

Business Unusual: Today's 3PLs Never Say Never

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Wonders abound in Canyonlands National Park, Utah -- from its native Pueblo wall paintings and famed arches, to an infinite maze of red rock canyons and rare flora and fauna.

Yet, it is the sight of a lone brown truck barreling down a remote two-lane road that truly stands out. What can Brown do for the National Park Service? Evidently deliver to the ends of the earth, or somewhere in between.

As third-party logistics (3PLs) and transportation service providers evolve their pedigrees for moving freight, they have stretched the threshold for logistics excellence in two ways: consumer demand for fast, precise service has raised expectations; and these expectations are transcending traditional verticals.

The breadth of global transportation networks combined with the pervasiveness of the Internet give enterprises -- regardless of whether or not they outsource logistics responsibilities -- the requisite infrastructure and IT leverage to coordinate transportation, streamline cargo movement, and respond quickly to volatile market conditions.

The automotive, retail, and consumer goods sectors have long understood the value of logistics strategy as a competitive differentiator. Other verticals are just now beginning to tap the potential of supply chain management.

The health care industry, for example, struggles to cope with soaring medical costs and obsolete facilities.

Humanitarian aid agencies and non-profits, which have faced numerous challenges over the past five years, similarly lack the resources, technology, and expertise afforded well-endowed corporations.

Other businesses are challenged with moving non-traditional freight to and from remote locations. Without prior experience and knowledge, these moves require longer lead times and planning and often become budget busters.

The good news is that logistics expertise exists to reinforce initiatives for these "above-and-beyond" industries and logistics challenges. 3PLs, carriers, IT developers, and early adopters in the manufacturing and retail segments are sharing best practices and technologies to help drive innovation outside their verticals. Equally important, the success of public/private investment in modernizing transportation infrastructure is helping sow the seeds for cross-industry discourse and solutions that all businesses can leverage to drive better best practices.

Seeing any logistics company in a remote and foreign environment is testament to the reach of global supply chains. But it is no longer surprising. In fact, for a growing cadre of 3PLs, business unusual -- whether it is moving unexpected freight or serving industries new to understanding the value of supply chain management -- is fast becoming business usual. Here are some of their stories.

Business Unusual: Health Care Logistics

In most industries, the bottom line is measured by net income or loss, strictly in dollars and cents. While cost containment and profitability are important in the health care sector, many of its practitioners are also held to the Hippocratic Oath, where serving the greater good is the bottom line.

Unfortunately, moving products in the interest of mankind doesn't necessarily translate well to economy or efficiency.

As a result, health care providers, manufacturers, and distributors have been much maligned for their failure to embrace supply chain management as a strategic business initiative. But times are changing.

"The health care industry has shown more interest in logistics in the past three years than the past 30 because supply chain has become the last frontier to drive process improvement and cost containment," says Steve Inacker, president of hospital supply distribution, Cardinal Health.

Headquartered in Dublin, Ohio, Cardinal Health manufactures, packages, and distributes pharmaceuticals and medical supplies to hospitals, physician offices, and pharmacies worldwide. For some of its manufacturing customers, it also acts as a 3PL.

Several years ago hospitals began talking about integrated delivery networks (IDNs), where several facilities partner to drive best practices; leverage assets, expertise, and technology;

and standardize processes. These consortiums began as informal arrangements but have progressively become more formal, and now give health care providers considerable purchasing leverage to help reduce costs.

The first target area was labor costs, traditionally a major bleed to profitability. Now these networks are focusing on supply chain process improvement, with inbound deliveries from suppliers, and with suppliers themselves.

Given the breadth of health care products and vendors, this is no small task. SKU proliferation remains a constant challenge. "Distributors must carry a large variety of ever-changing SKUs to meet the demands of hospitals and other health care providers," Inacker says.

Equally problematic, the health care industry lacks a uniform identification code for supply chain inventory, which makes it difficult for shippers and distributors to standardize equipment and processes. Because the FDA regulates many of its products, Cardinal Health created its own uniform identification code for inventory in its closed loop supply chain to facilitate identification and tracking.

"We have to track every product in our system as well as inventory in our customers' networks so if the FDA recalls a product, we know where it is," Inacker explains.

Knowing where products are at any given time has become difficult, both downstream and upstream in the health care supply chain.

As in other industries, globalization has placed additional pressure on the medical sector as more manufacturers source product and raw materials from offshore facilities. The unique nature of

surgical devices, diagnostic machines, pharmaceuticals, reagents, and other sensitive medical cargo places a premium on safe and timely delivery and visibility throughout the supply chain.

"The health care industry is rife with vendor-specified packaging and time-sensitivity requirements. The products are used every day to serve patients with acute needs. In terms of delivering a shipment, there is no tomorrow," adds Inacker.

For these reasons, the health care industry is ripe for change. Logistics best practices are beginning to manifest in a number of ways.

For one, more supply chain and logistics professionals are working in administrative roles at hospitals and other facilities. Industry insiders have long acknowledged their previous absence as a major obstacle to reform.

Second, leadership from industry trade associations such as the Health Industry Distributors Association is helping manufacturers and distributors coordinate and standardize procedures for moving shipments.

This new direction has also pushed the health care community to work closely with government agencies -- including the Centers for Disease Control and the Department of Defense, among others -- so they can quickly and efficiently respond to disasters or pandemic outbreaks.

Third, health care providers, IDNs, and manufacturers are looking at outsourcing transportation and distribution to 3PLs, particularly with products manufactured abroad or that fall outside typical shipment criterion and require special handling. This enables them to focus on their core operational responsibilities and meet bottom-line goals

both as businesses and as health care providers.

CASE HISTORY: Moving Medical Heavyweights

Philips Medical Systems understands the logistics challenges facing the health care industry all too well. As a manufacturer of products that cost more than \$1 million each, it can't afford to have shipments sit on a loading dock or in a warehouse -- even for a few days.

The company manufactures X-ray, MRI, cardiovascular, and other medical diagnostics machines in Germany, the Netherlands, Israel, and the United States. These machines weigh up to 15 tons and require a sophisticated delivery and installation process.

For years, when Philips Medical Europe had to deliver to a U.S. hospital, it shipped the unit to a Philips Medical warehouse in the States, then lost control of it.

"The machine might sit in the U.S. warehouse for one month," notes Stefan Busch, transport logistics manager at Philips Medical. "By the time it was delivered, it was no longer the newest technology."

To gain control of its delivery process, Philips Medical outsourced to UPS Supply Chain Solutions. The installation program started in 2000.

The equipment now bypasses distribution centers and goes from the factory directly to a hospital or clinic. UPS SCS sets up location-, time-, and customer-specific inside delivery, performed by a trained installation team.

A UPS SCS bonded warehouse in Schipol, Amsterdam, kits together accessories needed to operate the machine it is installing. Employees at

the bonded warehouse ensure that the accessories are shipped with the main piece of equipment.

The UPS delivery team prepares the installation site, manages delivery, and uncrates the unit without any damage to hospitals. In some cases, the machines are too big to fit in a hospital's elevator, so the team uses cranes to hoist them into the building.

The installation team -- two to four people depending on the machine -- handles the mechanical installation. They also remove the crating/packaging debris and ultimately return it to origin as part of an environmental and cost-cutting effort.

Having dedicated installation teams eliminates headaches for Philips Medical.

"When we installed the machines ourselves, training was always an issue," explains Busch. "In many small countries, we only install 20 or 30 systems per year, so our people were not experienced. The UPS SCS groups do these installations every day, so they have special tools and fittings on the truck. They can install one of these machines in a few hours, which helps us gain consistency in the quality of our installations."

Its partnership with UPS SCS helped Philips cut nearly six weeks off the transit time of this equipment.

Philips Medical Systems' arrangement with UPS SCS is a win-win situation, Busch believes. "Our customers get better service, we gain visibility into the installation process, and we have shorter lead times so we get paid faster," he says.

Business Unusual: Humanitarian Aid Logistics

Logisticians rarely receive credit when things are running smoothly. The minute disaster strikes a supply line, however, a company's inability to communicate, coordinate, and allocate resources inevitably becomes a red herring for media and critics alike.

This proved true following Hurricane Katrina's devastating landfall on the Gulf Coast in 2005 when fractured communication between city and state authorities and FEMA resulted in delayed emergency response and public outcry. Despite rampant criticism from the media, some shining examples of logistics excellence prevailed.

"Motorola's ability to manage the infrastructure necessary to support cellular service, in particular, was the backbone of emergency response," says Kevin O'Marah, senior vice president, strategic research for Boston, Mass.-based AMR Research.

He also acknowledges companies with strong logistics infrastructure -- such as The Home Depot and Procter & Gamble, among many others -- that helped bring supplies and equipment to the hurricane-ravaged area.

While Katrina's aftermath presented a receptive forum for legislative reform on Capitol Hill and among state and local lawmakers, it also triggered the corporate sector to become more involved as supply chain stewards for relief agencies and businesses responding to crisis.

The new reality is that businesses across all industries -- from transportation service providers and 3PLs to manufacturers, retailers, and nonprofits -- have a vested interest in sharing resources, expertise, and technology to not only help first-responders save

lives and rebuild disaster-stricken areas, but also to ensure global supply channels remain open and viable.

But unlike the private sector, where logistics initiatives have become increasingly transparent and receive the capital investment they deserve, recognition and funding among humanitarian relief organizations has traditionally been scarce, says Mitsuko Mizushima, chief logistics officer at the Fritz Institute, and formerly a logistics executive at APL.

Since the 2004 tsunami in Southeast Asia, however, greater appreciation has emerged for logisticians, their craft, and the role they play in meeting the needs of aid beneficiaries.

Organizations such as the Fritz Institute are helping drive collaboration between the private sector and relief operations. Founded in 2002, the San Francisco, Calif.-based nonprofit addresses the operational challenges of delivering humanitarian aid worldwide by collaborating with corporate enterprises and the academic community to leverage best practices, technology, and resources.

The challenges humanitarian logisticians face daily are unique, even by corporate standards.

"During the tsunami and Katrina crises, we saw that humanitarian organizations' core competence was on the front line, providing logistics support to beneficiaries," says Mizushima. "Many logisticians from the corporate sector want to help in these circumstances but they can make the biggest contribution by preparing before disasters occur -- helping to strengthen logistics through process review and technology, for example.

"What makes a good logistician in the

business world may not be appropriate during a disaster," she adds.

Oxfam International, a confederation of 12 organizations working with partners in more than 100 countries to eliminate poverty, suffering, and injustice, is one example of humanitarian logistics at its best.

Oxfam was founded in 1942 by a group of independent non-governmental organizations (NGOs) that wanted to work together internationally to reduce poverty. It originated from the Oxford Committee for Famine Relief, an organization founded in Britain during World War II that campaigned to provide relief for women and children in enemy-occupied Greece.

Today its impact is felt all over the world. But as humanitarian organizations take their missions global, the challenges of orchestrating relief efforts have increased considerably, as evidenced by recent emergencies, observes Pamela O'honde, deputy head of logistics and supply, Oxfam GB.

It is difficult to predict when a disaster will take place, where a disaster will strike, and how many people and communities will be impacted. In order to respond effectively, humanitarian organizations must work with skilled employees. Until recently, however, professional training for humanitarian logisticians has been scarce.

"The Fritz Institute/Chartered Institute of Logistics and Transport Certification Program is the first qualification of its kind and aims to be the international standard for all humanitarian aid agencies. It will act as a benchmark of logistics excellence for those working in humanitarian logistics and will expedite aid delivery," O'honde notes.

Another major obstacle has been the lack of coordination among humanitarian agencies. This confusion often results in duplication of activities and sometimes congestion at airports, a problem that NGOs witnessed during the recent tsunami in southeast Asia.

Because humanitarian aid funding in many organizations is primarily for direct relief efforts, infrastructure and support services often receive minimal resources for development between operations. In the field, short-term contracts translate into high turnover among logisticians, limiting institutional knowledge and learning.

The cumulative result is that the logistics function too often remains isolated from finance, emergency response, information technology, and management.

While some efforts appear ad hoc and poorly structured, improvements are occurring, thanks to inter-agency efforts, growing support from the United Nations Joint Logistics Center, individual networks, and the Fritz Institute, which continues to bring logistics specialists together to address their common challenges and areas for collaboration, says O'honde.

"The Fritz Institute, working with humanitarian logistics workers, has helped push changes, including creating a forum where humanitarian logisticians can come together to share their common pain points, exchange ideas, network, and promote collaborative efforts," she says.

The Institute's annual conference facilitates discourse, and it uses output from the meeting to set priorities with humanitarian logistics heads for the coming year.

In the past, the Fritz Institute has

worked with humanitarian logistics advisory groups to focus on three areas, notes Mizushima:

1. Building and enhancing the competence of logisticians through a training and certification program that was put together using best practices from the commercial world, academia, and humanitarian organizations.
2. Evolving technology that addresses supply chain management challenges during a disaster as well as normal conditions. It is currently developing and piloting software called HELIOS that serves as an application service provider.
3. Creating a professional association called the Humanitarian Logistics Association that is chartered to bring professionalism into the sector, much like the Council of Supply Chain Management Professionals.

Oxfam has also continued to invest in logistics development with the aim of increasing impact on aid delivery. It has developed internal training materials, policies, procedures, and systems, including tools and templates to be used across the organization to create visibility and accountability.

"We are applying best practices such as quality measurement and ensuring project management of all procurement activities to the last mile," O'honde reports.

One element important to this development, yet lacking in most relief organizations, is technology innovation. But before technology can be properly implemented, organizations must fine-tune and standardize processes -- a mistake that occurs far too often in the corporate arena, O'honde notes.

"IT systems are useful support tools,

especially for creating visibility, but they can only succeed when there are robust processes already in place. Today there is too much reliance on technology. When organizations lack connectivity, they are less creative and innovative," she adds.

Fritz has met this challenge as well, with the ongoing development of its HELIOS solution. Employing an ASP model, the software will provide complete visibility to NGOs across the humanitarian supply chain from mobilization to warehousing.

Using HELIOS, even small organizations will be capable of ramping up quickly and without the encumbrance of infrastructure investment and support.

Any innovation -- technology- or process-based -- that enables humanitarian logisticians to respond more quickly and efficiently to unpredictable situations will prove its merit, notes O'honde.

"In a humanitarian environment, planning is difficult but not impossible, because much of the activity is non-routine and responders rely on early-warning information systems. It is easier to anticipate where emergencies are likely to occur than when they will happen," she concludes.

**CASE HISTORY:
TNT Takes Command**

For Florida retailers, the question of where and when hurricanes will strike is a mere formality. Still, the unpredictable nature of a weather crisis makes it impossible to forecast demand. Often a company's only recourse is to partner with a third-party logistics provider.

If a hurricane is forecast to hit the state, residents typically flock to stores to stock up on battening-down-the-

hatches supplies such as generators, plywood, lumber, nails, hammers, and tarpaulins. At first indication that a hurricane is brewing, Florida-based 3PL TNT Logistics North America and its retail customers kick into high gear.

As a storm approaches, home goods retailers often activate their hurricane command centers, staffing them 24/7 with people who coordinate shipments, transportation, warehousing, vendor supply, and deliveries. Four or five days before a storm, retailers shift their delivery systems to funnel plywood and other pre-hurricane materials to the markets in the path of the storm.

This is where TNT steps in -- the 3PL helps retailers collect and transport these materials.

"We work with Florida stores to be sure they have enough of the hurricane-specific merchandise they need," says Steve Gundlach, vice president and general manager of fast-moving consumer goods, TNT Logistics North America.

"Retail logistics managers will search for the necessary out-of-market supplies," he continues. "Then our trucks go around to pick up generators, plywood, and other materials, and consolidate them into expedited truckload deliveries to stores within the affected area."

TNT also helps its retailers' suppliers that can't find transportation during a hurricane threat. "We work with our carriers to find empty backhauls or transportation service," Gundlach reports. "Last year, suppliers approached us for help finding capacity because they had exhausted their resources.

"There's a great feeling of empowerment helping get people what they need in the face of these storms," he

adds. "We put in long hours, and we're proud to be part of this response."

3PLs and retailers working in these situations can learn from humanitarian logisticians, suggests Mitsuko Mizushima, chief logistics officer at The Fritz Institute.

"Humanitarian agencies can teach the commercial sector how to operate in a dynamic and uncertain environment, with little information or failed infrastructure; and how to create an agile and adaptive supply chain," he says.

**Business Unusual:
Extraordinary Logistics**

As global supply chains become interconnected and reliable, the sky's the limit -- and often the backdrop -- for the unusual freight that businesses and their 3PLs are capable of moving. The impossible is now feasible, and logistics service providers are more than willing to demonstrate their capabilities and competence to willing suitors.

"Companies make more requests for out-of-the-ordinary services than ever before. They are more willing now to accept that 3PLs provide broader value-added services than they were five years ago," reports Scott McWilliams, CEO of Ozburn-Hessey Logistics, a Brentwood, Tenn.-based 3PL.

Here are two examples of 3PLs taking logistics excellence to new heights.

**CASE HISTORY:
Making the Mission Possible**

In the tradition of great spy thrillers, Mission: Impossible III, which hit theaters in early May, takes audiences to exotic international locations ranging from Italy to China to Germany. Principal photography began in Rome, then moved south to the Palazzo

Reale Della Reggia Di Caserta, near Naples, which also doubled for the Vatican.

From there, the crew went to Shanghai, China. The production also filmed in Xitang, an ancient fishing village two hours from Shanghai.

Executing the logistics of this global on-location schedule was no easy task. It required moving 55 tons of air freight around the globe to each site, as well as packing and unpacking, crating and uncrating, and loading and unloading aircraft and trucks.

The logistics team had to ship exotic cars -- and all their spare parts -- multiple \$600,000 cameras, lighting equipment, film, and costumes, all on a precise timetable to each location. Delays could cost hundreds of thousands of dollars a day. And no one, after all, wants to keep Tom Cruise waiting.

Paramount Pictures chose DHL as the logistics partner for the movie. "A select team of DHL experts was on standby 24 hours a day in Los Angeles to coordinate this mission," says Peter Jorgenson, operations manager for DHL in Los Angeles.

Delivering the high-value freight on location in each country was carried out box by box, pallet by pallet. Specialists from Paramount Pictures were in charge of building the set, while DHL prepared all the individual parts in the right order and configuration, and booked cargo flights, including a charter from Beijing to Los Angeles.

"If a single part is missing, the whole production process can fall apart," explains Jorgenson.

The six autos moved on pallets via air from Los Angeles to Beijing, traveling

under a special merchandise passport that simplified customs procedures and allowed the goods to move without being subject to duties.

In China, the movie company filmed in Beijing, then moved the show to Shanghai to shoot additional sequences. DHL handled the intra-China moves as well.

"We had to make sure all the cameras were properly packed and crated for shipping," recalls Jorgensen. "Because the cameras are high value, we watched the entire aircraft loading at Los Angeles airport (LAX) and elsewhere to make sure the goods were handled properly."

"For shipments to China, we had to create special bills of lading with Paramount's logo on top," says Abdul Abbasi, DHL's export lead supervisor at LAX.

"Because of the cargo's value, we were ordered not to release a shipment at destination to anyone other than a Paramount staffer. And we also had to list and describe every item or piece of equipment on the airbill," he adds.

The tight filming schedule meant DHL and the Paramount team worked all hours to coordinate cargo movements.

"We had one plane loaded and scheduled to depart from China at midnight, but one of the cameras was missing because it was still being used," Jorgensen says. "We had to negotiate with the air carrier to hold the plane until 4 a.m. when the camera was rushed in and loaded aboard."

"This was definitely not a 9-to-5 job," Abbasi notes.

Business Unusual: Leadership From the Top

In today's transportation environment, capacity, cost, and security issues force businesses and certain industry sectors to rethink their approach to supply chain management.

For some, this requires a rudimentary crash course in logistics best practices; others, with a more experienced background in the nuances of global trade, are examining their core competencies and discerning whether or not to outsource specific responsibilities to 3PLs.

There is no perfect algorithm for how or when businesses should seek outside support or rethink how they source and distribute product.

Unfortunately for most enterprises, the call to action is often in response to crisis rather than as a preconceived strategy or approach. But as global supply chains become stretched, the potential for exceptions is considerably greater.

As such, logistics best practices and contingency planning are becoming one and the same.

"Logistics discipline makes for good business, but it's also the most important factor when agencies and businesses respond to a crisis," says Kevin O'Marah of AMR Research, Boston.

The importance of logistics leadership is paramount to successfully building supply chains that are capable of responding to disasters or unforeseen logistics challenges. Supply chain expertise at the board level or in the form of a strategic 3PL alliance is self-reinforcing, says O'Marah, who specifically points to examples of logistics best practices positively impacting disaster relief efforts.

"If a business can provide continuity in saving the world, it can provide business continuity to its customers."

Responding to disasters reflects the agility of a business and makes for a more athletic supply chain," O'Marah notes.

CASE HISTORY:

Go Cell It on the Mountain

For one major U.S. wireless telecommunications carrier, moving large cellular switching equipment from multiple vendors around the world was a painful undertaking.

NAL Worldwide, a 3PL based in Addison, Ill., stepped in to help it manage these moves, merge materials to arrive at the site, and put the switching equipment in place.

Cell sites can be anywhere -- inside restricted military bases, on top of buildings, even on mountaintops. "Our job is to get materials to the site regardless of where it is, or what it takes to do so," says Doug

Christensen, president of NAL Worldwide.

The wireless company used to handle installation in-house with field project managers. "But they found it was more cost-effective to outsource the process, using a 3PL to manage the flow from multiple source sites to final installation," Christensen explains.

NAL begins the process by sending one of its staff members or an outside contractor to survey the site.

"If we have to use a crane to install cellular equipment on a rooftop, we know the weight and dimensions. We figure out where the crane will sit, what road we need to block, and we obtain any necessary permits," says Christensen.

The material for the cell sites comes from all over the world. NAL consoli-

dates these inbound shipments at one of its 29 U.S. facilities, checking it off against an electronic inventory account, then stages the material for final site delivery.

"If it's a large installation, we make sure the technicians are on site when the equipment arrives," says Christensen.

If the wireless company needs to upgrade or replace old equipment, NAL will install the equipment in the middle of the night so the telecom's customers don't lose cellular service during daytime hours.

"When we have a short window of time to complete the installation and make sure the station is up and running again, that adds a lot of pressure," Christensen says.