Increasing Competitiveness / Lowering Costs with Supply Chain Management and Security Standards

September 2010
Overview

- Supply Chain Security Basics
- Stakeholders
- Key Programs, Purposes, Responsibilities
- Trends
- Increasing Competitiveness and Lowering Costs
- Questions?
SURGE logistics Introduction

- Supply Chain / Trade / Transportation / Border Security Solutions Provider

- Global Public / Private Sector Experience
  - CEO of Cotecna, Inc., Global Supply Chain Security portfolio
  - General Manager of Cargo Security Programs, Director of Maritime Security at TSA

- Core Expertise
  - US Government Cargo, Transportation and Border Security Programs
  - International government and private sector cargo and border security programs
  - Cargo, Transportation and Physical Security Technology and Process

- Government and Private Sector Services
  - Supply Chain Security and Logistics Service Provider
    - Advisory and Consultative Services
    - Problem Identification and Security Solution Development
    - Compliance program implementation and verification, assessments, corporate security reviews
    - Training and Exercises
    - In-Transit Visibility / Asset Tracking Service
    - Technology Selection: Tracking / ITV systems, scanning and detection systems, physical security

- Business Development Support: Identify and select customers, develop and implement strategies to win
- Program Management: Service delivery, implementation and outcome management
Global Supply Chain Vision

- Provide uniformity and predictability to the global trade environment by:
  - Safeguarding the end-to-end security of the trade supply chain and
  - Facilitating the passage of legitimate goods through Customs control.

- Improving security and increasing performance
Supply Chain Security Basics

Efforts to Protect Cargo, Transportation and Logistics Systems From Exploitation by Criminal Activities

Five pillars
- Awareness -- Identify / understand threats, assess vulnerabilities, determine potential impacts and consequences
- Prevention — Detect, deter and mitigate threats
- Protection — Safeguard people, critical infrastructure, property from criminal acts
- Response — Manage and coordinate the response to criminal acts or emergencies.
- Recovery — Manage efforts to restore operations after criminal acts or other emergencies

Cargo = all types: Container, Bulk, Ro-Ro
Conveyances = all conveyances: Maritime, Rail, Air, Highway, Pipelines
Activities = all locations within the chain
Involves a layered combination of activities focused on:
- Ensuring the integrity of the cargo
- Ensuring the integrity of the conveyances
- Ensuring the integrity of transactional trade data
Security investments will generally be based on perceived or actual ‘Risk’
- Risk Equation: Risk = Threat X Vulnerability X Consequence (R=TVC)
Layered Security is the most effective approach to attain objectives
Security foundation is built on assessment. First step to determine need is to conduct an ‘assessments’ in accordance with a compliance program
Assessment identifies areas to focus on for risk mitigation.
Key areas of assessment include:
- Physical Security
- Information Security
- Personnel Security
- Procedural Security
- Conveyance Security
- Container / Cargo Security
- External Services Security
Typical International Container Supply Chain
Example Program Types

- Compliance Programs: Customs-Trade Partnership Against Terrorism and similar
- Certification Programs – ISO 9001, 14000, 26000, 27000,
- Technology Standardization Programs – (Container, Seals, RFID),
- Container Security Devices: SAFE Port Act
- Customs Requirements: 24 Hour Rules / Advanced Manifest Information
- Container X-Ray Scanning Programs
- Container Radiological Detection Programs
- Certified Cargo Screening Program – Air Cargo
- International Ship and Port Facility Security (ISPS) Code Requirements
- Transportation Worker Identification and Credentialing
- HAZMAT / Dangerous Cargoes Driver Programs
- HAZMAT / Dangerous Cargoes Tracking Programs
- Incident Recovery Programs
- National and International Research Initiatives
- National Strategic Plans
Trends

- Government and Industry compliance programs – Mutual Recognition
- Insurance Company involvement, discounts
- Pushing requirements down the supply chain – to manufacturers, Biz-partner certifications
- **Maximizing use of data** to strengthen and streamline operations
- Overlap with Narco-Terrorism, Human Smuggling, Weapons Trade
- Third party assessments
- Known, trusted, certified shipper programs
- In-Transit Visibility & Cargo tracking
- Hazardous material management
- Personnel security – vetting and background checks
- Access control and biometrics
- Security Awareness Training
- 100% scanning legislation – sea and air
- Radiation Detection
- Cost Transfer from Government to Private Sector
- Cost Transfer from national governments to local
Indicative Responsibility Shift

Compliance Programs, Cargo Screening Programs, Background Checks, Business Partner Verifications
Business and Government Relevance

Government shift to private sector
- Operational problems better understood
- Budget: too expensive, requires too many resources
- Coverage: not enough bandwidth, problem’s too big
- International Nature: extended supply chains, multiple jurisdictions

Private Sector Self Interest
- Operating costs
- Insurance
- Global Economy: Business partner requirements
- BOTTOM LINE
## Security Investment Value - ROI

<table>
<thead>
<tr>
<th>Security Investment</th>
<th>Direct Benefits</th>
<th>Collateral Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset Visibility and Tracking</td>
<td>• Provide positive location status</td>
<td>• Reduced theft and losses</td>
</tr>
<tr>
<td></td>
<td>• Breach detection / localization</td>
<td>• Faster recalls</td>
</tr>
<tr>
<td></td>
<td>• Provide time-definite and controlled chain of custody</td>
<td>• Fewer delayed shipments</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Increased efficiency</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Reduced working capital for inventory</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Less Overages, Shortages, and Damages (OS&amp;D)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Protection of brand name</td>
</tr>
<tr>
<td>Personnel Security</td>
<td>• Thorough background check minimizes unreliable employees</td>
<td>• Customer loyalty</td>
</tr>
<tr>
<td></td>
<td>• Improves safety, reliability</td>
<td>• Increased sales revenues</td>
</tr>
<tr>
<td></td>
<td>• Decrease theft, workplace criminal activity</td>
<td>• Higher market share</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Employee commitment</td>
</tr>
<tr>
<td>Physical Security</td>
<td>• Controls authorized access</td>
<td>• Customer recognition of safe and secure environment</td>
</tr>
<tr>
<td></td>
<td>• Protection of intellectual property</td>
<td>• Increased loyalty</td>
</tr>
<tr>
<td></td>
<td>• Protection of equipment and personnel</td>
<td>• Fewer thefts and reduced damage</td>
</tr>
<tr>
<td></td>
<td>• Protection of product integrity, safety</td>
<td>• Lower operating costs (lower insurance rates)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Fewer safety incidents</td>
</tr>
<tr>
<td>Compliance Program and Management Standards</td>
<td>• Coordination of company activities</td>
<td>• Improve the efficiency of operations</td>
</tr>
<tr>
<td></td>
<td>• Increased Awareness</td>
<td>• Reduced overall shipping times</td>
</tr>
<tr>
<td></td>
<td>• Greater reliability / repeatability</td>
<td>• Platform for collaboration within industry</td>
</tr>
<tr>
<td></td>
<td>• Improved breaches detection</td>
<td>• Common processes reduce confusion, raise predictability</td>
</tr>
<tr>
<td></td>
<td>• Higher levels of security and safety</td>
<td>• Reduced losses</td>
</tr>
<tr>
<td></td>
<td>• System-level and supplier security improvement</td>
<td></td>
</tr>
</tbody>
</table>

*Investing in Supply Chain Security: Collateral Benefits; Integrated Supply Chain Management Program, Center for Transportation and Logistics Massachusetts Institute of Technology (James B Rice, Jr., May 2005)
## Security Investment Value - ROI

<table>
<thead>
<tr>
<th>Security Investment</th>
<th>Direct Benefits</th>
<th>Collateral Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conveyance Security</td>
<td>• Reduce theft losses</td>
<td>• Cost avoidance of non-product-related costs</td>
</tr>
<tr>
<td></td>
<td>• Reduce adulteration of produce</td>
<td>• Reduced crime and vandalism rates</td>
</tr>
<tr>
<td></td>
<td>• Reduce chance of using conveyance or vessel as a weapon</td>
<td>• Fewer disruptions to supply chain, associated cost savings</td>
</tr>
<tr>
<td></td>
<td>• Protect conveyance or vessel</td>
<td>• Less capital in inventory</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Reduced transportation cycle time</td>
</tr>
<tr>
<td>Supplier Selection</td>
<td>• Ensure secure supply of materials</td>
<td>• Lower inspection costs</td>
</tr>
<tr>
<td></td>
<td>• Early warning of upstream security issues</td>
<td>• Faster throughput</td>
</tr>
<tr>
<td></td>
<td>• Reduced upstream and inbound losses</td>
<td>• Increased efficiency through joint planning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Improved relationships</td>
</tr>
<tr>
<td>Information Security</td>
<td>• Improved coordination</td>
<td>• Improved communications</td>
</tr>
<tr>
<td></td>
<td>• Improved supply chain efficiency, reliability</td>
<td>• Enhanced response time</td>
</tr>
<tr>
<td></td>
<td>• Intellectual property protection</td>
<td>• Competitive advantage</td>
</tr>
<tr>
<td></td>
<td>• Financial security</td>
<td>• Brand protection</td>
</tr>
<tr>
<td>Technology Investments</td>
<td>• Increased ability to track, monitor cargo</td>
<td>• Increased process efficiency</td>
</tr>
<tr>
<td></td>
<td>• Early threat detection</td>
<td>• Reduced loss</td>
</tr>
<tr>
<td></td>
<td>• Increased reaction time to problem solve</td>
<td>• Insurance rate benefits</td>
</tr>
<tr>
<td></td>
<td>• Reduced loss</td>
<td>• Fewer disruptions</td>
</tr>
<tr>
<td></td>
<td>• Better inventory management</td>
<td>• More time spent on value added processes</td>
</tr>
</tbody>
</table>

*Investing in Supply Chain Security: Collateral Benefits: Integrated Supply Chain Management Program, Center for Transportation and Logistics Massachusetts Institute of Technology (James B Rice, Jr., May 2005)*
Primary Security Investment Areas

- Consulting and Advisory Services
  - Strategy, Problem Identification and Solutions
- Management and Compliance Standards
  - ISO 9001, 14001, 27001, 28000, C-TPAT, AEO, BASC
  - Assessment, Audit, Validation and Implementation
- Training and Exercises
  - Security Awareness Training, Crisis Management Exercises
- Cargo Tracking, Visibility and Chain of Custody
- Personnel Security
- Physical Security: Perimeter, Access Control
- Container Security
- Scanning and Inspection
  - Industry dependent
  - Explosives, narcotics, radiation, chemical, biological
Private Sector: Where to Invest

- Dual Purpose activities that directly enhance both security and efficiency

- Compliance and Management Programs – methodology used to identify and manage areas of both operational and security risk
  - Prioritize Information, personnel, physical, business partner security
  - Orient activities toward loss prevention. Activities will meet:
    - Anti-terrorism needs of government
    - Loss mitigation for insurance companies
    - Make the biggest improvement to bottom line

- Technology – as a means to
  - Deter, Detect, Protect, Collect

- Information Management
  - Information Management and Security will have tremendous trickle-down
The Common Thread
Data, Information and Knowledge:

- Data -> Information -> Knowledge -> Understanding -> Wisdom

- Your data is valuable in many ways
- Learn what to collect and how to collect it and
- Turn it into actionable information in the context of your operations to
Supply Chain Security standards are now global in nature, and expected by both government and industry. They are essential to maintaining competitive advantage.
Implementation Planning

Mutual Recognition has not been fully implemented, however, due to the commonality, multiple compliance programs can be economically implemented concurrently and give private sector operators a competitive advantage while enhancing security and efficiency.

- C-TPAT
- PiP
- STP
- EU AEO
- TAPA
- BASC
- WCO
- ISO

80-90% Overlap
ISO Management Standards / Security Risk Planning: Similar Methodology

Plan
- Set Security Goals
- Identify Assets, Systems, Networks, and Functions
- Assess Risks (Consequences, Vulnerabilities, and Threats)
- Prioritize
- Implement Protective Programs

Do

Check

Act

Continuous Improvement
Current Implementation Strategy – Multiple Standards

Integrated Supply Chain Security Program
Implementation – Security Foundation

1/1/2011 | GAP Analysis | Training 1 | Risk Assessment | Establishing and Implementing Procedures and Records | Training 2 | Internal Audit | Implementation Period | Final Compliance Assessment | Application | Certification | 9/30/2011

Plan | Do | Check | Act
ROI Examples

Studies show examples of quantifiable benefits:

- Reduced their Customs inspections by 48%;
- Increased the automated handling of their imports by 43%;
- Saw a 29% reduction in transit times;
- Improved their asset visibility in the supply chain by 50%;
- Improved on-time shipping to customers by 30%;
- Reduced time taken to identify problems by 21%;
- Reduced theft in inventory management by 38%;
- Reduced excess inventory by 14%; and
- Reduced customer attrition by 26%.
Public Sector: Where to Invest

- Develop Partnership opportunities with the Public Sector:
  - Buy-in and cost sharing: Force Multiplier
  - Develop Compliance programs that leverage and support Private Sector programs
- Incentives
- Personnel credentialing and vetting / records checks
- Surveillance activities
- Intelligence –outside the private domain, BIG Return on Investment
- Detection activities that private sector cannot afford or manage risk
  - Cargo screening: equipment intensive and liability-heavy
- Critical infrastructure protection: ports, airports, bridges, tunnels
- Recovery activities
- Technology R&D, introduction
Thank You!
Daine Eisold  
President and CEO  
1000 Potomac Street NW  
The Fifth Floor  
Washington, DC 20007  
USA  

daine@surge-logistics.com  
+1.703.869.3336

Marco Pardave  
VP Operations and CEO  
12408 SW 144 Terr.  
Miami, Florida 33186  
USA  

mapardave@gsprogress.us  
+1.305.785.1832