



IBM Global Movement Management Overview

January 25, 2006



Overview

- IBM framework for the security of the global economic system, “Global Movement Management” (GMM)
- Specific IBM cargo security solution within GMM: SecureTrade Lane
- Role of current and next-generation PNT systems in the GMM framework

Global Movement Management defined

- **Definition:** Comprehensive and achievable framework for securing the key flows – people, goods, conveyances, money, and information – in the global economy against disruptive threats and building resiliency into the system.
- Aligned with commercial imperatives of the system and the protection of core societal values
- Scope of GMM includes numerous existing activities around the world:
 - **People:** border checkpoint systems, passport, visa & ID issuance systems, passenger screening systems
 - **Goods:** cargo certification, screening, and tracking systems
 - **Conveyances:** vessel and vehicle tracking systems
 - **Money:** terrorism finance and money laundering disruption activities
 - **Information:** intelligence and surveillance activities

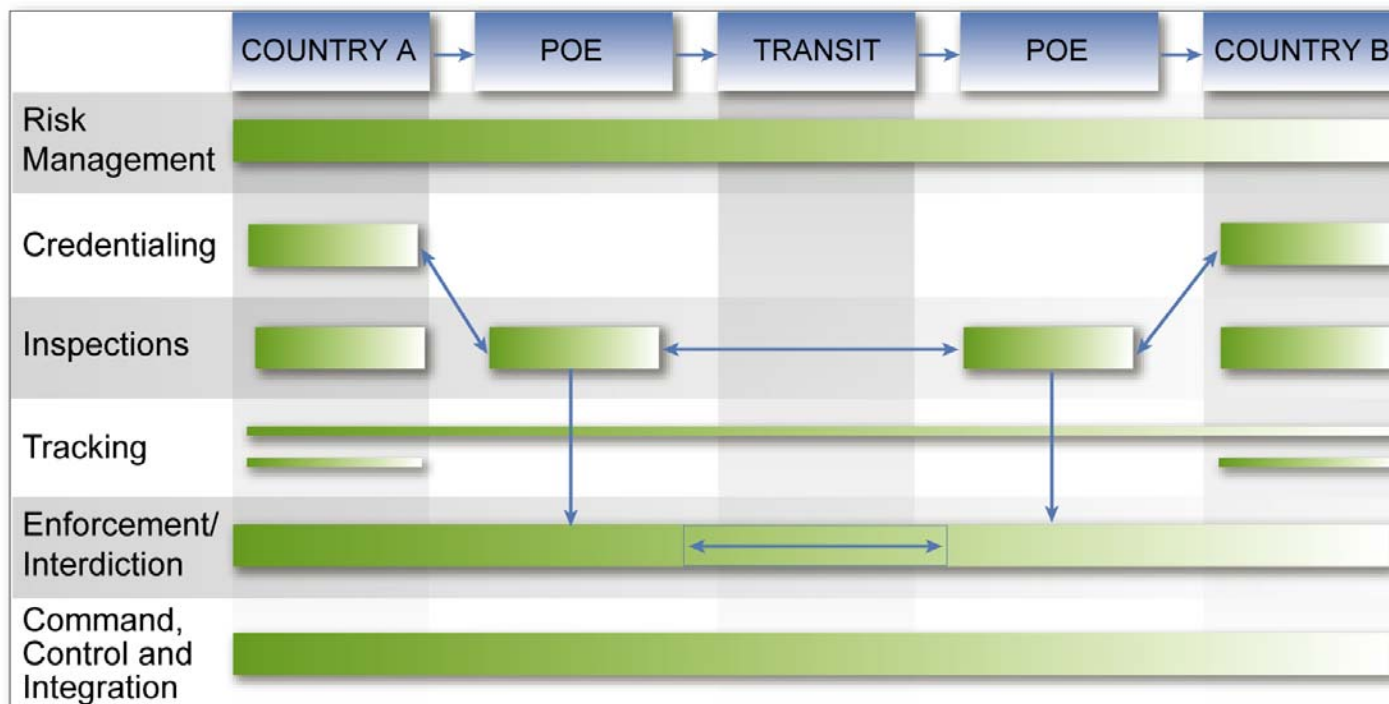
Why does Global Movement Management matter?

- Provides a framework that:
 - Strengthens **linkages** within the global system
 - Enhances **system awareness** by integrating security activities across multiple flows
 - Maps out a **system-of-systems architecture** as a tool to facilitate strategic decision-making
 - Addresses the **governance** of the global system in a realistic and feasible way.

- GMM does these things while still:
 - Preserving the efficiency and performance of the system
 - Protecting privacy and civil liberties

GMM Value Proposition: Linkages

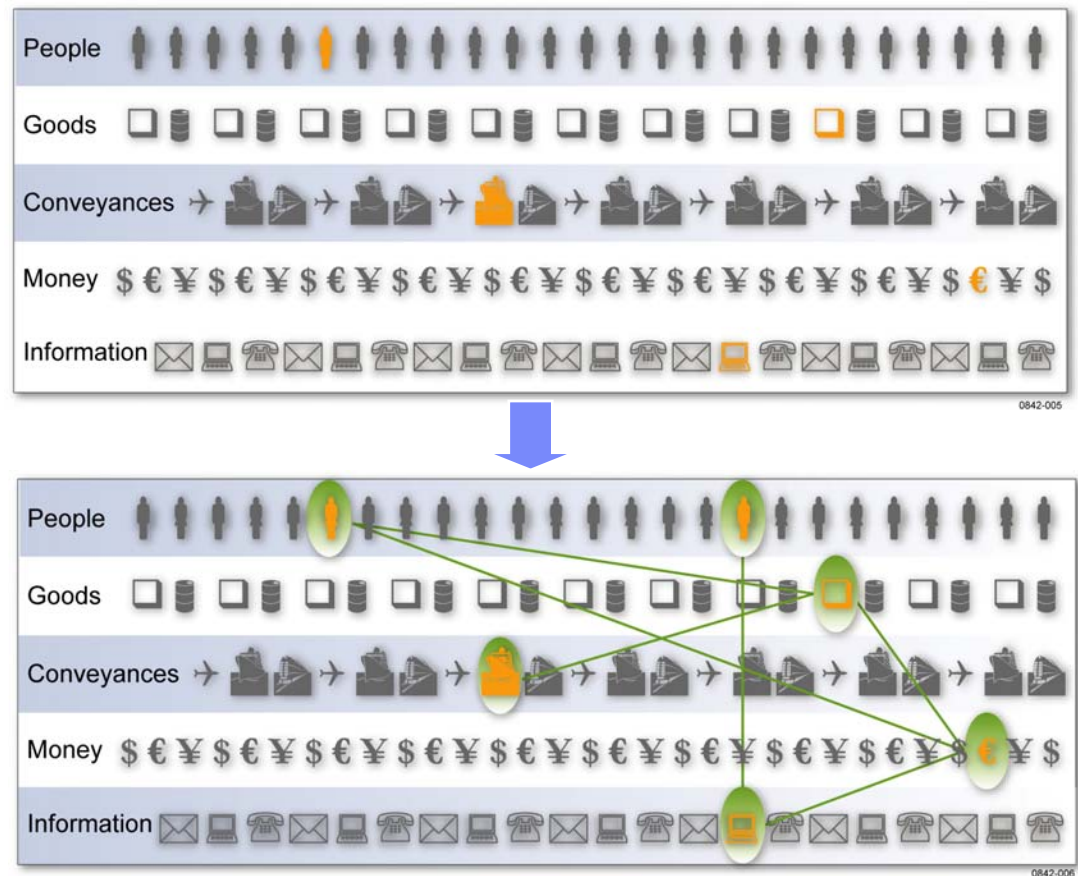
- Global Movement Management looks at the global system in new ways, finding interdependencies and linkages among the system's core functions
- Four key categories of linkages: **business functions**, control points, data sources, and stakeholder relationships.



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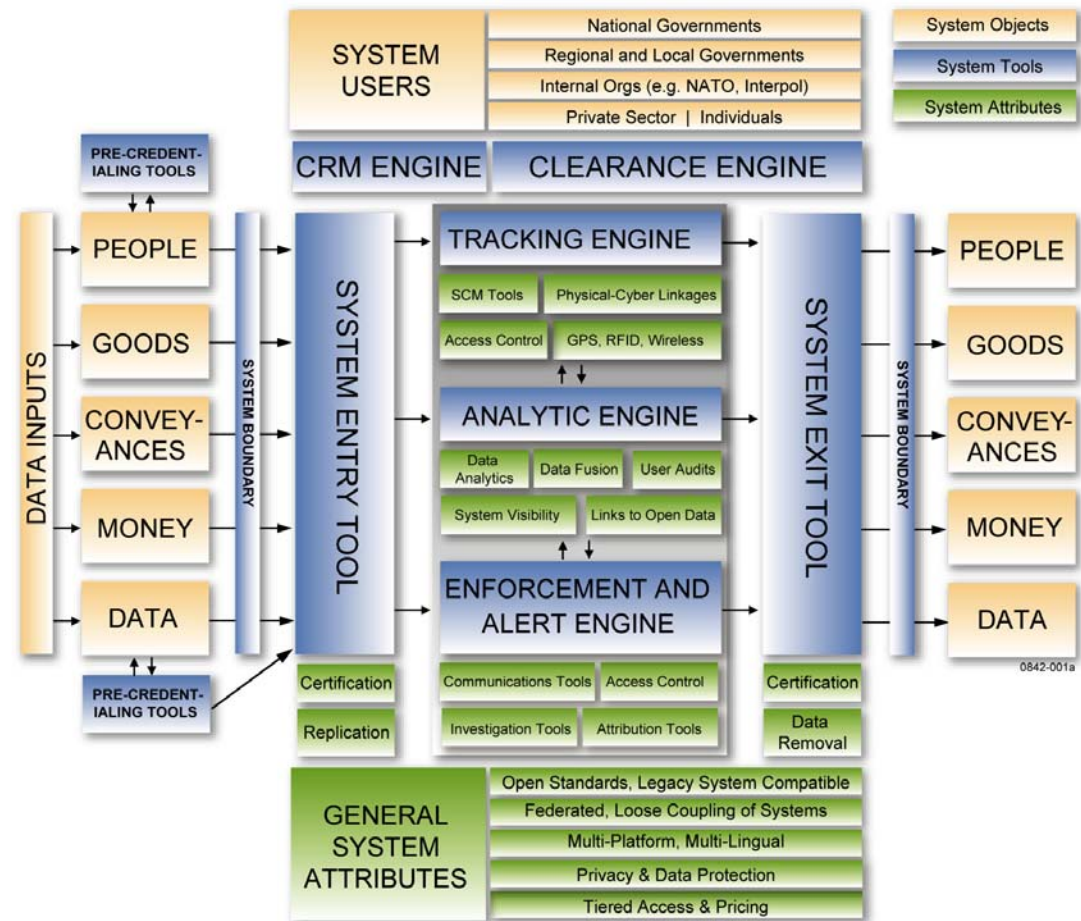
GMM Value Proposition: System Awareness

- Facilitates the risk assessment of activities across the key flows of the global economy – people, goods, conveyances, money and information – not stovepiped within each.



GMM Value Proposition: Integrated Architecture

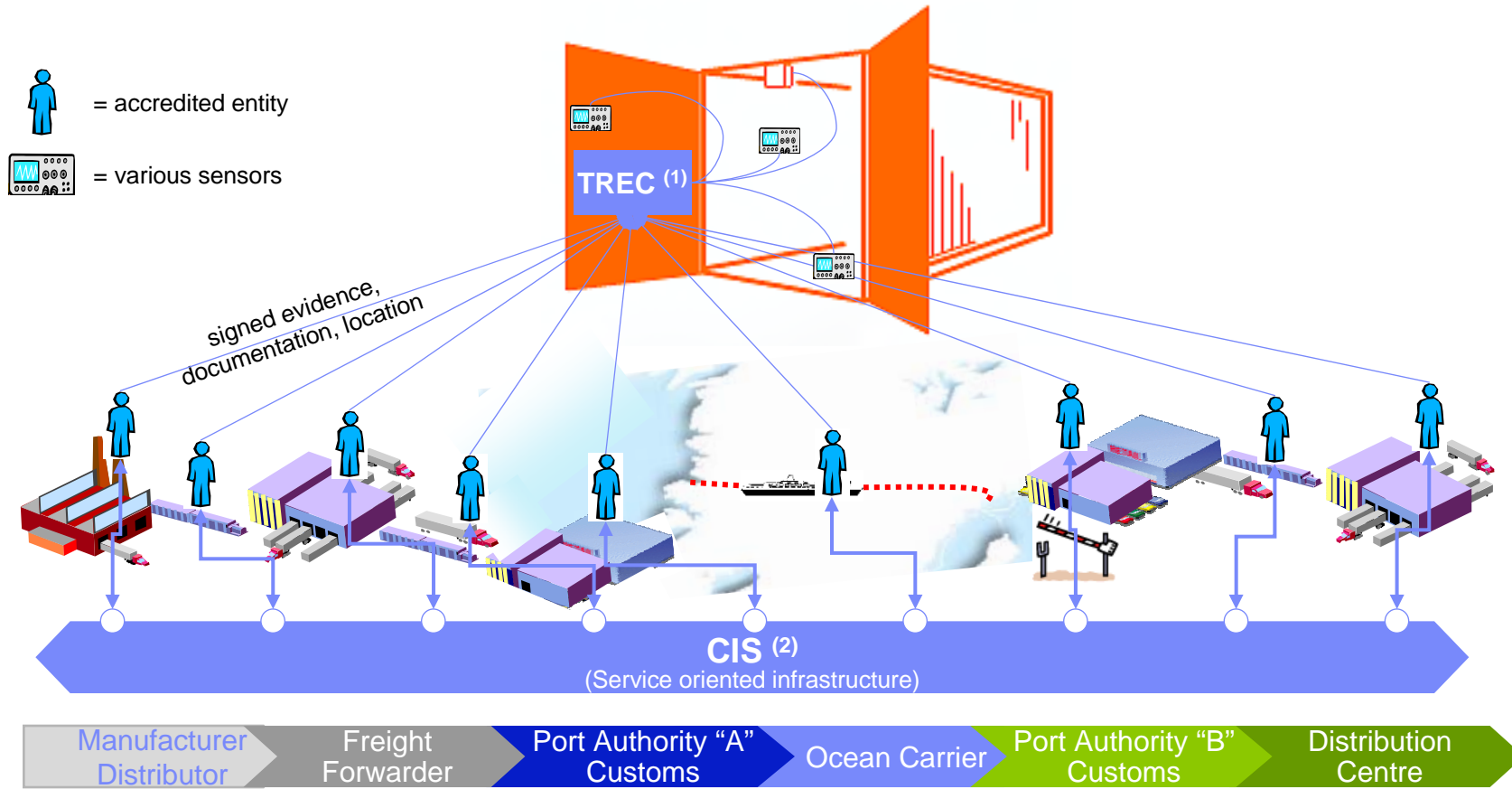
- Puts forward a system-of-systems architecture that integrates key security and resilience activities into the broader architecture of the global economy.



GMM Value Proposition: Governance

- Creates a realistic and feasible governance process to support these capacity-building activities, based on the following principles:
 - Open-source in its design and development (similar to Linux development)
 - Iterative based on public and private input
 - Standards-driven to ensure international compatibility
 - Allows different governance structures within the broader system, based upon the realities of each domain

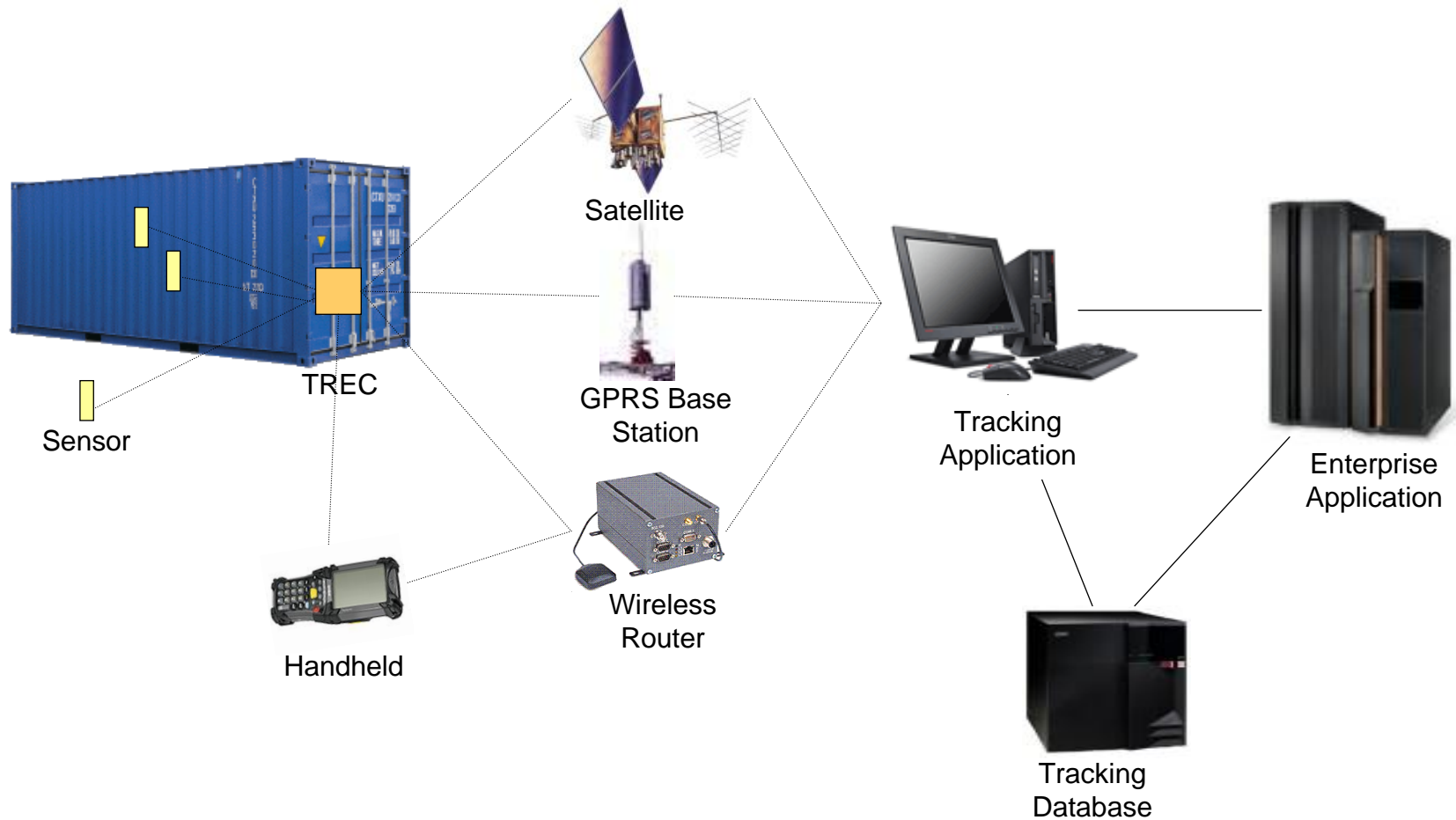
GMM Solution: Secure Trade Lane



(1) TREC= Tamper-Resistant Embedded Controller
 (2) CIS = Container Information System

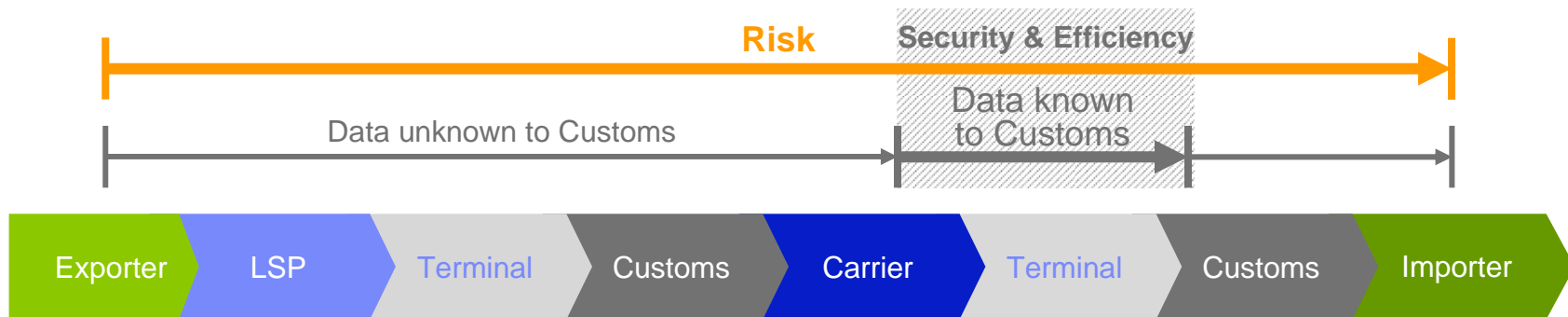
Technology is the enabler for a Secure Trade Lane; the highest possible security and efficiency can only be given through an end-to-end approach

Secure Trade Lane: End-to-End Solution

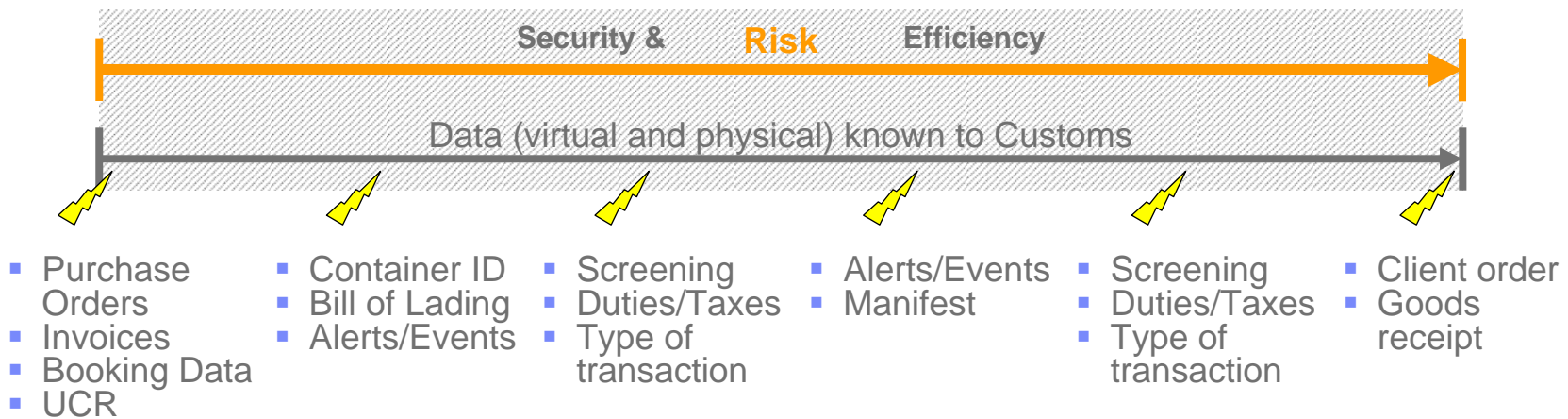


Secure Trade Lane: Benefits

Today: (fragmented picture)



Tomorrow: (integral picture)



Relevance to PNT systems

- Key elements of the system-of-systems for global economic security require PNT systems:
 - Cargo and asset tracking
 - Maritime domain awareness
 - Air traffic control
 - Geofencing for critical infrastructure protection
- Enhanced PNT systems will improve each of these activities if they enhance:
 - Ubiquity, precision, resilience, security
- Long-term security architecture needs to promote interoperability among key enabling systems and technologies:
 - GPS, RFID, Bluetooth, wireless communications, and satellite communications.

For More Information:

- IBM White Paper on Global Movement Management:
 - <http://www.businessofgovernment.org/pdfs/GMM.pdf>
- Overview of Secure Trade Lane solution:
 - http://www.ibm.com/news/ch/de/2005/09/21_background.html
- Contact:
 - cbeckner@us.ibm.com