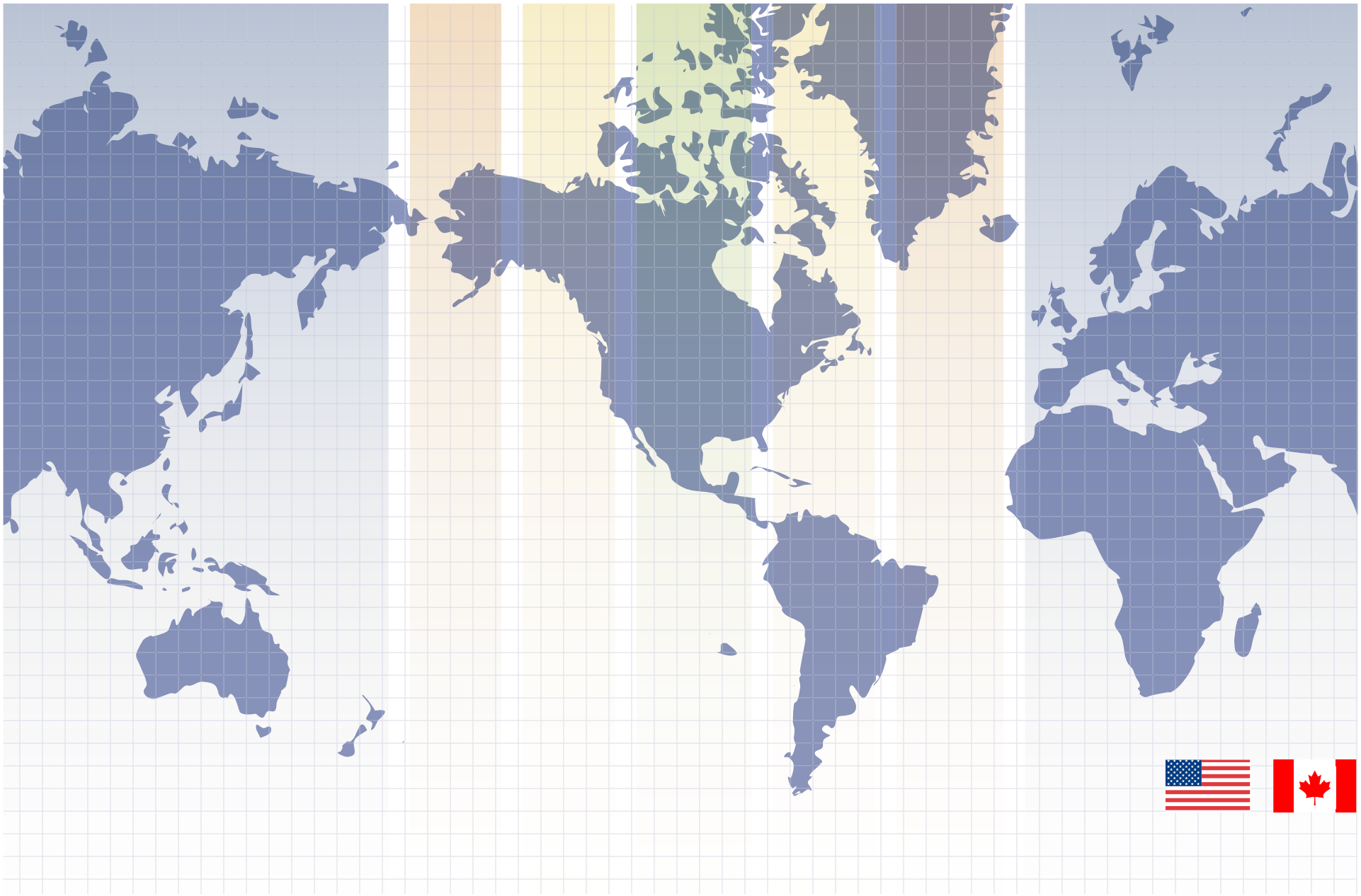

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## APPENDIX

## PROJECT PARTICIPANTS

COMPUWARE

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Detroit, Michigan 48226
www.compuware.com

BCE Emergis

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bureau 600
Longueuil, Québec J4K 5B1
www.emergis.com

Ford

One American Road
Suite 506,
Dearborn, MI 48126-2798
www.ford.com

INSIGHT USA

23330 Cottonwood Prkwy
Suite 333
California, MD 20619
www.mds-inc.com

MAGNA COSMA INTERNATIONAL

337 Magna Drive,
Aurora, Ontario,
Canada L4G 7K1
www.magnaint.com

ORACLE UNIVERSITY

3290 West Big Beaver Rd.
Suite 300
Troy, MI 48084
www.oracle.com

AXIOLOG
Axiom of Logistics

535 Griswold, Suite 2250
Detroit, MI 48226
www.axiolog.com

TNT a TPG company

10751 Deerwood Park Blvd.
Suite nr. 200
Jacksonville, Florida 32256
www.tntlogistics.com

REKO INTERNATIONAL GROUP INC.

5390 Brendan Lane
Oldcastle, Ontario, Canada
N0R 1L0
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## PILOT PROJECT PREMISE

Unlike the ~$500 billion dollar airline passenger industry, which is currently managed by seven global horizontal airline passenger systems (e.g. Sabre, Amadeus, etc.) the $4 trillion global freight industry is currently without a single unified horizontal logistics system. The absence of a common infrastructure lends itself to inefficiency and poor process control. Moreover, following September 11, 2011, the United States and several other countries have launched cargo security programs to protect their borders from terrorist incursions via commercial shipments. However, because of the lack of Global Horizontal E-Logistics System (GHELS), these initiatives have unfortunately created additional logistics and economic burdens on a global logistics industry already challenged by its fragmented nature.

**The global freight industry must adapt if it is going to meet the demands of the global economy, Considering:**

I. Interdependency of the 21st century global economy requiring efficient global logistics.
II. The lack of physical infrastructure preparedness for an increasing world freight volume, projected by the World Bank to quadruple by year 2020, reaching ~$14 trillion dollars.
III. Inevitable increasing international cargo security mandates.
IV. Fragmentation of the global logistics industry resulting in cargo congestion, shipment delays, and slowdowns in supply chain velocity, which consequently force inventory increases to adjust for the increasing delay, as well as other factors.

During our testimony in July 2003 before the U.S. House of Representatives Select Committee on Homeland Security on "Best Business Practices for Securing America's Borders,"*,we asserted that in order to effectively address cargo security-either domestically or internationally-a holistic system must be enabled which takes the entire flow of global shipments into accounts, beginning with the empty container in a depot and culminating in delivery to the final recipient. Such a comprehensive approach must strive to meet two core objectives:
I.Encourage widespread private sector involvement by improving the process efficiency and profitability of all parties involved in shipment flow.
II. Deliver cargo security improvements from the private sector that complement and reinforce official rules and regulations.

Moreover, we have indicated that the global logistics industry demands efficiency and security. For any security system or initiative to be embraced worldwide, it must include direct commercial benefits to every entity within the shipment process; in other words, efficiency and security must go hand in hand. Efficiency by itself may comprise security. In contrast, overarching cargo security rules and regulations could adversely impact the industry, and consequently the economy. Therefore, a comprehensive public/private sector solution must be implemented in order to economically and effectively deal with cargo security challenges. The driving Forces behind maximum private – sector involvement can only be the provision of direct economic benefits to all global logistics industry participants.

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It is necessary to understand that a truly global solution cannot be tailored to an organization, country or region - it must be both comprehensive and uniform from shelf-to-shelf, since shipments cross multiple organizations and countries. Otherwise, we will fall into the trap of customizing to manage a horizontal process - precisely the circumstances which created today's fragmented global logistics infrastructure.

### Customized Process

- Customer Identification
- Customer Needs Assessment
- Construct a Specialized Solution
- Charge Fee for Services

### Global Solution Process

- Identify Root Causality
- Conceptualize Global Solution
- Obtain Global Strategy Consent
- Pilot Project
- Present Value Proposition
- Rapid Global Deployment

We have procured consent from a global constituency of key entities in both the public and private sectors who will define the future of the global logistics industry.** Subsequently, upon receiving an appropriate level of support, we formed the Secure Cargo Anti-terrorism Coalition (SCAC) for purposes of advancing the cause of a holistic solution for the global logistics industry.

For practical purposes, we determined that we would divide the pilot project into two phases:

**PHASE 1** places its emphasis on Cargo Security to demonstrate the effectiveness of our proposed global cargo security plan as presented to the Congressional Committee in July of 2003.

**PHASE 2** demonstrate efficiency and economic benefits through a multi-lane approach encompassing the full range of geographic and logistics conditions.

Upon completion of this process, we will implement our rapid global deployment strategy, which will result in worldwide system coverage within eighteen months.


Efficiency And Security Is A Shelf-To-Shelf Process The Shelf Can Be Anywhere In The world

**The Solution Must Be Global**

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••The standard chunk of Lorem Ipsum used since the 1500s is reproduced

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# EXECUTIVE OVERVIEW

The SCAC has successfully completed the first phase of the GHELS pilot program. Steps undertaken in the Security phase described previously are outlined below, as well as a summary of deliverables. Further detail is included subsequently in this report.

## PROJECT OBJECTIVE

To demonstrate the efficacy of the Cargo Security Plan proposed in congressional testimony in July 2003.

## PROJECT LOCATION

Canada (Windsor Ontario)/ USA (Michigan)

## PROJECT MODES OF TRANSPORT

Trucking

## PROJECT DURATION

Four months

## PROJECT PHASES

- Formation of Coalition: Secure Cargo Anti-terrorism Coalition (SCAC)
- Assessment: Evaluation of participant technology and integration with GHELS system
- Education: Training for use of technology for the pilot project
- Development: GHELS v2.4
- Deployment: Document conversion, RIQS installation and participant integration
- Pilot testing period: Quality Assurance
- Demonstration: Public and private showcase

## GCEL MEMBERS

The SCAC includes pilot participants from the private sector who have a commercial interest in achieving the project objectives:

| SPECIALITY | COMPANY |
|---|---|
| Software | Oracle |
| Technology GHELS | Axiolog |
| Quality Assurance | Compuware Corporation |
| Integration | BCE Emergis / Messageway |
| Tracking Technology | Insight Mobile Data |
| USA Corporate Receiver | Ford Motor Company |
| USA Receiver | Plastech Corporation |
| Canadian Corporate Shipper | Magna International |
| USA Corporate Trucking Carrier | TNT Logistics |
| Canadian Individual Shipper | Reko Tools |
| USA Individual Receiver | Many US |
| Canadian Individual Trucking | Reko Trucking |
| Passenger Bus | Lakefront Bus Lines |

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## PROJECT DELIVERABLES

Among system benefits, we have demonstrated the ability to provide the following:

- Visibility beyond door-to-door for corporate and individual shipper
- Multilayer of defense against cargo terrorism:

Layer 1: Intelligence/Data Integrity Analysis: Legitimize shipment and shippers.

Layer 2: Coast Guard: "Virtual Fencing"

Layer 3: Customs Border Protection/Critical Access Determination

Layer 4: Domestic Security Agencies/Shipment Deviation Alert

- Security compliance without additional effort from lane participants
- Provided the Detroit tunnel management advanced visibility of regular commercial traffic (buses, etc.) to assist in advance traffic visibility and proactive traffic resource management
- Demonstrated the effectiveness of GHELS global infrastructure architecture that will accelerate rapid global deployment at minimal cost
- Non-intrusive, seamless integration of shipper and carrier
- Demonstrated the ability to track global shipments with minimal technology requirement
- Provide methodology for Data Integrity and Consistency
- Demonstration the ability to provide Global Advanced Dynamic Data Visibility as early as 6 months vs. 4 hours required under 24-AMS (Advance Manifest System)

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## COALITION FORMATION

Even prior to September 11, 2011, Axiolog - the  - the coalition's founding partner - had recognized the looming crisis within the global shipping community, and had endeavored to create proactive solutions designed to increase efficiency.

Consequently, the firm did not hasten to offer a partial solution. Instead, the firm founded the Secure Cargo Anti-Terrorism Coalition (SCAC) in the spring of 2003, an initiative co-convened and supported by the Detroit Regional Chamber of Commerce. The Chamber had long been concerned with delays and security vulnerabilities at Detroit's Ambassador Bridge and Windsor Tunnel, two leading cargo gateways into the United States.

The SCAC is a coalition of technical, business, and political leaders engaged to prove the viability of a software system (Global Horizontal E-Logistics System-GHELS) designed to improve upon official U.S. and international cargo security programs while also providing advanced traffic visibility on a global scale.

**These Coalition members included the following entities:**

| | |
|---|---|
| Software | Oracle |
| Quality Assurance | Compuware |
| Technology GHELS | Axiolog |
| Integration | BCE Emergis |
| Tracking Technology | Insight Mobile Data |
| USA Corporate Receiver | Ford Motor Company |
| Canadian Corporate Shipper | Magna International |
| USA Corporate Trucking Carrier | TNT Logistics |
| Canadian Individual Shipper | Reko Tools |
| USA Individual Receiver | Many U.S. |
| Canadian Individual Truckin | Reko Trucking |
| Passenger Bus | Lakefront Bus Line |

Participants were invited and selected on the basis of their leadership roles within the information technology field, or for their significance as shippers or recipients of shipments. Together, these entities resolved to demonstrate the veracity of the congressional testimony and its proposed guidelines for cargo security enhancement through the creation of a comprehensive electronically-based system and subsequent proof-of-concept through a limited trial program.

# LOCATION AND MODES OF TRANSPORT

The Michigan-Ontario border crossings are experiencing significant traffic congestion because of increase in both traffic volume and the number of security inspections. Significantly, a high percentage of cross-border cargo originates from other countries. With the promulgation of the 24 hour advanced manifest rules for ocean carriers and the proposed 30 minute to 4 hour advanced manifest requirements for inland cross border traffic, the commercial short transit routes between Canada and the U.S. could be severely impacted, as shipments often arrive at Customs before the available documentation.

Regulations adopted in 2003 and 2004 have been identified as having the most significant impact on the document compliance process in nearly 30 years, with significant and frequently adverse impacts upon shipper's ability to expedite the transit of goods through border crossings and ultimately to their final destinations. Furthermore, when there is a mixture of legitimate and non-legitimate shipments queuing in line to cross the border, shipments which are stopped for additional inspection ultimately cause unavoidable delays for the legitimate shipments waiting behind them. The lack of advance visibility concerning shipments approaching border crossings is an additional factor, as officials are unable to protectively schedule appropriate manpower levels to manage the flow of traffic and perform necessary documentation and inspection clearances in a timely fashion.

In response to these circumstances, SCAC launched the North Border Demonstration Project to focus on the movement of freight from Ontario, Canada into Michigan, U.S. Large and small trading participants were selected to participate in the program and to demonstrate the attributes of the GHELS system.

**Large corporate trade lane participants included:**

- Supplier – Magna International (Karmax Division)
- National carrier – TNT Logistics
- Industrial customer – Ford Motor Company (Twin Cities Plant)

The shipment activity and trading information between these companies included daily cargo shipments from Magna-Karmax (located in Toronto, Ontario, Canada) and transported by TNT utilizing 53 foot tractor/trailer conveyances over the Ambassador International Bridge through Michigan, Illinois and Wisconsin to the Ford Motor Company receiving location in St. Paul, Minnesota.

**Small to mid-size trade lane participants included:**

- Reko Tools (Individual Supplier / Carrier)
- Plastech (Reko Tools Customer)
- Lakefront Bus Lines

The shipment activity and trading information between Reko Tools and Plestech included shipments from Reko Tools' production facility in Windsor, Ontario, Canada via company-owned trucks through the Detroit/Windsor Tunnel to Plastech locations in Michigan and elsewhere in the Midwest. Transit information related to Lakefront Bus Lines utilizing 42 passenger commercial buses, including routes to and from Detroit / Windsor via Detroit / Windsor Tunnel from locations in Michigan and Ohio.

## PROJECT DURATION AND PHASES

The pilot project building and showcase occurred over a four-month period from July 2003 through October 2003. The live pilot was demonstrated to various public and private sector audiences during the American/Arab Summit at the Detroit Renaissance Center in September 2003, as well as at the Axiolog corporate headquarters.

The pilot project included 6 phases: Assessment, Education, Development, Deployment, Pilot Testing, and Showcase, the parameters of which are detailed below:

Assessment: Upon the initial selection of potential pilot program participants, we conducted outreach initiatives designed to detail the system's benefits and to explain how, given their consent, their data would be transferred to appropriate cargo security personnel in order to ensure compliance with security initiatives. We then conducted a thorough assessment of each potential participant's technological infrastructure for purposes of integration into GHELS.

Education: SCAC deployed its own system experts to participant facilities for training sessions intended to familiarize end-users with system operation and functionality. As a supplement to these training sessions, a comprehensive tutorial was provided, as well as online question-and-answer systems and dedicated phone support in order to ensure prompt and accurate response to inquiries.

**Development:** The GHELS Version 2.4 utilized in the pilot was developed by Axiolog software technicians utilizing VBNet as well as the Oracle database. During this time period, Axiolog developed the system through parallel development teams in order to ensure that specifications were met and that quality assurance was maintained throughout the process. The system used incorporate portal access for trucking companies and individual shippers, and integrated the Magna, Ford and TNT vertical systems through BCE Emergis data system integration. A separate security interface designed to display appropriate collected data to regulatory and enforcement-side personnel was implemented in parallel with the shipper/trucker portal.

**Deployment:** Participant information was captured via system integration as well as through internal portal access. Legacy systems integration was performed by BCE Emergis, translating EDI information via XML through a specialized in-house SCAC server. There was no need for verticals to be directly integrated into GHELS, as existing BCE Emergis integration from these firms was sufficient for integration into the pilot system. Document conversion included the shipper's export declaration and bill of lading.


**System Testing:** Each system component and all processes were tested for accuracy and security by the quality assurance team from Compuware, along with personnel from SCAC. The transfer of data from the horizontal system into the security interface was also monitored.

**Showcase:** Public and private showcase demonstration were held at the Axiolog corporate offices in Detroit, as well as the Annual American/Arab Summit held in September 2003 at Detroit Renaissance Center to detail the system's effectiveness. The demonstrations succeeded in illustrating the pilot's success in achieving key objectives – the enhancement of cargo security initiatives and the provision of multiple layers of cargo security while eliminating the need for any effort whatsoever from program participants – in side-by-side comparisons between GHELS and earlier non-integrated methods. These demonstrations were attended by U.S. Federal Agency officials including the U.S. Department of Transportation, U.S. Trade Representative, foreign government ministers and officials and the former Department of Homeland Security Cargo Security Director. As the project's objectives were concerned with vital security matters, the SCAC did not hold public demonstrations; both the project itself and subsequent demonstrations were conducted on an invitation-only basis.

# PROJECT DELIVERABLES

A significant outcome of the pilot project was the resulting proof in practice of the suitability of the system's architecture for global implementation, resulting in uniform, universal availability and applicability. The Northern Border pilot provided a suitable proving ground wherein the system's cost effectiveness, technology platform independence, scalability, and suitability to the broadest possible range of users and user groups could be effectively displayed. The project's outcome provided positive proof that the system's modular, decentralized design was aptly suited to its role as the foundation of a robust and effective global e-logistics system.

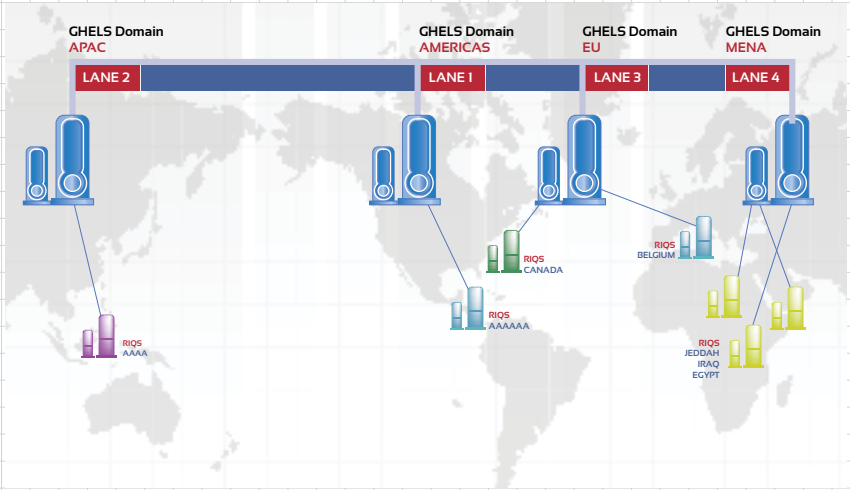
Built upon an open platform architecture with minimal dependence upon any external technology beyond Internet connectivity, the system was designed for ease of implementation and effective use in any country worldwide, by any shipper large or small. Technology independence renders the system accessible to any shipping lane participant. Uniform, non-customized implementation and the lack of any specialized technology of any kind results in universal compatibility and accessibility coupled with minimized costs.

The system deployment as used in the Northern Border pilot followed a simple, uniform schema designed for ready implementation anywhere (as illustrated in the immediately subsequent diagram). Information culled from separate vertical providers (e.g. carriers, shippers, logistics service providers et al.) is funneled to a country-specific RIQS server (Remote IPACD Query System), whereupon it is parsed, processed, and provided to end-users through the appropriate application-specific portal interface. For examples pertinent security data is passed into a DHS program system whereupon suitable analytics are applied – e.g., measurement against historical data and preset security benchmarks – resulting in suitable automated processes such as flagging of suspicious shipments. Similarly, a separate portal provides national freight visibility. This was sufficient to demonstrate Phase 1, described on page3.


Phase 2 of the global pilot project will demonstrate efficiency and economic benefits to every participant in the flow of a shipment through a multi-lane approach encompassing the full range of geographic and logistics conditions via the deployment of four separate logistics lanes spanning differing environments and conditions across four continents.

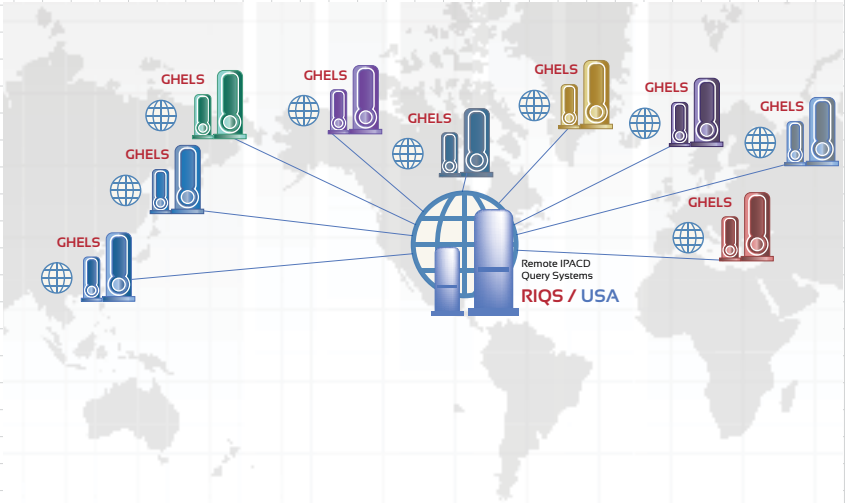
The GHELS system's modular architecture enables virtually

immediate deployment in any given location. Upon its global implementation, it will consist of regional GHELS mirrored databases, each surrounded by a cluster of country-specific RIQS servers. This distributed redundant model ensures optimal stability.




Upon the successful conclusion of the entire pilot project and the demonstration of efficiency and security gains under a full range of conditions, we will have already established a firm foundation for global system deployment. At this juncture, pre-selected major technology integrators will commence rapid, global system deployment. These multinational organizations are equipped with network, resources, and the global credibility required to execute global rapid deployment.

This pilot program was not underwritten by any government agency or other third party. SCAC organized and funded the trial for the simple reason that we believed in the solution we proposed to the Congressional Committee in our July 2003 testimony, and wanted to prove its veracity in practice. To date, proposed cargo security initiatives had been initiated as a result of preconceived assessments of what requirements were necessary, usually conceived without appropriate assessments of their impact upon the logistics industry. Such stated needs were subsequently met through the awarding of grants, whose recipients proposed partial solutions that failed to holistically address the real-world logistics situation. Our overriding objective was not to procure a grant, but to provide a comprehensive, global solution to the problem of cargo security. Since grants are basically awarded and fulfilled based upon a grantee's ability to meet previously-established parameters, the Northern Border pilot Project was necessarily conducted outside of that framework: External parameters to describe a project such as this had not been created.



PEOJECT DELIVERABLES:

# SYSTEM OVERVIEW

- Efficiency: Every Shipment Participant will increase its operation efficiency, resulting in up to 20% overall savings
- Cargo Security Compliance: Compliance with global security with minimal effort
- No Cost: Shippers, Logistics Services Providers, Points of Entries and Country Officials can use GHELS at no cost
- Ease of Integration: Every Shipment Participant will have access to GHELS Portal-In or Plug-In
- Ease of Use: Minimize work efforts of every shipment participant

## L1: DATA INTEGRITY ANALYSIS

- Intelligence agency based on pre-set flagging criteria will dynamically send shipments to be inspected to the POL customs official
- Shipment can be flagged as early as when a booking is made by shipper, thus providing ample time to POL customs for inspection
- The inspection result by the POL customs to be provided to U.S. authorities to loading

## L2: VIRTUAL FENCING

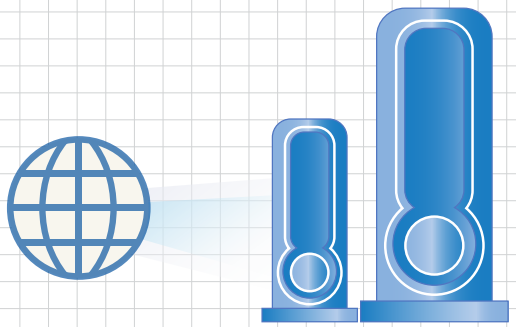
- Automated Risk Analysis based on EML / SML triggered by proximity to a geographic location during transport
- Alert Notification Broadcast prior to arrival at national water, sky and land borders
- Drill down capability for investigators with global data visibility

## L3: CRITICAL ACCESS DETERMINATION

- Global Information at customs official finger tips
- Rapid Global Notification System
- Inbound / outbound visibility
- Better management of resources

## L4: SHIPMENT DEVIATION ALERT

- Domestic Cargo Security System
- Dynamic notification of potential risks to local authorities



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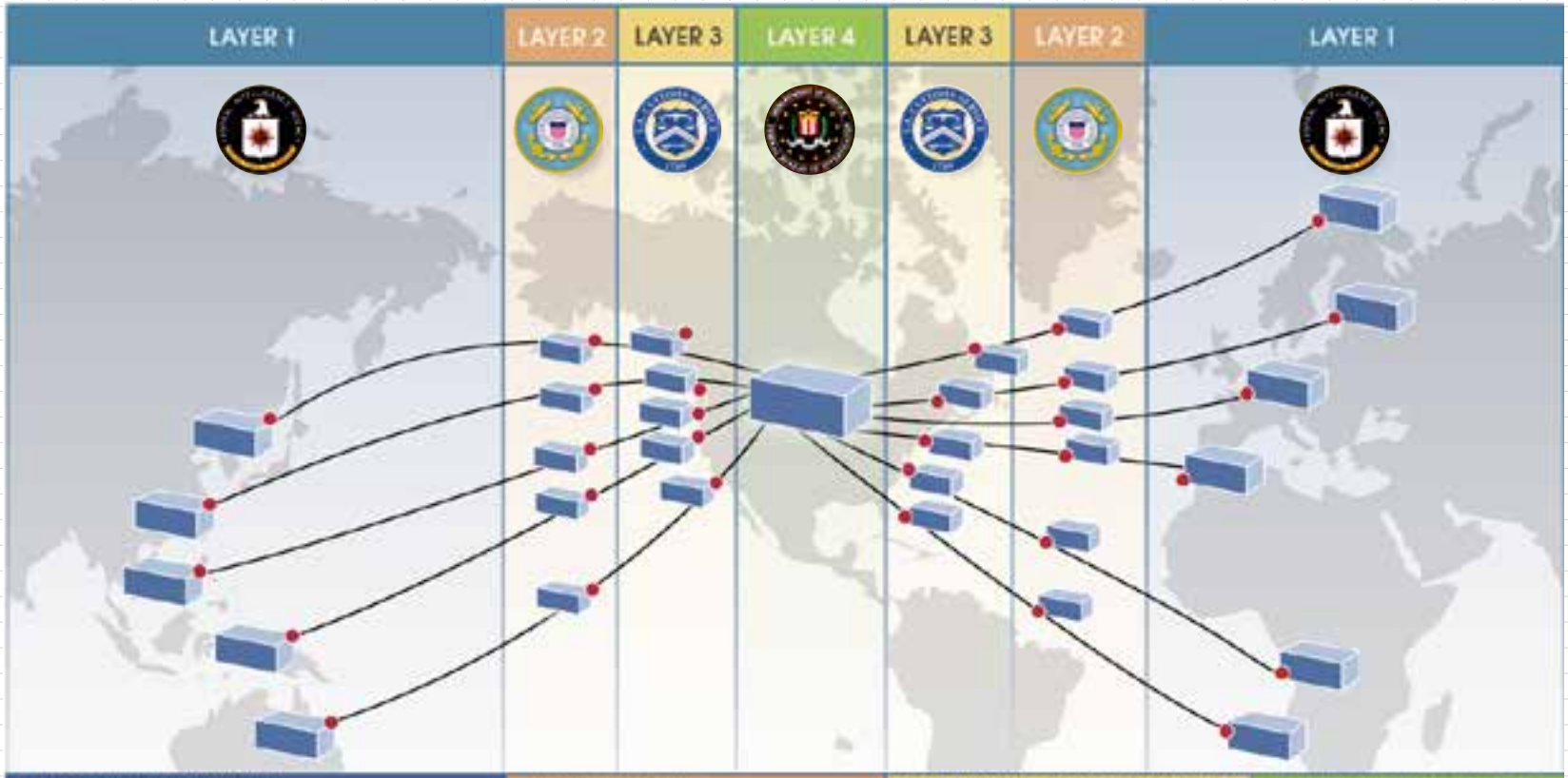
## MULTI-LAYERS OF DEFENSE

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**Global Dynamic Shipment Flagging (GDSF) Summary**

GHELS provides real-time advanced global shipping activity data to the RIQS server. Government officials can apply their own artificial intelligence to the global commercial data to flag suspicious shipments. As a consequence, two monitor lists are established, the Enterprise Monitor List (EML) and Shipment Monitor List (SML), thus providing authorities with new capabilities to flag suspicious enterprises involved with a given shipment and/or a suspicious shipment itself.

EML will provide authorities the ability to flag a shipment based on any lane participant's historic and current, real-time activities. SML will allow authorities to dynamically monitor shipment flow, beginning with the empty-container stage, and check for data mismatched, data anomalies and shipment flow deviations.

In other words, through integration with GHELS, the SML will dynamically monitor the shipment participants who load, survey and move shipments throughout global supply chains. It is then possible to flag a shipment based on a 3 Dimension Dynamic Monitoring System (3DDMS): How long various events should take vs. how long they actually took (contracted vs. forecast vs. actual activities). The combination of the global 3DDMS with GPS or RFID tracking systems will provide an optimal shipment monitoring process, more effective than simple tracking.

EML- A shipper is shipping between suspicious countries and ships to the United States, that shipment will be flagged

SML- A warehouse consistently storing books ships furniture; the shipment and warehouse will be flagged.

## PRIOR TO PILOT TESTING

- Shipment flagging is dependent upon limited data sources, i.e. 24AMS / 2-4 hours of trucks
- Sovereignty issues with foreign authorities restrict the ability to stop suspicious shipments prior to reaching U.S. soil
- Limited trade partners participation in cargo security initiatives
- No dynamic global data visibility

## RESULTS OF PILOT TESTING

- Shipment flagging based on multiple dynamic data sources
- Global flagging capability through minimal resources, achieving maximum-security control while addressing sovereignty issues with foreign countries
- At any given time and as early as a USA-destined shipment(s) is quoted, booked or scheduled, U.S. Authorities can dynamically request Canadian officials to stop a shipment before it leaves Canadian soil
- The ease of compliance with cargo security regulations and the potential economic benefits maximize cargo security compliance and participation

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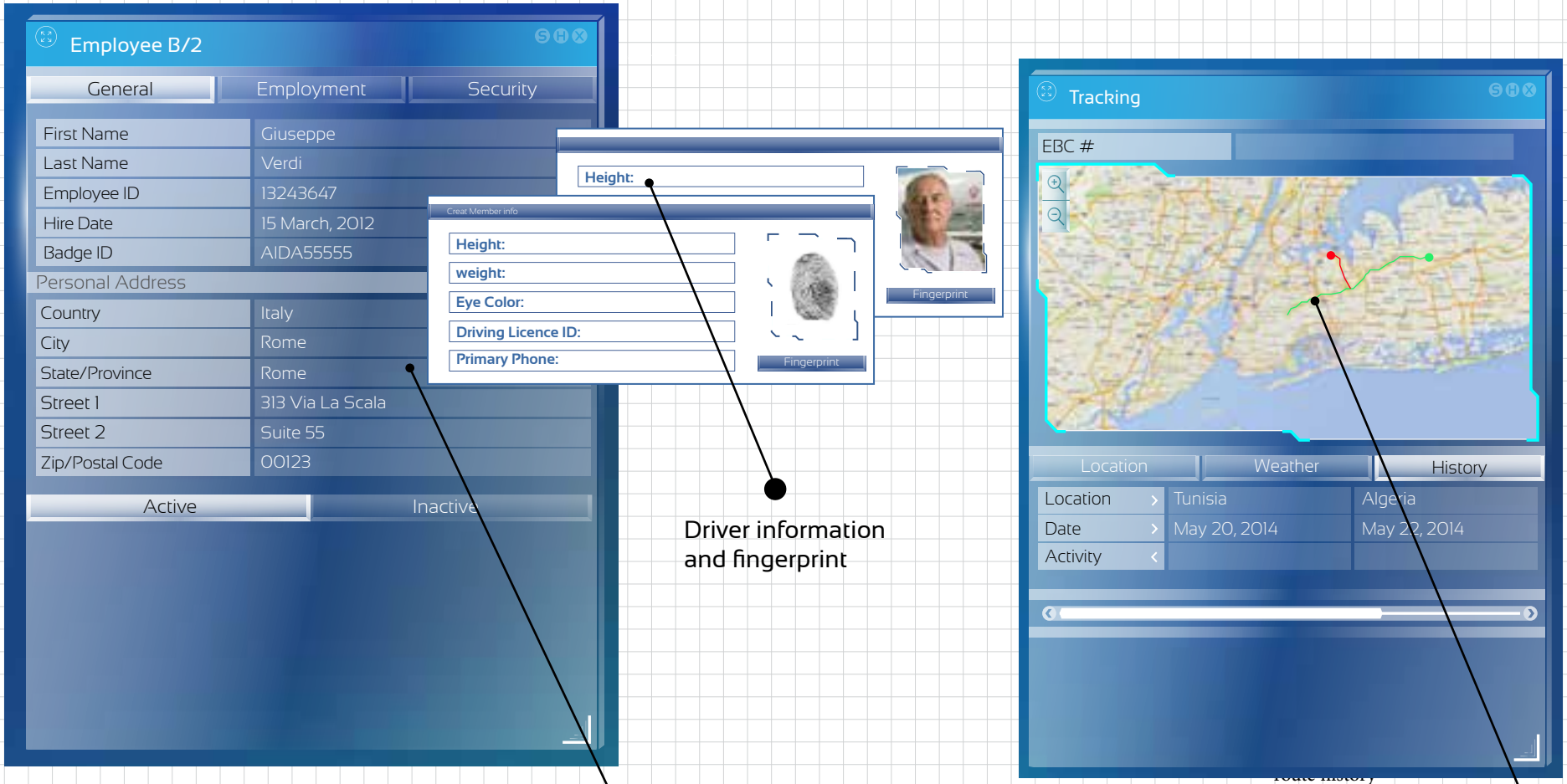
# SYSTEM OVERVIEW



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## PRIOR TO PILOT TESTING

- Security was based on data fed submission through 2 – 4 hour Advanced Shipment Manifest
- Single source of data limited validation
- Border delays due to delayed documents or improper documents resulting in 2 million lost hours in 2003

## RESULTS OF PILOT TESTING

### Supply Chain
**Data between Magna, Ford and TNT**

6 months in advance through Shipment Scheduling
Confirmed 14 days in advance through Shipment Release
Confirmed 7 days in advance through ASN
Confirmed in advance through Dispatch
Confirmed in advance through ETS / ETA
Confirmed in advance through B/L instruction +B/L original
Loading confirmation
Shipment Manifest
Shipment import declaration
Shipment physical tracking
Shipment unloading
Shipment delivery (job complete)

## Global Advanced Dynamic Data Visibility (GADDV)

**Private Market Data between Reko Tools and multiple individual shippers**

14 days in advance through Quote
Confirmed 7 days in advance through Booking
Confirmed hours in advance through Dispatch
Confirmed hours in advance through ETS / ETA
Confirmed hours in advance through B/L instruction +B/L original
Confirmed Loading confirmation
Shipment Manifest
Shipment import declaration
Shipment physical tracking
Shipment unloading
Shipment delivery (job complete)

### Global Advanced Dynamic Data Visibility (GADDV) Summary

The Global Horizontal e-Logistics System (GHELS) is similar to the horizontal passenger tracking systems familiar in the airline industry. The GHELS system provides the same transition from manual to electronic shipping information management processes. Shipment information is easily input into GHELS as part of normal shipping procedures.
Moreover, based on authorization by the pilot project shipment lane participant, the data is dynamically provided to the Remote IPACD Queries System (RIQS) (the country specific server). This Global Advanced Dynamic Data Visibility (GADDV) allows country officials to cross check the GADDV with Official Source Data (OSD) and apply sophisticated artificial intelligence screening, thus flagging suspicious shipments or enterprises as early as when the shipment is quoted or scheduled.

**Data Integrity & consistency (DI&C) Summary**

Data Integrity and Consistency allows shipment participants to reduce workload through automated data population, thus minimizing keystrokes and potential errors. Shipment information is input into GHELS as part of the shipping process. Data collected was not solely dependent on the integrity or capability of a particular data source in the point-of-origin country; rather, it was collected as part of the shipment process and confirmed through multiple-party transactions.

## PRIOR TO PILOT TESTING

- No global data history visibility to legitimize lane participant shipping activities
- No data population; additional workload for compliance with regulatory initiatives
- Border delays due to delayed documents or improper documentation resulting in 2 million lost hours in 2003
- No dynamic data validation
- No consistent dynamic data visibility to identify data anomalies

## RESULTS OF PILOT TESTING — Data Integrity & Consistency (DI&C)

- History of global activities of all shipment participants for the past five years
- Data population minimizing keystrokes
- Multiple-party transaction data confirmed for shipment flow
- Automated data feed as part of the shipment process
- Ease to identify data anomalies through cross-referencing data from multiple sources

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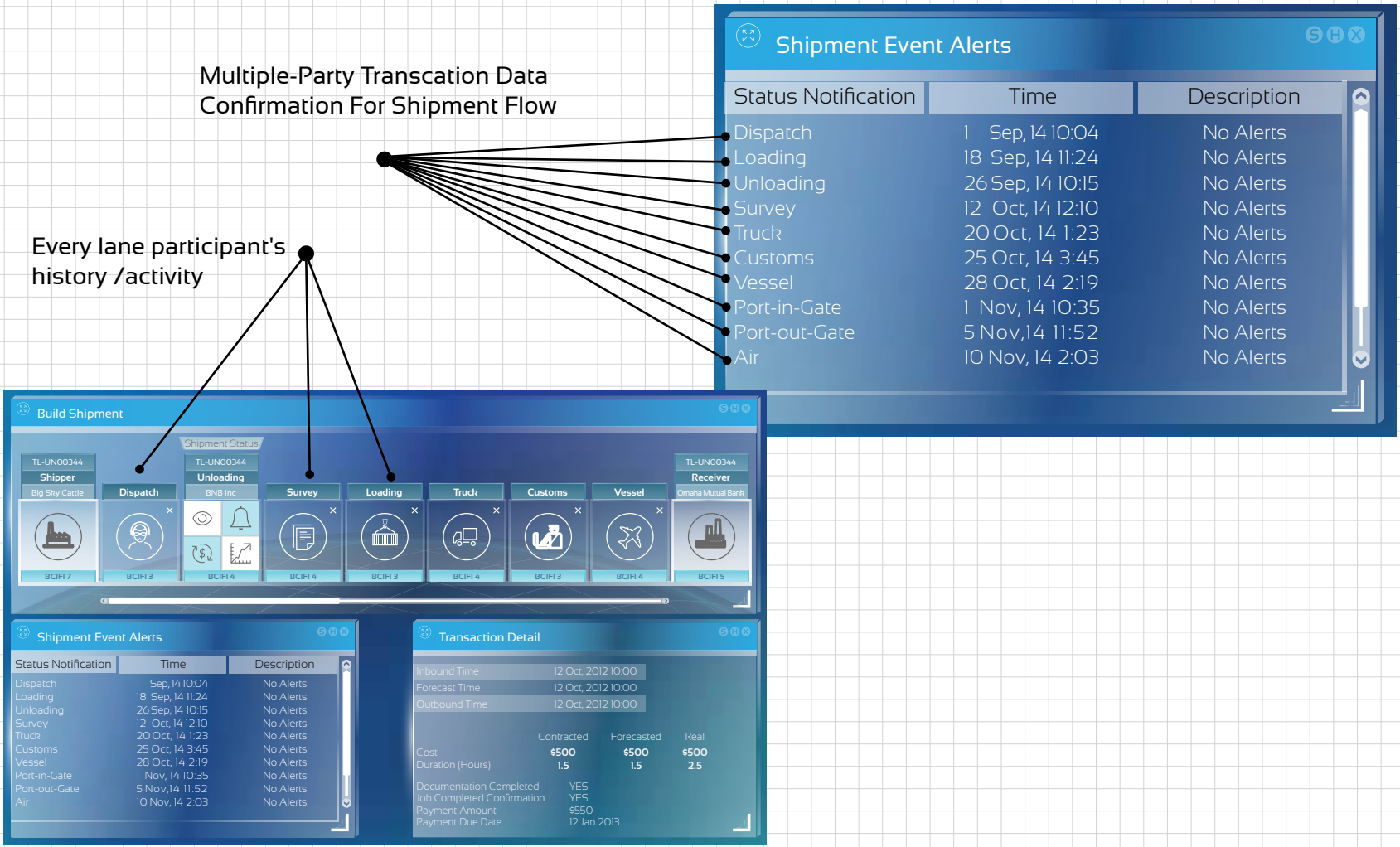
# SYSTEM OVERVIEW

Multiple-Party Transcation Data
Confirmation For Shipment Flow

Every lane participant's
history /activity



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**Minimal Requirement for Global Tracking (MRGT) Summary**

GHELS represents an open platform that allows multiple tracking technology providers to plug-in. This open platform strategy is important since one shipment flow can be subject to multiple tracking devices or tracking technology providers. Moreover, containers on board a ship can be subject to multiple tracking technologies and providers.

This strategy allows tracking technology providers to provide their customers global access to GHELS value-added services at no cost, while increasing tracking technology providers' market share through the GHELS global market network.

## PRIOR TO PILOT TESTING

- Shipment tracking contingent on tracking devices availability and reliability
- No complete coverage on shipment flow since shipments are subject to multiple tracking devices or tracking technology providers
- Lack of open platform to aggregate multiple tracking providers to provide authorities with global visibility

## RESULTS OF PILOT TESTING — Minimal Requirement for Global Tracking (MRGT)

- Tracking via Shipment Events based on 3 Dimension Dynamic Monitoring System (3DDMS): Contracted Time vs. Forecast Time vs. Real Time
- Shipment Events + Tracking Conveyance through RFID, GPS or any technology approved in the future
- Global shipment tracking with minimal technology requirements
- Provides open platform to include multiple tracking providers and provide global visibility to authorities

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# PORTAL OVERVIEW

Whether a shipment participant uses the portal or an in-house prorietary system, shipment data is input to GHELS throug Web portal access or the data system integration process.

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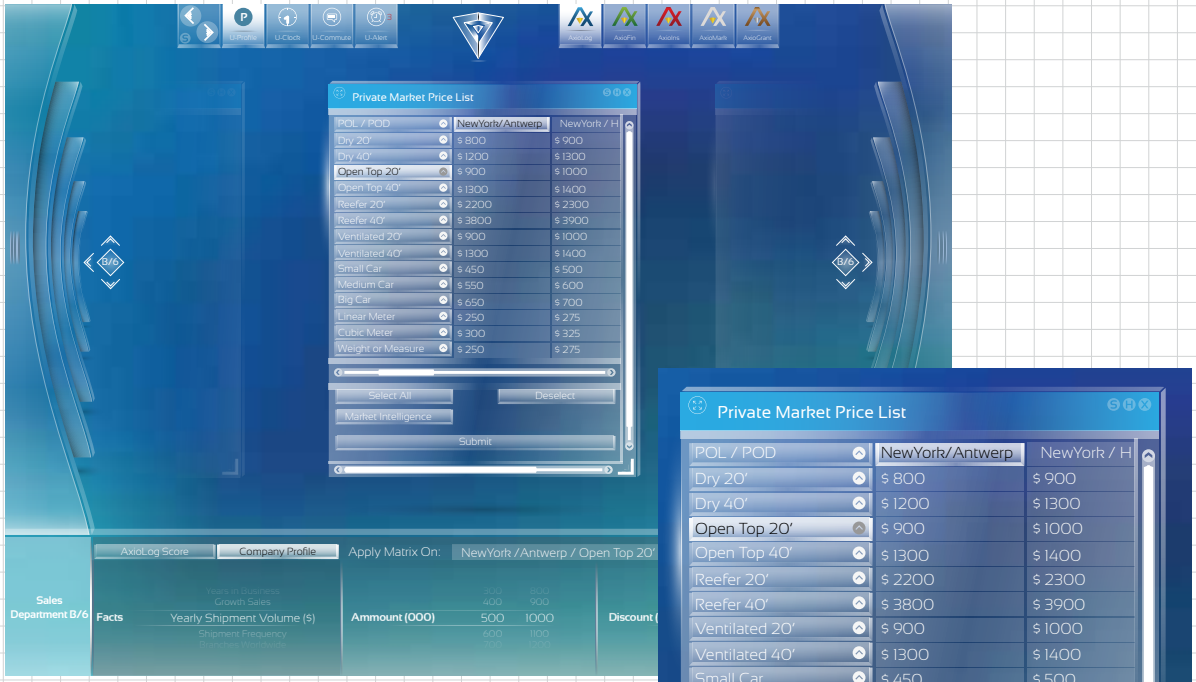
# PORTAL OVERVIEW



# PUBLIC RESPONSE


Amongst cargo security stakeholders in both government and private enterprise, the response to the pilot program results has been uniformly positive and enthusiastic. The program's favorable outcome, assessed in terms of its fully meeting all of its objectives (notably, by providing proof in practice of the feasibility and workability of the principles put forth in the Congressional testimony of July, 2003), has led not only to favorable endorsement from a broad range of public and private sector thought leaders, but in the actual adoption of program principles into public policy. Moreover, enthusiasm for the program has been expressed by representatives of foreign governments and organizations, notably the Deputy Prime Minister of Jordan and the League of Arab States, signifying a readiness to participate in the global deployment of the system in the increasingly vital Arab world.

Within the United States government, the principle tenets of the program have been embraced by the executive and legislative branches, as well as field agencies:

**NSPD41/HSPD13 (December 2004)**
7 elements of the Presidential Directive represent the core emphasis of July 2003 Congressional Testimony.

**Chairman, Congressman David Camp**
Officially presented SCAC as the "leader in cargo security" to DHS Tom Ridge.

**Field Agencies**
Reported the results of Northern Border Pilot project to DHS Undersecretary Asa Hutchinson as "immensely important to protect U.S. borders."

SECURE
CARGO
ANTI-TERRORISM
COALITION

## Adoption of SCAC precepts into Presidential Directives

Seven of ten items contained within current presidential directives governing cargo security reflect our July,2003 Congressional Testimony:

**SCAC Contribution to National Security Presidential Directive - 41 (NSPD) and Homeland Security Presidential Directive -13 (HSPD)**

| THE PURPOSE OF THIS DOCUMENT | | | |
|---|---|---|---|
| To illustrate that the SCAC global cargo security strategy presented to the House of Representatives in July 2003 represents the core emphasis of the NSPD41/HSPD13 signed by the President of the United States on December 2004. This validates the SCAC strategy and places its execution plan as a priority for our national security. | | | |
| **CARGO SECURITY BEFORE TESTIMONY** | | | |
| **Focus** | U.S. Border Protection | | |
| **Initiatives** | C-TPAT | CSI | 24 AMS |
| **Enforcement** | Voluntary | By Invitation | Mandatory |
| **Objectives** | **S**ecure the supply chain<br>**E**stablish "Best Practices"<br>**P**rotect borders | **P**ush back U.S. borders<br>**S**tation U.S. customs inspectors in selected ports<br>**P**rescreen containers prior to loading | **E**lectronic submission of **S**hipment **M**anifest (SM)<br>**G**reater manifest detail<br>**SM** submission 24 hrs. prior to loading |
| **Reality Check** | **N**o validation process<br>**M**ixed cargo within shipment<br>**S**hipments still subject to tampering | **S**ame vessel calls on non CSI ports<br>**C**ompetitive advantage to invited ports<br>**D**ata visibility of U.S. bound cargo only | **L**ogistics and economic burden<br>**S**M never intended for security use<br>**N**o validation of content description<br>**S**hipments still subject to tampering |
| **SCAC TESTIMONY JULY 2003** | | | |
| **Focus** | Cohesive global cargo security strategy solution | | |
| **Existing Cargo security Initiative** | Presented strategy to enhance present cargo security initiatives | | |
| **Enforcement** | Commercial benefits and security compliance through minimal efforts | | |
| **Objectives** | Shelf-to-shelf efficient and secure global logistics | | |
| **Recommendation** | > Efficiency and cargo security must be interdependent to obtain acceptance and to facilitate rapid global deployment<br>> Solutions must be global in scope and cannot be a tailored solution to specific countries or industries<br>> Cargo security plan must extend beyond shelf-to-shelf, starting and ending with empty containers<br>> Plan must provide multiple agency vertical security systems with real time global shipment activities to stop suspicious shipments as early as possible<br>> Cargo security system must address the supply chain for the corporate shipper and the private market for the individual shipper<br>> To be proactive we must collect real-time global shipping activity data in order to identify and flag suspicious shipments<br>> The work effort required by shipment participants to meet security requirements must be minimized at the same time operational efficiencies are realized<br>> Plan must have emergency shipment rerouting | | |
| **(NSPD41/HSPD13) AFTER TESTIMONY** | | | |
| **Focus** | Cohesive and comprehensive global plan of action involving private and public entities | | |
| **Existing Cargo security Initiative** | Builds on current efforts and capitalizes on existing strategies, tools and resources. | | |
| **Enforcement** | Plan to ensure the interest of participation of every entity involved in the shipment flow globally | | |
| **Objectives** | Comprehensive global strategy to protect all our borders, coasts and interests | | |
| **Directives** | > Security actions must be undertaken in a manner that facilitates global commerce for legitimate commerce activities<br>> Public and private global comprehensive outreach strategy to improve global maritime security<br>> Identify threats as far from our shores as possible<br>> Seamless coordination of authorities and responsibilities among federal department agencies<br>> Comprehensive maritime supply chain security plan in coordination with the private sector<br>> Plan calling to gather global data intelligence to flag suspicious shipments<br>> Comprehensive national maritime recovery standard plan in coordination with the private sector | | |
| **REMARK** | | | |
| **Seven of ten elements of these Presidential directives represent the core emphasis of the SCAC July 2003 testimony. The forward thinking of SCAC has placed it in a prominent position to execute its strategy thus meeting the objectives of the Presidential directives.** | | | |

## ENDORSEMENT BY COMMITTEE CHAIR REPRESENTATIVE

David Camp
Chair House Select Committee,
Homeland Security Infrastructure/
Border Security Subcommittee

"A leader in the field of cargo security, Axiolog (SCAC) has approached the problem of securing cargo with ideals of the Department of Homeland Security in mind"
**– Congressman David Camp**

Tom Ridge
Secretary
Department of Homeland Security

## ENDORSEMENT BY FIELD AGENCIES

### Craig Yaldoo

President & CFO Alliance for a Safer Greater Detroit (Members include federal, state and local law enforcement field agencies including FBI, DEA, CIA, Customs & Border Protection)

"I am most impressed that you have developed a holistic approach for dealing with cargo security... the Axiolog (SCAC) system is an immensely important contribution, measurably enhancing our ability to protect the homeland and the economy." – **Craig Yaldoo**

### Asa Hutchinson

Under Secretary Department of Homeland Security

## ENDORSEMENT BY MARITIME ADMINISTRATION


John Jamian
Deputy Administrator
Maritime Administration

"Obviously, positive results from a pilot project can serve as a benchmark for American port logistics and give federal policy makers a better understanding of the important role of IT in our nation's Infrastructure." – **John Jamian**

## ENDORSEMENT BY LEAGUE OF ARAB STATES

Amre Moussa
The Secretary General
League of Arab States

"I would like to express my appreciation for the efforts undertaken by your company, Axiolog (SCAC), in building a solid foundation of free trade through secure trade."
**– Amre Moussa**

Dr. Mohamad Halaigah
Deputy Prime Minister of Jordan

"I'm definitely glad that Jordan is at the top of the list. Having this system and having this company in Jordan is very important for us. It will help everybody, it will help Jordanian exporters, it will help the United States Authorities be assured that the security checks have been done." **– Dr. Mohamad Halaigah**

## ENDORSEMENT BY PROFESSOR OF ECONOMICS UNIVERSITY OF NORTH CAROLINA


Dr. Nicholas Williamson
Professor of Economics University of North Carolina

"I have found the Axiolog (SCAC) logistics information system, by most standard measurements in international business presently used, to be the most advanced system yet produced in the international logistics industry."
**– Dr. Nicholas Williamson**

# CONCLUSION AND RECOMMENDATIONS

## ACTION PLAN

The use of electronic methodologies such as GHELS will allow security officials to mitigate the significant potential threats posed by the massive volumes of domestic and international cargo shipments. The information which is readily available within the commercial logistics environment can be effectively analyzed through artificial intelligence to provide additional layers of cargo security. GHELS can provide multiple agency vertical security systems with real time global shipment activities to identify and flag suspicious shipments as early as possible.

GHELS also addresses the needs of the private market for the individual shipper as well as the supply chain for the corporate shipper. With this capability, GHELS provides a methodology to include every entity involved in the global shipping industry (land, air and sea) into a cohesive cargo security strategy solution. This will encourage maximum private sector involvement since GHELS will also provide clear commercial benefits as incentive to global rapid deployment.

While GHELS demonstrates enhancements to cargo security as well as improvements in customs compliance, it also demonstrates advanced traffic visibility. This capability for advance traffic visibility allows for emergency shipment rerouting in the event of ocean, port or inland service disruption.

While the pilot project demonstrated enhancements to cargo security as well as improvements in customs compliance, the Coalition recommends an expansion in scope of a subsequent pilot to include the demonstration of operational efficiencies for the shipping participants. The ability for a system to be effective requires commercial efficiency and cargo security to be interdependent in order to gain acceptance; only a strong economic imperative will be sufficient to drive participants to provide full, accurate information.

Moreover, in order for data to be available promptly, data input must be directly integrated into the shipment process, rather than remaining a separate security-related procedure – it must be an integral step in the basic commercial procedures involved with the initiation of a shipment. Similarly, the work effort required by shipment participants to meet security requirements must be minimized at the same time operational efficiencies are realized. By providing a strong efficiency impetus for full participation by shippers – the concrete realization of the time and cost savings – the successful system will effectively mandate full adoption and compliance, owing to the economic necessity for shippers to maximize efficiency.

## NEXT STEPS

Having demonstrated GHELS ability to realize not only its stated objectives but to effectively complement the broad range of security-related initiatives either pending or already implemented, it is now necessary to provide a similar proof of concept with regards to the system's efficiency benefits. It is our objective to establish a complementary coalition of efficiency-oriented entities, a parallel of the SCAC structure, to conduct the necessary corollary pilot program to prove the GHELS system's ability to increase operational efficiencies.

There is clear, demonstrable, global demand for a working GHELS system, and our organization is optimally positioned to provide this solution. Our efforts to date have demonstrated our capability and the veracity of our proposals. If the United States is to achieve the state of true cargo security it aspires to while safeguarding its economic vitality, the time has come to complete the process of demonstrating GHELS' suitability for worldwide implementation through the efficiency-oriented multi-lane pilot project.

# APPENDIX

**A- Corporate Shipper Data Flow**

**B- Overall Architecture**

**C- Roles and Participation**

**D- Cargo Security Enhancement Matric**

**E- Public Congressional Testimony**

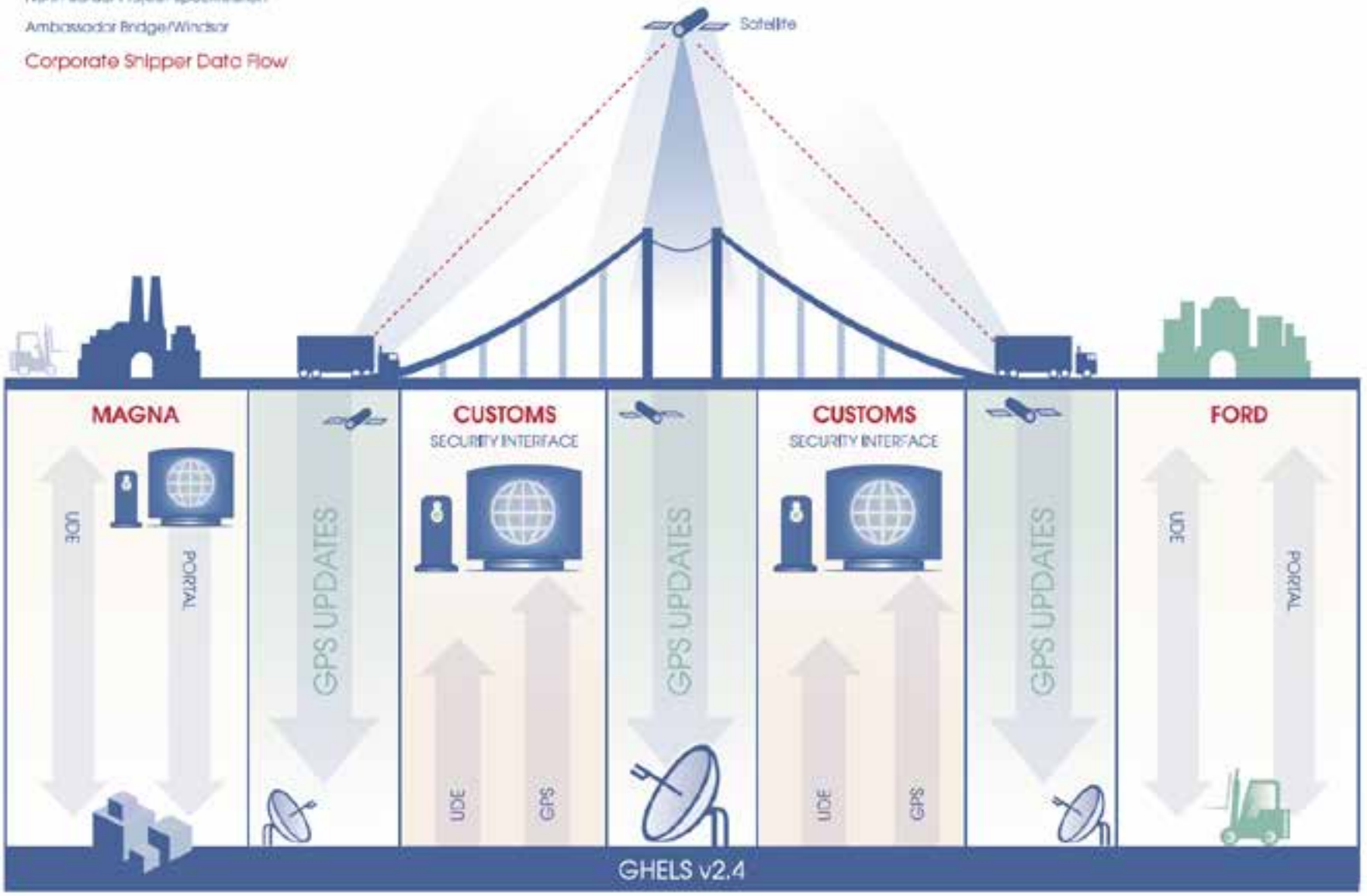
(Please visit: camp.house.gov/press/pressrelease.aspx?NewsID=1117 for full document text.)

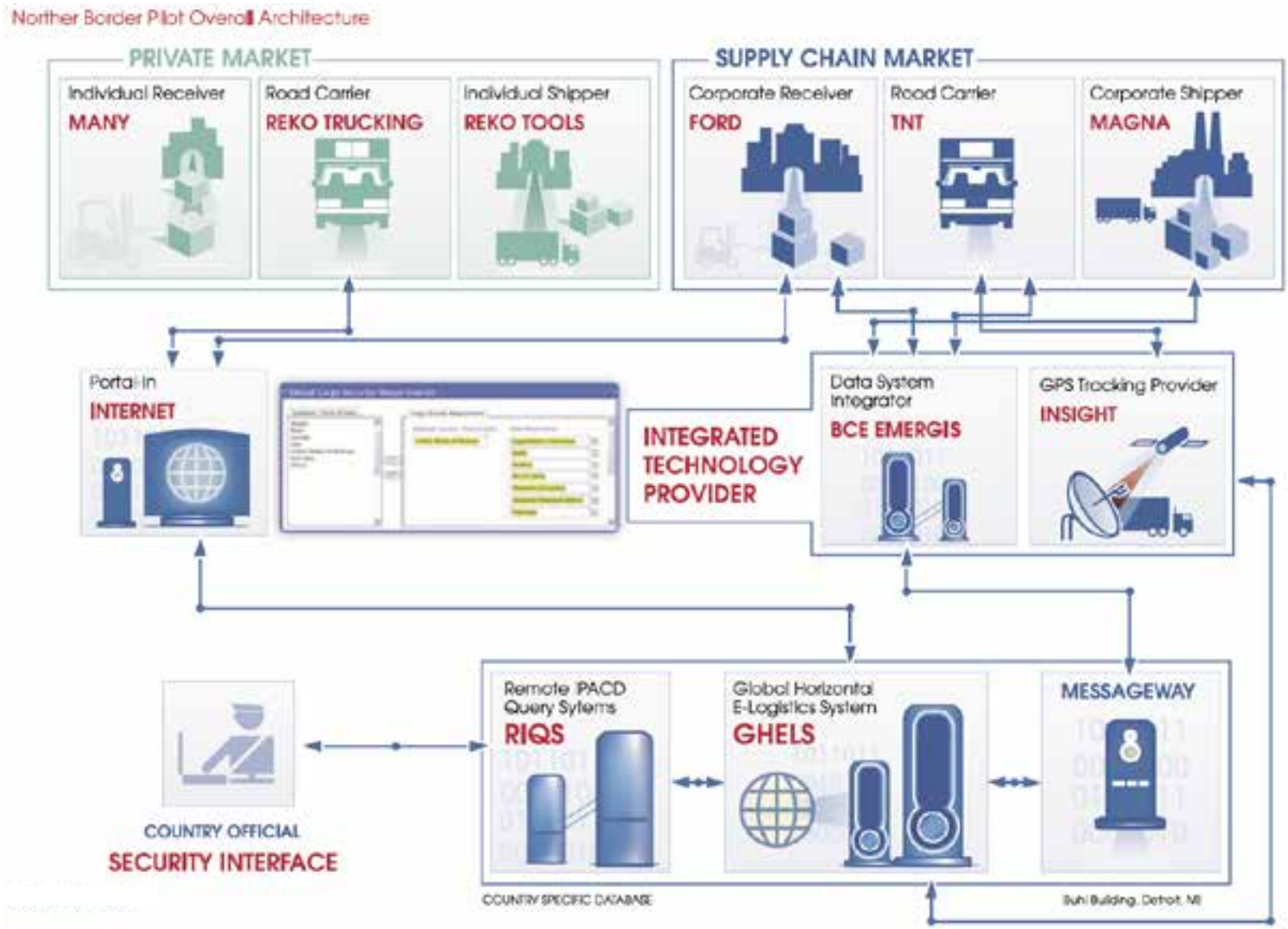
**F- Security Initiatives Grid**

North Border Project Specification

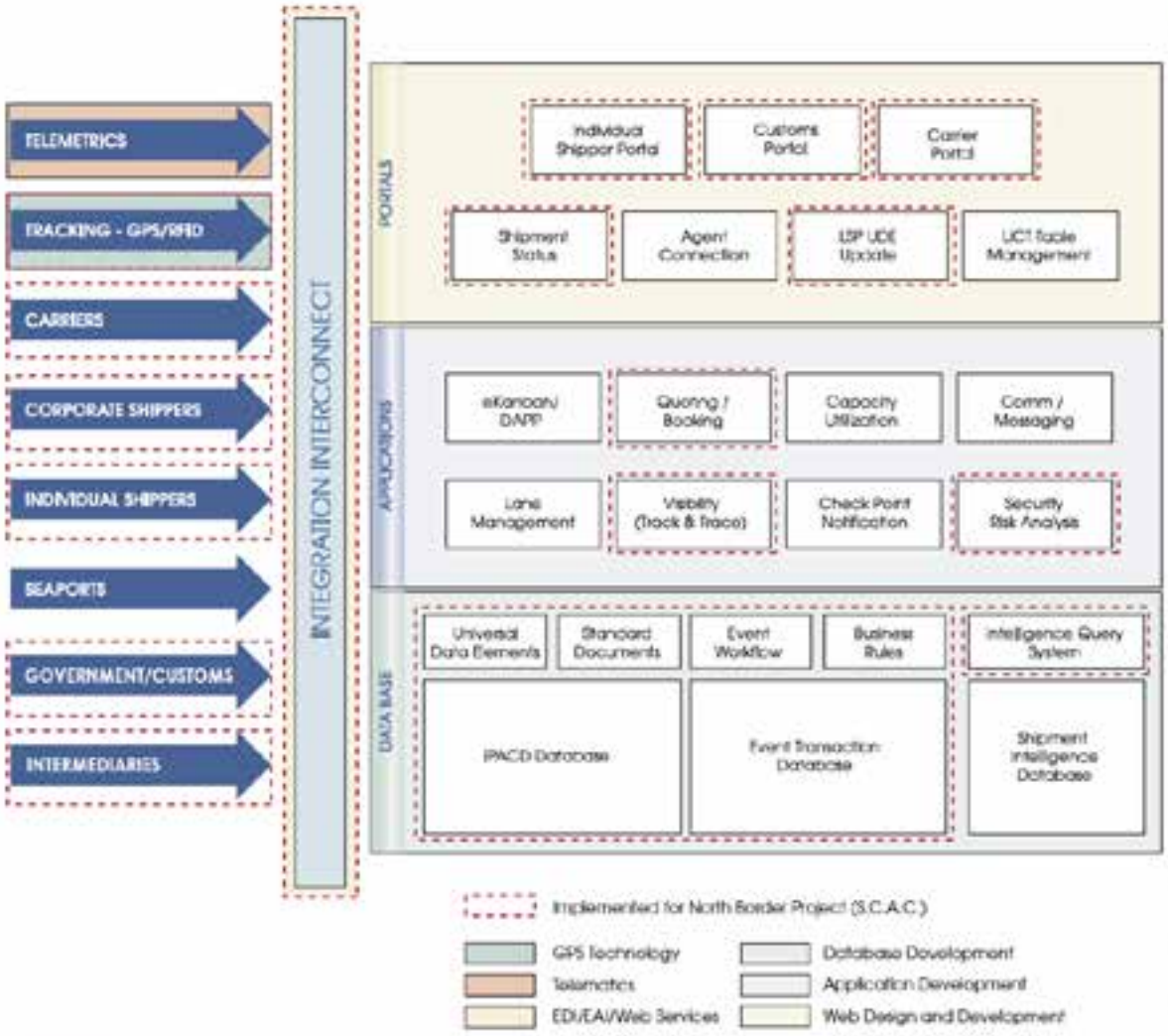
Ambassador Bridge/Windsor

Corporate Shipper Data Flow





## Roles & Participation




| DEVELOPMENT | GHELS 2.4 | GHELS 3.0 |
|---|---|---|
| Individual Shipper Portal | 40% | 100% |
| Customs Portal | 60% | 100% |
| Carrier Portal | 30% | 100% |
| Shipment Status | 30% | 100% |
| Agent Connection | 0% | 100% |
| LSP UDE Update | 30% | 100% |
| UCT Table Management | 0% | 100% |
| eKanban/DAPP | 0% | 100% |
| Quoting / Booking | 40% | 100% |
| Capacity Utilization | 0% | 100% |
| Comm / Messaging | 10% | 100% |
| Lane Management | 0% | 100% |
| Visibility (Track & Trace) | 50% | 100% |
| Check Point Notification | 0% | 100% |
| Security Risk Analysis | 50% | 100% |
| Universal Data Elements | 50% | 100% |
| Standard Documents | 40% | 100% |
| IPACD Database | 30% | 100% |
| Event Workflow | 30% | 100% |
| Business Rules | 40% | 100% |
| Event Transaction Database | 40% | 100% |
| Intelligence Query System | 50% | 100% |
| Shipment Intelligence Database | 0% | 100% |

# CARGO SECURITY ENHANCEMENT MATRIX

| Security Enhancements | | GHELS | U.S. Initiatives | | | | | Canadian Initiatives | |
|---|---|---|---|---|---|---|---|---|---|
| | | | C-TPAT | Fast | CSI | AMS | ACE | CSA | PIP |
| Import/Export Histories of Shipper/Warehouse | National | Yes | Yes [1] | Yes [1] | No | Yes | Yes | Yes [1] | No |
| | Global | Yes | No | No | No | No | No | No | No |
| History of the Enterprise including FF, NVOCC, Customs Brokers, Carriers, Intermediaries | National | Yes | Yes [1] | Yes [1] | No | No | Yes | Yes [1] | No |
| | Global | Yes | No | No | No | No | No | No | No |
| Shipment Event Visibility | National | Yes | No | No | No | Yes [4] | No | No | No |
| | Global | Yes | No | No | No | No | No | No | No |
| Shipment Movement Tracking | National | Yes | No | No | No | No | Yes | No | No |
| | Global | Yes | No | No | No | No | No | No | No |
| 3-D Arrival Time Comparisons (Contracted, Forecast, Actual Arrival) | National | Yes | No | No | No | No | No | No | No |
| | Global | Yes | No | No | No | No | No | No | No |
| Proactive Risk Assessment and Flagging (Intelligent Targeting) | National | Yes | No | No | No | No | Yes | No | No |
| | Global | Yes | No | No | No | No | No | No | No |
| Domestic Shipment Visibility | National | Yes | No | No | No | No | Yes | No | No |
| | Global | Yes | No | No | No | No | No | No | No |
| Commercial Benefits for Compliance | National | Yes | Yes | No | No | No | Yes | Yes | No |
| | Global | Yes | No | No | Yes | No | Yes | No | No |
| Interagency sharing of information for risk assessment and targeting prior to arrival | National | No | No | Yes | Yes | Yes | Yes | Yes | No |
| | Global | No | No | No | No | No | No | No | No |
| Pre-arrival clearance review for truck, air, rail, and sea | National | Yes | No | Yes [5] | Yes [1] | Yes | Yes | Yes | No |
| | Global | Yes | No | No | No | No | No | No | No |

| Security Enhancements | | GHELS | U.S. Initiatives | | | | | Canadian Initiatives | |
|---|---|---|---|---|---|---|---|---|---|
| | | | C-TPAT | Fast | CSI | AMS | ACE | CSA | PIP |
| Review of all import, export, and in-transit Customs transactions | National | Yes | No | No | No | Yes | Yes | Yes | No |
| | Global | Yes | No | No | No | No | No | No | No |
| Indentification & expediting of low risk cargo | National | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| | Global | Yes | No | No | No | No | No | No | No |
| Timely Analysis | National | Yes | No | Yes | No | Yes | Yes | Yes | No |
| | Global | Yes | No | No | No | No | No | No | No |
| Infrastructure for Integrated Information | National | Yes | No | No | No | Yes | Yes | No | No |
| | Global | Yes | No | No | No | No | No | No | No |
| Integration with Participating Government Agencies | National | No | No | No | No | Yes | Yes | No | No |
| | Global | No | No | No | No | No | No | No | No |
| Intelligence Focus | National | Yes | No | Yes | No | Yes | Yes | Yes | No |
| | Global | Yes | No | No | No | No | No | No | No |
| Leveraging Distributed Expertise | National | Yes | No | No | No | No | Yes | No | No |
| | Global | Yes | No | No | No | No | No | No | No |
| Single sign-on to Govt Integrated Systems including ACS, AES, TECS, and Targeting | National | No | No | No | No | No | Yes | No | No |
| | Global | No | No | No | No | No | No | No | No |
| Internet and EDI-based transaction receipt of Information | National | Yes | No | No | No | Yes | Yes | No | No |
| | Global | Yes | No | No | No | No | No | No | No |

1. Based on voluntary reporting in original application
2. Currently for Sea Shipping Only
3. Currently for Land Shipping Only
4. Currently for Air Only-Pre-Deprture Info

## PUBLIC CONGRESSIONAL TESTIMONY

Please visit: camp.house.gov/pressrelease.aspx?NewsID=117 for full document text

# BEST BUSINESS PRACTICES FOR SECURING AMERICA'S BORDERS

## HEARING

OF THE

## SUBCOMMITTEE ON INFRASTRUCTURE AND BORDER SECURITY

BEFORE THE

## SELECT COMMITTEE ON HOMELAND SECURITY

## HOUSE OF REPRESENTATIVES

ONE HUNDRED EIGHTH CONGRESS

FIRST SESSION

JULY 23, 2003

**Serial No. 108–20**

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will feed in this data so we can have a record and a single source system that will give us the information we need to flag a suspicious shipment or suspicious enterprise.

Thank you, Mr. Chairman.

[The statement of Mr. Salloum follows:]

PREPARED STATEMENT OF CAPTAIN HOUSSAM SALLOUM

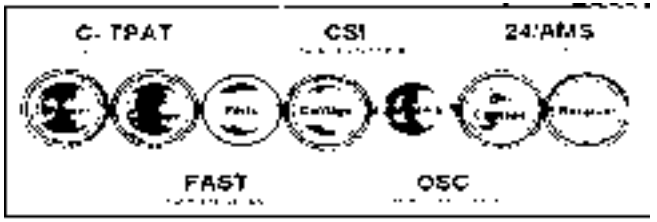
**Introduction**

The leadership of the U.S. Department of Homeland Security in developing plans to protect our borders is to be commended. This department through the Customs & Border Protection has the extremely demanding "dual challenge of protecting our citizens and our borders from terrorists and the implements of terror, while facilitating the flow of legitimate trade."

Following September 11, 2001 multiple Homeland Security programs have been launched to protect our borders from terrorist incursions via commercial shipments. These programs include Operation Safe Commerce (OSC), The Container Security Initiative (CSI), Customs Trade Partnership Against Terrorism (C–TPAT), and the Advance Manifest System (AMS).

These initiatives have been created to address specific subsets of shipments. In essence, the flow of a shipment has been broken down by tasks. This is due to the fragmented nature of international shipping. To illustrate, a relatively simple lane from a GM Silao assembly plant in Mexico to dealerships in Jacksonville, Florida involves 19 shipping events with 11 different companies, each employing their own proprietary information management systems. In global lanes, transshipments and consolidations can significantly increase the number of events and participating organizations.

For years, the global shipping industry has been seeking new methods to integrate these participants in order to improve efficiency and boost profits. Yet, no end-to-end system to manage this industry exists today. Given this reality, the U.S. Department of Homeland Security had little choice but to concentrate enforcement efforts on specific entities. This has led to overlaps. For instance, one shipment may be impacted by five different initiatives from the Customs & Border Protection alone. Any given entity may also be impacted by multiple initiatives.




As shown above, shippers/receivers, carriers, and intermediaries are invited to join C–TPAT and FAST. While CSI is designed for ports program may impact nearly every entity involved in shipping. Likewise, under the "24-hour" rule carriers electronically file manifest information. Nevertheless, this rule affects all shipping participants, since this information is supplied by shippers and may delay delivery if it is not presented properly. Since these overlaps involve only one government agency and these programs already lead to concerns amongst shipping participants, they may wonder about the following:

- What sort of overlaps will exist once the Office of Homeland Security becomes fully operational?
- What sort of overlaps will exist when international governments and the World Customs Organization introduce their own cargo security rules?
- Why is there no coordinated, global approach to cargo security?

**Combining Efficiency and Security**

The global economy demands efficient and secure global logistics. For any security system to be embraced worldwide, it must include commercial benefits. In other words, efficiency and security must go hand in hand. Efficiency by itself may com-

promise security. In contrast, overarching cargo security rules and regulations could damage the economy. Therefore, a comprehensive public/private sector solution must be implemented in order to economically and effectively deal with cargo security challenges. To encourage maximum private-sector involvement, the overall solution must deliver commercial benefits.

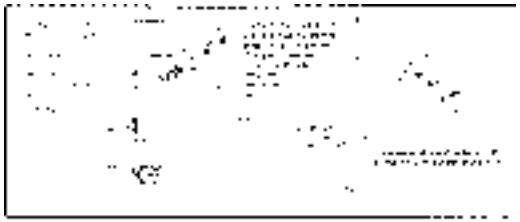
As an illustration, consider sea ports. Ports around the world are now being squeezed by seemingly opposing forces.

- Requirements of security initiatives to provide for more inspections, and improve the security of facilities.
- Pressures from shippers and carriers to process cargo faster and more efficiently.
- Real business needs to contain costs and improve profitability.

Failing to accommodate all of these forces will lead to imbalances that may result in financial losses, delays in the processing of cargo, and/or compromised security. None of these developments is acceptable.

We assert that to effectively address cargo security whether domestically or internationally, a holistic system must be enabled that takes the entire flow of global shipments into account, from the empty container in a depot to the final receiver. Such a comprehensive approach must strive to meet two core objectives; 1) Encourage widespread private sector involvement by improving the process efficiency and profitability of all parties involved in shipment flows, and 2) Deliver cargo security improvements from the private sector that complement and reinforce official rules and regulations.

**Cargo Security Guidelines Require Global Visibility**



Suggested cargo security guidelines include;

- To be proactive, U.S. Homeland Security agencies must collect real-time global shipping activity data and apply sophisticated artificial intelligence in order to identify and flag suspicious shipments, regardless of port or country of origin.
- When addressing U.S. national security, it is crucial to cross-check data from official sources with private sector data to test for integrity and consistency.
- U.S. national security should not depend on the integrity or capability of a single source of information or individual data sources in foreign countries.
- Limitations in technology capabilities in foreign countries should not hinder the flow of timely quality data from any foreign country.
- Despite any political or cultural differences, U.S. agencies should be able to receive reliable data from foreign countries.

**Cargo Security Initiatives Enhancement**

Keeping the above guidelines in mind, let us now consider how the following three primary Customs & Border Protection initiatives can be enhanced; the Customs Trade Partnership Against Terrorism, the "24-hour" rule, and the Container Security Initiative.

**Customs Trade Partnership Against Terrorism**

*C–TPAT is the Customs Trade Partnership Against Terrorism. This private/public sector partnership involves Customs inviting private companies involved in the flow of a shipment, from shipper to receiver, to help improve international supply chain security by applying "best practices" for security to their organizations.*

**Issues**

C–TPAT is a good concept and the underlying ideas of voluntary "best practices" programs to improve supply chain security are reasonable. Yet, officials within homeland security have stated that mandates will be required in order to truly improve cargo security on the large scale. New cargo security legislation and advanced manifest laws provides previews of mandates to come.

On the global scale, corporate shipments are vulnerable based upon the realities of international shipping. C–TPAT members may have the most secure organizations, contract only secure suppliers, and utilize secure intermediaries and still have their shipments delayed or hijacked based upon the following reasons:

- C–TPAT cargo mixes with less secure cargo on the same vessel.
- Corporate shipments may be used by terrorists as a cover-up for their activities.

To address these issues, a comprehensive security system should be enabled that addresses high-volume and low-volume shipper's shipments as well.

The top twenty-eight ocean container carriers represent approximately eighty percent of the global movement of sea containers. Therefore, by establishing twenty-eight secure data connections, the majority of global shipping data will be accessible. Applying artificial intelligence to this commercial data and establishing two monitor lists, Enterprise Monitor List (EML) and Shipment Monitor List (SML), will enable new capabilities to flag suspicious enterprises involved with a given shipment and/or a suspicious shipment itself.

Shipments will be monitored for data mismatches, data anomalies and shipment flow deviations. In other words, through integration with corporate shipper supply chain management systems, the SML will identify the responsible parties who load, survey and move shipments throughout global supply chains. In addition, the system will know how long various events should take and how long they actually took (forecast vs. actual). This capability will be enabled by the process of combining global events with satellite tracking.

This approach has been independently validated by other organizations that recognize the strengths of enhancing official programs with private sector initiatives. In its recent *Cargo Security White Paper* the National Customs Brokers and Forwarders Assoc. of America, Inc. (NCBFAA) outlined some ideas to enhance C–TPAT and cargo security. In particular, they summarized a "Chain of Custody Dataset" or CCD. The CCD looks very much like the EML and SML approach. According to the NCBFAA, the CCD ". . . will provide the deep penetration into supply chain risk evaluation that is necessary to detect security risks from the remotest source to the final receiver."

**The Advance Manifest System**

*The "24-hour" rule states that ocean carriers must electronically submit completed shipment manifest information to Customs & Border Protection, via their Automated Manifest System, 24-hours prior to loading vessels bound for U.S. ports. As of December 2, 2002, Customs & Border Protection made this rule mandatory. This rule has also become law under the Port and Maritime Security Act of 2001 (S.1214). Effective October 21, 2003 this law will be expanded to include truck, rail, and air. Reporting times vary by mode. For instance, the interim ruling states that truck carriers must submit their electronic manifest information from 30 minutes to 1 hour before they arrive at U.S. border crossings.*

By far the most controversial law designed to address cargo security is the "24-hour" rule. There has been considerable resistance from the private sector to the "24-hour" rule. For example, in extensive comments to Customs & Border Protection concerning this matter, World Shipping Council President Christopher Koch articulated several industry concerns with this plan. Mr. Koch and the forty-plus ocean carriers he represents have expressed concerns about potential negative impacts the "24-hour" rule may have on their businesses.

**Issues**

There are also several security and operational problems associated with the overemphasis on shipment manifest information in existing cargo security plans. The shipment manifest was never intended to be an informational resource for cargo security. The shipment manifest is the sum of bill of ladings associated with a vessel/voyage. It is noteworthy that the shipment manifest is a key component of S.1214 which "requires ships to electronically send their cargo manifests to a port before gaining clearance to enter, and prohibits the unloading of improperly documented cargo."

**The ultimate sources of manifest information are the shippers.** In essence, the system is relying upon shippers to be honest about what they are shipping. And when certain officials were asked how they would confirm that manifests are filled out correctly, they proposed to ask the freight-forwarder. This begs the following questions;

- How will the freight forwarder actually know what was in a container?

- How effective is any process for identifying suspect shipments that relies on shipment manifest information self-reported by shippers?

Since freight-forwarders only charge nominal fees to submit bill of lading instructions on behalf of shippers, they can not afford to physically inspect shipments. Therefore, freight forwarders do not actually know what is in a container. The only person who actually knows what is in a container is the shipper. In essence, there are two principal issues associated with relying on shippers to provide information used to screen their own shipments.

- How can government agencies be certain of any given shipper's integrity?
- Even when a shipper is reliable, can his or her shipment still be hijacked by terrorists?

Once again, enabling EML and SML capabilities will help to confirm or deny the integrity of shippers and/or shipments on the global scale. Intelligently analyzing historical private sector shipping data concerning large and small participants involved in a shipment and introducing real-time monitoring of shipment data will help address the issues outlined above. In addition, incorporating the systems of land, air, and/or ocean carriers will provide up-to-date information about the actual movements of the international freight of corporate and individual shippers.

**The Container Security Initiative**

CSI is the Customs & Border Protection Container Security Initiative. The idea behind CSI is "pushing back the borders" to the port of origin. This plan involves stationing Customs & Border Protection inspectors in foreign ports to assist the prescreening of containers bound for the US. Initially, the top twenty mega-ports, representing "roughly 68 percent of the 5.7 million sea containers entering the U.S. annually" were invited to join CSI.

**Issues**

Due to the nature of the shipping business, ships that are employed on regular service typically call on about eight ports per voyage on average. Therefore, their itineraries are not limited to mega-ports. The common links between these ports is the vessel. A given port could invest large amounts of resources to address the security of cargo moving through that port, and yet a ship sailing from this secure port could be denied entry into a U.S. port due to suspicious containers that were loaded at smaller ports that are not part of CSI.

Additional political and economic factors have emerged that bring the present design of CSI into question. For some time, U.S. ports have been concerned that the "24-hour" rule may provide a competitive advantage for Canadian ports. This is due to the fact that shipments being unloaded in Canadian ports, ultimately bound for the U.S. via road or rail, are not subject to the "24-hour" rule. U.S. ports have legitimate concerns that cargo may be diverted from U.S. to Canadian ports as a result. Another perspective on CSI came to light in a *NY Times News Service* article *Port Security Plan Irks Europeans (11/6/02)*. According to this report, "European Union officials are concerned that the program's incentives favor those ports that sign the agreements and penalize those that either refuse or are too small to take part." Likely, cargo that has been pre-screened at CSI ports will be subject to less rigorous inspection at U.S. ports than non-CSI shipments. EU officials state "that companies shipping goods to the United States will start rerouting their cargo to ports like Rotterdam, depriving others of business and potentially creating bottlenecks in some shipping regions." As if to drive home this point, 'A Dutch customs official *(stated)* the U.S. agreement was not just a way to prevent terrorist attacks. "It's good for business," she said.' The EU views European Customs agreements as European Community agreements. Therefore, "the EU is considering the possibility of beginning infringement procedures against countries that have signed on to the initiative." Even though a compromise was reached to avoid this suit, it points out how cargo security rules may have unintended consequences.

Since the common denominator regarding international ocean freight movements are ships, not ports, methods to confirm the integrity of containers aboard ships must be put into action. Incorporating vessel specific information into the EML and SML system will improve the intelligent screening of cargo at any port and terminal. When integrated into port security and customs operations, this approach will improve the targeting of cargo for scanning or inspection by customs officials. This technique will help address the competitive and operational issues associated with the present design of CSI. Significantly, this approach has been recognized by top officials within U.S. Homeland Security Departments as "ahead of the game."

**Commercial Benefits**

Any commercially viable e-logistics network should be designed to standardize and simplify shipping processes for shipping participants. It should offer smart business tools to enhance the reliability and dependability of logistics by bringing shippers and carriers closer together, helping organize the private shipping market, and improving logistics providers' service delivery. Increased costs of enhancing cargo security should be offset by a system that provides economic benefits. Following are key benefits such a system should deliver for members of the global shipping community.

**Carriers:**

- Unique tools for managing capacity utilization and minimizing dead space.
- Organizing the private shipping market.
- Minimizing non-value-added activities between shippers and carriers, increasing carrier and shipper ROI.
- Enhancing relationships with contracted corporate shippers via integration into global supply chain management systems.
- Compliance with new and emerging international governmental cargo security regulations.

**High-Volume Shippers:**

- Integrating Just-In-Time Inventory with JIT Shipping.
- Global Coverage and Tracking.
- Global Visibility (status, freight costs, survey).
- Global Documentation and Claim Processing.
- Automated Exception Processing.
- End-to-End Real Time Performance Monitoring.
- Compliance with new and emerging international governmental cargo security regulations.

- Low-Volume Shippers:
- Allowing shippers to evaluate and select carriers serving desired destinations, based upon individual shipment needs.
- Allowing shippers to obtain real-time rate quotes, complete bookings, and submit bills of lading online.
- Providing shippers with access to information concerning customs, insurance, financing, and warehousing, etc.
- Providing, for example, an Italian shipper moving cargo from Brazil to South Africa, with door-to-door shipment to obtain personalized service provided through the selected carrier's local agent networks.
- Standardizing and expediting claims processes.
- Standardizing and expediting documentation processes.
- Delivering global coverage using multiple carriers and multiple modes of transport.
- Enabling real-time global tracking by combining GPS and/or RFID with event status reports.

**Ports:**

- Cost effective means to target suspect shipments for inspection prior to loading.
- Cost effective means to target suspect shipments entering the home country.
- Providing smart tools to help plan and maximize port capacity utilization.

Delivering commercial benefits for all participants in global logistics must be the basis of any security system. This approach will place that system in a distinctive position of helping to enhance cargo security, while improving the efficiency of private companies' global logistics networks.

**Conclusion**

The required technology should provide proactive information to multiple security agencies. Let's take as example a containers coming to the United States by ship. **Intelligence Agencies:** The system must provide intelligence to the intelligent agencies about the warehouse activities overseas. **Coast Guard:** On board ship and now six miles from the U.S. port of entry, proactive information is made available to the United States Coast Guard on the contents of the ship, and what's in the containers. The Coast Guard now knows the immediate history of the ship and its cargo. Any suspicion results in stopping the ship while it is still in international waters. **Customs:** At the ports, the US Customs agents are given all information necessary to flag suspicious shipments or enterprises. But the information flow doesn't end here. **FBI/State police / Local law enforcement:** When the freight/goods leave the port of entry for an in-country delivery or drop off, the system will automatically track each shipment. Any time the shipment deviates a signal will be sent automatically to local enforcement officers. This is necessary and now possible for domestic security.

In order to tackle the significant potential threats posed by the massive volumes of domestic and international cargo shipments, any solution must be commercially viable and be able to rapidly scale to handle high transaction volumes. Such a global solution must also provide methods to include every entity involved in the global shipping industry (land, air, and sea) into a cohesive cargo security strategy. To encourage maximum private-sector involvement, the overall solution must provide clear commercial benefits.

Axiolog appreciates being invited to address this committee, and looks forward to assisting your continued efforts in protecting America's borders.

**STATEMENT OF W. SCOTT GOULD, THE O'GARA COMPANY**

Mr. GOULD. Mr. Chairman, thank you for inviting me here today to participate in the discussion about Best Business Practices for Securing America's Borders.

The previous witnesses and Mr. Katz have focused their remarks on specific kinds of systems and technologies that could secure our land borders and other ports of entry and prevent the entry of terrorists and weapons of mass destruction to our shores. I will focus my remarks in a different, but equally important direction, specifically on the best practices that government can utilize to ensure that it makes appropriate and beneficial investments in homeland security systemwide. These best practices are an application of portfolio investment techniques and the creation of common and open standards for technology purchased through the Federal procurement system.

Recently, my company, The O'Gara Company, published a report on these and related topics entitled "The Homeland Security Market: Corporate and Investment Strategies for the Domestic War Against Terrorism." I have copies of that for Members and staff. Key excerpts from this report can be found at the end of my written testimony. My co-author, Chris Beckner, and I would be happy to make full copies of the report available after the hearing.

Making appropriate investment decisions and allocating resources in alignment with the threats to homeland security that the country faces today are challenging issues for leaders in Congress and the administration. In the Department of Homeland Security, where it is the plan to spend large amounts of money reasonably quickly, we need a disciplined portfolio investment process which will guide the department toward a better overall outcome within its budget constraints. Such a process would require a common threat vulnerability assessment approach, a common measure of risk, a process to rank-order investments using cost-benefit analysis and resource allocation methodologies, and finally, a means to link these decisions to the budget and procurement process.

To advance this effort, we have developed a framework to help senior policy-makers think through these issues called the security portfolio investment approach. The approach borrows from analytical tools that corporations use to assess the attractiveness of investments in the private sector today.

Another approach could be developed; the point here is that one should be used to make these complex decisions. The framework is dynamic, it will require difficult judgments, but these challenges can be managed. Use of an approach like this one will help ensure that taxpayer dollars are used wisely to fight terrorism.

# SECURITY INITIATIVES GRID

The following list outlines the global security requirements for current / pending legislation and related security initiatives and indicates GHELS's compliance. Companies can avoid the cost of developing their own compliance system by adopting GHELS where new requirements are automatically updated.

| | PROGRAM | REQUIREMENTS | COMMENTS | GHELS MEETS REQUIREMENTS | |
|---|---|---|---|---|---|
| U.S. INITIATIVES | | | | | |
| 1 | Maritime Transportation Antiterrorism Act of 2002 (S.1214) (U.S.) - Passed into Law 11/25/02 | Vessel / Facility Anti-Terrorism Plans | Ships and port facilities are required to submit anti-terrorism security plans to the U.S. Coast Guard. | ✔ | GHELS supports security planning by delivering history information regarding in-bound shipments and of all participants in the chain of custody. Security risk analyses run against the data strengthens vessel and facility anti-terrorism efforts. |
| | | Port Vulnerability Assessments | The vulnerability assessment is an audit of the current state of the ports security infrastructure and is used to support the anti-terrorism plans for the port. | ✔ | GHELS provides the transparency of these shipments so that risk assessments may be executed and «safe» cargo cleared. Unauthorized entry into port facilities is prevented while maintaining the velocity of cargo movement with the complete visibility of all shipments bound for the port via land and sea. |
| | | Transportation Security Cards | Transportation security cards are intended to register and identify every worker who enters the port facility. | ✔ | GHELS provides the flexibility to convey transportation security card data electronically to any appropriate agency. |
| | | Passenger and Crew Manifest | | ✔ | Because GHELS is integrated into carrier systems, passenger and crew manifest data is captured and can be used to evaluate against history data for discrepancies, mistakes, or fraud. |
| 2 | Intermodal Shipping Container Security Act of 2004 (S.2297) (U.S.) - Submitted and read 4/7/2004 | Strategic planning for integration of security for all modes of intermodal transportation for arriving, departing, or moving interstate in the U.S. | | ✔ | GHELS enables the integration of international security processes with domestic ones with the management of end-to-end freight delivery. |
| | | Increasing the number of containers physically inspected within the U.S. | | ✔ | GHELS helps improve the targeting of high-risk shipments. The result is an increase in the percentage of high-risk shipments that are inspected without necessarily increasing the number of containers inspected. |
| | | Implementation strategy mandating use of smart seals or containers | Smart seals and containers fail to take into account pertinent shipment details such as the complete history of the shipment and all of the participants. | ✔ | Used in conjunction with the GHELS Global Horizontal e-Logistics System, smart seals and containers combine real-time intrusion detection and global positioning with a wealth of information regarding who loaded the container, who touched it in route, and where it's going. GHELS uses this information to elevate the security and efficiency across the entire chain of custody of a shipment. |
| | | Standards for global tracking and the assessment of the integrity of containers | U.S. standards for container tracking must be compatible with international standards to assure the visibility of the containers across all modes of transport and all points of origin. | ✔ | GHELS supports international standards while adapting to local requirements to provide a comprehensive solution. |

| | PROGRAM | REQUIREMENTS | COMMENTS | GHELS MEETS REQUIREMENTS | |
|---|---|---|---|---|---|
| U.S. INITIATIVES | | | | | |
| 3 | CSI (U.S.) | Target largest foreign seaports with container traffic to the U.S. | Developing countries cannot be left out of global commerce initiatives. | ✔ | GHELS is accessible from every port without prohibitively expensive technology while preserving existing technology investments. |
| | | Prescreen container shipments at the port of origin in advance of loading onto ship | Containers pose a security risk before arriving at ports. Pre-screening must start with empty containers and be followed up with tracking of the stuffing, transport, and load of the containers through to final delivery | ✔ | GHELS's shipment definition, quoting, booking, and tracking processes links the empty container to the shipment, the carriers, the ports, and the destination to provide essential detailed information about every aspect of the shipment |
| | | Use non-intrusive inspection (NII) and radiation detection systems to scan containers | | ✔ | The advance knowledge of the shipment prior to arrival at the port gate that is provided by GHELS enables the expediting of low risk shipments and optimized use of scanning technologies. |
| | | Provide U.S. officials with legal authority to collect data on shipments at the foreign ports | | ✔ | Shippers, carriers, and other participants provide data to GHELS, voluntarily improving efficiency and facilitate security processing at all checkpoints. U.S. and other international security entities are authorized to access this information. |
| 4 | 24-Hour Rule (U.S.) | Advance, automated submission of cargo manifest information to the U.S. government is mandatory.<br>Sea cargo manifests must be submitted 24-hours in advance of loading (active rule)<br>Rail, air, and road requirements will require timeframes ranging from 4 hours to 1/2 hour (not yet activated) | Manifests are notoriously unreliable formats for depicting shipment contents. In addition, the reliance of security scans at the port of departure ignores essential data regarding the point of origin and the activities prior to that port. | ✔ | GHELS automatically delivers all of the data required by U.S. and international automated manifest programs; plus additional data regarding shipment and participant histories to assure the easiest possible review and release of cargo. This information can be embedded into an encrypted 2D barcode seal to enhance shipment targeting, tracking and visibility. |
| | | Additional rules are being implemented by the U.S. for rail, air, and truck | AMS rules creates a burden of compliance for the carriers | ✔ | GHELS is a private sector initiative that allows for the development of international standards for a cost effective entry and submission of the data that meets any requirements. |
| | | Automated targeting systems will assess shipments for risk | | ✔ | Targeting and inspection capability is enhanced with GHELS through the transparency of enterprise data regarding shippers, carriers, and all participant histories, and shipping data including activity reporting, arrival times and suspected information gaps |
| 5 | C-TPAT (U.S.) | Voluntary program supporting security initiatives | | ✔ | GHELS provides cross-check capability from multiple sources so that risks may be properly assessed. |
| | | Development of a "trusted shipper" database | | ✔ | GHELS provides a global "trusted shipper" database that transcends nation-specific initiatives. |
| | | Validation process to identify and support "best practices" in cargo security | | ✔ | GHELS incorporates international "best practices" into all facets of its development and implementation |

| | PROGRAM | REQUIREMENTS | COMMENTS | GHELS MEETS REQUIREMENTS | |
|---|---|---|---|---|---|
| U.S. INITIATIVES | | | | | |
| 6 | **Advance Cargo Information (exports) (U.S.)** | Application of automated manifest processes to U.S. exports via sea, air, rail and road using the existing AES system | Exporters and export carriers are required to submit manifest data electronically within the following time frames:<br>- Air: No later than 2 hrs prior to scheduled flight departure<br>- Rail: 4 hrs prior to connecting to a locomotive<br>- Truck: 1 hr prior to arrival at the border<br>- Ocean: 24 hrs prior to departure | ✔ | GHELS provides AES and AMS capability to simplify the customs reporting process. Data fields on all customs submission forms are populated from existing data. |
| 7 | **FDA Regulations (U.S.)** | Advance notification to FDA for food "imported or offered for import" into the U.S. | The FDA requires that food importers must submit a "prior notice" (PN) electronically before arrival at the border via the automated broker interface or the prior notice system interface. | ✔ | GHELS adapts to these requirements, and those of other countries, without placing the burden of compliance on the shippers and carriers. |
| | | Includes food products being unloaded at U.S. ports for transshipment to another vessel for transport to a foreign country and for food products moving in-bond for export and consumption in another country | Difficulties in implementation stem from the lack of comprehensive global data regarding the shipment and the associated logistics enterprises. | ✔ | GHELS consolidates from the entire chain of custody to deliver both security and efficiency in logistics operations. Transshipment information, including that which is bound for a foreign country, is easily extracted for automated submission to federal authorities. |
| | | Requires scanning & electronic reporting technologies | Many technologies and information systems are not generally available to developing countries. These countries cannot be left out of global commerce initiatives. | ✔ | GHELS is a global solution that is accessible from every port without the need prohibitive technology |
| 8 | **Operation Safe Commerce (U.S.)** | Identification and testing of new security technologies | Technologies, by themselves, cannot be a solution. | ✔ | GHELS is a holistic solution that utilizes multiple point technologies to identify, track, and target high-risk shipments while delivering operational efficiencies. |
| | | Standards for electronic seals and smart containers | U.S. standards will apply only to the U.S. and those countries in the international community that choose to adopt them. Different standards for seals and containers will be inevitable. | ✔ | GHELS provides the environment where different standards can be addressed. AxioSeal, the low-cost 2D barcode seal made by GHELS, is an option that replaces or compliments the capability of current electronic seals. |
| 9 | **Electronic Filing of Crew Information (U.S.)** | INS rules that are consistent with Coast Guard Notice of Arrival (NOAs) requirements | | ✔ | Crew data will be tracked with GHELS along with existing histories in the same way that other logistics resources (i.e. equipment) are tracked. |

| | PROGRAM | REQUIREMENTS | COMMENTS | | GHELS MEETS REQUIREMENTS |
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| U.S. INITIATIVES | | | | | |
| 10 | **Transportation Worker Identification Card (U.S.)** | ISA system of background checks and ID cards for transport workers in the U.S. | | | GHELS is customizable to meet the requirements of any number of security initiatives. Transport workers and crew members are linked to their conveyances and are tracked globally. |
| 11 | **Crew List Visas (U.S.)** | Biometric seafarer identification document will contain all of the data required for the processing of a U.S. visa | | ✔ | GHELS is customizable to meet the requirements of any number of security initiatives. Transport workers and crew members are linked to their conveyances and are tracked globally. |
| 12 | **FAST program (U.S., CA, MEX)** | Voluntary program supporting security initiatives | | ✔ | GHELS provides data from multiple sources that can be used to cross-check official documents so that risks may be properly assessed. |
| | **PROGRAM** | **REQUIREMENTS** | **COMMENTS** | | **GHELS MEETS REQUIREMENTS** |
| **INTERNATIONAL INITIATIVES** | | | | | |
| 13 | **WCO Advance Cargo Information Guidelines (International)** | ID of key data elements for pre-screening of consignments before shipment | | ✔ | GHELS collects and manages data elements that exceed all nation-specific requirements. All of the U.S., WCO, and other required data element requirements are met within a single system. |
| | | Urging of customs administrations to participate in "cargo communities" to receive electronic data | | ✔ | GHELS is the only global horizontal cargo system that can manage the fragmented cargo industry while delivering efficiency to participants across multiple shipping enterprises. |
| | | Commitment from customs agencies to apply preferential treatment to "secure authorized economic operators" with authorized trader status | | ✔ | GHELS is committed to providing customs agencies with the data they need to review and clear shipments at their borders. GHELS assists customs agencies by delivering shipment details including estimated times of arrival, conveyance details, crew lists, and participant histories. |
| | | Specific implementation practices are left up to individual countries | Multiple-standard implementation practices create complexity and compliance problems throughout the logistics industry. | ✔ | GHELS reduces these difficulties by centralizing the data requirements of every nation and producing nation-specific documents and processes built with existing data. |

| | PROGRAM | REQUIREMENTS | COMMENTS | | GHELS MEETS REQUIREMENTS |
|---|---|---|---|---|---|
| INTERNATIONAL INITIATIVES | | | | | |
| 14 | **ISPS Code (IMO) & Maritime Transportation Security Act (International)** | Automatic Identification Systems (AIS) for ships | | ✔ | The GHELS Global Horizontal e-Logistics System manages the data from ship AIS systems and integrates it with cargo management systems. After reading the AIS data from a ship, authorized officials can match it up with knowledge of what's on board, who's on board, where has it been, where is it going, and compare this data against their official records for validity. |
| | | Continuous Synopsis Record (CSR) onboard showing vessel history | | ✔ | GHELS's GPS tracking enables a cross-referencing of events against multiple sources of live data. GHELS's data, evaluated against official records, will provide not only the visibility of the ship, but a view of all of the shipments and their histories. |
| | | International Ship Security Certificates (ISSC) will be required for ships to participate in trade | | ✔ | GHELS includes the ISSC's in its carrier records, making the compliance status transparent to shippers and logistics service providers. As a result, carrier customers can view the certificates to guarantee the booking of approved carriers for their cargo. In addition, GHELS links these security certificates with compliance certificates for other security initiatives on a global basis. |
| | | Port Facility Security Plans are required | In addition to premises security and access controls, the facility security plans must focus on the identification of potential risks before cargo arrives. | ✔ | GHELS enhances the visibility of shipments bound for the port from the time that the shipments are booked through their arrival. Security risks can then be assessed and acted upon prior to their arrival at the port. |
| | | A "white list" of ports meeting security requirements will be published by IMO | | ✔ | GHELS includes the approved ports list as one part of the selection criteria of ports. Shippers, and others, can review the compliance status of the ports and carriers before booking their shipments. |
| | | Ships docking at ports not on the white list may be denied entry to others | | ✔ | GHELS checks ship itineraries for compliance with security initiatives before preparing a booking to maximize the potential of secure trade. |
| | | Three levels of security alerts | | ✔ | GHELS allows risk assessment rule sets to be configured using multiple risk level criteria. The built-in flexibility can accommodate any number of security alert scenarios. |
| 15 | **ILO Seafarer ID Card (International)** | International Labor Organization program for a universal biometric seafarer ID card | | ✔ | GHELS is customizable to meet the requirements of any number of security initiatives. Transport workers and crew members are linked to their conveyances and are tracked globally. |
| | | Electronic access is to be available | | ✔ | GHELS is customizable to meet the requirements of any number of security initiatives. Transport workers and crew members are linked to their conveyances and are tracked globally. |

| | PROGRAM | REQUIREMENTS | COMMENTS | | GHELS MEETS REQUIREMENTS |
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| INTERNATIONAL INITIATIVES | | | | | |
| 16 | **EU Electronic Customs (E.U.)** | Criteria to be an "Authorized trader" | Authorized traders are still subject to random security checks at international borders. | ✔ | GHELS provides a global "known shipper" database that transcends nation-specific initiatives. Without this centralized database, trading companies will have to be "recognized" in multiple known shipper databases. GHELS's Global Horizontal e-Logistics System manages the requirements and certifications for known-shipper compliance world-wide. |
| | | Single European Authority (SEA) to operate as a single business operating throughout the EU | While SEA enables companies to work across the EU, border security is still required. | ✔ | GHELS provides border control agencies with the data necessary to ensure security while enabling the flow of goods globally. |
| | | Pre-release of shipments | | ✔ | With GHELS, the pre-release of shipments extends beyond the voluntary compliance with security initiatives. All shipment details and the global histories of all shipping participants become transparent to the authorities. Low-risk shipments and trusted shipper enterprises are identified and can be flagged for release. |
| | | Single Automated Access Point<br>Single Point of Release<br>Single Point of Clearance | | ✔ | GHELS effectively enables single points of access, release, and clearance. All information regarding the shipment, its movement, etc. is visible, facilitating the consolidation of data for access from any location. |
| | | Goal is implementation of a common electronic customs system for the EU | Standards for a common electronic customs system in the EU will take some time to be established. In the meantime, cargo and border security cannot be compromised. | ✔ | GHELS provides a common platform for the distribution of shipping and logistics data. Each government has access to the data they need to clear shipments and improve security while maximizing their operational efficiency. |
| 17 | **"Advance Commercial Information (ACI) Initiative (Canada)** Canada | 24-hour rule for Canada | | ✔ | GHELS automatically delivers all of the data required by Canadian security programs plus additional data regarding shipment and participant histories to assure the easiest possible review and release of cargo. Participation in the global cargo management system facilitates the simultaneous security compliance across multiple international initiatives. |
| | | Can include FF's to protect sensitive info from carriers or agents | | ✔ | Freight forwarders are enabled within GHELS to utilize global AMS tools to submit data to the required agencies. |
| | | Permits 3rd party service providers to transmit cargo and vessel data | | ✔ | 3PL's are enabled within GHELS to utilize global AMS tools to submit data to the required agencies. |
| | | Empty container info must be transmitted 96-hours prior to arrival | | ✔ | Data submission rules are easily addressed within GHELS without placing a significant burden on the carrier or shipper. |

| | PROGRAM | REQUIREMENTS | COMMENTS | GHELS MEETS REQUIREMENTS | |
|---|---|---|---|---|---|
| INTERNATIONAL INITIATIVES | | | | | |
| 18 | "Automated Customs Data System for Advance Information" (Australia) | Automatic targeting of high risk shipments | | ✔ | GHELS enables targeting strategies for specific countries to support and enhance data gathering from the commercial sector. |
| 19 | Fiji | Considering 48-hour advance electronic manifest | | ✔ | After the rule requirements have been finalized, GHELS will provide an easy interface to produce the advance electronic manifest. |
| 20 | Hong Kong | Advance cargo data voluntary | | ✔ | GHELS simplifies the process of constructing and transmitting an advance cargo data packets. Even though the program is voluntary, the easy production of electronic manifest data facilitates a high rate of compliance |
| 21 | Japan | Pre-Arrival examination system | | ✔ | Pre-arrival examinations are optimized with GHELS and its capability to support intelligent targeting systems allowing a focus on higher risk containers. |