Logistic Services

by

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Volvo Technology – a business unit within the Volvo Group

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Agenda

• SITS
  – Background
  – Aim and Objectives
• SITS Intermodal ITS concepts
  – Driver, Cargo and Goods Verification
  – Deviation detection
  – Accurate information and statistics
Background

The Port Pilot from 2008
Background
The Port Pilot from 2008 - Truck Concepts

- Truck ID (RFID)
- Trailer identification
- Driver identification
- Positioning (GPS)
- Proof of Collection
- Pre-arrival notification
- Proof of Delivery
- Electronic manifest
- Driver work order
- Trailer ID (RFID)
- Electronic seal
Communication today

Various networks: GSM, 3G, WLAN, GPS, Galileo, WCDMA, DSRC, CALM, Satcom, etc.
Aim and objectives

The aim and objectives of the project:

- Ensure that public security, safety and privacy are properly considered in the emerging transport solutions and standards developed.
- Enhance cooperation between public and private stakeholders in the area of critical transport systems to enable supply chain visibility for deviation management and security threat identification.
- Develop and propose harmonization suggestions to national and international initiatives such as standardization, projects and work in the area of Intelligent transport systems.
- Implement and promote a communications framework for increased and harmonized communication between stakeholders.
  - Demonstrate security and efficiency enhancing services using the suggested framework.
Information and communication is the key to an enhanced efficiency and security
Approach

Harmonized communication will facilitate security, visibility and efficiency.

Input from partners/projects

Workshops with partners

Requirements

Concept development

SITS

Requirements

Structure

Information

Technology

Processes

Standards/ Harmonization

Framework /architecture

Pilot / Field test

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Aspects of transport performance

The need for better and increased information flow is a common driver for all aspects.
Potential ITS services for improved security and efficiency

- Driver, goods and cargo identification for access control
Potential ITS services for improved security and efficiency

- Driver, goods and cargo identification for access control
- Geofencing or RSU:s for deviation detection and targeted communication
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- Reliable statistics to various authorities
Potential ITS services for improved security and efficiency

• Driver, goods and cargo identification for access control
• Geofencing or RSU:s for deviation detection and targeted communication
• Reliable statistics to various authorities
• Ensure that the rescue service has access to accurate information in case of accidents
Preferred Communication

Users
- Road & Traffic
- Transport & Logistics
- Driver & Vehicles
- Authorities

Framework for communication

ICT Network

Various networks: GSM, 3G, WLAN, GPS, Galileo, WCDMA, DSRC, CALM, Satcom, etc.

Transporter

Producer

Terminal

Terminal

Store

Consumer

Transport infrastructure
Challenges

- Ensure issues before implementation:
  - Do all transport chain actors want Intelligent Goods/Cargo and more efficient transports?
  - Investment cost vs ROI
    - Efficiency -> Security/Safety and Environmental
- Cooperation among business partners
  - Various objectives
  - Various businesses
Challenges - *continuation*

- Implementation challenge
  - Ensure robustness and reliability
    - The information exchange must be robust and totally secure
  - Brand independent
  - The solution should get high enough market penetration
- Concept evaluation
- Harmonization / Standards
Summary – *where do we go from here...*