



Electronic Cargo Tracking System (ECTS)





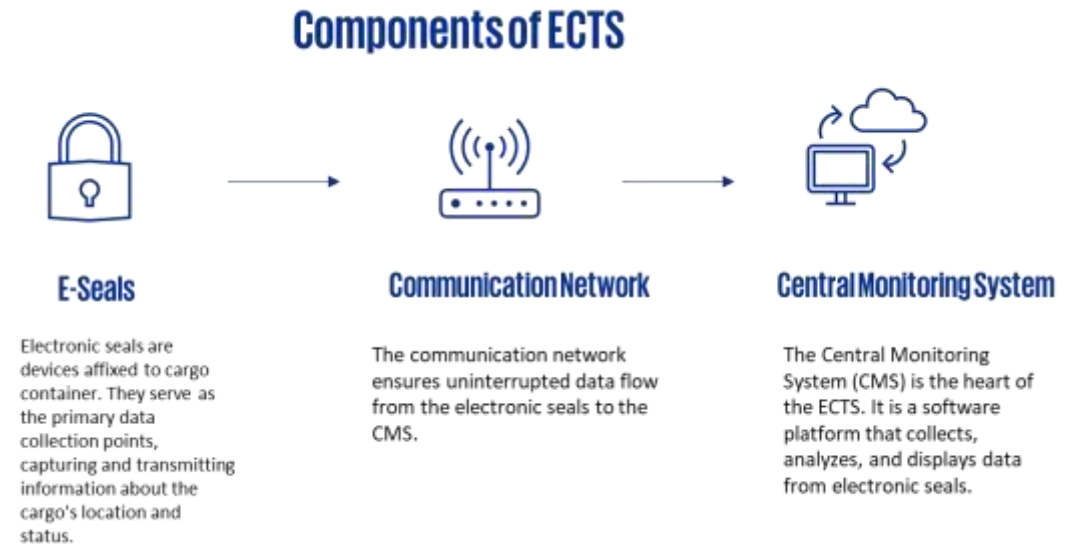
Agenda

- 1 Overview
- 2 Rationale for Implementing the Block Chain Technology
- 3 Implementation for ECTS – Bond-to-Bond movement
- 4 Implementation for ECTS – Cross Border Trade and Transshipment
- 5 Benefits and Challenges



Overview

- India customs has been instrumental in adopting innovative technology solutions including the Electronic Cargo Tracking System (ECTS) to obliterate bottlenecks and minimize barriers to trade within the country and in its neighboring region.
- ECTS **consisting of GPS-enabled high security seals and a block chain technology** based online module has been introduced **in India in 2021** to bring in more efficiency, visibility and monitoring capability.
- India's '[National Strategy on Blockchain 2021](#)', envisions the potential application of blockchain technology in cross-border trade in future.



Seeks to achieve secure container documentation and GPS-based tracking.

Features:

- Live track your cargo using GPS devices
- Build your own geo fences and route corridors
- Receive email/sms notifications of begin journey and arrival at destination
- Selectively share data with your partners

Rationale for Implementing the Block Chain Technology along with ECTS



Efficiency: Enhancing the Logistics Chain

Automated Monitoring: ECTS eliminates the need for periodic manual check-ins, reducing human error and ensuring uninterrupted tracking.

Route Optimization: With real-time data, routes can be adjusted based on current conditions, ensuring timely deliveries.

Minimizing Delays: ECTS's proactive alerts help in addressing issues promptly, reducing potential hold-ups.

Security: Safeguarding Cargo

Long Journeys: As goods travel thousands of across borders , ECTS provides continuous monitoring, mitigating risks from mishaps or unauthorized interventions

Detering Threats: Real-time monitoring by ECTS acts as a deterrent against theft and tampering, preserving cargo integrity.

Reliability of documents generated: Ensuring Fair Trade

Documentation reliability: All stakeholders aware of documents generated which is reliable as well as upto date and speeds up permissions.

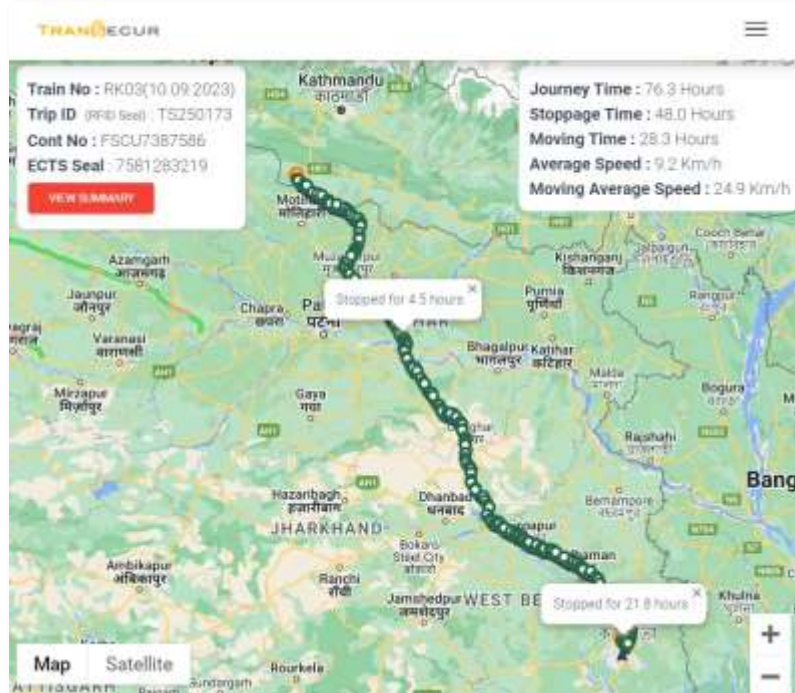
Boosting Trade Relations: Trace and track , facilitated by ECTS, enhance a nation's reputation, fostering better international trade relations.

Implementation of ECTS – Bond-to-Bond movement with blockchain technology



- Pilot project or movement of specified goods from ICD, Tughlakabad to the designated Customs Bonded Warehouse situated within Delhi sealed with Electronic Cargo Tracking System (ECTS) was flagged off **on 14.10.2021**. The project has been conceived for moving goods to bonded warehouses and for bond-to-bond ***movement of imported cargo***.
- Electronic tracking of ***containerized cargo through use of Smart locks and an application built on Blockchain technology*** was launched. This enabled customs to monitor and track movement of non-duty paid goods through GPS tracking while reducing compliance burden on trade in terms of documentation.
- With effect from 15.11.2021, ECTS has been rolled out for movement of all goods imported at ICD (Import), Tughlakabad from one Custom Bonded Warehouse (situated within Delhi) to another (situated within Delhi). In 2022 it was launched across Delhi Customs for all ports for bonded movement across Delhi.

Implementation for ECTS – Cross Border Trade and Transshipment



ECTS technology was introduced in FY 2018 to facilitate movement of containerized cargo from Inland Container Depots (ICDs)/ Container Freight Stations (CFS) **to Bangladesh and Nepal** to provide significant dividends to both Trade and Customs controls.

○ Bangladesh

- Circular No. 42/2018-Customs dated 02.11.2018 prescribed a procedure for a pilot on Transshipment of Export Cargo from Bangladesh to third countries through Land Customs Stations (LCSs) to Kolkata Port/ Airport, in containers or closed bodied trucks by adopting ECTS.
- ECTS for enabling exports from Bangladesh to India destined for clearance at hinterland ICDs.
- Transshipment of Cargo to Bangladesh via Inland Water ways - ECTS of containerized cargo transported using inland waterway routes from India to Bangladesh as well as transit of Bangladesh's exports to third countries

○ Nepal

- With effect from 15th February 2019, CBIC has notified the Transshipment of Cargo to Nepal under Electronic Cargo Tracking System Regulations, 2019 (as amended) to utilize ECTS system for securing and monitoring the traffic-in-transit.
- To facilitate trade, in July 2023, CBIC permitted transshipment of cargo from the ports of Kolkata, Haldia and Vishakhapatnam in India to Biratnagar in Nepal by rail

Benefits and Challenges



- Potential to bring supply chain security in transport through real-time GPS tracking
- Potential to reduce waiting time for vehicles at Customs ports
- Potential to eliminate traffic congestion at the Customs stations/land borders
- Expected to substantially reduce the transit time
- Significant reduction in costs (transaction and administrative)
- Used as an anti theft device for truck and cargo



- For vendor includes hardware failures, systems integration, maintenance and capacity building including resistance and costs consideration from other stakeholders
- Regions with limited technological infrastructure have faced challenges in establishing a reliable communication network for real-time tracking.
- Integrating ECTS with legacy systems, like older customs management systems or port management platforms, can be complex and time-consuming.

Thank You