DAMAGE, THEFT AND DISRUPTION:

Reducing Risk in Your Logistics Strategy

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Introduction

Every day as many as 10,000 commercial trucks cross the U.S./Canadian border via the Ambassador Bridge, which links Detroit, MI with Windsor, Ontario. As much as 25 percent of all cross border trade clears the border via this privately-owned crossing, causing some to refer to it as "the single most important piece of infrastructure" between the U.S. and Canada.

But what if the bridge was suddenly out of commission? After all, the structure is 86-years old and as recently as late 2015 had wooden planking installed underneath after falling debris caused the closing of several nearby streets. While bridge officials say the planking was installed out of an abundance of caution, it does draw attention both to the bridge's age and desperate need for an upgrade, and to the tremendous disruption that would occur trucks could no longer move between Detroit and Windsor.

A new bridge, a joint venture between the United States and Canada, is scheduled to open in 2020. The new bridge will be located a few miles from the existing crossing, and has been the subject of years of debate and controversy, including intense U.S.-Canadian negotiations over cost. For drivers who depend on a delay-free crossing, the new bridge can't come soon enough. "It's certainly been a long time coming," Ontario Trucking Association President David Bradley said when details of the new bridge were announced. "We are hopeful the political wrangling that has delayed progress on this most important infrastructure project is finally over," he added.

The 86 year old Ambassador Bridge is the busiest land crossing between the United States and Canada.Source: MLive.com

This Ambassador Bridge example illustrates the deteriorating infrastructure in both the U.S. and Canada, which is affecting the timely movement of shipments between the two countries. By some

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estimates, as much as $400 billion is needed to address Canada's crumbling or outdated bridges and roads, while more than $4 trillion is needed to fix and upgrade U.S. bridges, ports and roadways.

According to Infrastructure Canada, poor infrastructure "tends to drive away foreign investment more so than quality infrastructure attracts private investment." The federal agency estimates that infrastructure-caused congestion costs Canadian businesses almost CAN $4 billion annually in lost time and wasted fuel.

Inferior infrastructure, unfortunately, is not the only "logistics plan buster" that threatens well-planned shipping strategies. Weather can have a debilitating effect, as can fire, a supplier bankruptcy or an unexpected labor action. The 2015 labor slowdown that essentially shut down all U.S. West Coast ports cost the U.S. economy as much as $2 billion per day, and took months from which to recover. U.S./Canadian shipments are highly affected by global disruptions, since many products traveling between the U.S. and Canada include parts sourced from overseas suppliers.

Border crossing delays is a serious concern for U.S. and Canadian shippers. Source: Toll Roads News

Business must also contend with the possibility of a shipment arriving damaged, or becoming lost in transit, or even stolen. The Federal Bureau of Investigation estimates North American shipment theft totals as much as $30 billion each year, the vast majority from trucking losses.

Clearly there are a number of external factors affecting shipments traveling between the United States and Canada. Understanding these risks, and having a proactive strategy in place to deal with an unplanned disruption can minimize the impact.

As the following paper will discuss, key to any pre-planning is to have in place a team of reputable professionals – logistics partner, suppliers, insurance broker, legal representation – ready to step in and help ensure continuity.

It used to be that disruptions, losses and even theft were written off as unavoidable costs of business. Not so any more. Instead, well-prepared businesses are able to get ahead of the risk, and minimize the potential for disruption or loss.

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Planning for the Annual "100 Year Storm" - Addressing the threat of external disruption

While winter snow is hardly an unexpected obstacle for shipments traveling between Detroit and Ontario, one storm proved so severe that it forced the closure of Highway 402 near Port Huron, Michigan, as well as the nearby Blue Water Bridge. Caught in the disruption were six trucks loaded with auto parts destined for Chrysler Group LLC's Brampton assembly plant. The parts delay resulted in the automaker having to shut down production. The Chrysler Brampton facility was not the only manufacturing facility affected, since as much as 70 percent of automotive freight traveling between the U.S. and Canada utilizes the Blue Water Bridge.

Chrysler's Brampton assembly facility was forced to close in 2011 when winter weather closed highways, stranding needed parts. Source: Conceptcarz.com

The cost of this disruption, which lasted roughly 36 hours, was significant. Most auto plants rely on a "just in time" manufacturing process, whereby inventory is replenished as needed, with no surplus tucked away. In ordinary circumstances, the process is highly efficient, since, according to research cited by the Business Forward Foundation, keeping one extra hour's worth of production parts onsite can cost as much as $950,000.

But when a disruption occurs, the price can be enormous, with each hour of down time costing an automaker an estimated $1.25 million.

A disruption also imposes a significant cost to a supplier. Since the "just in time" model is wholly dependent on shipments arriving with precision-like timing, late arrivals are penalized as much as $10,000 per minute.

It's obvious then, that businesses have a lot at stake in ensuring shipments arrive on time. While certainly most businesses do not face the same scale of financial impact as auto parts suppliers, no business wants to disappoint a customer with a late arrival, especially if it can be avoided.

And make no mistake, many disruptions are avoidable. But, the key is to have a plan in place that addresses precisely what alternate plans would be set in motion in a range of scenarios. Those scenarios should include weather-related delays, fires, equipment failures, labor strikes, and supplier failures, among other possibilities. The first step is for a business to commit the time and resources to work through this type of exercise.

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This in itself is a tremendous accomplishment, with research by Accenture revealing that, while 73 percent of businesses had experienced a supply chain disruption within the past five years, only 17 percent have taken the time to formally assess and quantify the impact of the disruption.

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Source: Accenture research, as reported by Inbound Logistics

"Couple that with the fact that 67 percent of executives say that risks are generally understood but not specifically quantified, and that's a large group who don't know the potential impact a disruption could have on their organizations," said Accenture senior manager Jade Rodysill.

This is supported by Professor Christopher Tang, of the UCLA Anderson School of Management who, in an article that appeared in the International Journal of Commerce cited a survey of companies ranging from consumer goods to health care, in which 43 percent of managers said their supply chains were vulnerable to disruptions, yet 55 percent had no documented contingency plans in place.

Disruption Planning

The past few years have truly been eye opening for supply chain managers. Natural disasters including Hurricane Katrina in 2005, Iceland's volcano eruption in 2010, the Japanese tsunami in 2011, Thailand's 2011 floods and Superstorm Sandy in 2012, have demonstrated the shocking havoc a single event can cause.

The years since have been marked by an ongoing effort to identify vulnerabilities that were exposed during these crises, learn from what went wrong, and document specific paths to take should a calamity occur again. Massachusetts Institute of Technology (MIT) Professors Sunil Chopra and ManMohan Sodhi note that some of the "obvious solutions" – increasing inventory, adding capacity at different locations and having multiple suppliers – undermine efforts to improve supply chain cost efficiency.

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A Toyota dealership in Minamisanriku, Miyagi, after the devastating earthquake and tsunami that struck Japan in March 2011. Source: Reuters

The professors note in an article in MIT Sloan Management Review, while managers may appreciate the impact of supply chain disruptions, they have been slow to react. "This is because solutions to reduce risk mean little unless they are weighed against supply chain cost efficiency." A business that has significantly lowered manufacturing costs by outsourcing manufacturing to a low-cost offshore supplier, for example would have to think long and hard before moving production closer to home, in order to reduce the risk of a disruption.

How then, can a business strike the right balance between the need for efficiency and the need to plan for the unexpected?

Contain risk

It's necessary to remove the likelihood that a disruption in one part of a supply chain will spread and cause a systematic failure. A manufacturer that relies on a single parts supplier is a good example. While the two businesses may have a long-standing, mutually beneficial relationship, the manufacturer is just one hurricane or fire or bankruptcy away from disaster. The favored supplier can certainly remain as a Tier I choice, but it's important to identify and start relationships with two or three "Plan B" options. Care must be taken to identify sub-Tier I suppliers located in different geographic regions, and to ensure their viability to withstand external pressures.

Backup Transportation Options

When Kay Krill, CEO of Ann Inc., which owns retail brands Ann Taylor and the Loft discussed her company's lackluster financial performance at the end of 2014, she cited, among other things, "the impact of labor uncertainty at the West Coast ports, which resulted in product shipment delays in the first half of the quarter (3Q 2014) and higher air freight expenses later in the period."

In fact, the West Coast port crisis was a boon for many expedited logistics providers who were called upon for "emergency" premium-level services. From "rescuing" stranded freight via helicopter to helping shippers reroute

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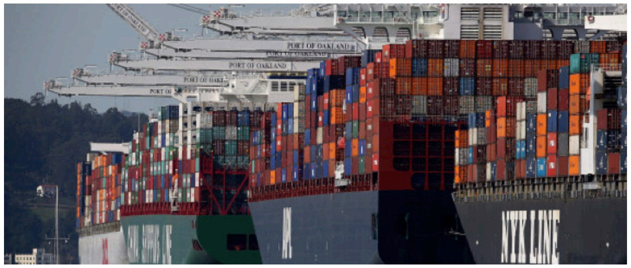
shipments, expedited providers proved their mettle and demonstrated the value of having fallback options to call upon when needed.



Cargo ships were left stranded at sea, or unloaded in port as a result of the labor dispute that affected U.S. West Coast ports. Source: Associated Press

Expedited services can range from a guaranteed ground solution to a "next flight out" option to truck or air charter services. Integral to any expedited service is a superior level of customer service, delivery guarantees and minimal risk of damage. The service has proven so capable and dependable, that an increasing number of U.S. and Canadian businesses are turning to expedited for services beyond "Plan B" emergencies. This is because, in many cases, the additional cost can be mitigated by on-time arrivals, worry-free shipping and satisfied customers.

Industry expert Maria Llamas notes the importance of designating preferred/primary or secondary carriers before they are actually needed. "Taking such measures in advance allows shippers to reduce lead times associated with finding and securing carriers to move freight when market capacity is tight."

Stress test

Managers can benefit from a comprehensive "What/If" assessment of all possible scenarios. "What if," for example a Vancouver distribution center caught on fire, thereby disrupting fulfillment to customers in Western Canada? Or what if the Detroit-to-Windsor Ambassador Bridge was suddenly out of commission for a prolonged period? Or what would happen is a top supplier declared bankruptcy? As noted by MIT Professors Chopra and Sodhi, "Through stress testing managers should be able to identify risk-mitigation priorities for the near, medium and long term, as well as individual plants, shipping lanes, suppliers or customers that could pose risks."

One note of caution though, is in some instances, managers may choose to address demonstrated risk by "over compensating." If managers determine a high probability of an inventory disruption, a natural inclination would be to stockpile inventory. This of course would be a very costly precaution. Instead, managers might want to focus on other options, including identifying additional suppliers and distribution options.

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Supply chain segmentation

Supply chain segmentation essentially refers to the process of maintaining distinct supply chains that reflect the different functions suppliers have, and the reality that different parts of a business carry higher degrees of risk. Supply chains can be "compartmentalized" based on any number of determining factors.

As Supply Chain Quarterly notes, proper segmentation requires a break from the traditional "one size fits all" supply chain model that drives most businesses. Instead, each supplier should be evaluated independently and assessed based on how it fits into the company's overall value chain. "In conducting such a comprehensive survey across an entire enterprise, the specialized nature of the risks associated with each supply segment becomes more readily apparent."

MIT Professors Chopra and Sodhi cite industrial products behemoth W.W. Grainger Inc. as an example of a company that has successfully reduced risk by segmenting its supply chain. The Lake Forest, IL-based company operates roughly 400 stores in the United States. "In an effort to reduce transportation costs, it keeps its fastest-moving products at the stores and at nine distribution centers. However, the slower-moving items are warehoused at a distribution center in Chicago." This segmentation reduces fragility by isolating the impact of disruptions and creating supply backups.

Clearly defined processes and roles

As important as anything else a business does, is the critical need to document all contingency plans, and to ensure that those plans have been communicated to all stakeholders. Every person, every supplier and every facility with a role to play in executing a contingency plan must be up to speed, fully understand expectations, and be ready to execute at a moment's notice.

Visibility

Listen to your data. Businesses that have invested in technology to assist with forecasting, scheduling, inventory management, production or sales histories, can leverage these systems to help minimize impact from a disruption. This assumes that a business has a high degree of visibility into its supply chain, and a bird's eye view into all processes, shipments and inventory, at any given moment.

When it became increasingly likely that a labor dispute would lead to a strike or slowdown at U.S. West Coast ports, smart businesses that had been following the union negotiations had already made plans to accelerate shipments so they would be ahead of any possible disruption. This was possible because visibility allowed businesses to contact all supplier partners well in advance so that production schedules could be altered, transportation could be secured and all other supply chain processes accelerated.

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Unfortunately though, forward-thinking shippers were the exception during what ended up being a months-long slowdown that cost the U.S. economy roughly $2 billion per day and left shipments stranded at sea during the peak holiday season. As reported by the Journal of Commerce, less than one-third of shippers surveyed by investment firm Wolf Research said they had accelerated shipments or built up additional inventory ahead of the potential labor action.

One sports apparel retailer in fact, noted that for his company, accelerating shipments was "never possible" because of sourcing issues. As the JOC noted, the retailer asked its suppliers – most of which were located in Central America and Asia – to accelerate shipments ahead of the anticipated labor action, but were told they could not be slotted into factories' schedules without at least six months notice, and in some cases even longer.

The West Coast ports example drives home the importance of technology in contingency planning. A fully integrated transportation management system (TMS) would have provided information on available lanes, carriers, transit times, volume histories and forecasts per lane/carrier. "Armed with these facts and figures," noted industry professional Maria Llamas, a shipper could proactively plan, and move a percentage of its shipments to the East Coast.

A fully-integrated technology system – that offers full visibility – can be a shipper's most important line of defense in minimizing disruption. When forecasting models put Austin, Texas in the line of Hurricane Rita back in 2005, managers at electronics manufacturer Solectron immediately went to work to minimize the impact on its local facility. "Once the hurricane was predicted, we immediately began notifying our supply chain partners, tracking the storm's progress, and compiling and distributing checklists," global business continuity manager Mike Haikola told Inbound Logistics.

Master complexity

It's no secret that today's supply chains are more complex than ever, with businesses reliant on low-cost, high-efficiency suppliers sourced around the globe. Today's supply chains have largely become models of efficiency with precision-like movements and seamless processes. Until of course, something goes wrong. While it would be unrealistic for businesses to try and unwind from a global approach to sourcing, research has shown that most businesses do not have control, or mastery, over the entirety of their supply chains.

How to gain this complete understanding? Deloitte coined the phrase "complexity master" back in 2004, when it released an analysis documenting the importance of collaboration, integration and synchronization of activities that historically functioned independent of one another. While Deloitte focused on mastering complexity as a path to growth and maximizing profitability, it is also helpful in identifying vulnerabilities. A business cannot hope to assess risk in its supply chain unless it has visibility into every supplier, facility and geographic location in which it operates.

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It's clear then, that a supply chain disruption does not have to cripple a business's ability to operate. While certainly some events are of this magnitude, but most disruptions can be managed by proactive planning, understanding vulnerabilities, taking advantage of technology, and perhaps most important, by having carefully constructed and well-communicated contingency plans ready to be activated.

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Damage, Loss and Theft

Beyond the risk of unplanned weather events and other sources of disruption, businesses must consider the possibility of a shipment becoming lost or stolen while in transit, or arriving damaged. The Federal Bureau of Investigation reports cargo theft amounts to as much as $30 billion in annual losses. And research by StellaService found as many as one in ten e-commerce shipments arrive damaged, with a direct impact on customer attitudes about both the shipper and the carrier.

Poor packaging is a major cause of shipment damage.
Source: Sam Ash

To minimize the risk of a shipment disruption, it's essential to have full confidence in the suppliers and logistics provider with whom you choose to partner. As international trade attorney Timothy Charlesworth notes, when materials arrive damaged, there can be "finger pointing," even if no one is necessarily at fault. With all parties trying to avoid blame for a mishap, the need to rectify the situation with the end customer can take a backseat. An experienced, reputable team of partners, all working together, can help ensure a smooth "correction" process should something go awry.

Preventing Damage and Loss

One Tennessee-based guitar manufacturer learned the hard way that a logistics partner can have a huge impact in how a shipment is handled. The manufacturer successfully expanded to the Canadian market and enlisted an international logistics provider, which offered an LTL freight strategy. Almost from the start though, the manufacturer noticed a higher than expected volume of damage. An inordinate number of instruments were arriving either broken or with significant scratches.

The manufacturer asked another logistics provider to offer an alternative solution. And when the second logistics provider assessed the situation, it saw immediately that improper palletization and general carelessness were causing the damage. The manufacturer switched logistics providers, and since then, damage reports have all but disappeared.

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This highlights the need for care in preparing shipments, for ensuring safety while in-transit, and for following certain protocols when shipments are unloaded.

Shipment Preparation

Proper packaging. This may seem obvious, but a high percentage of shipment damage occurs because of insufficient packaging. A shipment should be in a container that is suitable for its size and its contents. Care must be taken to ensure that items do not exceed the weight capacity of a particular container, and that items are wrapped appropriately with suitable in-carton cushioning in place to protect fragile items against in-transit movement.

Shipments should be sealed using a strong tape made from either pressure-sensitive plastic, or nylon-reinforced filament, or by using water-activated reinforced tape. Do not use making tape, cellophane tape or duct tape, which will not form an adequate seal and may unravel while in-transit.

Shipment labeling. This is another aspect of the shipping process that seems obvious, but must be continually reinforced. Care must be taken to ensure that all address information is correct and that labels are firmly affixed to packages. For shipments to Canada, labels must be compliant with Canadian bilingualism requirements for certain information to appear in French as well as English. Canada is officially a bilingual country with nearly a quarter of the population listing French as their preferred language.

In addition, any old labels must be removed, and care must be taken to avoid placing the label over a seam or on top of packing tape.

Employee training. With a growing number of businesses using brick-and-mortar stores to fulfill e-commerce orders, it is essential that employees understand the importance of proper packaging. While distribution center packers tend to have a higher appreciation for the need to safely and appropriately package a shipment, a retail store clerk may go about the task more hurriedly, since package preparation is not a key responsibility. A business must ensure that employees have access to proper packing materials, and provide firm instruction for shipment preparation.

Document all shipments. A business can establish a paper trail for its shipments – in case any questions arise down the road – by carefully documenting all packages. A business may want to photograph shipments before a driver loads them on a truck, and carefully review all shipping invoices and import/export documentation. This includes ensuring that documentation lists the correct number of packages, shipment contents and assigned value.

In-transit Precautions

A reputable transportation provider will make damage prevention a top priority, and should offer a full overview of its in-transit procedures. Among the specifics that should be included:

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Pallet integrity. Broken or chipped pallets often lead to product damage, since a damaged pallet is not operating at 100 percent efficiency. Be sure your provider uses only sturdy, fully-functioning pallets that meet standards established by the National Wooden Pallet and Container Association.

Pallet building. Improper pallet configuration is a major cause of in-transit shipping damage. In some instances, heavier pallets are placed atop lighter pallets, or are loaded in such a way that a forklift does not have easy access. "It's also important to distribute the load evenly on the floor of the truck or railcar," an overview in Material Handling & Logistics noted. Lighter cargo should be loaded on top of heavier cargo, and dry goods should be loaded over liquid goods. If the latter leaks, it will leak onto the trailer bed, not onto the dry goods.Use appropriate dunnage. It's essential that all gaps between cartons or pallets are filled with effective and appropriate dunnage. Commonly used dunnage includes airbags, which can be inflated to the necessary size and pressure, and serve as a very effective deterrent in stabilizing freight during transit, and helping absorb vibration.

An improperly loaded pallet can shift during transit, resulting in shipment damage and restacking costs. Source: Lantech

Preventing Theft

While shipment theft has been around for centuries – Thomas Jefferson took the United States to war when pirates from North Africa's Barbary coast routinely seized American merchant ships on the high seas – today it has evolved into a highly sophisticated and lucrative industry fueled by more than $30 billion in U.S. goods stolen annually.

From hijacked oceanliners to stolen trailers to driver/employee theft and everything in between, shipment theft remains a formidable concern for U.S. businesses. Industries that are particularly vulnerable include electronics, pharmaceuticals, tobacco, apparel, base metals and food products.

Fortunately, today's businesses – and their transportation providers – have more and better tools with which to protect their shipments and minimize the risk of theft.

Technology. Among the innovations helping to improve facility and vehicle security:

- Satellite GPS tools to track stolen vehicle location
- Door alarms
- Security alarms
- Vehicle immobilization technology that can remotely disable a vehicle
- Cameras
- King pin locks that prevent a tractor and trailer from being separated
- Seals that limit intrusion and alert drivers if a door has been tampered with.

Employee Background Checks. According to Jared Palmer, former chairman of the National Cargo Theft Task Force's Government Affairs Subcommittee, cargo theft is often perpetrated with inside help. Rigorous pre-employment screening will help weed out individuals likely to steal merchandise from a warehouse, loading dock or truck.

Minimize touches/Single source provider. A single-source logistics provider performs all supply chain functions including inventory management, warehouse operations and transportation management. Since all operations occur virtually under the same roof, there is a high degree of accountability and less opportunity for theft. A single-source solution means fewer touch points as a shipment moves through the distribution and transportation processes. With fewer hands touching a shipment, there are reduced opportunities for something to go awry.

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Partner with Care

With so much at stake, a business will need to think long and hard about which logistics provider to entrust with its shipments. As the previously mentioned examples illustrate, few U.S. businesses are able to successfully enter the Canadian market without having a highly experienced logistics partner on its team. And for many businesses, entry to the market has been exacerbated by poor service from a logistics provider that failed to prioritize shipment safety.

A business should have full confidence in its logistics provider's commitment to shipment safety. Among the capabilities to look for in choosing a qualified logistics provider:

Facility Security. A security/safety conscious logistics provider will welcome your on-site visit, and provide inspection and discussion about processes and procedures that include:

- Assurances that all trucks are well maintained, and properly equipped to handle assigned cargo.
- Documentation that background checks have been performed on all employees
- Records indicating numbers and types of claims made against the company for theft/damage
- Documentation affirming compliance with all applicable ISO regulations
- Highly secure warehouse facilities with security systems and closed circuit cameras.
- Physical barriers in place with enclosed cargo handling, shipping and receiving areas
- Physically manned, or electronically controlled gates at all entry/exit points
- CCTV system in place that offers "day/night" coverage of all external and internal areas, including all vehicle storage areas.

Source: U.S. Customs and Border Protection agency

Trusted Trade program member. U.S. Customs and Border Protection (CBP) maintains a trusted trade program called the Customs-Trade Partnership Against Terrorism (C-TPAT), through which businesses voluntarily certify the security of their own supply chains, as well as the supply chains of their suppliers. C-TPAT is a key part of U.S. border protection efforts, and in exchange for their participation, members receive expedited clearance and other benefits. To participate in C-TPAT, a business must undergo a rigorous application process that includes several site visits from CBP agents. C-TPAT membership has become an important way for a logistics provider to demonstrate that it is a secure and responsible supply chain partner. Any business considering enlisting the services of a logistics provider should make C-TPAT membership a key requirement.

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Transported Asset Protection Association (TAPA).
A logistics provider should also meet TAPA requirements for facility and vehicle safety. TAPA is an international association of manufacturers, shippers, carriers, insurers, service providers, law enforcement and government agencies that work together to develop minimum standards for vehicle and facility security.

Shipment Integrity. A shipper must have confidence that shipment integrity will be maintained throughout the transit process. A growing concern among shippers is the seemingly haphazard way shipments arrive: pallets can be split apart with shipments delivered in multiple units, often arriving at different times without either the seller or the buyer receiving advance notice.

A business needs to ensure that its transportation provider understands the importance of shipment integrity and that care will be taken to ensure shipments arrive intact, with no damage. This is critically important since many shipments -- particular B2B shipments -- travel directly to manufacturing sites and are used immediately in assembly processes. Shipment integrity minimizes the risk of an incomplete or faulty shipment, which could have severe economic consequences.

Expedited Services. Many shippers turn to expedited services as a way to ensure the safety and security of critical shipments. Expedited services offer a high degree of customer service and shipments benefit from minimal touches and accelerated delivery. Service options can include air charters, designated couriers, white glove service, two-man driving teams, and next flight out. Expedited services offer unmatched attention to detail, and a high level of peace of mind.

Last Mile Services. "Last mile," or "final mile" delivery – the last leg of the supply chain in which shipments arrive at their final destination – is considered the most critical part of the entire distribution process. For one thing, this is the point at which a delivery actually arrives on time, or it doesn't. In many cases, such as with appliance deliveries, last mile service can require drivers to enter private homes. Last mile is a critical point of customer satisfaction – no consumer wants to come home and find an unprotected package sitting in a rainstorm, or thrown in a nearby bush. Last mile is a particular source of vulnerability, which is why a logistics provider must offer extra precautions to protect against theft and damage.

It's important then, for a logistics provider to offer last mile services that guard against theft, and also ensure shipments arrive on time and undamaged.

- **Advance notice of damaged shipments.** A business that learns a shipment has been damaged while in transit, can notify its customer before the damaged product arrives. The business can offer a partial refund if the buyer agrees to accept the merchandise, which allows the business to retain at least some value from the sale, and can help manage customer dissatisfaction at the prospect of a shipment arriving damaged.
- **Pending delivery notification.** An email or text can be sent to a buyer when a delivery is imminent. This "heads up" allows the buyer time to ensure it has personnel on hand to accept the delivery, or to request a last-minute change. In situations in which delivery personnel will need to enter a private home, a photo of the delivery personnel can be sent in advance, along with a copy of the individual's security credentials.
- **Proof of delivery.** Customers will be notified after a delivery has been made, with detailed information including the destination address, specific location where the package was left, time of day, and the name and signature of the person who accepted delivery.
- **Weather-appropriate packaging.** A last mile service provider can protect a package from rain or snow by taking care to wrap it in a plastic covering, or by placing it in a covered location. A notification sticker should be left on the door, alerting the consumer that the has been left in an alternate location.

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Conclusion

A 2015 report from Allianz Global Corporate & Specialty, an insurer of business and industrial risk, notes a sharp increase in both the number and value of business interruption claims. Company CEO Chris Fischer Hirs cites "increasing interdependencies between companies, the global supply chain and lean production processes" as key contributors. "Whereas in the past, a large fire or explosion may have only affected one or two companies, today, losses increasingly impact a number of companies and can threaten whole sectors globally," he noted.

For businesses that take steps to understand the impact a colossal event would have on their operations, losses and interruptions can be mitigated. Production can be diverted to alternate facilities, inventory sourced from back-up suppliers, and alternate transportation plans activated.

Disruption, loss and damage are very real threats to today's businesses. These threats come in terms of monetary losses and business disruptions, but also in loss of confidence among customers, which can be hard to win back.

Forward-thinking businesses are managing these risks by planning ahead, developing contingency plans and taking advantage of innovations in security and communication. Among the smartest decisions a business can make, is to partner with a highly experienced logistics provider that will prioritize shipment safety and security, and help plan for business continuity should disaster strike.

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Purolator is the best-kept secret among leading U.S. companies who need reliable, efficient, and cost-effective shipping to Canada. We deliver unsurpassed Canadian expertise because of our Canadian roots, U.S. reach, and exclusive focus on cross-border shipping.

Every day, Purolator delivers more than 1,000,000 packages. With the largest dedicated air fleet and ground network, including hybrid vehicles, and more guaranteed delivery points in Canada than anyone else, we are part of the fifth largest postal organization in the world.

But size alone doesn't make Purolator different. We also understand that the needs of no two customers are the same. We can design the right mix of proprietary services that will make your shipments to Canada hassle free at every point in the supply chain.

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References

Atkinson, William, "Stop Load Damage," Material Handling & Logistics, November 1, 2006.

Bowman, Robert, "Trucking Industry Sees Drop in Cargo Theft; Hopes It's a Trend," Forbes, November 12, 2013.

"Building Canada's Infrastructure," PriceWaterhouse Coopers, 2009.

"Building Canada – Modern Infrastructure for a Strong Canada," Infrastructure Canada, September 19, 2011.

"Business interruption claims are on the rise with interconnected global supply chains," Supply & Demand Chain Executive, December 9, 2015.

Cassidy, William B., "Shippers tap expedited carriers to route around, above congested ports," JOC.com, May 5, 2015.

Charlesworth, Timothy D., "Minimizing risk in commercial shipments," Fitzpatrick Lentz & Bubba, April 24, 2015.

Chopra, Sunil and Sodhi, ManMohan, "Reducing the Risk of Supply Chain Disruptions," MIT Sloan Management Review, Spring 2014.

Cortese, Lou, "Reducing the risk of damage, loss and claims," Inbound Logistics, November 2003.

"Deloitte global benchmarking report links supply chain management to financial performance," press release, October 7, 2003.

Dunn, Adriana, "StellaService Study: One in 10 ecommerce packages arrives damaged," StellaService blog post, November 22, 2013.

Flowers, Andrew, "Why we still can't afford to fix America's broken infrastructure," The New York Times, June 3, 2014.

Giguere, Michael and Goldbach, Glen, "Segment your suppliers to reduce risk," Supply Chain Quarterly, Quarter 3 2012.

Greenwood, Tom, "Planking being installed under Ambassador Bridge," The Detroit News, October 27, 2015.

"Inside Cargo Theft," The Federal Bureau of Investigation, November 2010.

Keenan, William, Jr., "The unexpected happens: Is your supply chain prepared?," Inbound Logistics, December 2006.

Lacefield, Susan K., "How to reduce pallet damage," DC Velocity, March 18, 2013.

Lavigne, Grace, "Some West Coast shippers struck with no backup plans," JOC.com, June 26, 2014.

Linnane, Ciara, "Ann profit, sales hit by weak traffic, West Coast port strike," MarketWatch, November 21, 2014.

Llamas, Maria, "Lessons from West Coast ports delays: Planning supply chain contingencies for predictable events," Connect by TMC, January 22, 2015.

Palmer, Jared, "The cargo theft threat," Inbound Logistics, January 2010.

"Pharmaceutical theft is a big and bitter pill to swallow," Dunbar Armored blog, March 23, 2015.

Savage, Luiza Ch., "Why Canada is paying $4 billion for a new Detroit-Windsor bridge," Canada Business, May 22, 2015.

"Severe Weather and Manufacturing in America," White paper from Business Forward Foundation, June 2014.

Simchi-Levi, David, Schmidt, William and Wei, Yehua, "From Superstorms to Factory Fires: Managing Unpredictable Supply Chain Disruptions," Harvard Business Review, January – February 2014.

Skorna, Alexander, Christoph Bode and Markus Weiss, "Risk and Loss Prevention Within the Transport Chain," 20th Annual Conference on Management of Technology, Florida, 2011.

Tang, Christopher, "Robust strategies for mitigating supply chain disruptions," UCLA Anderson School of Management, as appeared in International Journal of Commerce, September 17, 2014.

Transported Asset Protection Association website.

"The real cost of the west coast port strike, pt. 1," Elementum News Desk, April 10, 2015.

Walsh, Dustin, "Snowstorm rattles supply chain: Stopped trucks, closed bridge cause shutdowns," Crain's Detroit Business, December 20, 2010.

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