal:

SFA	% Safety Stock
10%	340%
20%	149%
30%	94%
40%	64%
50%	49%
60%	39%
70%	34%
80%	30%
90%	19%

% SFA to % Safety Coverage



been made for forecast error on an item over a 12-month horizon. (page right)

Obviously, the less accurate the Sales Forecast Accuracy (SFA), the greater the multiplier-effect toward safety stock. In the data shown, a weak performance of 50 percent SFA would reflect in a probable need for 49% of the average demand to be held in safety stock.

Building on the noted wins through improved forecast management, there are additional change agents related to standardized data management and an idealistic amendment in retailer attitude. In data management, the standards for storage and configuration have become much more consistent and generic across varied industries. Today,the eases of data extraction and sharing have literally exploded. With the web as the conduit, global transactions in 2002 could exceed $800 billion with 2003 transactions exceeding one trillion. The influence of reduced cash-to-cash cycles and paperless transactions has become very infectious.

Regarding the retailer, their perspective towards product supply has definitely changed. Carrying a manufacture's product on shelf is more about selling privilege than selling obligation. Basically, store-shelf ownership lies more with the products' manufacturer than with the products' retailer. The manufacturer must take a stronger interest in the final sell-through or face the hardship of retail rationalization.

Clearly the risks and opportunities fuel the decision to get aggressive with collaborative partnering. With CPFR well defined in several channels today, logistics practitioners must take a stronger interest in this methodology and design to remain competitive and efficient for the future. To support this thought, a closer look at the actual process is needed.

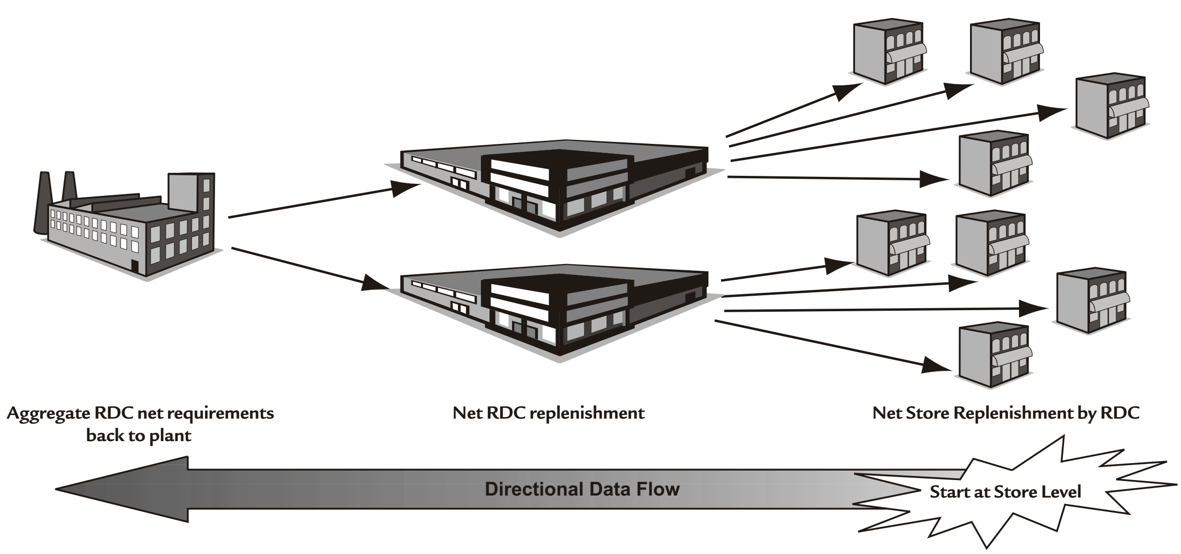
Beginning the Process

From the manufacturer's point-of-view the process begins at the end of the supply chain. It is the final "store-consumer" relationship that the manufacturer must focus on.

Having the point-of-sale (POS) data populating a statistical base forecast, the collaborative element begins to synchronize manufacturers and retailers around true replenishment timing and quantity. To build upon this activity, an event calendar is usually maintained to further ensure maximum supply chain efficiency is exchanged between partners on promotional and trade timings. Once the complete demand picture is defined, the manufacturer applies this against the retailer's on-hands, leadtimes, safeties and potential intransits to net a final replenishment quantity for production.

To illustrate this point, a retailer may have several regional distribution centers (RDCs) to fulfill to store (below). The manufacturer aggregates store level forecasts against store level availability as associated with the supply RDC. This net demand becomes the supplying RDCs forecast, which then is applied against the RDC stock availability. Aggregating the RDCs net demands should provide the manufacturer a final replenishment position and grant several opportunities to view, simulate, plan and grow the directional outcome of their products within the retailers' supply network.

Populating numbers to the illustration, the final replenishment plan to the manufacturer could be built upon several netting levels along the retailers' chain. As noted below, a certain item is followed



Manufacturer | Regional Distribution Centers | Stores

Item Demand

Week 1	Week 2	Week 3	Week 4
0	2	23	73

Facility A

On-Hand		Week 1	Week 2	Week 3	Week 4
20	Demand	0	2	13	25
	Plan Inv.	**20**	**18**	**5**	**-20**

Facility B

On-Hand		Week 1	Week 2	Week 3	Week 4
13	Demand	3	12	21	30
	Plan Inv.	**10**	**-2**	**-23**	**-53**

(Will assume no intercompany shipments at the RDC level)

Store A

On-Hand		Week 1	Week 2	Week 3	Week 4
12	Demand	4	7	6	8
	Plan Inv.	**8**	**1**	**-5**	**-13**

Store B

On-Hand		Week 1	Week 2	Week 3	Week 4
7	Demand	6	4	5	4
	Plan Inv.	**1**	**-3**	**-8**	**-12**

Store C

On-Hand		Week 1	Week 2	Week 3	Week 4
2	Demand	5	3	2	5
	Plan Inv.	**-3**	**-6**	**-8**	**-13**

Store D

On-Hand		Week 1	Week 2	Week 3	Week 4
4	Demand	4	6	7	4
	Plan Inv.	**0**	**-6**	**-13**	**-17**

from store level to RDC to manufacturer. Without overcomplicating the process with intransits, safeties and firm production, the logistics practitioner (who has the the correct data) could easily design and trace the complete supply-chain all the way to the final consumer and create a much stronger forecast plan.

Building upon this structure, exception management must be designed to expose potential stock-outs or overages at store. In a stock-out situation the focus likely would be on safety-stock management rather than forecast-adjustment due to the lack of backorder data and risks in trying to compensate for them.

With this general design and supply philosophy, what lies ahead for CPFR? Is this another logistics acronym to gravitate to, or is it a major building block to future development? As one contemplates future supply technologies, CPFR may evolve from data partnering to physical operational-partnering.

A Physical CPFR Model

What are the limits, defined by the scope of direction? CPFR could change the future landscape of supply by actually drawing like businesses together to achieve critical mass at every link.

Imagine the interpretation of forecasts, safety stocks, minimum runs and cycle times changing as links in the total supply chain are continually removed through innovation gained by CPFR. Web-based systems that communicate consumer needs, from the number of eggs in the fridge to how much oil and gas is in your automobile, would create an endless string of demand-feed to the supply hub of your choice.

A hub may be a group of manufacturers with similar trade and consolidation appeal which partner together to capitalize on operational, pack and distribution synergies. As you can imagine, the strengths of this coalition would be powerful. Areas such as mixed order, pallet and case would follow a seamless assembly as consolidated orders by business; brand and customer are all serviced through the same hub. Raw materials and warehousing could all fall under the same synergistic theme where the strengths of the whole overwhelm the sum of the pieces.

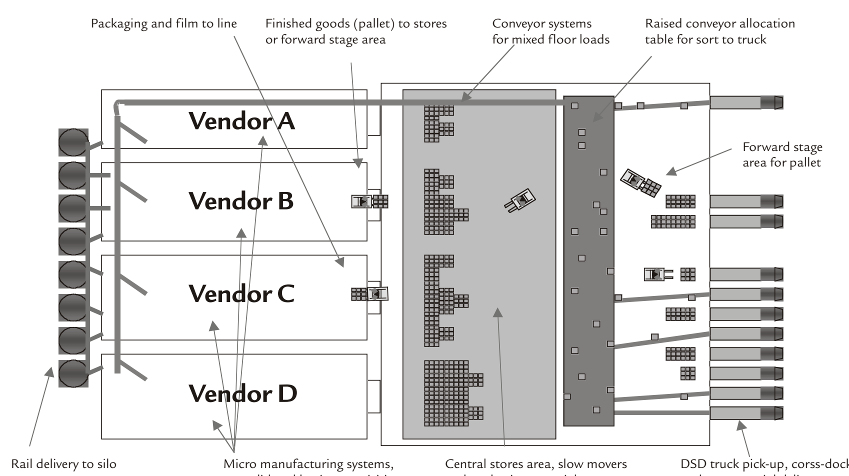
As illustrated below, the opportunities of this design are definitely challenging. However, through CPFR, customers, manufacturers and retailers may develop such trust and efficiency that this potential direction is inevitable.

The general philosophy of CPFR definitely is not rocket science. It is an obvious next step in the development of supply chain processes. Every link along the chain benefits from this collaboration and the competitive pressure to get connected is obviously well worth the investment. Failure to connect could slowly cut off the critical data streams needed to connect customers, suppliers, manufacturers and retailers. Success can no longer be measured on exclusivity and guarded data protection.

Supply chain waste and excess are well known facts, and the practitioners of CPFR are at the leading edge to take full advantage of eliminating them.

Dale Ross *is Vice President, Logistics/Commercial, Effem Inc.*

Jerry Forsythe *is Senior Logistics Manager, Effem Inc.*



By Philippe Gautrin

THE PHARMACEUTICAL INDUSTRY: A ROUNDTABLE PERSPECTIVE

Challenges Facing a *Pharmaceutical Supply Chain*

The GCL Group recently invited several logistics experts active in the pharmaceutical industry to initiate discussions on trends, challenges and concerns of this rapidly changing industry beset by strict regulations.

The participants in this focus group were:

- *Sélim Toutounji, Wyeth, Distribution Director;*
- *Marcel Brunet, Schering Canada, Logistics Director;*
- *Luce Laporte, Ratiopharm, Logistics Director;*
- *Marie Girard, Berlex Canada, Logistics Director;*
- *Patrick Munro, Pfizer Canada, Logistics Director;*
- *Oscar Mancini, Pfizer Canada, Supply Manager;*
- *Representatives from the GCL Group.*

Philippe Gautrin, partner, the GCL Group, presented this distinguished panel with recent results from the Canadian Association for Pharmacy Distribution Management (CAPDM) survey, and highlighted logistics trends related to the pharmaceutical industry. In this presentation to the focus group comparative analysis was made between the pharmaceutical industry and the overall industry regarding specific trends.

The Trends in the Pharmaceutical Industry

Here are some of the most salient trends that were presented to the focus group. Generally, trends in pharmaceutical logistics have remained consistent for several years. As such, third party distribution methods (clients served by wholesalers such as Medis and Kohl & Frisch) varied from 56 percent (1999) to 66 percent (2001) for prescribed medication (RX products) and 63 percent (1999) to 75 percent (2001) for Over-The-Counter products (OTC products). During this period, direct sales to customers (pharmacies, hospitals, etc.) decreased from 27 percent (1999) to 20 percent (2001). This is expected to reach 17 percent by 2005.

Even though the industry leans increasingly towards an indirect distribution mode (wholesalers and chain distribution centres), 13 percent of orders are shipped directly to chain stores. This can be explained by the fact that some large pharmacies meet the minimum purchase set by manufacturers as well as by the fact that some products can no longer be included on the insurance list (6-10 percent surcharge usually).

In 1999, 25 percent of organizations had no minimum-order standards and approximately 75 percent of them decided to exclusively adopt an indirect distribution strategy, whereas others have established a minimum order of $1,000 (with incremental potential).

On an international level (specifically in regard to United States, Europe and Japan), Canada distinguishes itself by the type of distribution methods it uses. However, not withstanding the fact that there is a trend towards indirect distribution, the fact remains that this type of indirect distribution only accounts for 50 percent of overall distribution systems used in Canada, according to 1998 data. Whereas in Europe, an estimated 80 percent of the distribution is indirect, compared to 60 percent in the United States and 89 percent in Japan. Such a phenomenon is due to stiff competition and relates to the birth of generic brands in Canada. Another explanation could be that certain markets in Canada are mature when it comes to outsourcing.

Changing the type of distribution method will force companies to re-think some of their processes such as ordering, storing and delivery methods. Such process overhauls will likely trigger significant efficiency improvements. Also, the establishment of new information technologies is increasing, forcing manufacturers to continue to be informed about logistics practices in regard to major wholesaler as well as large pharmaceutical chain stores (electronic catalogue, ASN, etc.)

In order to maintain strategic activities as their main focus (core competencies), companies are considering more outsourcing of their logistics functions. Firstly, management, design, printing and distribution of literature will be outsourced to specialized companies. This decision will allow organizations to salvage major storage areas for finished products.

Round Table Discussions

Following the presentation of logistics trends in the pharmaceutical industry, participants were encouraged to participate in a round-table discussion on pre-defined subjects. The results of these discussions are presented here in summary form:

Logistics Function Recognition

All participants agreed that the biggest challenge is the recognition of the logistics function within each company. This function is perceived as a necessary evil required to facilitate sales and management is not paying much attention because logistics has little impact on sales costs (in this industry). Although most guests mentioned the establishment of sales and operations (S&OP) meetings, a certain level of frustration was noted. Numerous speakers are booked one year in advance for these types of meetings only to find themselves in front of an empty room. Product managers often claim that their schedules do not allow them time to attend. Ratiopharm's Luce Laporte mentioned that having a vice president of operations with a logistics background contributed to the establishment of these types of meeting for Ratiopharm. The fact remains, however, that the sales force has to be constantly reminded that production and logistics are two distinct functions, each with their own strengths and weaknesses. But it was agreed, such meeting can certainly improve communication between various departments.

Pfizer's Oscar Mancini and Marie Girard also promoted the logistics function in their respective companies. Today, in upper-management meetings, the sales force and finance departments learn more about the logistics function and how logistics practices relate to their company's success. Berlex's Marie Girard explained that she has chosen a customer approach to emphasize the logistics function. While employed at GlaxoWelcome, Marcel Brunet was fortunate enough to participate in highly constructive S&OP meetings. These meetings were strongly encouraged by the Canadian division president who not only attended these meetings but would sometimes go as far as to recruit a product manager from their offices to be present.

The lack of recognition surrounding the logistics function is often due to a communication problem between the logistics manager and upper management, remarked GCL's Albert Goodhue. Logisticians, passionate about their work, are often unable to justify the capital costs required to improve a project. Marcel Brunet, Sélim Toutounji and Patrick Munro all agreed that the recognition of the logistics function is greater in the United States, which translates into logisticians being involved in key decision making processes. One other noteworthy remark was made concerning the logistics function; a greater recognition is noticed in OTC divisions. Indeed, due to the lower margins and competitive nature of their products, logistics and customer service plays a greater role than for Rx products.

Direct Versus Indirect Distribution

Direct and indirect distribution is a subject that has been at the heart of numerous debates. A current trend towards indirect distribution or by way of large chain distribution centres has become quite obvious to all our guests. On several occasions Sélim Toutounji has had to justify Wyeth's direct distribution network in Canada. Through an extensive activity-based costing (cost-to-serve) analysis, he was able to demonstrate the disadvantages behind changing such a distribution method. Several logistics, finance, sales and upper management representatives took part in this study.

Schering's recent decision to introduce a minimal-order value, intended to steer the company towards an indirect distribution method, was announced by Marcel Brunet. Such change could have a direct impact on the new distribution centre's efficiency given the initial intention was to maintain a direct distribution system. A debate on whether to transfer packaging activities or re-packing to distribution centres is currently taking place.

Sélim Toutounji and Luce Laporte acknowledged that an indirect network did not completely eliminate unit picking. Indeed, when it comes to high value products, retailers such as COSTCO and hospitals, as well as doctors, still demand to order at the unit level regardless of the evolution behind indirect distribution. According to Sélim Toutounji, the trend could change as high value products would be shipped directly from manufacturers in order to insure that these products remain covered by the Medicare system.

Outsourcing Operations

None of the companies present at this meeting have elected to outsource their logistics operations. Pfizer is the only company resorting to a specialized firm to handle returns. Schering, Pfizer & Berlex are considering outsourcing management and storage of their printed material (literature).

Outsourcing should be the first choice when starting up operations in a new country, according to Sélim Toutounji. However, today, companies have established infrastructures

(Pharmaceutical Supply Chain, *continued on page 30*)

(President's Viewpoint, *continued from page 12*)

Chain Management, Schulich School of Business, York University, whereby those who complete their six day Essentials Program receive advanced standing towards the P.Log. We anticipate expanding this partnership by integrating more Executive Centre modules into the certification process.

Our most exciting partnership is with the new Healthcare Supply Chain Network. HSCN's vision is to promote safe and quality health care through the implementation of optimal supply chain management practices and systems that are characterized by having the right product, at the right place, at the right time in the most cost effective manner.

Our partnership will grow in stages: initially, the Institute is providing HSCN secretariat support (access them on the Gateway: www.loginstitute.ca). We will mentor them towards self-reliance. Together, we are developing projects to fund HSC training programs, best practice research, and organizational development. Eventually, we will sponsor certification for HSC professionals, leading to the P.Log.

Strategic Vision

In September 2002, the board and staff met in Toronto to develop a Strategic Vision for the next five years. Three key areas of growth were identified:

- Bring current products services, and programs to the next generation in a web environment on the Logistics Gateway
- Develop comprehensive logistics training programs (from entry to executive), in partnership with other organizations and educational institutions
- Go global by transitioning standards and programs worldwide, and developing certification and memberships internationally

At its November meeting, the board accepted a three-tier growth plan to be rolled out from 2002 to 2007 in order to realize this Strategic Vision. Projects are now being designed; proposals are being developed; partnerships are being negotiated. Having attained a level of maturity, the Institute is now positioned to grow in Canada, the United States, and worldwide. We live in exciting times.

Coda

I wish you a safe holiday season. I thank the staff for their commitment. They are the Institute's bench strength: they weathered crises, rose to challenges, and took the initiative to make us succeed. Without them, the Institute could not grow.

Victor Deyglio *is President of The Professional Logistics Institute, based in Toronto, Ontario. vdeyglio@loginstitute.ca*

(Leadership in Logistics, *continued from page 13*)

leasing of eligible capital assets. The operating costs can also be reduced by Quebec tax holidays on income tax and tax on capital, as well as with the Quebec refundable tax credits (30 percent until January 1st 2005 and 20 percent thereafter) on eligible employee salaries and customs broker fees. Investors can also receive financial assistance on manpower recruiting and training.

The investments, so far, in the Montreal Foreign Trade Zone, total over $500 million dollars with the creation of more than 3,000 jobs. Among the many companies that have chosen to establish their businesses in the Montreal Foreign Trade Zone, there are, Bombardier Aerospace, a world leader in the aerospace industry, and Technicolor, a leader in motion picture film distribution.

The Port of Montreal and the Montreal Foreign Trade Zone already offer enhanced operation efficiency to many key international companies. As these infrastructures develop, Montreal is becoming one of the most cost efficient logistics hubs in North America.

Pierre Massicotte, *P.Log, Vice President Supply Chain, L'Oréal Canada Inc., Director, CLM Quebec Roundtable.*

(Integrator, *continued from page 15*)

Specifically, there was limited material describing the value proposition behind 4PL or Logistics Integrators and few examples of its effective application. The value proposition of the Logistics Integrator is difficult to describe and communicate as the benefits are typically longer term and difficult to document. While the 3PL firms typically sell their benefits in terms of expertise and economies of scale and scope, the Logistics Integrator has to sell the benefits of inter-firm information synthesis and coordination of operations. The benefits are typically achieved only when looking at aggregate movement for a number of organizations. The actual benefits may even only be available through collaboration with other firms including competitors. While shipments of competitors often ride on the same equipment at random, there is still some concern when it is done by design. Individual organizations can only see their benefits indirectly through rebates or end-of-year dividends but is difficult to observe or comprehend the extent in the short-term.

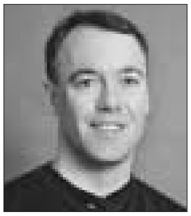
The second and related issue is the relatively few examples of successful application of the Logistics Integrator concept. Since the concept is not easy to communicate and sell, there are few firms that are willing to risk its application. The limited number of exceptions are the Logistics Integrators created by General Motors and Nortel where the firm is both large enough to benefit and can motivate its use. These applications are beginning to demonstrate results but there has been limited documentation and presentation. It is likely that the result will provide the basis for future CLM presentations.

The CLM Conference substantially broadened the exposure of the 4PL and Logistics Integrator concept through a wide variety of presentations. While these presentations provide some foundation in terms of definitions and requirements, a more thorough discussion of the successes are still needed.

David J. Closs *is Eli Broad Professor of Logistics, Michigan State University.*

New Professional Logisticians

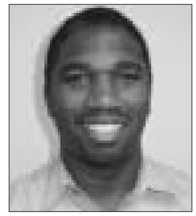
Mr. Mark Belisle, P.Log., Manager Distribution Services, International Truck & Engine, Burlington, ON



Mr. Larry Chevalier, P.Log., Inventory Control Analyst, Nestle Canada, Edmonton, AB

Mr. Bruce Dunstan, P.Log., Manager of Customs, Excise and Freight Payments, LCBO, Toronto, ON

Mr. Lionel Foote, P.Log., CWO, DND CFSD, Edmonton, AB



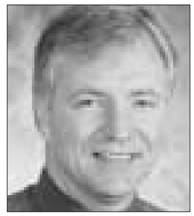
Mr. Dwight Hamilton, P.Log., Warehouse Manager, Omron Dualtec Inc., Oakville, ON

Mr. Rob Heagle, P.Log., Shipping Manager, SYSCO SERCA Food Services, Inc., Mississauga, ON

Mr. Tajammul M. Hussan, P.Log., Supply Chain Integration Specialist, Tronicus, Calgary, AB

Ms. Daisy Johnson, P.Log., Supply Chain Manager, Effem Inc., Bolton, ON

Mr. Gareth Jones, P.Log., Manager - Customer Service, Romark Logistics Inc., Rexdale, ON



Mr. Kevin Karpovich, P.Log., Contract Administrator, SNC-Lavalin ATP Inc., Calgary, AB

Don Kelly, P.Log., Change Enablement Manager, Tronicus Inc. Calgary, AB

Mr. Mark Kirkpatrick, P.Log., Solutions Consultant, Tronicus Inc.

Mr. Taras Korec, P.Log., Warehouse Operations Manager, Effem Inc., Bolton, ON

Mr. Colin C. Maxwell, P.Log., Parmalat Canada, Toronto, ON

Mr. Don J. Nancekivell, P.Log., Senior Supply Chain Process Analyst, Canadian Tire Corp., Brampton, ON

Mr. K.B. Ng, P.Log., Project Leader, Process Engineering Services, Hudson's Bay Company, Toronto, ON

Mr. William Peterson, P.Log., Delta, BC

Mr. Peter Roden, P.Log., Dewinton, AB

Mr. Greg Secord, P.Log., Area Operations Manager, Lafarge North America Inc., Sherwood Park, AB

Mr. Joe Sultana, P.Log., Senior Customer Planner & Logistics Supervisor, Omron Dualtec Inc., Oakville, ON

Mr. Victor Tamm, P.Log., National Food Service Manager, Nestle Ice Cream, North York, ON

Mr. Shawn Tay, P.Log., Logistics Analyst, Sobeys Inc., Toronto, ON

Mr. Gary Vince, P.Log., Director International Freight, PBB Global Logistics, Fort Erie, ON

Ms. Nicole Wright, P.Log., Logistics Manager, Irving Tissue, Dieppe, NB

New Professional Logisticians

whose photo was unavailable at press time

Mr. Sue Compisano, P.Log., Customs Consultant, Exel Global Logistics, Mississauga, ON

Mr. Jeff Lapradez, P.Log., , Wrigley Canada, Don Mills, ON

Mr. Jonathan Lewis, P.Log., Logistics Business Analyst, NOVA Chemicals

Capt. Justin Schmidt-Clever, P.Log., Logistics Officer, DND, Nepean, ON

Maj Antony Walsh, P.Log., DND, Borden, ON

THE GREAT PEOPLE SEARCH

Recruiting Tips *to* **Build Your Business**

by Ross Reimer and Dr. Linda Ferguson

Are you looking for great people? Great companies require regular infusions of great professionals to keep them growing. In this ongoing competition for the best people, success requires 10 percent inspiration (or natural talent) and 90 percent perspiration (following the discipline of the search process). A great search process unfolds in four steps:

1. defining what you want,
2. gathering good prospects,
3. evaluating candidates, and
4. testing the fit of your best candidates.

Skipping steps because your gut tells you a prospect is right for the job is a recipe for disaster. Only a rigourous process will make you a winner in the great people search.

Professional search firms begin with an objective evaluation of the way you do business and the processes and people already in place. If you choose to conduct your own search, you should start the same way. Ask yourself what characteristics are important to you in a co-worker, employee or executive. Go beyond the job description to think about the qualities that make a person successful in working with your customers, suppliers, and employees. The better you understand how your company functions now, the better the chance that you will hire someone who is a great fit.

Your first problem, of course, is knowing how to find your ideal candidates and how to reach them with information about your opportunity. Top recruiters spend much of their time developing a deep, wide network of contacts throughout transportation and logistics. They frequent industry events and talk to everyone they meet in enough detail to develop relationships. As a result, they have easier access to more people in the supply chain. They may not already know the right candidate for your opening, but they probably know someone who knows him or her. They also know how to work their networks to find that someone.

The best recruiters work by referral; when a recruiter calls a potential candidate, he or she has been referred by a mutual acquaintance. This gives the recruiter a great opening to sell the company and the job for which he or she is recruiting. People are much more likely to respond to a call from an acquaintance than they are to answer an advertisement.

If you are fortunate, you have people in your company with many years of industry experience.

Such people may be an invaluable resource when you are recruiting. They may know the people you need to hire, or they may have contacts that will know them. Make them aware that you appreciate the value of their networks, and encourage them to help you fill positions.

Be aware, however, that "resident experts" may not have much time to dedicate to a search. Many companies expand their searches with advertisements. Traditionally, job descriptions and advertisements have been written to emphasize the needs of the hiring company. It is important to realize that the great candidates are not as interested in meeting your needs as they are in developing their own careers. They already have jobs: your advertisement needs to catch their attention and motivate them to apply to you.

Typically, advertisements produce either too many candidates or too few. Either many unqualified people respond with applications that take hours to sort, or too few respond to fill the position adequately. This is largely because traditional advertising reaches only the people who are currently unemployed and a small percentage of those who are employed but unhappy. The best candidates do not normally have much time or incentive to read advertisements.

Eventually, however, most companies find candidates to interview. At this point, three important skills make the difference between hiring great people and hiring mistakes. These are: listening, questioning, connecting.

Whether you are hiring a receptionist or a C.E.O., these skills will define your ability to conduct interviews and evaluate candidates.

Listening is the most under-rated skill in business. Great listening means more than sitting quietly while someone else is talking. Listening involves:

- understanding when to talk and when to wait for someone else to fill the silence;
- understanding what you are feeling and how those feelings are influencing an interview;
- thinking critically about what is being said, how it is being said, and how you are reacting to what is being said.

For instance, during the first five minutes of an interview you may find that you really like a particular candidate. This may be because you are interviewing a great candidate; or it may be because you are eager to like someone enough so that you can hire and get back to your real work. If you can make yourself aware of your feelings, you can change your questions to test both the candidate and your own responses. At the same time, you will be trying to notice a candidate's tone and pace of speaking voice, body language, and mannerisms as you move from question to question.

Knowing what questions to ask, how to ask them and how to calibrate responses can take hundreds of interviews to master. In the meantime, you need to be aware that your job during the interview is not to give a sales pitch on the job or your business. Your job is to ask good, tough questions, pacing them so that you allow the candidate the best chance to show you his or her best qualities. At the same time, you need to be asking questions of yourself: questions about the candidate's qualifications and responses; questions about how this candidate will 'fit' in your workplace; questions about how your own state of mind is influencing the interview.

In the end, you should hire the person who has demonstrated the best connections: connections to other people in the industry (you have to check references); connections to other people in your company (use a panel to interview, hire someone referred by a current employee, etc.); connections to the job description (how closely do the candidate's background and experience match the needs of the job?). When you look at the overview of all these connections, you find the best fit for your hiring needs.

Many companies feel that they should have the staff and resources to make, understand, and evaluate connections throughout the supply chain. That's not always a reasonable expectation. Good recruiters have great networks because developing great networks is what they do, in the same way that computer programmers write computer programs or controllers manage finances. If you do not have a dedicated search professional on staff, then it is often helpful to work with a search firm.

You can use the same criteria to judge a search firm that you use to judge your candidates: connections in the transport industry; connections to people in your business (through past experience or current interviews) and connections to your criteria for success. A great recruiter will meet with you, think about your corporate culture, and carefully consider whether he or she can help you meet your objectives. By working with you over a period of time (whether once a year or once a month), a recruiter can become a trusted advisor and an expert on finding the supply chain professionals who will drive your company to new success.

Whether you choose to develop this kind of relationship with a recruiter or to develop in-house expertise in hiring, a successful search for great people always begins with a great search process. Evaluate your needs, use personal networks to reach potential candidates, write great ads, conduct interviews, check connections and, above all, respect the time and discipline necessary to making great hires. As cumbersome as it may seem to go through every step, you will be glad you did. Great people are worth the effort.

Ross Reimer *is President, Reimer Associates, Inc.*

Dr. Linda Ferguson *is Recruiting and Communications Specialist, Reimer Associates, Inc.*

(Pharmaceutical Supply Chain, *continued from page 25*)

making it difficult at times to outsource some of their operations. According to Luce Laporte, companies consider this as an option when faced with the inability to invest in order to maintain their logistics functions (new site, information systems, automation, etc.)

Also, companies that have performed an operational benchmarking exercise using a logistics provider have been disappointed with installations and the competency of the outsourcing company. Often a lack of confidence and knowledge about the complexity surrounding the pharmaceutical industry makes it difficult for firms to continue this exercise.

Customer Logistics Practices

Everyone admitted to having access to their customers as well as their logistics counterparts. Customers must still be reminded about best practices regardless of their sourcing network. Indeed, although wholesalers and chain stores have agreed to weekly large orders, they continue placing small orders on a daily basis which automatically generate inefficiencies encountered by distribution centres;

In 1999, Philippe Gautrin fulfilled a mandate for Bristol Myers Squibb, which consisted of a cost-to-serve analysis for each customer related to Clairol's division. The results of the analysis influenced logistics practices as they related to their most important customer. (In 1999 Warner-Lambert conducted similar studies in the United-States.) Philippe Gautrin's analysis signaled the need for pharmaceutical companies to perform a detailed analysis of their current case formats in order to increase full-case picking. Packaging cost increases could easily be compensated by significant productivity gains.

Logistics Competencies

A lack of qualified resources in logistics is certainly very noticeable as far as everyone is concerned. Albert Goodhue is working closely with governments and Canadian universities to develop training courses specializing in logistics. Finding qualified teachers is a challenge in itself. Marcel Brunet and Sélim Toutounji are equally surprised by the lack of qualified resources in this field. In this context, companies are compelled to invest time and energy to train employees in their logistics practices and are frequently disappointed to find these employees recruited elsewhere.

Sélim Toutounji mentioned that good manufacturing practice guidelines for therapeutic goods (GMP) procedures force Wyeth to train its distribution centre employees for a period of 10 to 15 days before allowing them to handle products. Patrick Munro is concerned about the inevitable culture shock between logistics graduates and logistics professionals whose knowledge is mostly derived from a hands-on learning environment.

2005 Vision

Another of Sélim Toutounji's concerns is the future of the logistics function in Canada, specifically for those pharmaceutical companies with head quarters in United States. He fears that some companies may envision centralizing North American distribution in the United States to sell directly to Canadian distributors. This would mean the closure of current Canadian distribution structures.

Strict control of product volume sold to wholesalers and chain stores to ensure local sales can be achieved by using Vendor Managed Inventory (VMI) is essential. Wholesalers and chain stores, however, are not receptive to this approach, as they perceive it involves a loss of control of their logistics flow. According to Sélim, the threat is real and he believes that some Canadian entities may be dismantled in the upcoming years. He expects that by 2005, several organizations will adopt this type of strategy. Marcel Brunet suggested a way to counter this effect by developing centres of excellence whether it be for production or for logistics purposes to gain internal recognition.

External Elements

Marcel Brunet and Sélim Toutounji agreed that the biggest external element influencing operations concerns all the issues surrounding the validation process. In Wyeth's case, there is no room for change when it comes to its logistics process due to its manufacturing function and structure. Sélim pointed out that in regard to the 2002 GMP version, pharmaceutical companies must now proceed to validate their supply chain as a whole. Therefore, transportation must be validated as well as third party operations. Sélim expects, over the next few months, sporadic inspections, which could have a paralyzing effect for companies that have yet to validate their process.

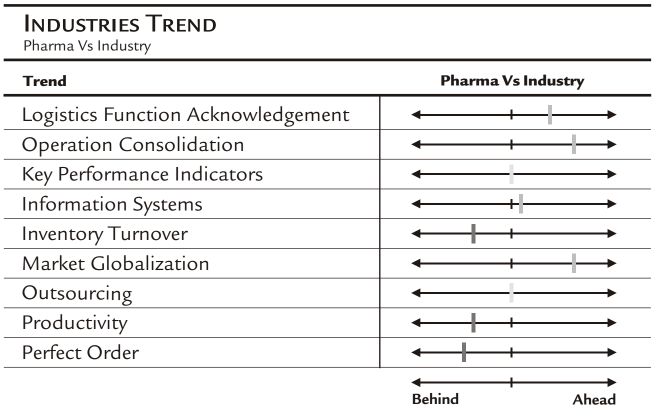
Conclusion

The Canadian pharmaceutical industry faces major challenges when it comes to the logistics function. As a first concern, the industry must secure itself in Canada especially in a North American free trade market. Logisticians must keep trying to increase their internal recognition through a communication process highlighting the value of logistics for an organization. This recognition will be called upon when numerous companies outsource some, if not all their logistics functions.

Over the last few years, the noticeable trend towards network consolidation and indirect distribution stabilized, in other words it appears to have reached its limits. Focus will now be on reducing inventory to lower operational costs while tackling back-order inefficiencies. While doing so, the pharmaceutical industry, as any other industry, will struggle to keep the best available logistics resources, which are hard to find in today's market.

The following chart compares Canada's pharmaceutical industry position with the current logistic trend:

• **Logistics function acknowledgment:** The pharmaceutical industry has taken under its wing various functions such as customer service, production planning, stock management,



storing and transportation. This logistic integration is widely used compared to various other industries in Canada;

• **Operational consolidation:** The current trend in Canada and worldwide is to consolidate distribution network to benefit from scale economies without affecting service level thanks to the reliability of various transportation methods. The pharmaceutical industry is a pioneer in these initiatives as the majority of manufacturing companies have consolidated their network and now service Canada out of a single distribution centre;

• **Key performance indicator:** One of the industry's current trends is the establishment of performance indicators. These indicators are managerial tools, which can provide guidelines to achieve pro-active skills. The pharmaceutical industry is certainly following but definitely not ahead in the game;

• **Information systems:** It has become increasingly obvious that in order to counter logistic flow intricacies, information systems must provide proper product tracing as well as guarantee a strong service levels required by today's customer. Faced with complex operations and product handling, the pharmaceutical industry is slightly ahead in the implementation of information systems (WMS, TMS, RF, etc.);

• **Inventory turnover:** Companies are functioning in a highly competitive era in a slow economy, which forces them to reduce inventory levels by increasing their turnover. Even though the pharmaceutical industry faces various challenges regarding recipes, validation and replenishment time, subtle improvements are noticed concerning inventory turnover. Few companies have adopted a 'just in time' concept which means many of them find themselves with full capacity warehouse;

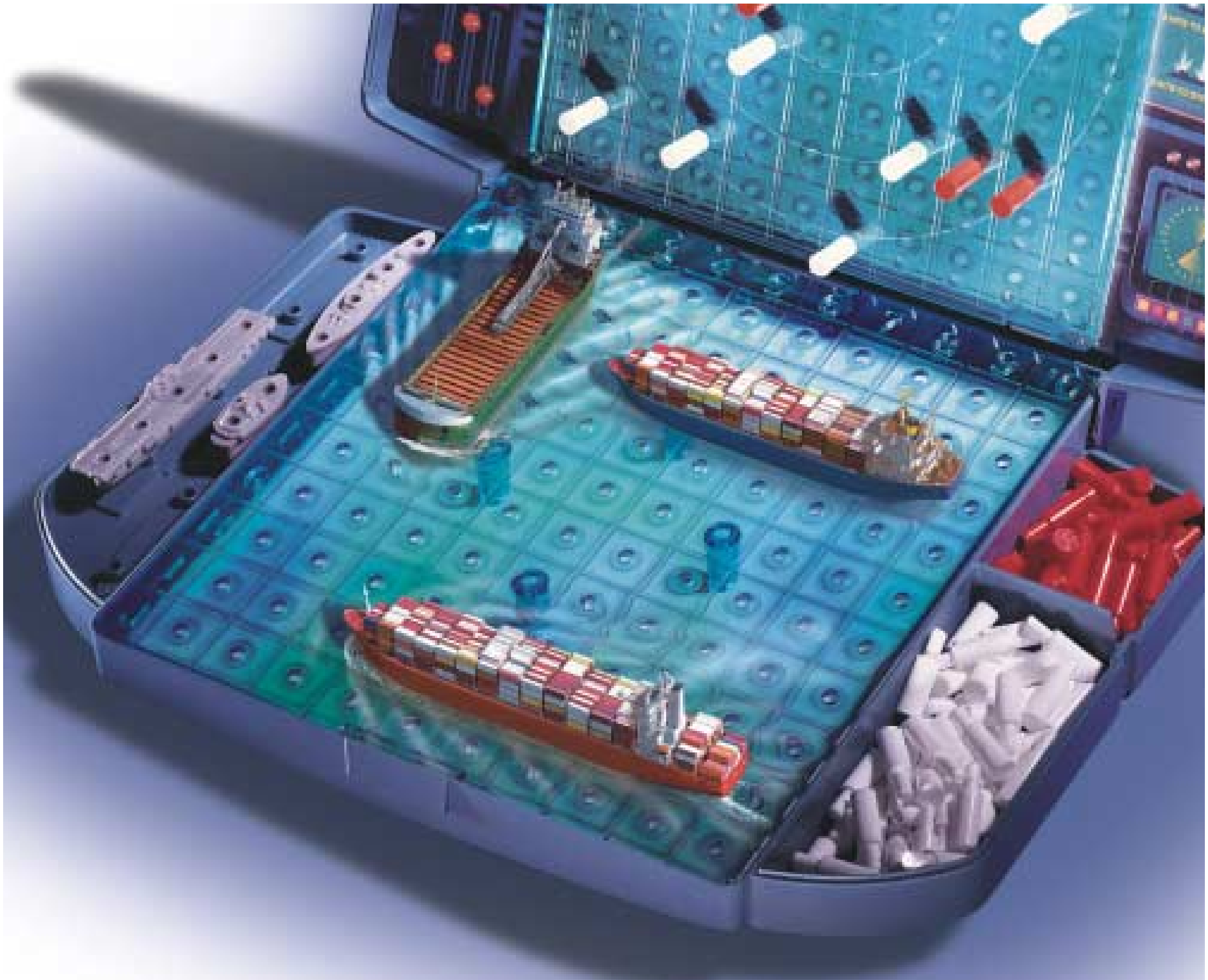
• **Market globalization:** Another strength associated with the pharmaceutical industry concerns its market globalization. We have observed over the last 10 years several mega-mergers. Several pharmaceutical companies have opted for a Global Manufacturing strategy, by awarding global manufacturing mandates to some of their plants;

• **Outsourcing:** The current trend is to focus on primary skills, therefore several companies resort to outsourcing their logistics operations. Not yet accepted by the pharmaceutical industry as a strategic function, outsourcing has yet to gain the recognition currently achieved by the high tech industry, for example;

• **Productivity:** Today's organizations are concerned with the need to improve productivity levels in order to reduce operational cost to increase their profit margin. Due to the industry's high margins, the pressure is low as we notice lower productivity levels compared to other industries (for similar processes). Undeniably, the pharmaceutical industry has characteristics (lot control, narcotics, product value) that go against the drive to improve productivity;

• **Perfect order:** Considered a key performance indicator, the current level for pharmaceutical companies is low compared to the average. Such score can be explained by the amount of back-orders (sometimes up to 20 to 30 percent of the lines ordered). Such high back-order levels can only be observed in a product specific industry (patent protection) without jeopardizing a company's financial viability.

MR. GAUTRIN *P. Eng. Partner with the GCL Group, is a member of the CLM (Council of Logistics Management), the CALM (Canadian Association of Logistics Management) the WERC (Warehouse Education Research Council) and the CSIE (Canadian Society of Industrial Engineering).*



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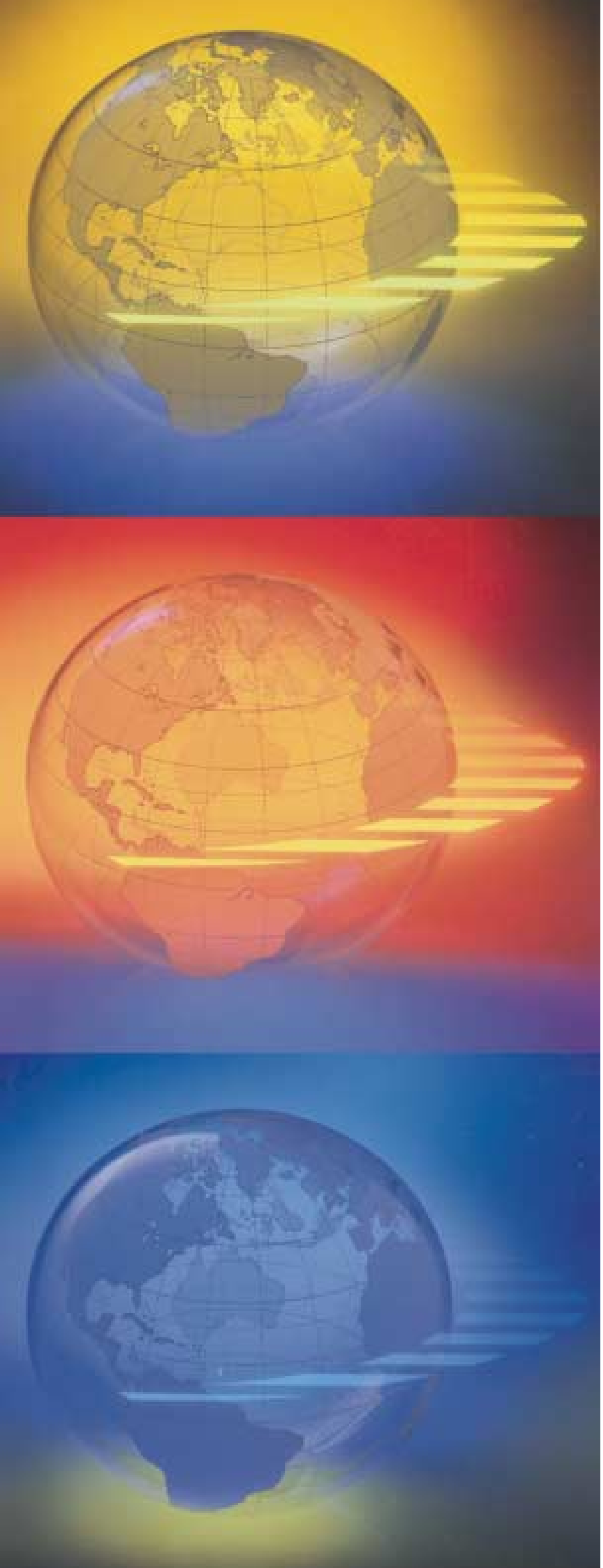
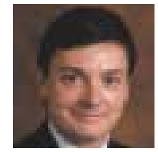


Editor's Viewpoint

by Fred Moody



Innovation

Certainly the story of our past can be told in terms of a series of daunting adventures, from Marco Polo, to Columbus, Darwin to the Galápagos, to Leif Ericsson and our exploration of Mars. Today, we're building on this legacy and using technology and innovation to grow and chart unmapped territory. Despite the recent spate of challenges to people and business, including corporate malfeasance, innovative companies and organizations continue to succeed. By applying sound strategies and taking systematic and innovative approaches, companies and organizations have demonstrated considerable resilience as they build on solid foundations. Clearly, Victor Deyglio's article, "The Year in Review" evidences the value of innovation, integrity and purposefulness.

The importance of managerial and institutional innovation and fortitude is also woven into Pierre Massicotte's article, "Infrastructures for Global Strategy," which focuses on a strategy to create one of North America's top logistics hubs.

One of the greatest calls for leadership this year came from the Council of Logistics Management's (CLM) annual general meeting and its outstanding program delivered under the auspices of the theme, "The Rules Are Changing." This program was designed to address the knowledge, skills and mindset required from all of us in this rapidly changing world. We're honored this issue to publish Dr. David Closs' article, "View of the Logistics Integrator." In his inaugural column Dr. Closs provides an insightful overview of some of the most salient topics covered at this year's CLM AGM.

We're also pleased to have Ross Reimer and Dr. Linda Ferguson begin their first of many columns in this issue, which affords a clear and reasoned strategy to find the finest people for a logistics practice.

These are only a few of the exceptional articles and authors published in this winter edition. It's these professionals who truly define LQ and enable it to fulfill its distinctive mandate. I would also be remiss if I did not convey my deepest appreciation to all the members of LQ's Advisory Board (page 9), and the direction they've provided through two round table meetings this year. I am thankful for their encouragement of innovation and best practices in this magazines as well as in our exciting field.

Peace and prosperity.

Fred Moody *is publisher and editor of LQ™. fmoody@LogisticsQuarterly.com*

Global Supply Chain Solutions

Ryder provides a portfolio of leading-edge logistics and transportation solutions globally. Our proven operational expertise and processes have provided solutions that add value to clients in a wide variety of industries.

Product offerings range from commercial vehicle rental, leasing and maintenance to dedicated fleet operations and integrated logistics solutions that draw upon the company's expertise in full-scale supply chain management.

Ryder's Logistics Services Include:

Supply Chain Management Solutions

Involves the integration of multiple transportation and distribution functions to help optimize complex supply chain processes.

- Supply Chain Consulting:
  Value chain assessment, Logistics strategy planning, Functional design, Process management.
- Integrated Logistics Operations:
  Integrated transportation and distribution as a coordinated and continuous process.
- Lead Logistics Management:
  Total management, Network services.
- *e*-Fulfillment Solutions:
  End-to-end management of the fulfillment channel, from order entry to final delivery, including transportation planning/management, value-added services, and reverse logistics.

Distribution Management Solutions

A set of services that provide clients with a comprehensive solution for outsourcing a portion of their distribution network or their entire network. Distribution Management encompasses the warehousing and transportation of products and can also include other value-added services involved in the distribution function.

- Distribution Consulting:
  Network planning, Facility design.
- Product Supply Services:
  Inbound replenishment.
- Product Distribution Services:
  Warehouse management, Outbound delivery.
- Product Distribution and Support Services:
  Distribution to DC or retail outlets, Reverse logistics.

Transportation Management Solutions

An array of services that provide a single source for planning, executing, and operating an integrated transportation solution.

- Transportation Consulting:
  Transportation network planning and design.
- Transportation Management:
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  Recruiting, qualifying, hiring, training, retention, management and compensation.
- Proper Equipment:
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- Vehicle Maintenance:
  Service and repairs, administration and management to maximize equipment uptime.
- Management Administration:
  Complete management of people, vehicles, fleet support systems and administrative functions to meet the customer's requirements.