



**Customs Modernization:  
New World, New Tools**


**Customs Modernization**

***Transforming an Agency  
in an Interagency  
Environment***

**Acquisition of Software-Intensive Systems  
Conference**

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Executive Director  
Customs Modernization Office**

**January 28, 2003**

The seal of the U.S. Customs and Border Protection is centered in the background. It features a shield with a scale of justice, a key, and a sword, surrounded by the text "U.S. CUSTOMS SERVICE" and "1789".

# **Customs Modernization: The Automated Commercial Environment (ACE) Project**

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# Customs Modernization: The ACE Project

## Key Modernization Drivers

### Increase in Mission Requirements



### Demands of the Operational Environment



### Aging, Outdated Technology



### Legislative Mandates





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**ACE**

# Improving Trade and Border Security



- ✓ Enhanced border enforcement based in knowledge management
- ✓ Interagency shared information, risk assessment and targeting PRIOR to arrival
  - ✓ Results used to determine admissibility for truck, rail, air and sea
    - ✓ All import, export, and in-transit transactions
    - ✓ Single web-based interface for the trade community
- ✓ Expedite low risk shipments, moving goods to market faster at lower cost
- ✓ ACE development critical to Container Security Initiative



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# Governance

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## **Governance**

# **The Case for a Governance Framework**

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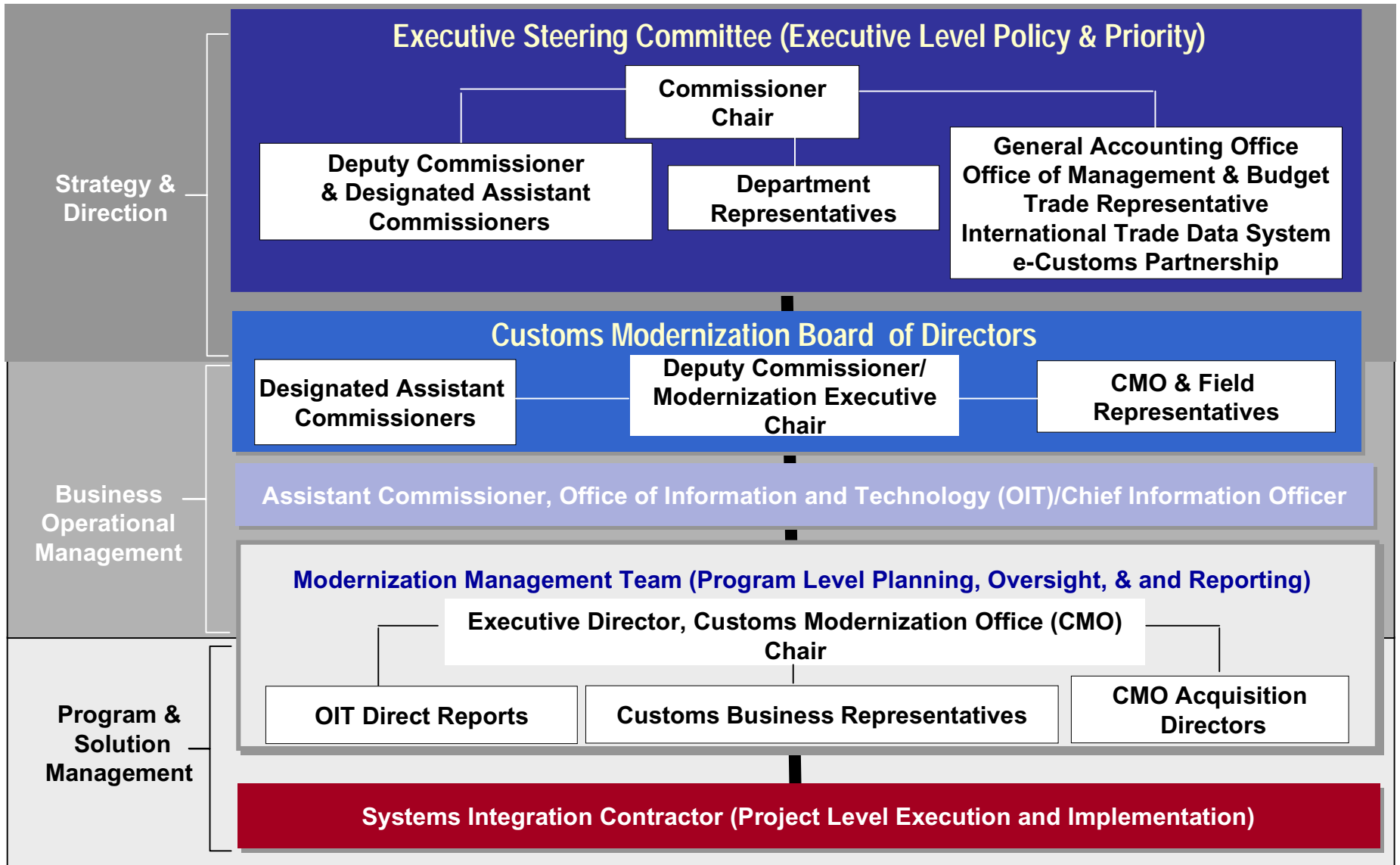
- 1 **Modernization is long-term (15 years)**
- 1 **Scope demands expanded level of cooperation and application of resources**
- 1 **Governance authority, roles and responsibilities must be clear**
- 1 **Engages key leadership**
- 1 **Ensures integration of processes and activities**
- 1 **Inclusive of key stakeholders**



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## Governance

# Authority Levels: Roles and Responsibilities





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## Governance

# Coordination With Congress & Oversight

- 1 Routine communication
- 1 Early collaboration and action on issues
- 1 Mandated reports







# Acquisition

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## Acquisition

# The Streamlined Acquisition Process

- 1 **Streamlined source selection for acquisition of the Systems Integration Contractor**
  - Awarded contract in four months
  - Oral presentation versus written documentation
  - Emphasized the Offeror's
    - ◆ Prior experience, past performance, and understanding of work required to determine that the Offeror presented best value and lowest risk
    - ◆ Rating at Level 3 process maturity of the Software Engineering Institute (SEI) Software-Capability Maturity Model (SW-CMM®).
  - Reduced procurement risk and cost
- 1 **Contract characteristics**
  - Indefinite Delivery, Indefinite Quantity (IDIQ) contract awarded to a single team
  - Task Order-based and performance-based



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## Acquisition

# Tapping in to the Private Sector

### MITRE Corporation

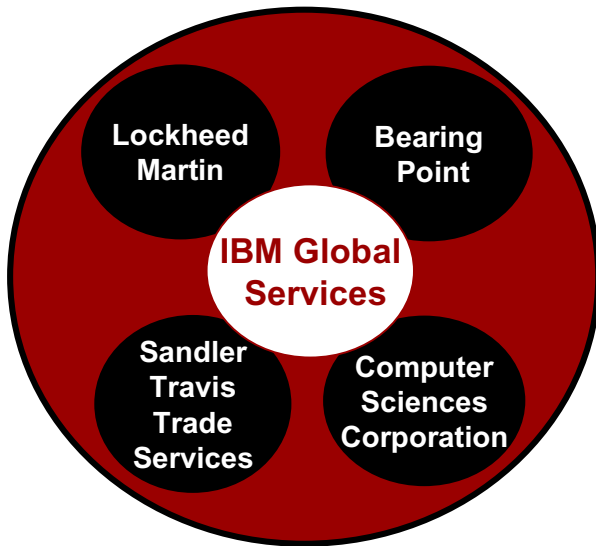
Not-for-profit FFRDC providing strategic guidance, independent technical oversight, systems engineering support

### Robbins-Gioia LLC

Providing program management, business management, configuration management, requirements management, process improvement, contracting support, and communications support

### E-Customs Partnership (eCP)

Consortium serving as systems integration contractor



- 1 This team is a crucial part of the Customs Modernization strategy
- 1 eCP is helping Customs design, build, and implement ACE and other new information systems for Customs
- 1 Each team member has a specialized role, e.g. software development, program management, change management
- 1 eCP is responsible for ensuring that all modernization projects are integrated into one enterprise solution



## Acquisition

# Lessons Learned in the Customs-Contractor Relationship

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- 1 **Establish and communicate a project mission and vision early**
- 1 **Early and continuous collaboration across the program helps in forecasting risks and addressing issues**
- 1 **Carefully and clearly define roles and responsibilities for both the government and the contractor**
- 1 **Establish agreement on terminology and word meaning to ensure understanding and reasonable expectations**
- 1 **Develop review and approval processes with adequate review periods for deliverables**
- 1 **Establish configuration control, Integrated Baseline reviews, and Earned Value reporting early in the contract period**

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# Enterprise Lifecycle Methodology

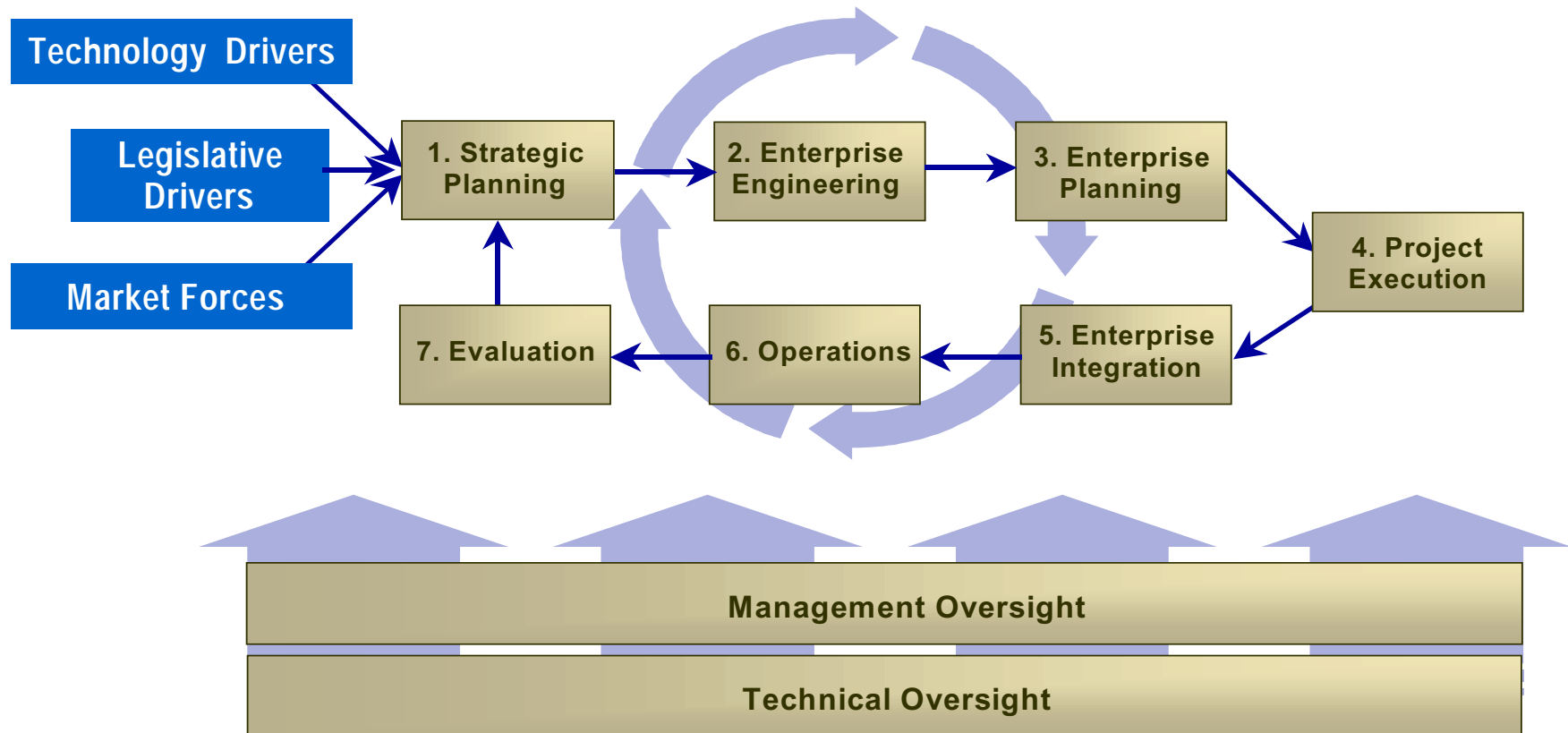
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## Enterprise Lifecycle Methodology Ensuring the Big Picture

- 1 Integrate and align enterprise-wide management, business, and engineering lifecycle processes so that information technology activities are aligned with business goals





# Enterprise Lifecycle Methodology

## Linking Mission, Business Outcomes and Technology Investments

### Desired Business Results (DBRs)

#### Linkages to Customs Strategic Intent and Stakeholders (sample)

Ref Num	ACE Desired Business Result	Customs Strategic Intent						Stakeholders		
		Trade & Economic Growth	Antiterrorism and Border Security	Narcotics Trafficking	Criminal Finance	Public Protection	Management Accountability	Customs	Trade	Participating Gov't Agencies
3.1	Reduced Predatory & Unfair Trade Practices	✓				✓		✓	✓	
3.2	Prevention of Acts of Terrorism		✓	✓	✓	✓		✓	✓	✓
3.3	Increased Effectiveness of Risk Management	✓	✓	✓	✓	✓	✓	✓	✓	✓
3.4	More Accurate Targeting /Selectivity	✓	✓	✓	✓	✓		✓	✓	✓



# Enterprise Lifecycle Methodology

## Linking Mission, Business Outcomes and Technology Investments (con't)

### Desired Business Results

#### Prioritized DBRs (sample)

Anti-Terrorism and Border Security	
ACE Desired Business Result (DBR)	Priority Level
Continuity of Operations	Higher
Integrated PGA Risk Analysis and Clearance Processing	Higher
Integration of Conveyance and Commercial Goods Data	Higher
More Accurate Targeting /Selectivity	Higher
Prevention of Acts of Terrorism	Higher
Promotion of Informed Decision Making	Higher
Increased and Enhanced Visibility of Cargo Status	Higher
Improved Data Analysis and Reporting	High
Improved Individual Productivity	High
Improved Inter-Agency Information Exchange	High
Uniformity of Operations	High
Increased Effectiveness of Risk Management	High
Increased Protection of All Data and Operations	High
Integrated PGA Participation	High
Reduced Illegal Goods Traffic	High
Increased Customer / Stakeholder Satisfaction	Medium





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## Enterprise Lifecycle Methodology

# Preparing the Workforce

### 1 **Organizational Change Management (OCM) objectives**

- Identify and mitigate organizational risks that threaten successful implementation
- Build a guiding coalition of Customs leaders at all levels to drive Modernization
- Generate understanding and agreement among employees and selected external stakeholders to take collective action to support Modernization
- Apply a strong analytical focus to workforce impacts, job design, training requirements, and other human resource issues
- Develop and deliver role-based training to impart new technology and process skills
- Use measurement tools to monitor progress and adjust OCM activities to meet evolving program needs

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# Software Acquisition- Capability Maturity Model (SA-CMM)

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**SA-CMM**

# **From Hip-Shooting to Team Standards**

- 1 SA-CMM<sup>®</sup> is Customs framework for developing acquisition and management processes**
- 1 CMO is working to achieve SEI Software Acquisition Capability Maturity Model<sup>®</sup> (SA-CMM<sup>®</sup>) Level 2 process maturity.**
  - Develop and institutionalize repeatable processes to help:
    - ◆ Reduce costs
    - ◆ Improve the business responsiveness of systems
    - ◆ Form a solid basis for further improvements
- 1 Level 2 work will be the foundation of long-term, ongoing process improvement**
- 1 SA-CMM will be applied across all Modernization acquisitions**



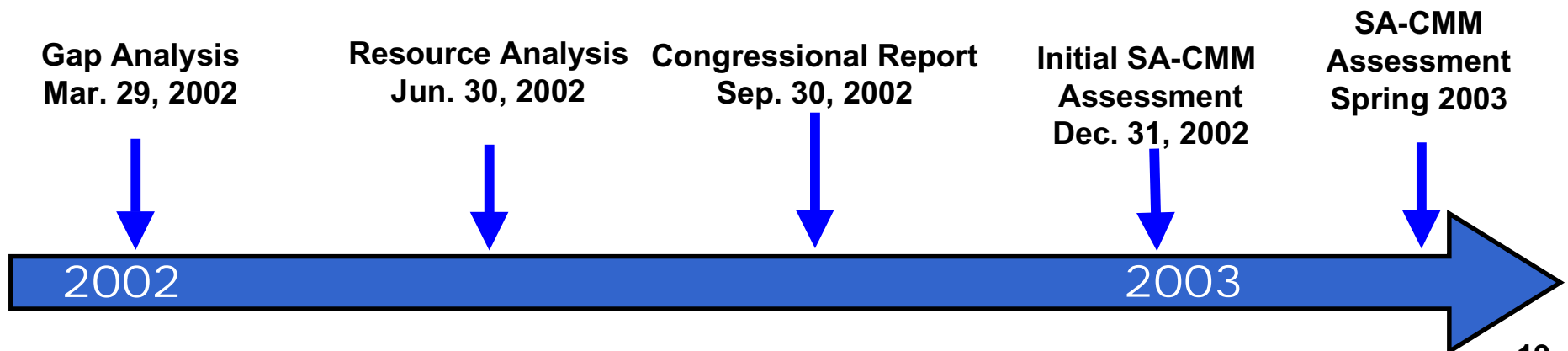
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**SA-CMM**

# Moving Beyond the 80 Percent Solution

## 1 Level 2

- Congressional/GAO Requirement
- Attainment is an all or nothing proposition
- Strategy:
  - ◆ Ensure strong leadership sponsorship for process improvement
  - ◆ Develop effective process improvement infrastructure
  - ◆ Empower process domain owners
  - ◆ Conduct specialized process asset training
  - ◆ Monitor progress through verification and reporting



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# Interagency Coordination

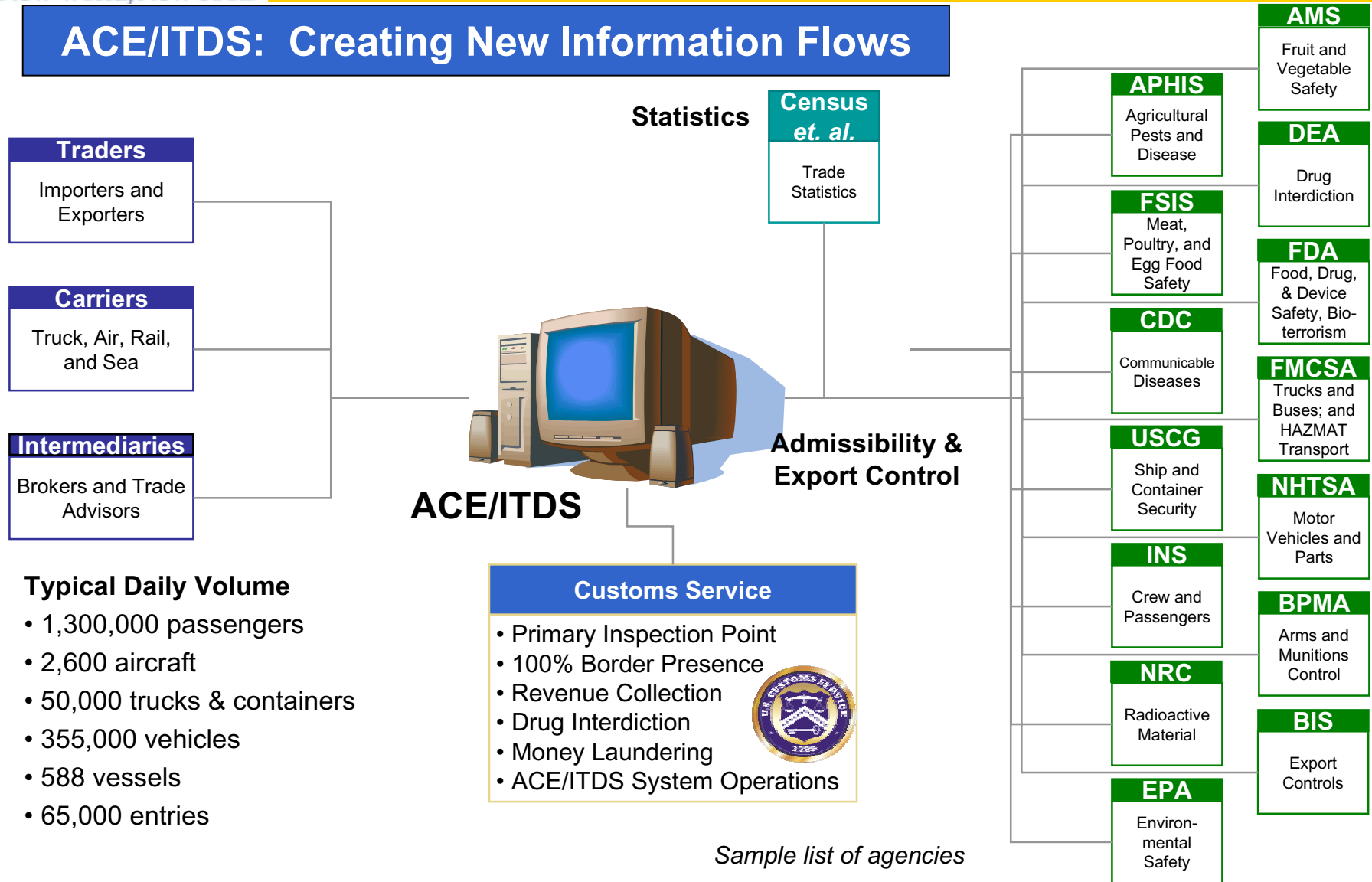
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# Interagency Coordination Interconnectivity and the International Trade Data System

## ACE/ITDS: Creating New Information Flows



- Typical Daily Volume**
- 1,300,000 passengers
  - 2,600 aircraft
  - 50,000 trucks & containers
  - 355,000 vehicles
  - 588 vessels
  - 65,000 entries



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## **Interagency Coordination**

# **Toward Homeland Security: The Challenge of a Government Merger**

- 1 Transition to the Department of Homeland Security**
- 1 “22 agencies working as one”**
- 1 Collaboration with government agencies is essential to the budget process and for integrating IT efforts**
- 1 Customs IT planning interface**
  - Homeland Security IT Investment Review Group**
  - Border Security Working Group**
- 1 Adoption of best practices**
- 1 Planning continues for future integrated DHS systems**
- 1 ACE could potentially help accomplish the objectives of the Homeland Security IT Investment Review Group by providing a state-of-the-art, integrated system for tracking information on commerce entering the U.S.**



# Questions

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