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Executive Summary

Company X's target market for its security products and services spans the globe. To attract the customers in this market, Company X has developed a security products and services catalog in several languages including English, French, German, Arabic, and Chinese and registered domains in a number of non-US national domain. A key element of this strategy is the direct, international sale of IT and IT security products. To fulfill international orders Company X must support export management, customs clearing, and international shipping capabilities. This can be done internally, outsourcing to a specialty provider, or some combination thereof.

After evaluating several prospective solutions from export management and logistics/shipping companies, Company X made the decision to administer export management and warehousing, picking, and packing tasks in-house, augmented with an export management service (Nextlinx). Commercial shipping providers such as DHL will administer the customs clearance and international shipping functions. Company X configures, packages, and prepares the export documentation for shipments at its facility (with the assistance of an export management service) then in turn a commercial shipping service, who also serves as a customs broker, delivers the product(s). This option provides Company X with the maximum degree of flexibility and control over the business process and becomes cost effective at a low transaction volume of 25 transactions per month.

A key element of Company X's long-term strategy is to provide a capability for the custom configuration of IT and IT security products prior to shipment. Since configuring security products on any scale requires temporary warehousing space for immediate storage and packing of finished goods, the company will require on-site warehousing capability in addition to the loading dock, configuration lab, and call center support. Outsourcing the warehousing function will delay the order fulfillment process by requiring that Company X send its finished goods to an external warehousing facility before the shipment can be sent to the customer.

Integral to the decision to export internationally is the requirement that our staff possess expertise in exporting. Human error in executing an international order will cause serious legal repercussions to Company X. Therefore, it is essential that all staff handling international sales receive extensive training on the basics of export compliance, the export management business process, and understand how to prepare and submit standard export documentation manually. To this effect, Company X requires that its staff receive professional export compliance training.

The highly fragmented nature of the IT security market (both on the customer side and on the vendor side), has created opportunities for specialty resellers such as Company X to expand into a distributor role, using its security product catalog not only to satisfy direct customer inquiries through the catalog site, but to fulfill product requests on behalf of the vendors by storing inventory at the Company X facility. The possibility of an international distribution service using Company X's international marketing and fulfillment system has already attracted interest from Company X's smaller product vendors, most of whom currently lack the capability to fill international orders at all.

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Introduction

This document analyzes the technical, cost, and business process issues involved with selling and distributing vendor products to global markets, focusing specifically on the areas of export and logistics management.

The table below provides a brief description of the main sections of this document.

<ul style="list-style-type: none"> • Business Process Overview 	Provides an overview of the internal business processes required to fulfill a customer order.
<ul style="list-style-type: none"> • International Fulfillment 	Provides a general discussion of the issues faced by Export and Logistics Management organizations.
<ul style="list-style-type: none"> • Comparative Analysis of Fulfillment Providers 	Provides a comparison of various export management solutions and a review of the proposals received.
<ul style="list-style-type: none"> • Facility 	Outlines requirements for facility space
<ul style="list-style-type: none"> • Training 	Recommends mechanisms for training staff on export management
<ul style="list-style-type: none"> • Conclusion 	Utilizing the results of the cost-benefit analysis a mechanism for order fulfillment is recommended.
<ul style="list-style-type: none"> • Appendix A: Logistics Providers Checklist 	Provides Company X's logistics provider requirements.
<ul style="list-style-type: none"> • Appendix B: Business Process Narrative 	Provides Company X's step-by-step procedure for order fulfillment.
<ul style="list-style-type: none"> • Appendix C: Export Management and Logistics Service Providers Proposals 	Provides the proposals and any other information received from service providers.
<ul style="list-style-type: none"> • Appendix D: Base Model Cost Analysis 	Provides a cost analysis for developing the export management capability internally. This baseline is used as a point of reference for comparing and analyzing various service provider options.
<ul style="list-style-type: none"> • Appendix E: Facility Requirements 	Provides an insight into the Net 2000 Law, Facility Requirements, and Approximate Cost.
<ul style="list-style-type: none"> • Appendix F: Future Capabilities and Opportunities 	Provides a high level overview of future capabilities that could result from the establishment of a global fulfillment/logistics capability.

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<ul style="list-style-type: none"> Appendix G: Glossary 	Provides a brief definition of the unique terms associated with exporting and logistics.
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Business Process Overview

This section provides a brief overview of Company X's business process. A complete breakdown of the business process is provided in Appendix B.

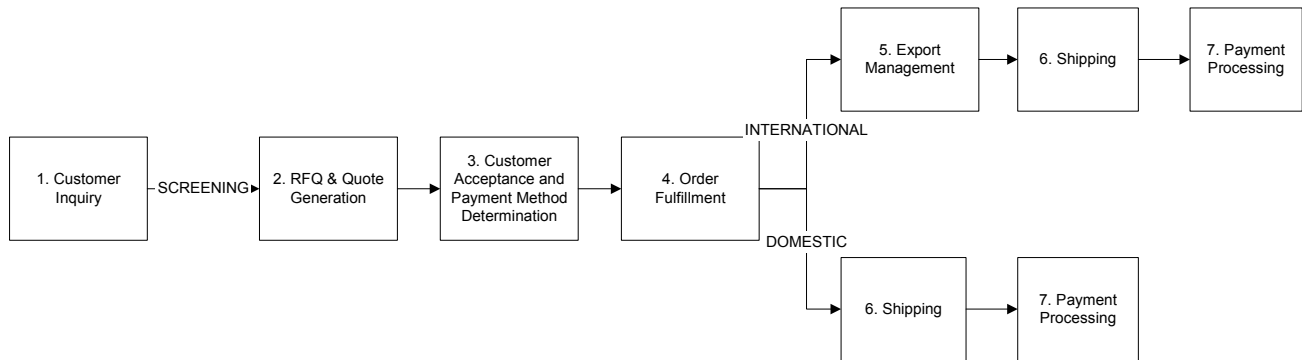


Figure 1: Business Process Overview

The business process consists of the seven key steps described below (six steps for domestic orders—no export preparation required):

- 1. Customer Inquiry.** Customer requests purchasing information for a product from an Company X Customer Service Representative. Company X performs a background check on the customer to confirm that they are not on the U.S. Government's Denied Party and/or country embargo list to whom the company may not sell computer software or hardware ("Screening"). This screening is performed for both domestic and international orders.
- 2. RFQ & Quote Generation.** Once the customer identity has been verified and screened, a quote may be provided. In some cases it may be necessary for Company X to contact the product vendor and obtain a quote for the product. For international orders, IT Global obtains a landed quote (estimate of international shipping costs plus estimated duties and taxes) and includes this estimate in the customer orders. Domestic orders will include actual shipping costs in the quote.
- 3. Customer Acceptance.** Once the customer accepts the quote, Company X performs a credit check to verify funding availability before completing the purchase order cycle.
- 4. Order Fulfillment.** The vendor ships the product either directly to the customer (if no custom configuration is required) or to Company X for bundling and/or custom configuration. Company X will provide all custom configuration services in its own facility. Once custom configuration work has been completed, Company X packages the product for shipment to the customer.
- 5. Export Preparation.** Should it be determined that the item(s) being shipped require additional export documentation (based on the harmonized codes of the particular items and/or the destination country), Company X must have the export documentation prepared and included

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with the shipment.

6. **Domestic/International Shipping.** The shipper picks up the finished goods from the Company X facility and ships the product to the customer. At this point, Company X processes the customer's credit card. For international shipments with door-to-door service, the shipper will administer customs clearance and inland travel to customer's door.

7. **Payment Processing.** Company X charges the customer's credit card, or issues the customer an invoice, mailed separately from the shipment.

International Fulfillment

This document analyzes international fulfillment process (See Figure 2), which includes export management, customs clearance, and international shipping. Export Management tasks (shaded boxes in Figure 2) include export preparation as well as customer screening against the BXA Denied Party List and the estimate of landed cost for international shipments. Within the international fulfillment process, only the area of export management provides a variety of options from which Company X may determine the most appropriate solution. Both customs clearance and international shipping must be handled through a commercial shipper (i.e., DHL, FedEx, Airborne).

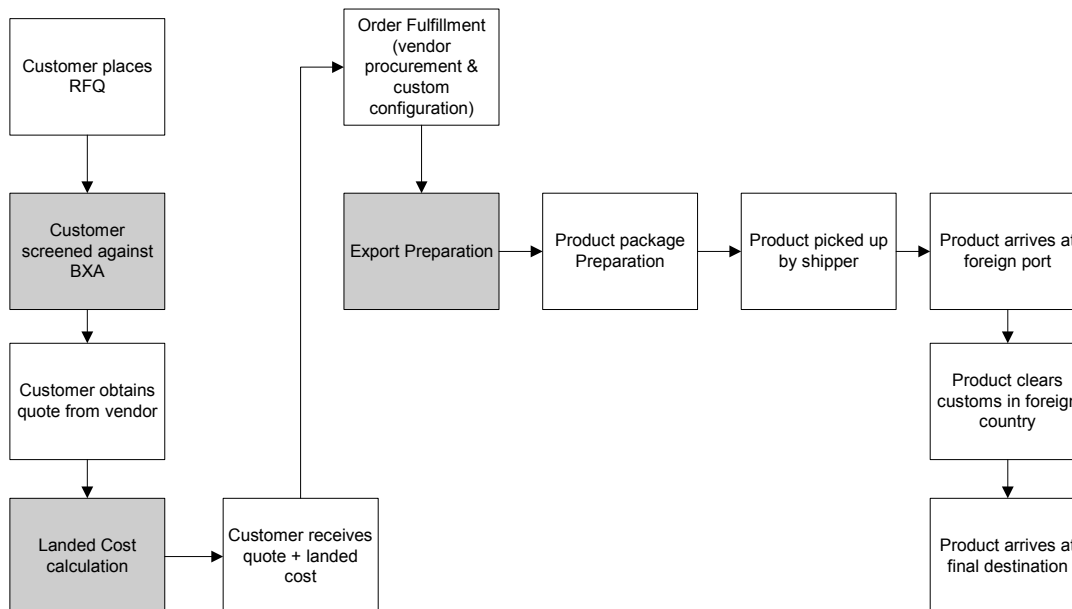


Figure 2: International Fulfillment Process

As export management is the only function in the international fulfillment process over which Company X has some flexibility the transaction execution, this document focuses only on the solutions for export management, with the assumption that the remaining two functions of international fulfillment – customs clearance and international transportation—will be handled by

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a commercial shipper such as DHL. The chosen export management solution will satisfy all export requirements without creating any redundancies in the business process.

The complete international fulfillment solution will satisfy all requirements for export management, customs clearance and international shipping. These requirements include:

- Export management, subdivided into:
 - Denied party screening
 - Export regulation determination according to a product's harmonized code
 - Landed cost calculation
 - Export documentation generation
 - Export documentation preparation
- On-site facility space for temporary storage for finished goods inventory and package preparation
- Customs clearance/brokering (Import management)
- Domestic and International Shipping

In addition, the complete international fulfillment solution should have a relatively low implementation cost as well as be scalable, able to increase its capacity as the company grows.

After determining that Company X would use its own space for temporarily warehousing finished goods as well as use the services of commercial shippers for customs clearance and global shipping, Company X restricted its analysis of international fulfillment solutions to export management solution providers. These solution providers fell into three main categories:

1. Managed Service Provider: administers all export management functions on a consultant basis (mostly manual) then delivers shipments to international shipper for customs clearance and international transportation.
2. Export Management Service Provider: provides software tools for Company X to manage its own export management functions.
3. Logistics Management Service Provider: provides export management assistance as part of a complete supply chain solution. (Requires minimum warehousing commitment at off-site facilities).

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Comparative Analysis of Export Management Solution Providers

This section provides a look at the products and services available from managed service providers, export management providers, and logistics management providers. As a basis for comparison, Company X mapped the costs for administering the entire process with only export training and no additional external service provider hereafter referred to as "No Export Management Service)

Solution 1: Managed Service Provider

- The Managed Service administers all export compliance checks, prepares and signs all related export documentation, and delivers documentation to shippers to ship package. No Company X staff required during transaction.
- The service handles all export-related transactions associated with an order from point of customer screening to delivery of package. The service is a mix of manual and automated processes. Fees are charged on a per transaction basis.
- Effect on business:
 - *Gain additional resources.* By outsourcing export management, Company X can redirect internal resources toward other facets of the business.
 - *Minimal impact on staffing and processes.* No additional Company X staff would be required. One current staff member would serve as a liaison between the company and the managed service provider.
 - *Loss of flexibility and control.* Outsourcing results in a loss of corporate control and flexibility in how it structures its international business workflow, influencing future business decisions.
 - *Reduces risk of export violation.* Managed service provider has in-house trade experts.
 - *Requires establishment of relationship with shipping provider.*

Proposals: Managed Service Provider

Vastera

Vastera, Inc.'s Managed Service combines export compliance screening, export documentation creation and generation, landed cost calculation, shipment tracking, creation and maintenance of an Company X trade database. The strengths and weaknesses associated with the Vastera service are identified below.

PROs	Weaknesses
Minimizes impact on Company X staffing,	Reduces Company X's control over the

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processes and training	export/import process
TradeSphere Database is the exclusive property of Company X	Must procure Oracle license to for the TradeSphere Database should the relationship be discontinued.
Reduces internal risk of export/import regulation violation	
Provides economies of scale based on monthly transaction volume	
Automated process for compliance review, denied party screening, landed cost	

Table 1: Vastera Strengths & Weaknesses

Vastera : Costs

- Labor time for initial implementation of service (Company X hours).
- Software integration fees (estimated at approximately \$110,000 based on time and materials for integration of system).
- Transaction fee (\$175-200/transaction for 50 transactions, cost per transaction decreases as volume increases).
- Training on export compliance (\$2500)

Solution 2: Export Management Provider

- Company X works with export management service (integrated with Company X website or independent site) that stores all customs requirements, documents, updated regulations, duties, VAT, and taxes for all countries in one central location.
- The service screens customers against BXA's denied party list and embargoed country list, and notifies Company X as required.
- The service generates any required export documentation (utilizing the harmonized code of items in the shipment). Company X prints out the documentation signs it and includes it with the shipment.
- Effect on business:
 - *Greater flexibility and control over the export-import process relative to Managed Service Solution.* Company X may choose the export services most appropriate for its business model and modify these services as requirements change.
 - *Streamlined export management.* Having export information in one central repository reduces time necessary to process international sales requests, reducing amount of internal resources expended.

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- *Reduced risk of export violations.* Export management service has in-house trade experts. In addition, Company X will have final quality check over all documentation prior to shipment.
- *Greater impact on staffing and business process relative to the Managed Service solution.* Company X staff is required to query the export management service for each shipment and print out and sign export documentation.
- *Requires establishing a relationship with a shipping provider.*
- *Requires Company X staff training.*

Proposals: Export Management Provider

An Export Management Provider offers all customs requirements, documents, updated regulations, duties, VAT, and taxes for all countries in one central location.

NextLinx

NextLinx is a subscription service export management company that provides Denied Party Screening, Export Controls, Documentation Generation, and a Landed Cost Calculator. This solution was created to allow organizations to administer their own export management functions. The strengths and weaknesses associated with the NextLinx Service are identified below.

<i>Strengths</i>	<i>Weaknesses</i>
Reduces risk of export/import regulation violation by pulling all information from a central repository	No economies of scale based on monthly transaction volume
Company X has more control over the export/import process	Impacts on Company X staffing, processes and training

Table 2: Nextlinx Strengths & Weaknesses

Qiva

Qiva provides logistics management tools for commercial carriers & transport service organizations. It's export management service is a component of the total software package. As this product is designed to work with organizations with an extensive inventory management system—not a strict reseller—its product is inappropriate for Company X. No further discussion of this product is included in this report.

Solution 2: Costs

- Labor time to print out documents and sign.
- Training on export compliance (approx. \$5,000).

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- Software subscription fees (approx. \$150,000).
- Software integration fees (approx. \$5K)
- Software transaction fee (estimated at \$1 per transaction for first 2000 transactions, \$1.25 transaction after 2000).

Solution 3: Logistics Provider Solution

- The logistics provider offer global transportation services including warehousing, inventory management, shipping and export/import documentation services. Requires no additional arrangement with international shipping provider.
- These services are vastly different from both the managed service and export management service company. As a result, implementation of a logistics solution would require significant investment of Company X resources (including staff, complete process adjustment, and training time).
- The logistics provider solution requires that Company X warehouse finished goods inventory in an offsite facility.
- Since implementation of the logistics provider solution requires the separation of system configuration from warehousing (in direct opposition to the key requirements for the company), no logistics solutions were considered and no further analysis of these options performed.

Proposals: UPS eLogistics, Airborne, DHL Logistics, iLogistics, iLink

The services offered by logistics providers are vastly different from those offered by Qiva, Vastera, or Nextlink and have considerable impact on Company X staffing, process and training.

In addition, the logistics provider solution requires that Company X warehouse finished goods inventory in an offsite facility, creating redundancies in Company X's business process.

Solution 4: No Outside Export Management Service

- Company X uses shipper's sites and Department of Commerce to determine what documentation required and pulls templates from their site to prepare shipment.
- For each transaction, IT Global screens customers against Denied Party, and screens each item in the shipment against the export restriction list for the ship-to country.
- IT Global prepares paperwork and ships product through commercial shipper.
- Effect on business:
 - *Complete control and flexibility over business process.* All steps in the business process until point of shipment are handled by Company X.

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- *High risk of export regulation violation.* Since human intervention is required to screen customers and generate paperwork, there exists a high risk for export violation.
- *Heavy use of internal resources.* As volume increases, the total amount of staff time required to investigate and prepare international orders becomes large, requiring Company X to hire additional staff dedicated to handling export management. After 70 transactions per month, this solution becomes more expensive than any other solution.

Solution 3: Cost

- Labor time required to manually screen order, pull documents from website, training, document preparation, and obtain landed cost for each transaction. (Estimated at 3 hours per country. One person can handle a maximum of 50 transactions per month).
- Training on export compliance (approx. \$5,000).
- Consulting costs for querying outside consultants on an as-needed basis.