

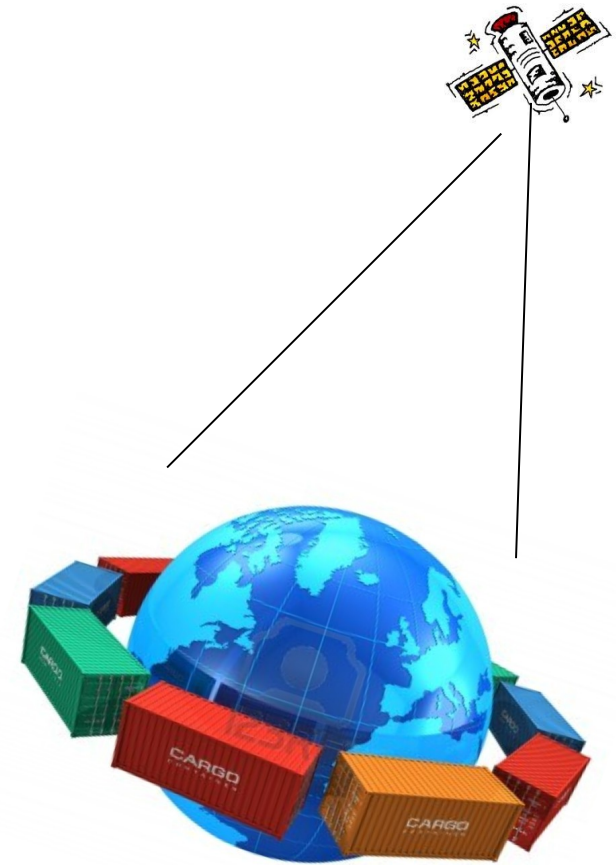
**ESCAP-ADB  
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Secure Cross Border Transport Model  
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***Secure Cross Border Transport Model –  
Technological Solution for  
Transport Facilitation***

***Sandeep Raj Jain  
Economic Affairs Officer  
Transport Facilitation & Logistics Section  
Transport Division***

# Outline

1. Challenges of growing trade and transport and need for technological intervention
2. Key technical features functioning and Institutional arrangements
3. Possible benefits on application of such a system



# 1. Background

Increase in intra-regional trade requires opening more land borders and increasing efficiency of existing borders. However, control authorities are faced with increasing challenges some of them are mentioned, that make them hesitant to open more borders

- National security
- Trafficking (Drug and Human)
- Smuggling
- Diversion of goods in transit leading to loss in revenue
- Counterfeited goods and currency
- Lack of capacity of officials



## 2(a) Key technical features and functioning of the Model

### **Tracking Unit**

- Contains a SPS module, a CCS module and a radio frequency (RF) module



### **E-seal**

- Contains a normal bolt or cable to lock the door and a mechatronic component to record its status



### **E-lock**

- Combines tracking unit and E-seal, contains SPS module, a CCS module



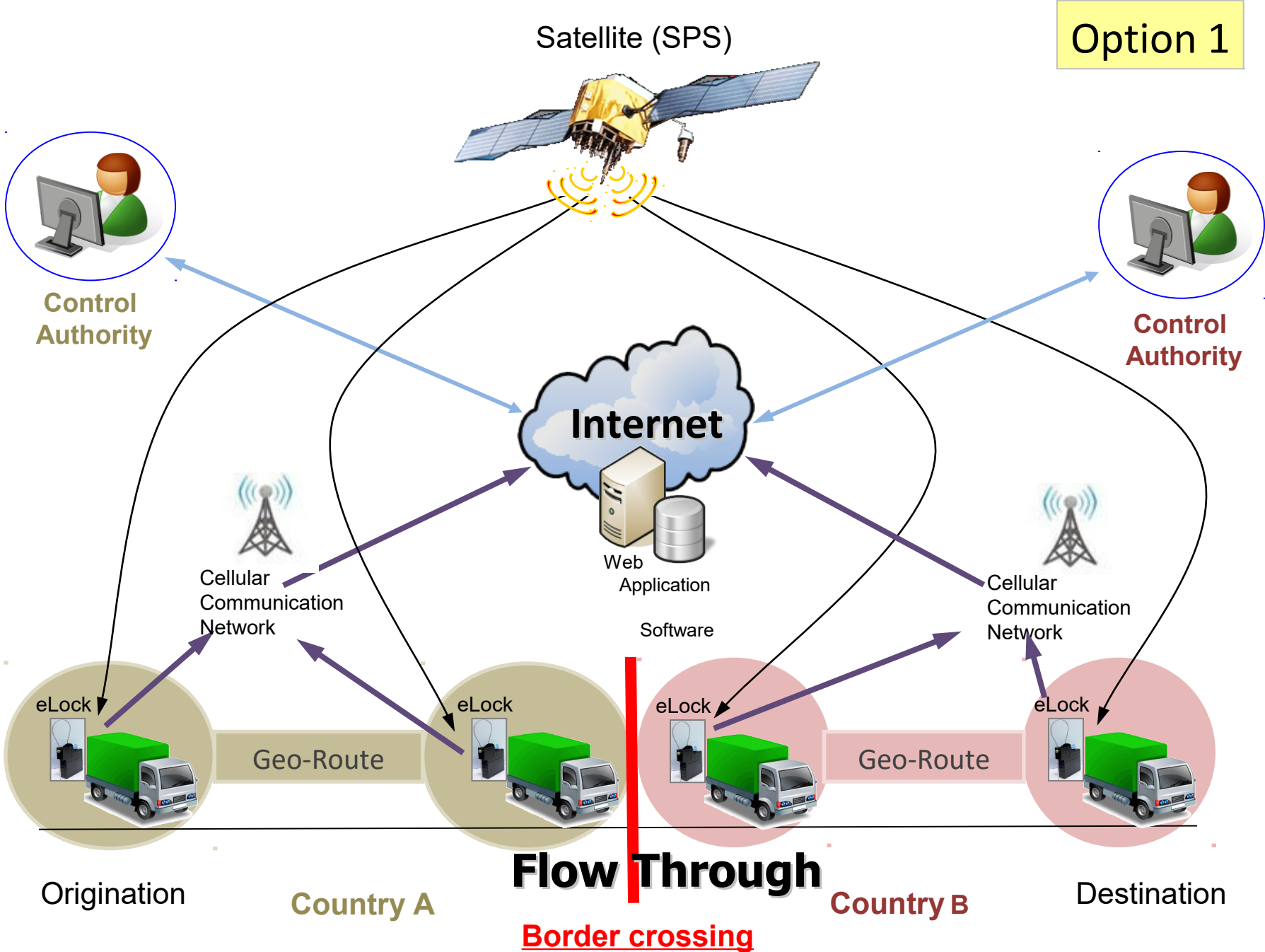
### **Monitoring Platform**

- Contains central server and application software

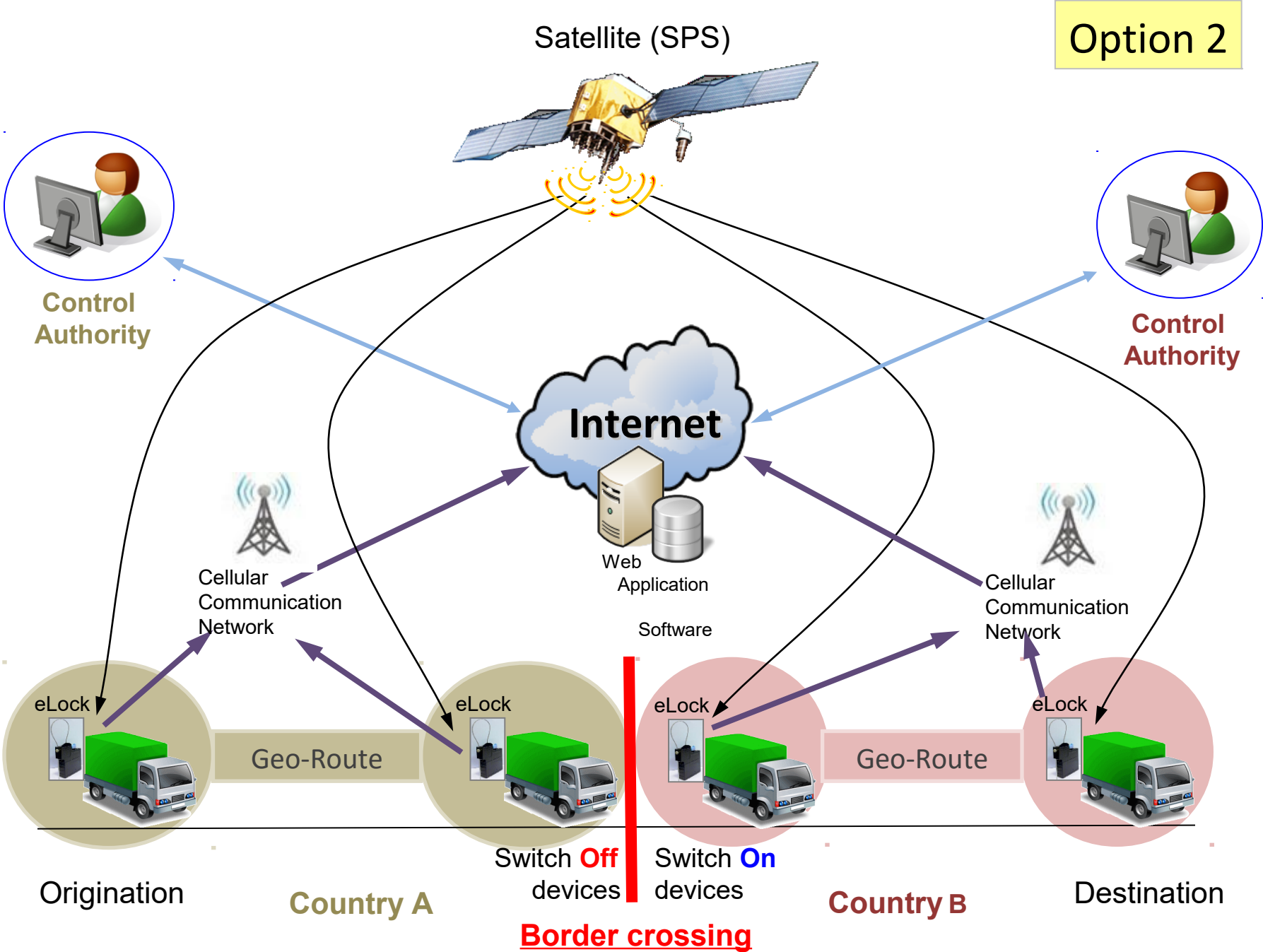
### **PDA**

- To initiate trips

Option 1



Option 2



## 2(b) Institutional arrangements

Application of the system requires close cooperation between the control authorities of the countries formalized by bilateral agreement or a mutual recognition agreement that may include following:

- Sharing of information
- Use of similar or compatible application software
- Use of jointly accredited devices, such as e-Seal/e-Lock and tracking unit
- Mutual recognition of registration or guarantee and sharing of registration information
- Mutual recognition of inspection results if joint inspections are not possible
- Assistance in the case of exceptional events
- Mutually agreed requirements for temporary admission of vehicles



### 3. Possible benefits

#### For control authorities

- Increase in safety and security
- Real time enforcement possible
- Reduced violations during the trips
- Increased capacity to handle more traffic
- Reduction in the need for Customs escort
- Less congestion at origin, border crossing and destination;

#### For transport operators

- Reduction in transport time
- Less transaction cost
- Increase predictability of consignment and therefore supply chain
- Optimal fleet management and asset utilization
- Paperless transactions possible





# Conclusion

- Similar systems are already in operation in parts of Africa, Latin America, in Jordan, Thailand, China, Hong Kong, China, Republic of Korea
- Development of secure trade and transport lanes- mention of such system in transit agreements (Afghanistan-Pakistan)
- Use of new technologies in transport can address the pressing concerns of the control authorities while facilitating

## Secure Cross Border Transport Model

### Frequently Asked Questions

*Q: What is Secure Cross Border Transport Model?*

A: Secure Cross Border Model is one of a series of transport facilitation models developed by UNESCAP. The Model provides a conceptual and standard basis for design of a cross-border monitoring system for vehicle and goods using new and existing information and communication technologies. It prescribes standardized components, their interaction and institutional requirements for its application in the cross-border transport. It tries to help achieve balance between the need for security and the demand for wider transport access.

*Q: What are the technologies used in application of such a system?*

A: Primarily the model uses three technologies, the satellite positioning systems (SPSs), such as GPS, cellular communication systems (CCSs), such as GPRS/GSM, and the radio frequency identification technology (RFID).

*Q: Aren't these technologies already in use in transport, so what is new in the model?*

A: Yes, it is true that these technologies are already in use in various facets of transport, for example, monitoring of movements of vehicles and goods from inland places to borders in China and among the Customs bonded zones in Thailand as well as monitoring of containers in the Republic of Korea. But, this model integrates these technologies to provide a standard conceptual design of a monitoring system for cross-border transport, which needs adoption of a harmonized system.

*Q: What are the key components of the model and what are their functions?*

A: The key components of the model are:

- *Tracking unit* that contains a SPS, a CCS and a RF module. It has a unique number and is placed in the prime-mover. It records the location of the vehicle and status of e-Seal at regular intervals and communicates to the monitoring platform. In case of any tamper of e-Seal and deviation of

**Thank you  
for your  
Attention  
Comments/Questions??  
jain@un.org**