



Creating Global Trade Efficiencies



A BUSINESS WHITE PAPER BY OPEN HARBOR



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Executive Summary

Sourcing and selling globally are the driving force of the 21st century, as surely as industrialization drove the 20th century's economy. This extraordinary growth of international trade means opportunity... and risk exposure. Opportunities lie in the penetration of new markets and increased profit margins. Risks arise out of ever-changing trade laws and increasingly complex compliance issues.

Compliance performance requires keeping up with a massive body of fast-changing trade regulations data, commonly referred to as "content." This information must be instantly available to all stakeholders across the entire value chain. Simply extending manual processes to access and manage this content across global supply chains results in costly inefficiencies.

If global content and its associated trade processes are not automated and managed in real-time, risks of compliance failure can entail operational delays, fines, and impaired profitability. Companies may even lose the privilege to conduct business internationally.

Optimizing Global Trade

As the first and only suite of integrated trade solutions, Open Harbor brings a new level of efficiency to global trade. Open Harbor's global platform of real-time trade services is based on three key enablers:

- *Real-time global trade content* in a constantly-updated central database
- *A unified, collaborative view* of rules-based content, allowing supply chain partners to manage complex international transactions from any country to any country in real-time.
- *A mission critical, industrial services platform* that allows rapid integration with existing systems for quick ROI.

The Open Harbor solution supports a variety of trade services—including on-line access to a global product catalog, landed cost calculation, import and export compliance, restricted party screening, document generation, archiving and reporting, and customs clearance. These innovative services not only ensure vigilant compliance, but also maximize supply chain velocity.

The resulting efficiencies directly impact profitability. In some cases, streamlined international trade logistics processes can lower the cost of goods sold by 10% and double profitability, leading to significant competitive advantages.

Global competition drives phenomenal growth in cross border trade.

According to a McKinsey study, global trade will increase twelve-fold, from 28 trillion to 91 trillion US dollars between 1997 and 2027. ⁱⁱ Kenichi Ohmae and other economists believe that free flow of goods will create a borderless worldⁱⁱⁱ. Emerging trading blocks such as NAFTA, EU and the ASEAN, have further fueled cross-border trade while protecting local labor and talent. All these factors create opportunities to deliver competitive advantage in the marketplace. They also present new challenges that could hamper the profitability or even the survival of a business.

This combination of massive trade volumes, complex regulations, as well as customers' increasingly rapid delivery requirements mandate new approaches for managing global businesses.

Real-time compliance is essential.

Trade compliance is defined as “the process of ensuring that cross-border trade complies with the exporting country’s and the importing country’s regulations and can thus clear customs.^{iv}” The advent of preferential trade agreements, combined with the continuing battle of protectionism and emerging global terrorism create a maze of compliance requirements.

Each international transaction, for example, needs to be checked for compliance with potential trade sanctions against the importing and exporting country, and against business entities and individuals involved in the trade. Compliance requirements also include licenses, import and export documents, payment of duties and taxes and satisfaction of applicable quotas – all of which depend on rules and regulations based on the country of origin, the product’s classification and intended use, as well as the countries of import and export.

The burden of ensuring that all trade complies with the appropriate rules and regulations -- and they change almost daily -- falls on trade experts. This process is time-consuming, labor intensive, and prone to errors. Manual processes make it almost impossible to keep up with this multitude of fast-changing country data. The result is significant risk of compliance errors that can be costly from a financial as well as a political perspective.

Examples of the magnitude of global compliance inefficiencies include:

- Imports into the US exceeded \$1 trillion last year.^v A recent study revealed that 10% of all imports into the United States experience fines and delays^{vi} arising mainly from non-compliance.
- 7% of the value of international trade is spent annually to administer customs regulations and documents.^{vii} This is still largely a manual process.
- Some industry analysts estimate that almost 28% of the entire Cost of Goods Sold (COGS) arises from logistics on a global scale.^{viii} Half of this cost stems from physical movements of goods, and the other half from duties, indirect taxes and related process overhead.

Table One: Global Cost Breakdown of “Product X”

Final selling price of “Product X”:	\$110.00
Total cost of “Product X”:	\$100.00
Incl. costs associated with taxes and duties : 14% of COGS:	\$14.00
Incl. costs associated with customs & paper inefficiencies:	\$7.00



Trade content changes frequently.

Access to accurate, “up-to-the-minute” trade content is a vital characteristic to survive in today’s volatile global market. This content includes some of the following: restricted party lists, duties and tariffs, embargoes and sanctions, restricted commodities, quotas, proliferation controls, intended use and end-use regulations, as well as license determination criteria. It evolves constantly as new rules, regulations and amendments are introduced.

Keeping such content current requires daily use of dedicated resources. Forrester research, for example, analyzed the bottlenecks to global business,^{ix} and found that over 47% of responding companies used third party sources to complete regulatory and compliance work. Yet, 53% of respondents had no idea of how frequently their trade content was updated.

Companies making decisions without access to the latest data are liable to incur the following risks:

- Miscalculation of total landed costs^x
- Higher total cost of goods sold resulting from fines and inefficiencies
- Business transactions with restricted parties
- Sale of goods to parties not authorized to receive a particular type of good
- Shipment delays resulting from incorrect documentation
- Loss of international trade privileges due to non-compliance.

Delivering the appropriate information directly to the decision-makers’ desktops is particularly critical. This issue becomes even more challenging as today’s global supply chains become increasingly complex and large segments of the information chain remain manual.

Today’s trade systems cannot support complex supply chains.

Global trade management systems -- the linchpin of international trade efficiency -- have languished unnoticed in back rooms as global supply chains have emerged as a competitive mandate.

Today, most companies phone, fax or mail information on orders, changes, and shipments to their overseas partners. This process is labor intensive. Work that originates in one department is recreated, retyped, or re-keyed in another, dramatically increasing errors and delays. Traditional solutions have approached the challenges of global trade by providing tools that address particular tasks within functional silos -- including landed costs, compliance screening or document generation -- using older

computing methods, such as client-server technology. This focus on automating individual tasks has led to a vast array of non-integrated technologies along the global supply chain.

The complexity of international trade processes also increases with the number of supply chain partners. Logistics experts estimate that in an end-to-end transaction -- from sourcing to the time a product reaches the customer -- at least 27 different parties and systems are actively involved with a product and its associated information. The links between logistics processes and trading partners often remain paper-based. They lack the real-time information and uniform view of global trade content that would allow efficient management of transactions.

Current Trends: inefficiencies, high costs and customer dissatisfaction.

The combination of global trade expansion, ever-changing content and compliance requirements, as well as supply chain complexity can have a crippling effect on trade participants. These challenges include the following:

- Customs clearance delays
- Variances between actual costs and estimates
- Penalties, fines and political fallout
- Process inefficiencies, delays and cost increases.

To answer these challenges and turn them into opportunities, organizations need to implement a global trade management system with the following capabilities:

- Access to real-time trade information to make decisions, ensure compliance and generate trade documents.
- Flexible links to global supply and logistics chains - and to a common set of information available in real-time to all stakeholders, irrespective of each party's back-end technologies.
- Trade process automation – by replacing today's manual procedures with consistent processes to save time, reduce costs and maintain global compliance.

To meet these international trade challenges, Open Harbor has developed an industrial-strength^{xi} services platform that delivers access to real-time global trade content. This solution is built on a foundation of real-time, any-to-any country^{xii} content, as well as integrated trade applications. These integrated services offer a unified view of transaction data to all global supply chain participants (both internally and externally), allowing them to see and manage any international transaction in real-time.

What's more, this Solution integrates easily with existing systems. Open Harbor's centralized, collaborative hub of trade provides transaction intelligence, automated cross-border trade processes, and the capabilities for all stakeholders to view and work from the same consistent information in real-time.

Meeting information needs with real-time trade content

Access to real-time trade content is essential to make the right decisions. Open Harbor verifies both import and export compliance with country-specific trade regulations, procedures, tariffs, laws and administrative rulings. The service also screens for embargo and boycott status, denied person status, export licensing determination, and compliance with preferential programs, such as NAFTA.

Open Harbor's trade content is sourced directly from each government's sanctioned trade authority. It also undergoes rigorous analysis by in-house compliance and trade experts before it is uploaded into the system. Daily updates ensure the highest level of accuracy. Since users access this content via a web-based service, they benefit from the latest trade data available. This also means, that, unlike client-server solutions, they don't have to wait for a software update to access current trade content.

Powered by comprehensive, real-time content, the Open Harbor solution automatically generates the required import and export transaction documents, and distributes them to all global supply chain participants. A rules-based system selects and returns the appropriate documents for each shipment based on such variables as product, industry, import & export countries, and mode of transport.

What's more, the Open Harbor solution not only ensures a high level of compliance due diligence, but also automated capture of all shipment transaction history. This greatly simplifies record-keeping requirements and government audits. Records can be edited, while the system maintains an audit trail of all changes. This ensures consistency and integrity of information across all processes, systems and stakeholders, resulting in fewer errors and delays caused by missing or inadequate documentation.

Solving automation & supply chain challenges with leading edge technology

The Open Harbor solution, based on open standards, ties together trade content, processes and supply chain partners. An adaptive workflow engine also allows rapid integration of trade services with existing supply chain systems.

The Open Harbor solution is based on flexible standards including XML, SOAP, and Java. Built on an “N-tier” architecture consisting of a database back-end, a middle layer application server and a front-end software interface, it allows the scalability and flexibility needed to support a variety of services, countries, and users. The solution is delivered as a web service through an industrial-strength, scalable, and secure hosted platform.

Open Harbor links to customers’ internal and external supply chain systems by using a set of adapters for various ERP, WMS^{xiii}, SCM^{xiv} and specialized government systems. This solution overcomes the challenge of pushing data to fragmented systems. The result is a homogeneous global system that provides trade partners with a single view of global transactions.

Powered by real-time content, it is completely integrated to optimize process automation. It also supports “any country to any country” transaction processing and can easily be extended with new functionality. An expanding list of integrated services includes:

- Global Product Catalog^{xv}
- Compliance Screening^{xvi}
- Restricted Party Screening^{xvii}
- Landed Cost Calculations^{xviii}
- Document Generation^{xix}
- Customs Clearance Automation Service^{xx}
- Broker Feedback Loop^{xxi}

Reporting & Archiving of transaction history Built-In Automation

Open Harbor’s Adaptive Workflow engine and its associated business rule processing are the key to the system’s *exception-based management* capabilities. This system automates most transaction processes while flagging exceptions for inspection. It increases trade efficiency and allows trade experts to focus their efforts on solving the larger, more complex trade issues.

Finally, a built-in feedback loop lets customers receive real-time feedback from any trading partner -- from the procurement officer to the customs officer -- should a local subjective decision change a transaction associated with a particular product. The system captures this information and integrates it for future use.

The Open Harbor solution also automates cross-border transactions based on a client’s business processes. The following illustrates a typical sequence of events in an Open Harbor-enabled transaction:

- An order enters the Open Harbor system -- possibly from an ERP system -- and automatically references the Global Product Catalog with the associated country of origin, classification, and rules data.
- The system calculates the landed cost and runs a compliance (import & export) check. A compliant order proceeds unimpeded. If an exception to compliance is detected, the trade expert receives a flag to review that order.
- The system automatically generates the appropriate trade documents, which can be accessed by all members of the supply chain. This is followed by auto-manifesting by the appropriate parties.
- The product ships, customs is cleared (export and import) and the shipment arrives at its destination.

Throughout this process, all the appropriate transaction data is captured and archived for future reference.

The Open Harbor Advantage

Open Harbor's unique combination of real-time trade content and technology delivers many benefits in managing global supply chains. Operational efficiencies and reductions of corporate exposure include the ability to:

1. *Make intelligent decisions* – Take advantage of global opportunities by making the right decisions based on the most current information available.
2. *Accurately access landed cost to source and sell intelligently* - Determining the actual cost of shipping products is a daunting task, as a result of changing regulations associated with country-specific tariffs, duties, and taxes. The Open Harbor service calculates taxes and total landed cost based on real-time trade content. This accurate view of costs provides an advantage when making purchasing decisions, and allows better sourcing practices. On the sale side, the service provides the ability to quote accurate prices to end-customers. It minimizes the problems and costs associated with reverse logistics arising from incorrect pricing. The result is better customer service that translates into higher revenues and an improved bottom line.
3. *Avoid fines* - 10% of all imports into the United States experience delays and fines due to non-compliance^{xxii} and improper documentation. Shipment delays erode the value of time-sensitive goods, whereas fines have a catastrophic effect on low margin goods. By providing up-to-date content for compliance and documentation, as well as adapters into government systems and a customs feedback loop, Open Harbor helps customers avoid the fines and delays associated with non-compliance and incomplete or inaccurate documentation.
4. *Increase productivity and efficiency* – By automating content gathering and trade services, Open Harbor increases productivity and efficiency:
 - *Trade process automation* frees up trade and compliance experts to manage by exception and focus on key issues.

- *A broker feedback loop* captures corrected information and feeds it into the system, so that customers can avoid repeating mistakes.
 - *The Customs Clearance Automation Service* integrates the systems of carriers, forwarders and brokers, obviating the need to re-calculate and re-key trade data.
 - *The Trade Documentation Service* determines documentation requirements, produces the necessary documents, and transmits them before a shipment leaves the dock. This eliminates document preparation time, as well as the time when goods sit at various points in the process waiting for documentation.
 - *The Restricted Party Service* automates the checking of all transaction parties against restricted party lists, eliminating the need for trade experts to review all transactions.
 - *The Global Product Catalog* provides a central location to store a product's international trade data, eliminating the need to re-classify or research each product for every shipment
- These automated processes free up trade experts to focus on major issues as opposed to mundane activities, such as data entry, collection and verification.

5. *Ensure that your corporation does business with lawful entities.* Since 9/11, the importance of trading with legal entities has significantly increased, especially in the case of dual purpose goods. Open Harbor updates trade content daily, drastically reducing risk exposure to audits, fines or loss of license.
6. *Protect your privilege to do business internationally.* Regulatory non-compliance can cause the loss of international trade privileges. Open Harbor's real-time trade content and integrated trade services provide a consistent compliance process, which drastically reduces the risk of such a loss.
7. *Improve International Customer Relationships.* Traditionally, exporters have not been concerned with the import clearing process. As a result of competitive pressures, however, exporters are now showing interest in this process, as it can significantly impact customer service. Using the Open Harbor Solution, exporters can now easily work with importers to ensure smooth and timely delivery.

The Profit Imperative – Creating New Business Options.

Open Harbor clients estimate that the Open Harbor solution can generate savings of 60% to 80%^{xxiii} on international trade and logistics operations. This value assessment is based on a reduction of international trade overhead through automation and increased efficiencies. The resulting overhead reduction increases profitability and allows for new trade strategies in the marketplace.

To observe the solution's effects on the bottom line, consider again the impact of inefficiencies and duties on the total COGS (see table One). By using the Open Harbor solution, customs and paper inefficiencies from incorrect information and documentation are eliminated. Process automation generates a conservative savings estimate of 10% on indirect tax/duty costs and their associated overhead.

Table One: Global Cost breakdown of "Product X" from previous example

"Product X" final selling price:	\$110.00
"Total Product X" cost:	\$100.00
Incl. costs associated with taxes and duties (14% of COGS)	\$14.00
Incl. global trade costs associated with customs & paper inefficiencies	\$7.00

Total savings

Savings on paper and customs inefficiencies	\$7.00
Savings on duties, taxes and associated overhead through automation and avoidance of fines	\$1.40
Total savings by automating and removing inefficiencies	\$ 8.40
New Cost of Goods Sold	\$91.60

Such an impact on the COGS allows companies to consider new business options, including:

Option One: Increase profitability while keeping the selling price constant

The company earns \$ 18.40 or a 20.1% return on sales compared with – every other parameter remaining constant -- previous earnings of \$10 and a 10% return. Without such a solution, the company would have to raise its international sales by 84% to achieve the same dollar return. This type of profit margin increase allows companies in such industries as High Tech and Pharmaceuticals, which are driven by innovation, to achieve break-even and recoup their investments earlier during new product introductions.

Option Two: Increase competitiveness while keeping profit levels constant

If the company chooses to maintain its 10% mark-up, it can lower its selling price to \$100.76 -- a 9.4% reduction from the previous selling price of \$110. Such an alternative would provide a competitive edge in industries such as Consumer Packaged Goods and Chemicals where costs are rising and competition is primarily driven by price.

The resulting savings and increased competitiveness can lead to entirely new business strategies. They can also quickly change an industry's competitive structure in any company's favor.

Conclusion

The explosive growth of international trade requires that trade participants access the most current information for effective decision-making. Today's manual trade management processes, however, when extended across complex supply chains, create inefficiencies that can result in delays, audits and fines.

Global trade compliance is driven by ever-changing trade content. If this content, as well as the associated trade processes, is not automated and vigilantly managed, a company will make decisions based on outdated trade data. Inefficient processes can also lead to delays, penalties, and even the loss of export/import privileges.

Open Harbor is the first and only suite of integrated trade services to provide global trading partners with a unified view of real-time trade content. Built on rules-based, "any-to-any country" content, this collaborative view, allows supply chain participants to proactively manage international trade processes. These global services not only maximize supply chain velocity, but also ensure vigilant regulatory compliance.

Leveraging an industrial-strength services platform, the Open Harbor solution also integrates easily with existing systems and provides rapid, under 30-day deployment to achieve quick ROI.

This solution quickly translates into efficiencies that directly impact profitability. These efficiencies can, in some cases, lower the total cost of goods by 10%, and raise profit levels by 100%, leading to significant competitive advantages.

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- ⁱ See Profit Imperative Calculations of estimated savings and impact on profitability
- ⁱⁱ Getting to Global, McKinsey Quarterly, 1999, Volume 4
- ⁱⁱⁱ Borderless World, Ohmae Kenichi
- ^{iv} e-Global Logistics, Stephens Inc. 2000
- ^v WTO and US Department of Commerce estimates
- ^{vi} The extended supply chain, Line 56 as a part of its continuing series on the Business Ecosystem
- ^{vii} UN report
- ^{viii} Gartner estimate and analysis
- ^{ix} Delivering Goods Globally, Forrester Research August 2000
- ^x Total landed cost refers to the all inclusive cost – including duties, taxes and ancillary charges to the buyer – Stephens Inc. in e-Global Logistics © 2000
- ^{xi} secure, scalable, reliable, and extensible
- ^{xii} content to allow customers to conduct business from any nation to any nation. Currently the solution allows for a 60 by 60 capability representing 98% of global trade
- ^{xiii} Warehouse Management Systems
- ^{xiv} Supply Chain Management tools
- ^{xv} Allows multi-national customers a central location to store the international trade characteristics of their products. Bundled with it is an Interactive Classification Tool – a tool that allows to arrive at the exact HTS code
- ^{xvi} This service provides comprehensive import and export compliance functionality
- ^{xvii} Allows customers to screen all parties in a transaction against government restricted party lists, embargos and sanctions
- ^{xviii} The service calculates import duties, export duties, taxes and/or fees for a particular country. The service supports programs, such as NAFTA and flags transactions that are subject to anti-dumping or countervailing duty programs.
- ^{xix} The service generates the required import & export documents and then distributes them to all parties concerned
- ^{xx} The service integrates with ERP and Supply Chain systems, manifesting systems, customs broker systems and many countries' customs entry systems, so all parties have access to the information necessary to complete their portion of the transaction.
- ^{xxi} Service allows the broker to return detailed information to customers about trade data pertinent to the clearance process. The system allows the customer to improve predictions about costs and performance of the customs clearance process
- ^{xxii} Line 56 "The Extended Supply Chain" as a part of its continuing series on the Business Ecosystem
- ^{xxiii} Open Harbor and Customer estimates