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.
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 stovepipred 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
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)

- Data unknown to Customs

**Tomorrow:** (integral picture)

- Data (virtual and physical) known to Customs

- Purchase Orders
- Invoices
- Booking Data
- UCR
- Container ID
- Bill of Lading
- Alerts/Events
- Screening
- Duties/Taxes
- Type of transaction
- Alerts/Events
- Manifest
- Screening
- Duties/Taxes
- Type of transaction
- Client order
- Goods receipt
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:


- Contact: cbeckner@us.ibm.com