SOLAS VGM
The Tipping Point for Shipping Industry Transformation

TRADE TECH
Logistics Cloud Computing
The international maritime shipping industry is experiencing an unprecedented amount of industry changes in a short amount of time. The requirement to verify all container weights strikes at the core of business. The realization that cargo weights have been grossly misrepresented has raised questions about the safety of megaships and their insurability and finance options. The industry must be prepared as SOLAS VGM will soon be implemented and enforced globally.

Additionally, waves of national security and customs regulations are hitting the international maritime shipping industry. As an industry that is characterized by a series of information and documentation “hand offs,” new compliance requirements make these increasingly complex to handle. The ability to quickly adapt to new regulations and streamline hand offs is the top issue in the industry.

In the wake of these challenges, the inadequacies of the current data flow process in the industry have become more apparent. The current manual communication process is disjointed and too slow to support these initiatives.

Communication within the supply chain must evolve and the industry must adopt a multi-party, collaborative environment that combines real-time communication and information sharing with workflow management from origin to destination. The outcome will be far greater efficiency in both the supply chain and terminal operations around the world.

One such solution
Trade Tech’s Syrinx e-Shipping Portal (Syrinx) solution gives businesses the agility to quickly respond to new regulations and automate the handing off of required information and documentation. Only cloud technology can effectively unify the people, information and processes in a global industry. Syrinx fully leverages the cloud to provide real-time communication, data sharing and workflow management.

Why the Cloud?
The international maritime shipping industry is a global industry with data being shared across borders and oceans. While existing enterprise resource planning (ERP) systems are extremely powerful inside the firewalls of the corporate world, they are immensely expensive to extend on a global scale. In many cases, legacy systems can become brittle as they grow and harder to adapt to changes. In addition, their ability to facilitate international trade or global supply chains, or provide a working environment with outside parties is limited.

Built on cloud technology, Syrinx users can gain access from any computer, tablet or smartphone using a secure login and password—anywhere around the world. The reach of the cloud enables the captured information to be handed off electronically to the next party system in the chain. The cloud-based solution removes the need for costly infrastructure investments and eliminates the need for owning, installing and customizing software. With Syrinx, you simply subscribe, configure and use. Trade Tech continuously adapts the solution to meet regulatory or industry changes without interruptions to your business.

Traditional Solution = Application

Why the Cloud?

Syrinx Solution = Application + DATA + CONNECTIVITY

Traditional software companies offer only part of a solution by delivering applications, but not the data to bring them to life. Trade Tech, on the other hand, delivers a business ready solution that combines both application, industry reference data and active connectivity.

Bringing everyday connectivity to the international maritime shipping industry
Today, almost all of us take for granted the mobility of the internet and social media. The majority of the population has smartphones and are familiar, if not compulsively addicted to accessing email, websites, Facebook, LinkedIn, Twitter, and all other forms of media at home, at the office, on the road and even in social settings.

Why is it that we don’t apply these concepts in our work environment?

Since a cloud-based solution enables mobile data entry, data can be entered on the road and around the clock instead of waiting until offices open.

Changing the way the international maritime shipping industry communicates

With Syrinx, the industry now has a solution that provides real-time communication, global connectivity, data sharing, shipment visibility and workflow management it needs to succeed.
Flexible workflows
Forwarding cargo involves a number of moving parts and multiple parties. Supply chains must be well organized in order to keep shipments moving.

Workflows automate the supply chain and define standard operating processes for all types of shipment movements. A workflow tells the parties involved what actions need to happen during the process, where and when those actions need to take place and the vendor or person assigned to complete those actions.

Workflows have two phases—planning and execution.

Controlling parties set up shipment workflows and assign various vendors to provide services as called for in the shipment process. Each action in the workflow contains the following information:

- Assigned event (i.e. Load containers)
- Assigned vendor name and reference number (i.e. Tommy’s Trucking, #123478)
- Event location (i.e. Manufacturer warehouse, 123 Warehouse Road, Big City, VA)
- Scheduled time when event should take place (i.e. Monday, July 11, 2016 at 9:30 a.m.)
- Actual time event took place (i.e. Monday, July 11, 2016 at 9:45 a.m.)

The two phases of the workflow process are planning and execution. During the planning phase shippers set up a shipment specific workflow. The execution phase begins when the controlling party sets the first action in motion. The execution phase runs 24 hours a day, 7 days a week and involves all vendors, as well as the controlling parties.

Syrinx has the unique capability to go on auto pilot throughout the execution phase of the shipping process. The flexible, collaborative workflow environment gives controlling parties the ability to customize workflows and assign tasks based on the shipment during their planning phase. The collaborative environment within Syrinx empowers users to enter the information needed to move the shipment along when it is captured. The shipper can now focus on handling exceptions. These are detected early, visualized and resolved quickly in the collaborative environment.

Controlling parties set up shipment workflows and select vendor.

Executing parties perform tasks assigned by controlling parties.

Controlling parties set up the shipment and select vendor.

Executing parties perform tasks assigned by controlling parties.
Real-time collaboration

The cloud environment empowers all authorized parties to collaborate to execute a complex process. Syrinx provides each party with a “Work in Progress” view of the shipment workflow—this view is based on assigned roles or workflow. Controlling parties can view all events within the shipment workflow while executing parties only see the events assigned to them.

Vendors see a compiled list of containers assigned in their Work in Progress view when they log into the system using one secure username and password. Instead of multiple screens or logins, Syrinx compiles assignments from multiple controlling parties into one easy-to-read view.

The collaborative cloud environment means vendors can see who they are working with and can invite each other to communicate directly to coordinate actions.

In addition, each party is granted read and write permissions to the data set to which it is assigned.

- A trucker sees that they are to load a container from the warehouse and enter the weight received from the scale operator and container number into Syrinx.
- The trucker has read only access to: the size of the container, name of the warehouse, and the scheduled load date and time.
- The trucker is allowed to confirm actual load time and capture information about the weight received from a certified scale operator.
- Trucker can enter information into Syrinx via mobile smartphone or tablet.
Increased visibility and control

In order to obtain control and can make changes before a problem develops, visibility needs to be gained starting at the first mile. However, in the current environment obtaining visibility from the first mile to the last mile has been a big challenge, making it an essential time to change.

With Syrinx, there is a clear concept of when the truck left the warehouse (method one) or when the truck left the scale (method two) because the trucker is entering in the information to calculate VGM as soon as they receive it.

The current communication process must move from disconnected and incompatible systems with limited visibility to a cloud-based portal where all parties can see the data that is relevant to them as soon as it is entered in order to move data quickly.

With Syrinx’s end-to-end, real-time visibility shippers see missing or incorrect data, or other issues along the supply chain, and make change before becomes a problem. Shippers are empowered to take control of the process.

Poor visibility along the supply chain means extra steps for shippers and freight forwarders. They have to reach out to vendors each step along the way to collect data and manually check on the progress of the shipments. Increased visibility and control overall throughout the life cycle of the shipment shifts the shippers and freight forwarders role from data administrator to shipment manager.

Shippers and freight forwarders have set up the shipment workflow, assigned roles and responsibilities and acceptable timeframes for each action during the shipment’s planning phase. The real-time visibility of each aspect of the shipment during the execution phase now allows them to focus their efforts on the exceptions while the assigned vendors move forward and enter their information into Syrinx.

To aide in this, Syrinx has active alerts that will go out if there is an exception (i.e. a trucker misses an appointment at the warehouse). This leads to a more effective use of time by focusing efforts on only the things that need to be fixed.

Real-time shipment visibility and control

Trade Tech created a solution for handling increased workflow for a leader in global logistics and their client, a $3.7 billion dollar software, hardware and enterprise service corporation.

THE CHALLENGE: Upgrading the communication system to handle an abundant increase in cargo going in and out of a new, small warehouse, avoid additional terminal costs and increase real-time shipment visibility for all parties involved in shipping process.

THE SOLUTION: Trade Tech developed a solution that provided real-time access to data within the system. The system generated an electronic report of all containers arriving on each vessel in a row-by-row environment. Workflows were set up where the warehouse was assigned a number of details to enter into the system, including the trailer number of the truck the cargo was transloaded into and date truck departed. Once entered into the system, this data was visible to both the logistics company control office and the customer, who was tracking cargo coming in.

The first day the system went live, Trade Tech received a call from the head of the logistics company who was worried someone was using the live environment as a test environment because they saw truck numbers entered as famous cartoon characters. Trade Tech was able investigate the situation on the spot and learned that this trucker used cartoon names for his routes instead of numbers. The real-time, cloud-based environment enabled the team to identify a possible problem and investigate it immediately.

THE RESULT: The customer was able to move 50 containers a week through a small warehouse on time – without exception – and the shipping process was completely documented from beginning to end. This meant significant time and financial savings for the customer.
**Improved efficiency**
Currently, information comes in from different communication channels—phone calls, emails, fax—and the shipper or freight forwarder must collect, organize it and enter the data into their system. This drags down efficiency and slows the flow of data.

Syrinx’s collaborative cloud environment encourages the delegation of data collection. This improves efficiency since data is now entered into the portal throughout the day from the vendor closest to the source of the information.

**Global connectivity**
True global, real-time connectivity comes when everybody works together on the same system. Syrinx is a centralized communication platform that connects everyone and their information systems in the global supply chain—shippers, carriers, airlines, railroads, customs agencies, truck lines and large-scale warehouses.

This connectivity promotes paperless trade through the concept of single key stroke data entry. When data is entered into Syrinx, it can be referenced, read or transmitted to multiple parties—users never have to enter the same data twice. In addition, once a party enters data into the system and another party updates it, then all parties involved see the change immediately and are never out of sync.

No matter the size of the entity, Syrinx can be accessed using a secure login from a computer, tablet or smartphone. Users have access to the full range of capabilities of the portal without having to install servers or making other technological investments and can be up, running and in business fast.

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**Operation Safe Commerce**
As part of an Operations Safe Commerce Phase 3 project, Trade Tech worked with Sandia National Labs and several freight forwarders at the port of Singapore to develop a solution that allowed inspectors to scan each container of cargo in local container freight stations and to see if they had biological or chemical weapons and submit the findings electronically to U.S. Customs.

**THE CHALLENGE:** Connect inspectors and their equipment to the supply chain workflow and get them online quickly.

**THE SOLUTION:** Using Trade Tech’s cloud-based solution, Sandia National Labs assigned inspectors the task of scanning specific shipments. Inspectors were able to view the information for their assigned shipment and only their assigned shipment within the system. Inspectors would then perform inspections by rubbing swabs over containers and putting the swabs into their analytical equipment, which was attached to computers. The computers were connected to the portal and inspectors were able to upload the information to through a simple file transfer protocol (FTP).

Since the solution was built on cloud-based technology, there was not a need for additional infrastructure investments. Connectivity was achieved on both sides of the ocean, enabling three warehouses and three inspectors to get up and running within two days.

**THE RESULT:** During this project, over 1,000 containers with many varying types of cargo were moved through a radiation portal and ultimately the port.
Data standardization
Standardization of data is a problem that has been plaguing the shipping industry since the advent of computerization and global shipping. Individual companies have been setting up their own systems and infrastructures. Each company’s solution identifies specific processes and data requirements for their own system—without any standardization among separate systems.

As a result, government regulations have been created in an attempt to standardize data. For example, the Advance Cargo Manifest 24-hour rule standardized lengths and types of fields, naming conventions for equipment sizes and identification of carriers and vessels. The SOLAS VGM requirement is another regulation that is striving to standardize data throughout the shipping industry.

A cloud-based portal that is already set up to meet regulatory compliance standards means information is standardized when it is entered the first time. Data can now be keyed in once and reused throughout the process and still meet regulation guidelines. For example, the data the carrier sees in the portal and pulls for the U.S. Customs cargo manifest is the same data the shipper sees and pulls for their manifest.

U.S. 24-Hour Rule
When the U.S. 24-Hour Rule was enacted in 2003, Trade Tech had to act fast to onboard clients across the globe before the rule went into effect.

**THE CHALLENGE:** Develop and implement a system for clients to submit shipment manifests to U.S. Customs and Homeland Security 24 hours before cargo is loaded into a vessel bound for the U.S. and implement it before the rule went into effect.

**THE SOLUTION:** Trade Tech’s developed a cloud-based origin of destination ocean transportation system with a direct connection to U.S. Customs for submission of data.

**THE RESULT:** Due to the fact the solution was hosted on the cloud and required no additional infrastructure implementation, Trade Tech was able to onboard more than 150 customers with offices throughout the U.S. and Europe in three weeks. This included registering each customer with U.S. Customs and training hundreds of users on the system.
**Expedited data flow**

Moving to an online portal and a collaborative workflow concept requires major changes throughout the industry. Workflows need to be standardized for faster flow of data, yet still be flexible enough for controlling parties to make adjustments if there are special circumstances around the shipment. There needs to be a shift from parties exchanging hardcopy documents back and forth to connecting with each other in one central, cloud-based portal using secure logins.

These changes may seem large but the benefits to all parties along the supply chain, as well as the industry as a whole are great.

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**New workflow for faster shipping**

Trade Tech worked with an international logistics company and their client, a world premier manufacturer of charcoal, gas and electric grills, to develop a solution which streamlined the communication process along their supply chain.

**THE CHALLENGE:** The communication and approval process for the movement of cargo was disjointed and complicated. The manufacturer wanted to enforce conformity among their shipments from China while maintaining control.

**THE SOLUTION:** Trade Tech implemented a cloud-based online booking system with a new workflow system in place for all parties involved in the shipment process. This allowed the manufacturer to remain in control of the process, and the streamlined communication workflow allowed data to move promoting faster shipments.

**THE RESULT:** The change in workflow allowed the manufacturer to exert greater control over their shipments. This significantly enhanced compliance to the manufacturer’s purchase order requirements and sped up the shipping process.
A tipping point

Today with the SOLAS VGM, the international maritime shipping industry has a monumental issue that needs to be tackled on a global basis – the current information flow. The current information flow is disjoint, with no more than two people at any given time in communication with each other. Parties do not have access to real-time information to the entire data set as it is being executed. This means the data cannot move as fast as the cargo, and therefore cargo is delayed while it waits for the data to catch up with it – and that is not good for business.

A cloud-based environment is essential to moving data that is now required fast enough for the data to reach the next junction point before the cargo.

There are going to be winners and losers that benefit by this significant change in technology. Those within the industry who adopt will see an improvement in their business, while those who do not adopt will experience a stagnant business.

A recent example of this is the emergence of Uber and its effect on the taxi industry. Uber entered the market with its smartphone app making it easier for individuals to locate, hire and pay for transportation. Those taxi services that have not adapted to that new technology have seen their business decrease.

Moving to cloud-based environment to share data as the industry standard may be a large-scale jump. But, when you look at all the ways you are connected on the cloud in your personal lives, on your computers and smartphones, the leap isn’t that big. Now is the time to transition to a cloud-based approach and ride the wave of industry transformation.

Experience how easily Syrinx e-Shipping Portal can help transform your business.

To schedule your FREE DEMO contact Trade Tech at +1.425.837.9000 or ttsales@tradetech.net