Transportation Security Administration

Hazardous Material Tracking

2008 Smart Roadside Workshop

April 29, 2008

HAZMAT Truck Security Pilot (HTSP) Goal and Approach

Goal:

- o The desired outcome is to provide TSA with a tested and established truck tracking center capability that will allow TSA to "continually" track truck locations and HAZMAT load types in all 50 states and to receive exception based events.
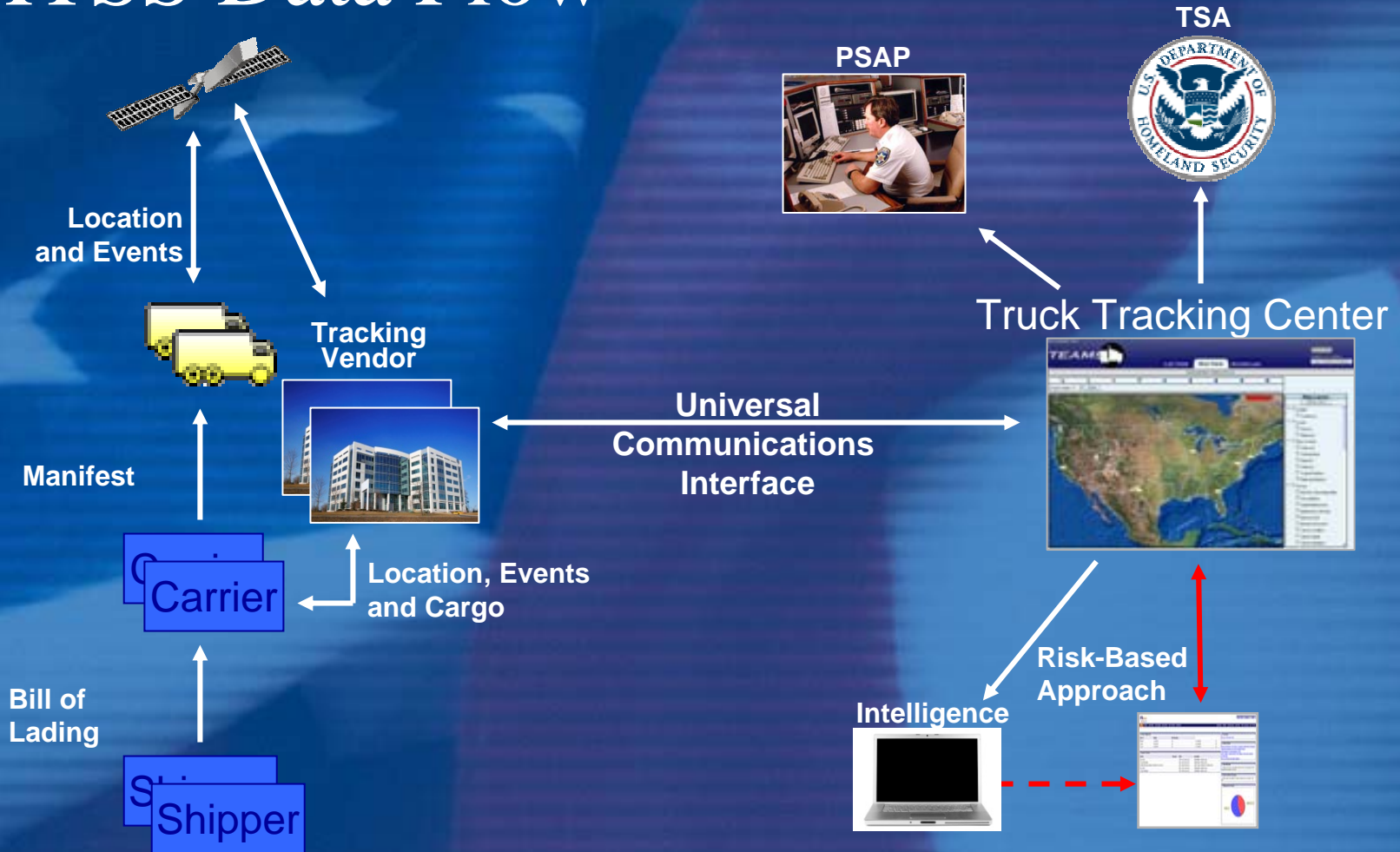
HAZMAT Truck Security Pilot (HTSP) Goal and Approach

Result:

o Developed and operated a prototype HAZMAT Truck Security System (HTSS) that met the goal through inclusion of a

– Universal Communications Interface (UCI) for integration of tracking vendor data

– Truck Tracking Center (TTC) with appropriate hardware, software, staff, and protocols to support the TSA mission

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HTSS Data Flow

TSA

PSAP

Location and Events

Tracking Vendor

Truck Tracking Center

Manifest

Universal Communications Interface

Location, Events and Cargo

Carrier

Risk-Based Approach

Bill of Lading

Intelligence

Shipper

Transportation Security Administration

Universal Communications Interface

UCI satisfied communications requirements for an integrated view of all HAZMAT shipments

- o Carriers not required to purchase additional equipment
- o Cost effective for tracking vendors to build to specification
- o IEEE-1512 worked well as a data standard both in data content and message format
- o Supports various event types that can be associated with future alerts, as vehicle sensor technology becomes available
- o Supports all modes of transportation

Truck Tracking Center

- System operational for 18 months supporting both real time monitoring and pilot evaluation activities

- Truck Tracking Center application (TEAMS) included important features to effectively facilitate the evaluation and coordination of TSI response

Truck Tracking Center

Pilot Results

- System Operational for 18 months supporting both real time monitoring and pilot evaluation activities
    - Pilot benefited from participation from tracking vendors and carriers (7 tracking vendors, 10 carriers, 128 trucks)
    - Established that UCI is easy to implement and thus minimizes cost to tracking vendor, which ultimately minimizes cost to carriers
    - Carriers are extremely sensitive to data privacy risks that would threaten their competitive advantage
    - Pilot demonstrated basic capability to safeguard carrier and government data, but more exploration is required
    - System would support additional vehicle sensors that could provide a broader set of threat alerts that may be become available in the market place

Next Steps

- Develop Voluntary Tracking Program
    - o UCI will be incorporated – well tested and validated
    - o TTC Application features will be further developed
    - o Needs extensive carrier participation to build an effective base for conversion to operational status

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Smart Roadside Building Blocks

o Real-time HAZMAT Commodity Flow

o Historical Tracking Data

o HAZMAT Cargo Data

o Incident Data

o Two-way Communications

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