Annex A

June 2015

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FACTSHEET

INTERNATIONAL LOGISTICS PROGRAMME – SMART LOGISTICS

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As part of the international logistics programme explored under the Infocomm media Masterplan, Smart Logistics allows companies to leverage sensory networks to enable Supply Chain sensing and responding, through the use of real time track-and-trace visibility of shipments.

Smart Logistics will help companies gather insights into their supply chain with updated information on their shipment's environmental conditions as it travels. Additionally track-and-trace will heighten cargo integrity in the process of the change of custody, as it provides greater clarity in the identity, quantity and the conditions of the cargo being handed over.

Background

Track-and-trace technologies are currently often proprietary and are used by large organisations for premium cargo. These technologies also lack real time visibility, which results in higher inventory holding costs and higher manpower investment required to manually monitor shipments.

Different stakeholders within the supply chain will likely have varying and inconsistent levels of technology, leading to the lack of cargo visibility across the shipment process.

As cargo travels to its destination, a large majority of shipments require a change of custody across different service providers over the course of its journey, and this process requires the need for cargo to be identified and verified as it changes hands. However, reader technology used to track cargo, and its supporting infrastructure, is currently highly fragmented due to numerous standards and incompatibility.

Emergence of New Technologies

Smart Logistics will leverage new technologies such as mobile computing, Internet of things, 5G networks, and big data analytics, to increase cargo visibility and thus improve decision making capabilities.

For example, the evolution in radio frequency identification (RFID) can embed both Passive self-tuning and Active RFID sensor technology to offer nested visibility of shipments, providing transparency near real time for shipments across borders. Tags may also provide sensing capabilities of environmental conditions to ensure integrity of the cargo.

Similarly, the mobile phone is a ubiquitous device, that can eliminate the need for high cost proprietary readers.

Benefits

Businesses can enjoy the value of a more efficient and effective logistics operations with more accurate, near real time monitoring of moving goods for greater supply chain execution. This reduces the need for excess inventory across the entire supply chain.

The use of ubiquitous devices and self-tuning tags will enable global cargo tracking. With the proliferation of Smart Logistics, this encourages stakeholders in the sector to connect and collaborate:

<u>Cargo Owners (Shippers of goods) and Freight Forwarders</u>
- Having real time visibility into the locations and statuses of the shipments can allow shippers and forwarders to track their shipments easily and intervene in a timely manner, should a delay or exception occur along the journey.

- Shippers and Freight Forwarders can also proactively monitor and manage the conditions of the cargo, especially for commodities that are sensitive to environmental factors such as temperature, humidity, exposure to light etc.

- With such capabilities, shippers and forwarders will have greater confidence that the shipments will arrive at the destination in an optimal condition, preventing loss of inventory through environmental damage.

- The cost of insurance to such monitored shipments can also be expected to decrease with a lower risk of shipment failure mitigated by the ability to sense and respond to situational change more effectively.

Ground Handlers

- By creating a tag association between cargo and ground handling equipment, this will give the ground handlers "nested visibility" on the locations of the shipments to provide a full suite of real time track-and-trace capability to customers with such demands. As an additional benefit, the tagging of equipment such as pallet dollies and tractors will reduce the reliance on ground handlers to track them; this translates to better optimisation of equipment.

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