



Kale Info Solutions  
Technology that Transforms



# ARC Freight Advisory Task Force March 1, 2023



- 1** **Kale's Credentials – Journey, Portfolio, Market Presence, Accolades**

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**Kale credentials**





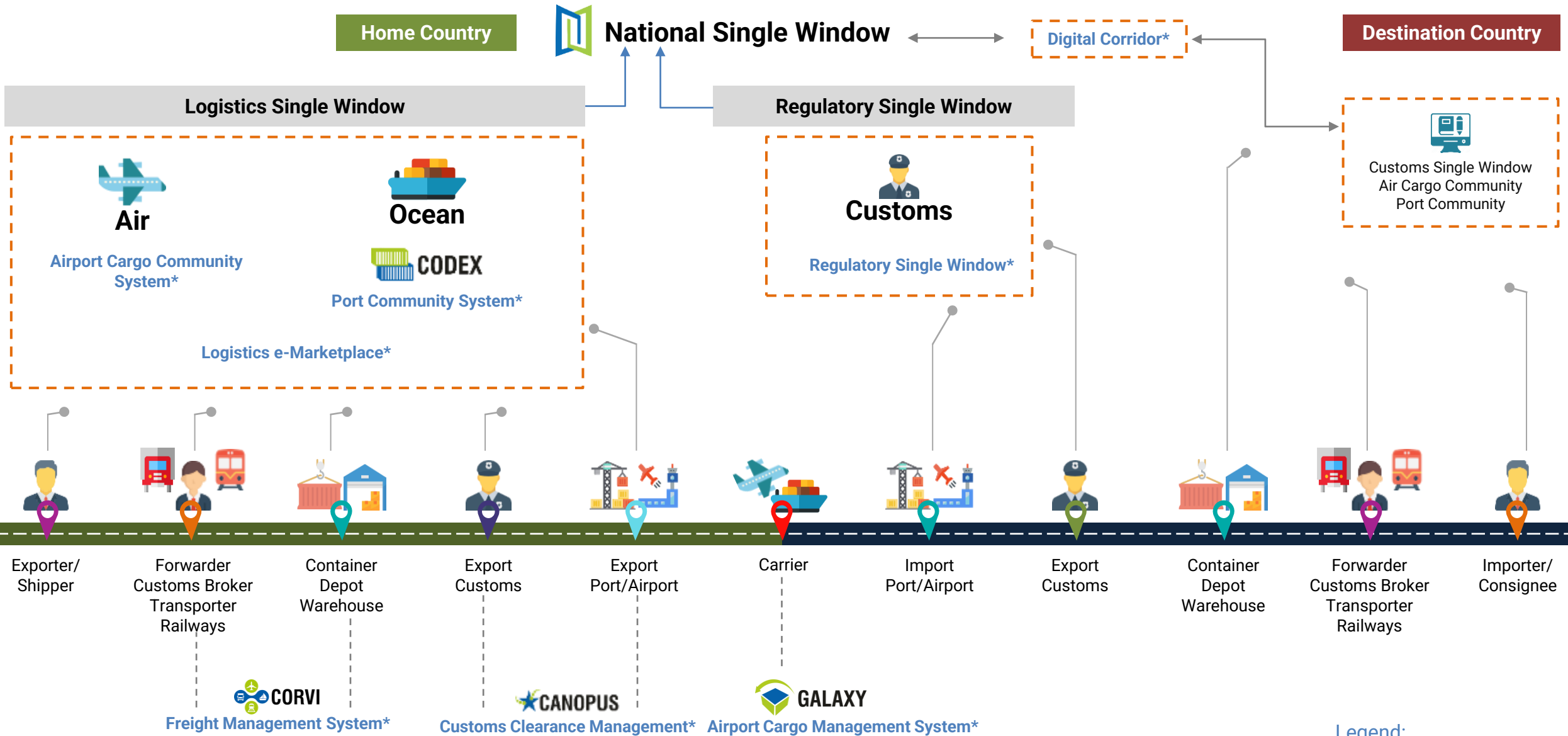
# Kale Logistics – The Bird’s eye view

 <p><b>13+ years</b> of journey</p>	 <p><b>4,500+</b> Customers across <b>30</b> countries</p>	 <p>Offices in <b>5 regions</b>: Americas, Europe, ME, Africa, Asia</p>
 <p><b>350+</b> Team members</p>	 <p><b>20,000+</b> users</p>	 <p><b>50Mn+</b> Logistics Transactions digitized</p>
 <p><b>2 Awards</b> from <b>United Nations</b>, 14+ other Awards</p>	 <p>Case Study in <b>Kellogg’s Business School’s</b> SCM book</p>	 <p>Presence at the <b>United Nations, TIACA, IPCSA</b> etc.</p>
 <p><b>World’s 1st</b> multi-modal cargo community system</p>	 <p><b>North America’s 1st</b> Airport Cargo Community System</p>	 <p><b>World’s 1st</b> Air Freight Digital Corridor</p>
 <p>Reduced Container Dwell Time by <b>75%</b> at ports</p>	 <p><b>80+</b> Global Airport Cargo Terminals touched</p>	 <p>Propelling India to <b>no.5 position Globally</b> in eAWB</p>

**Global Leadership in Airport Digital Cargo Community building!!!!**



# Product Portfolio



Legend:  
\* Kale's Product



# Existing & Signed up Cargo Community Services & Proofs of Concept



Cambra de Comerç de Barcelona





# Accolades: Best IT Solutions Provider YoY



2020

**Best IT Systems Provider of the Year**  
by Stat Trade Times

**CII Industrial Innovation Awards - Winner**

2018



The **30** Most Preferred Tech Workplaces

2017



**Digital Ports Innovation**

By Global Ports Forum



2017

**eProject of the Year at United Nations, Geneva**

2019

**Best Air Cargo IT Solutions Provider**



**Trade Facilitation Innovation Award by UNESCAP & ADB for CODEX**

2019



2020

**Journey Towards Excellence – CODEX Endorsed by Indian Customs**



**Kale played an important role in getting India to rank 6th in eAWB adoption globally.**



**Best Trade Facilitation Technology Provider**

2020



**CII - Top 25 Most Innovative Cos in India**

2018



**75% reduction in container dwell time with CODEX**



**UPLIFT – India's first multi-modal cargo community system**







# DASHBOARD - Widespread usage of Kale's Platforms in Air Cargo



USERS **20,000**

ANNUAL SHIPMENTS **10+ mn**



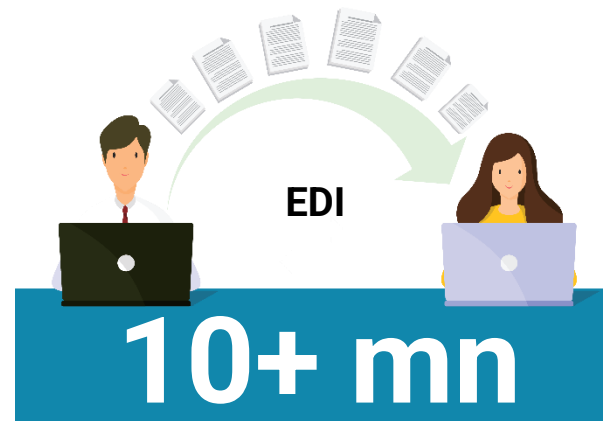
\*Transactions annually

CONNECTED FREIGHT FORWARDER **4500+**



AIRLINES **125+**

AIRPORTS **106+**





## Air Cargo Community System Overview





# First Principles of Congestion and Cargo Delays

## Key reasons for congestion



Trucks arrive in clusters together around the flight timing



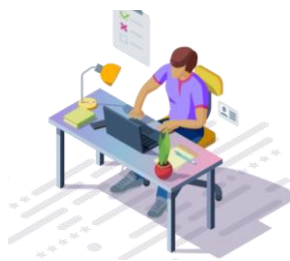
Documentation at the airport creates delays & truck queues



Terminal handlers have limited or no knowledge of what cargo is coming when and needs what kind of handling



Trucks whose cargo is not ready for pick up increasing the queues



Unorganized movement between different terminals



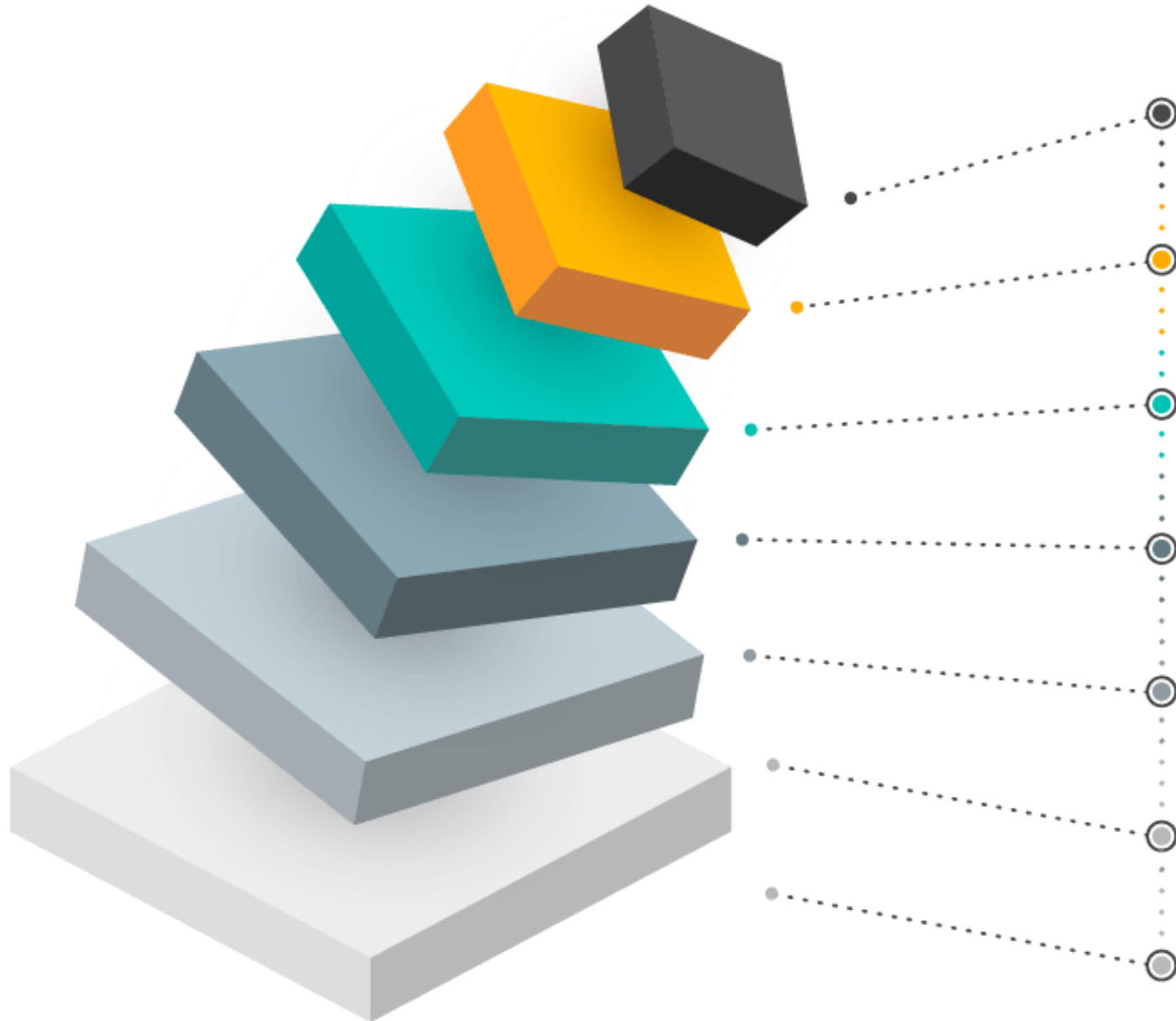
Staff shortage at handler's facilities



Space shortage at the warehouses



# Current Industry Challenges



Procedural bottlenecks due to manual documentation and paper-intensive operations



High Truck congestion at the Airport due to manual operations



No real-time shipment visibility



Lack of data security and compliance



Lack of advance information sharing with the cargo ground handler



Lack of harmonized processes



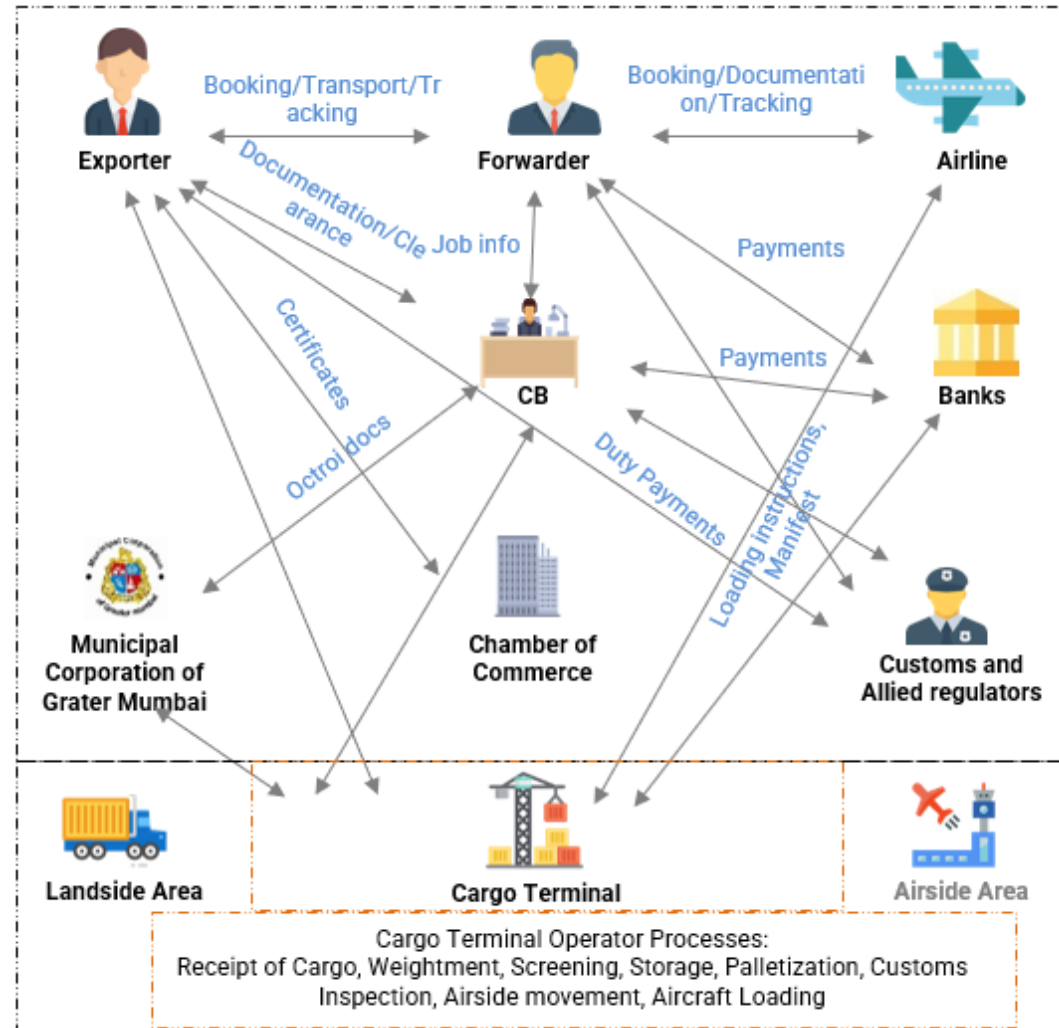
30 Documents, 120 copies, 200 signatures





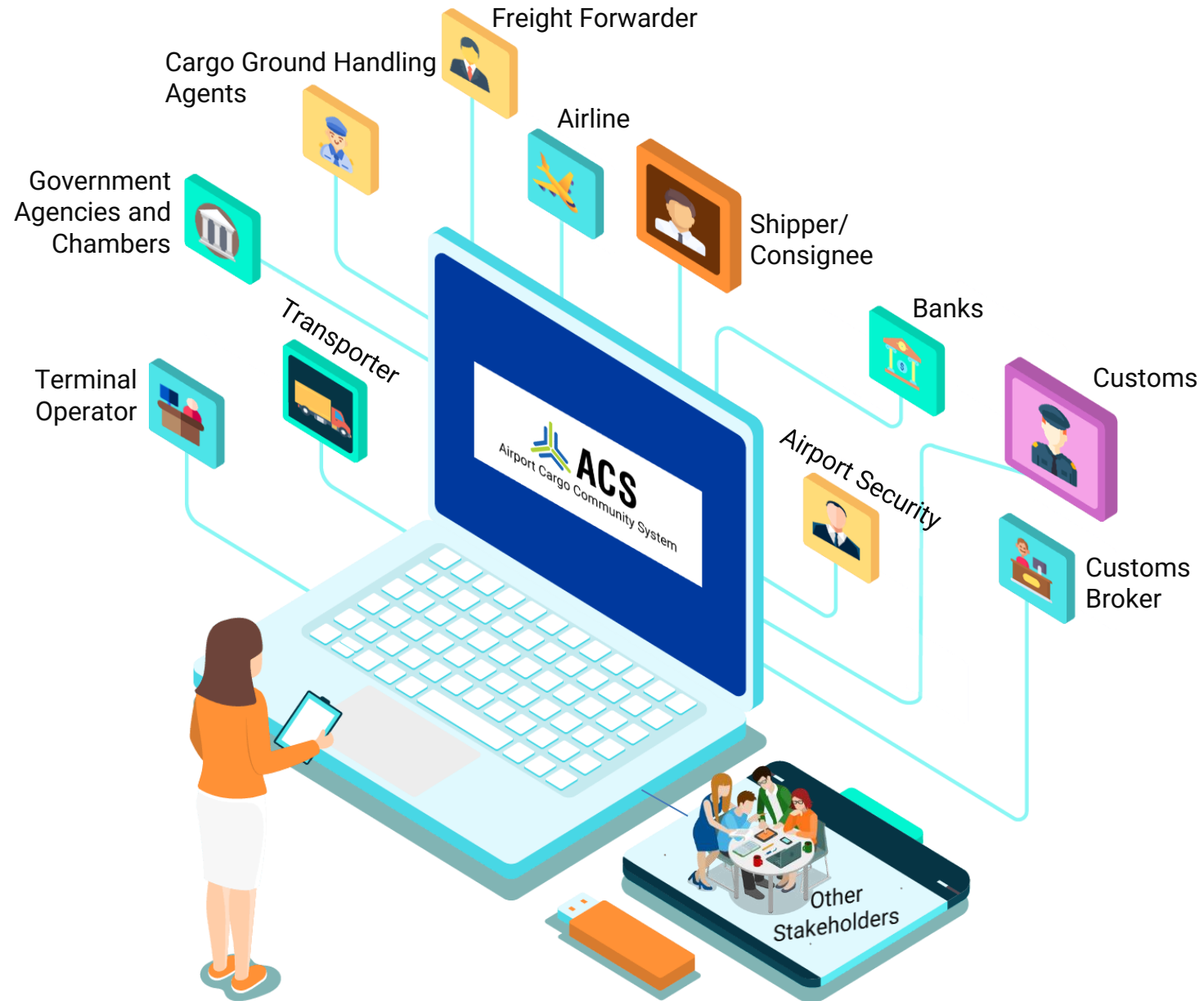
# ACS Introduction – Current Communications Path

An Airport Cargo Community platform is an electronic platform that facilitates digital interactions between airport stakeholders viz. Importer / Exporters, Forwarders, Custom Brokers, Carriers, Customs, GHAs, Other Stakeholders at the airport



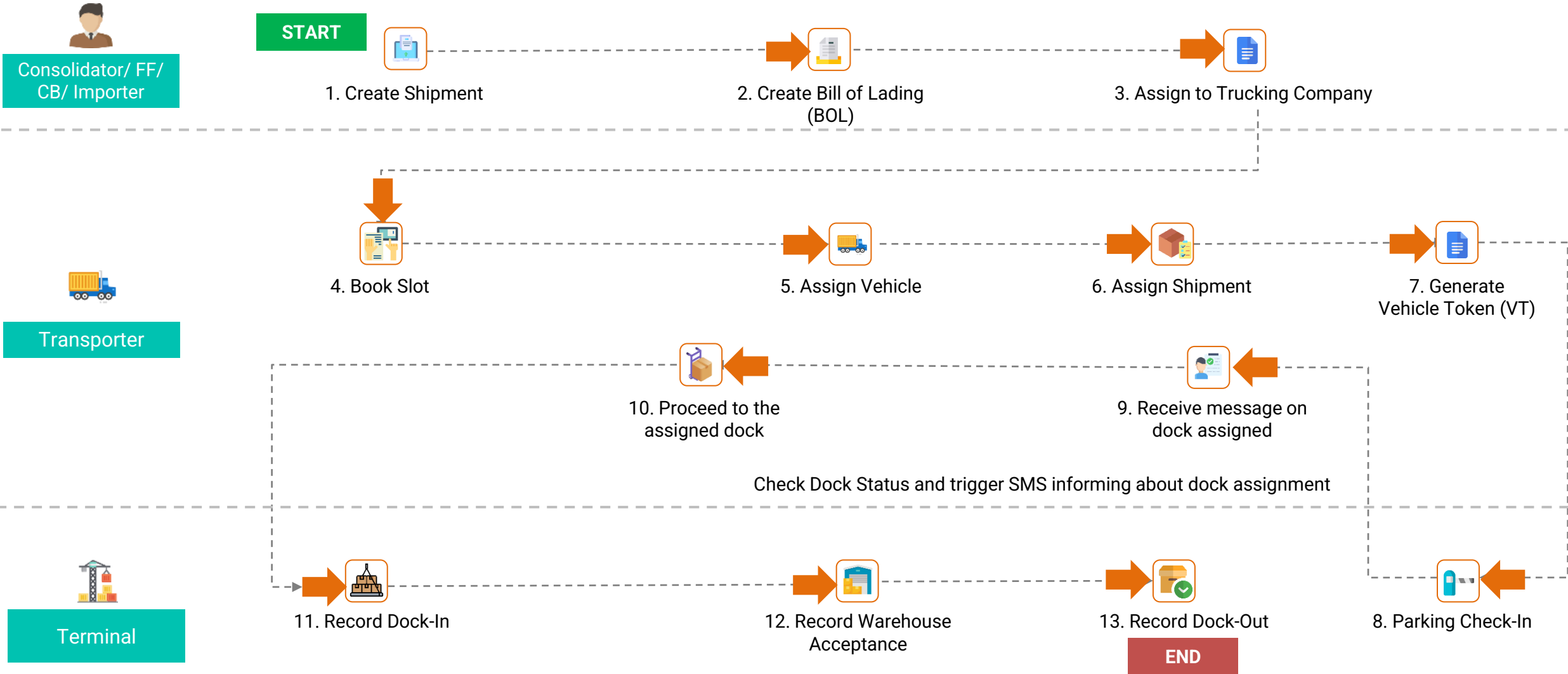


# ACS "Single Window" Platform



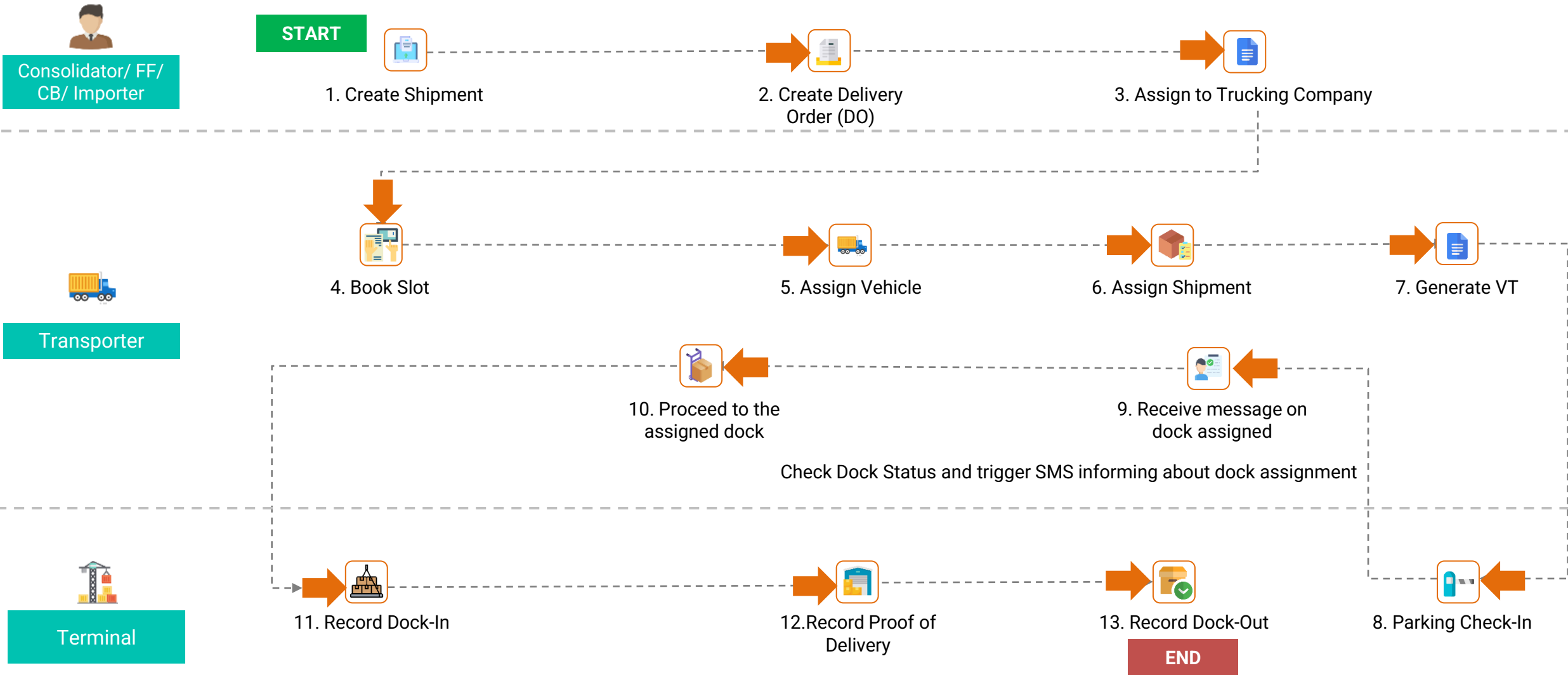


# Export Process Flow of Truck Slot Booking





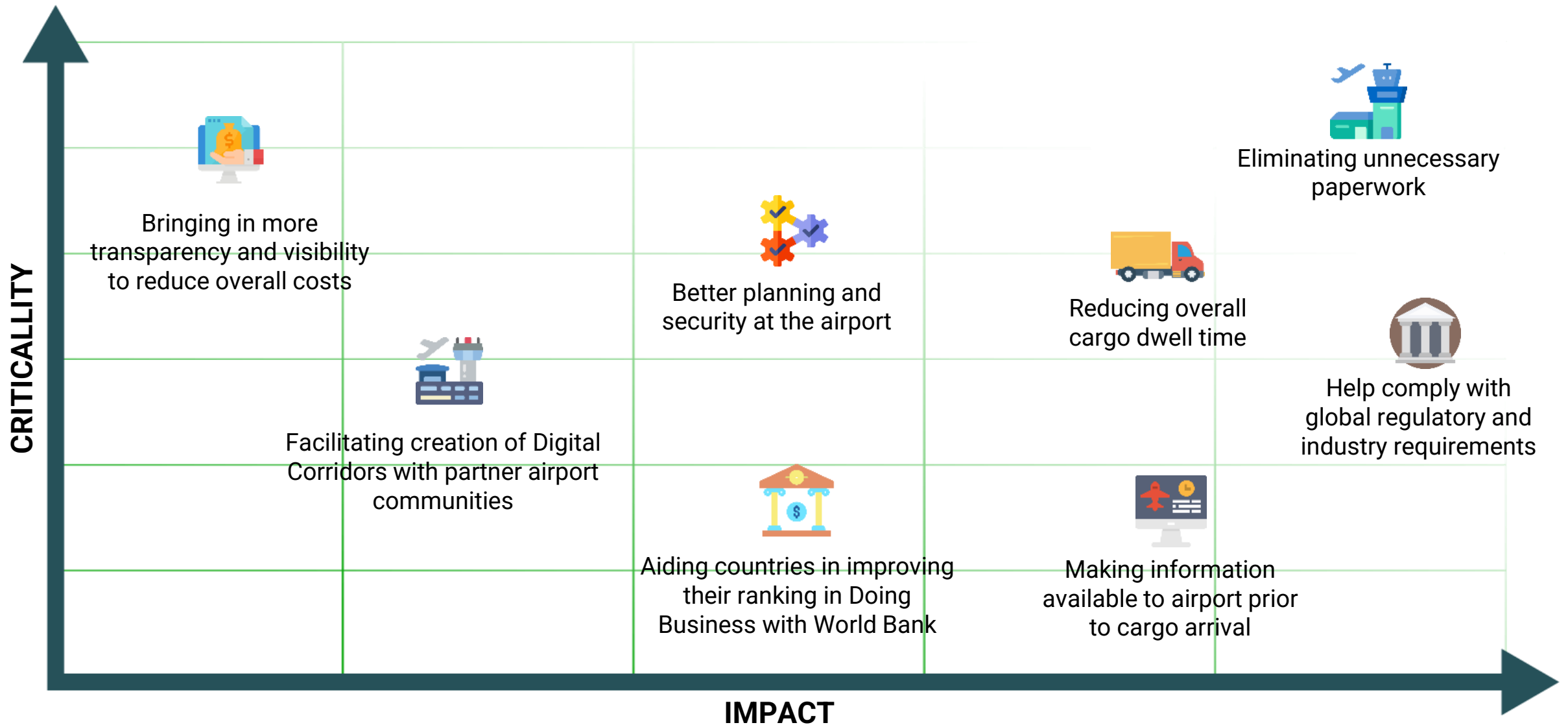
# Import Process Flow of Truck Slot Booking





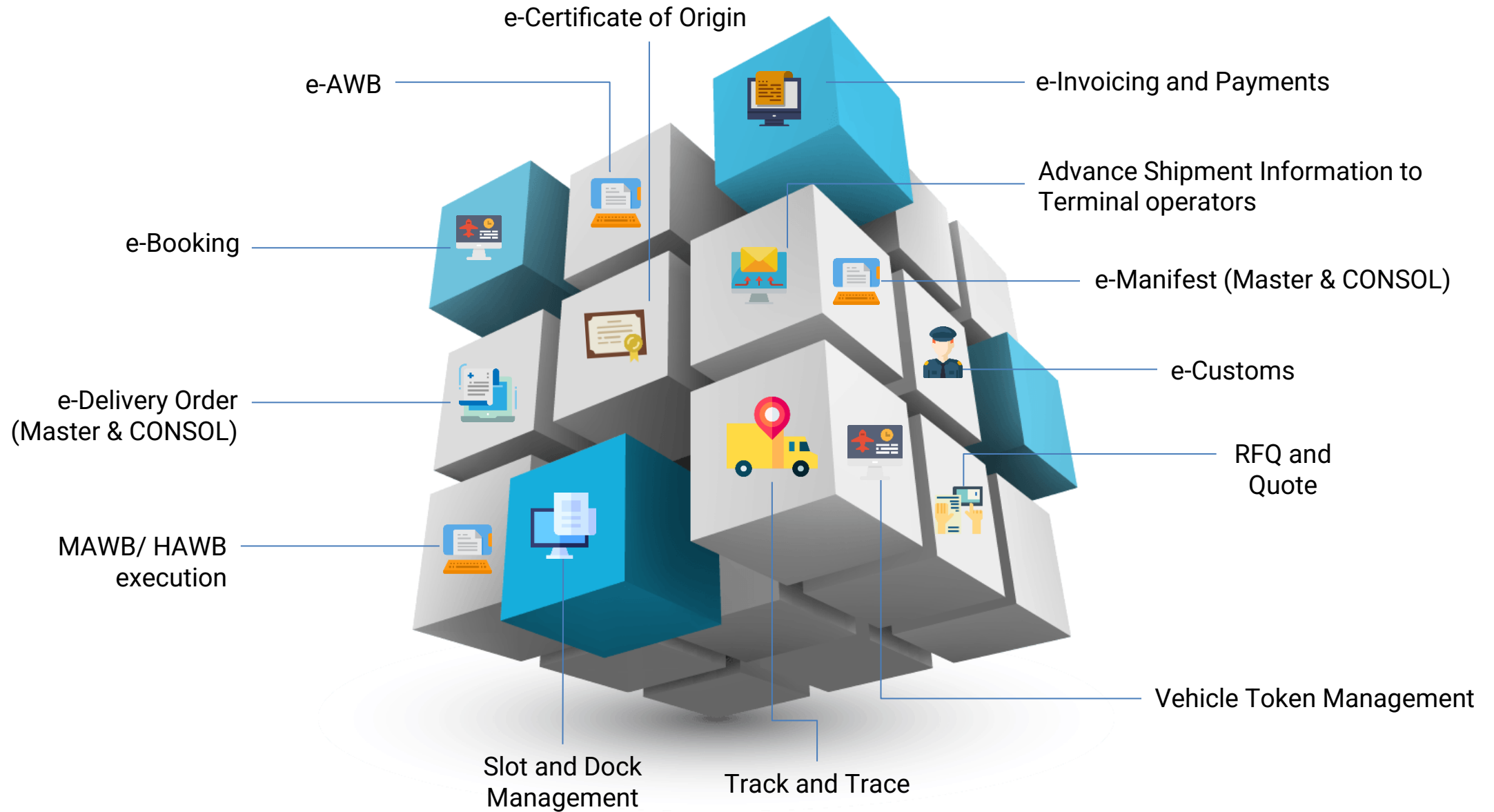


# Impact and Criticality Matrix



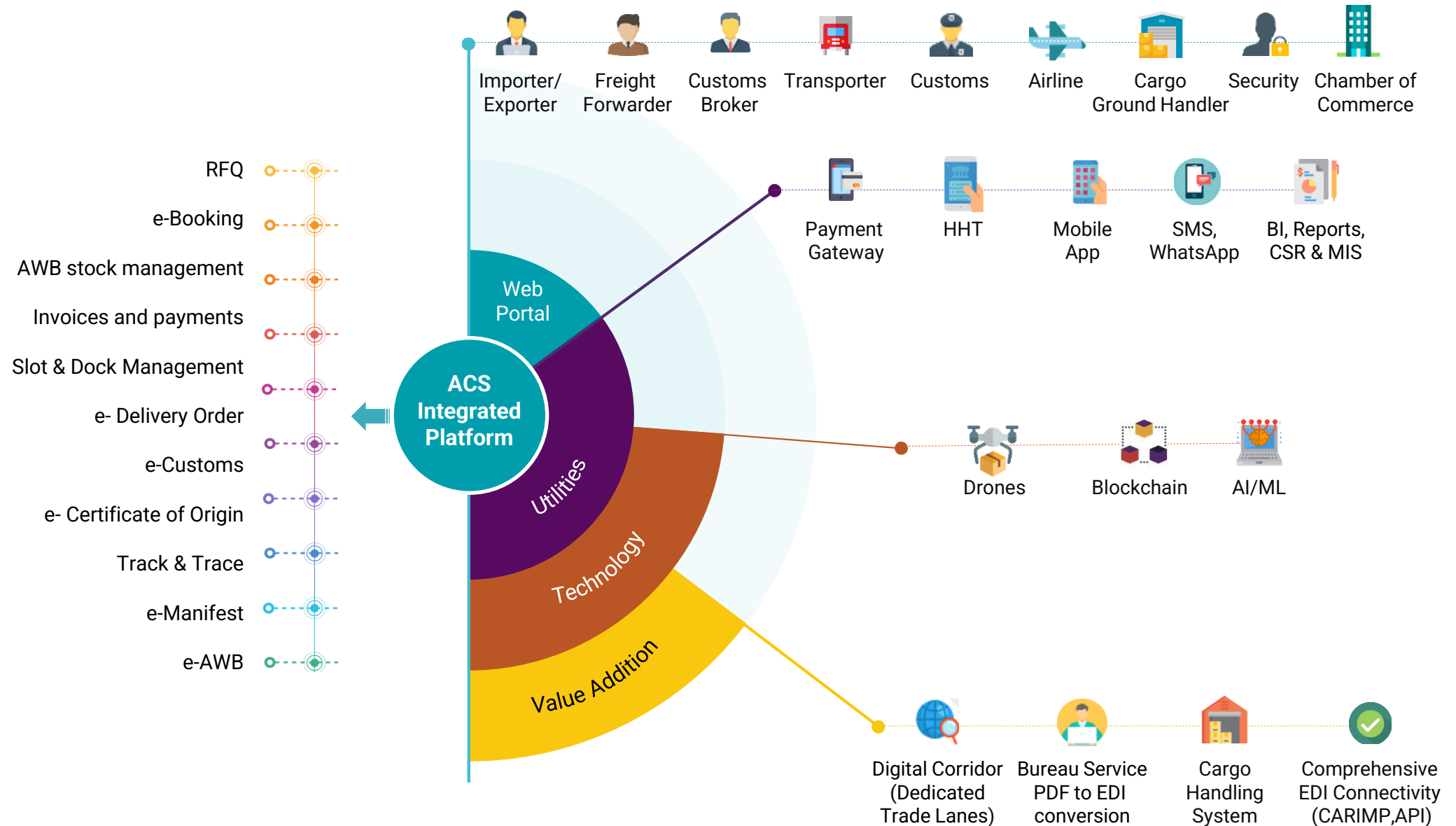


# Host of Key Features



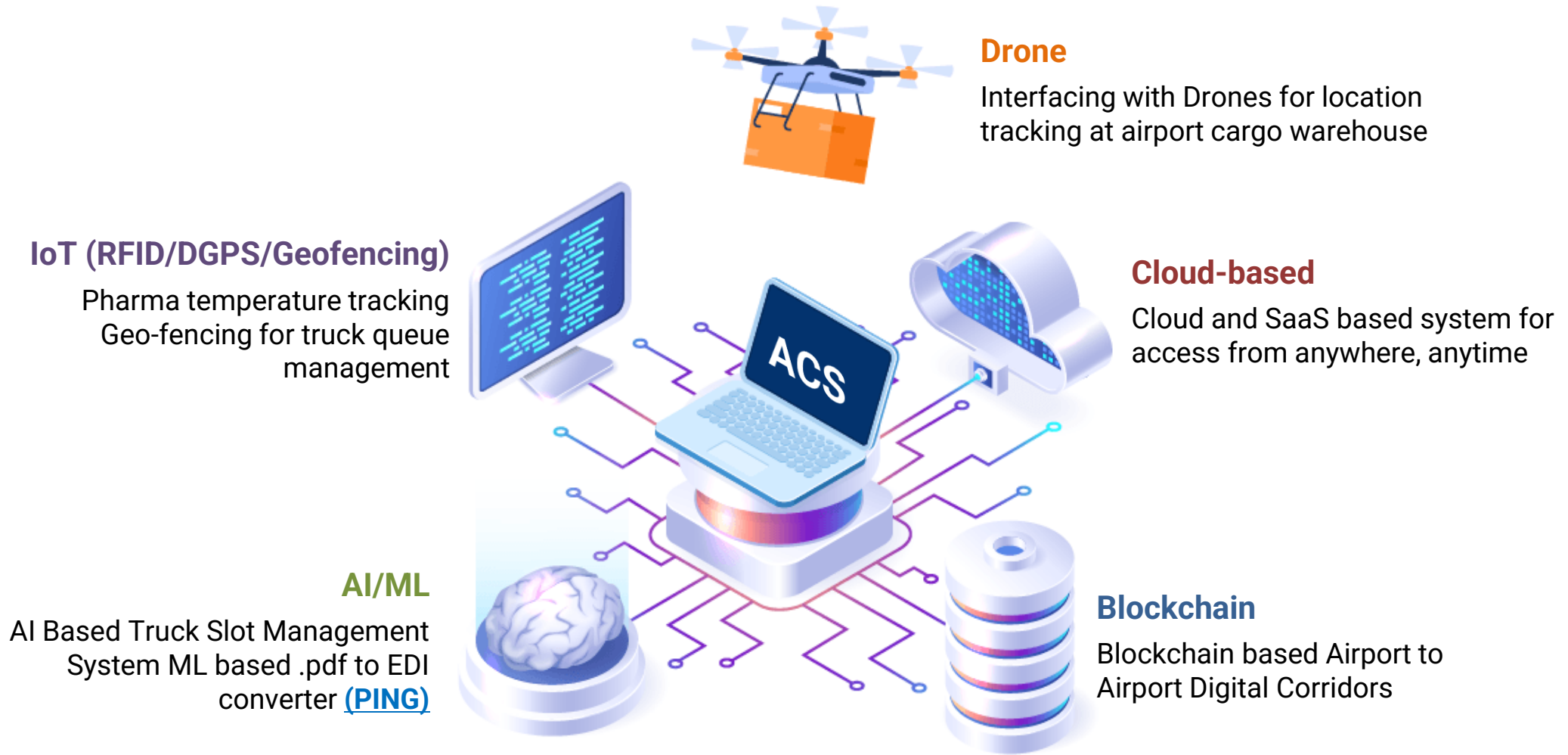


# ACS Functional Architecture





# Deep Tech Interventions in Next Generation ACS





PING service extracts data from documents like Air waybill and converts the same into EDI messages, which are auto-transmitted to airlines/ ground handling agents



It is an innovative solution based on a combination of machine learning (ML) & optical character recognition (OCR)



This service extracts data from AWB PDF copy and converts it in to digital form



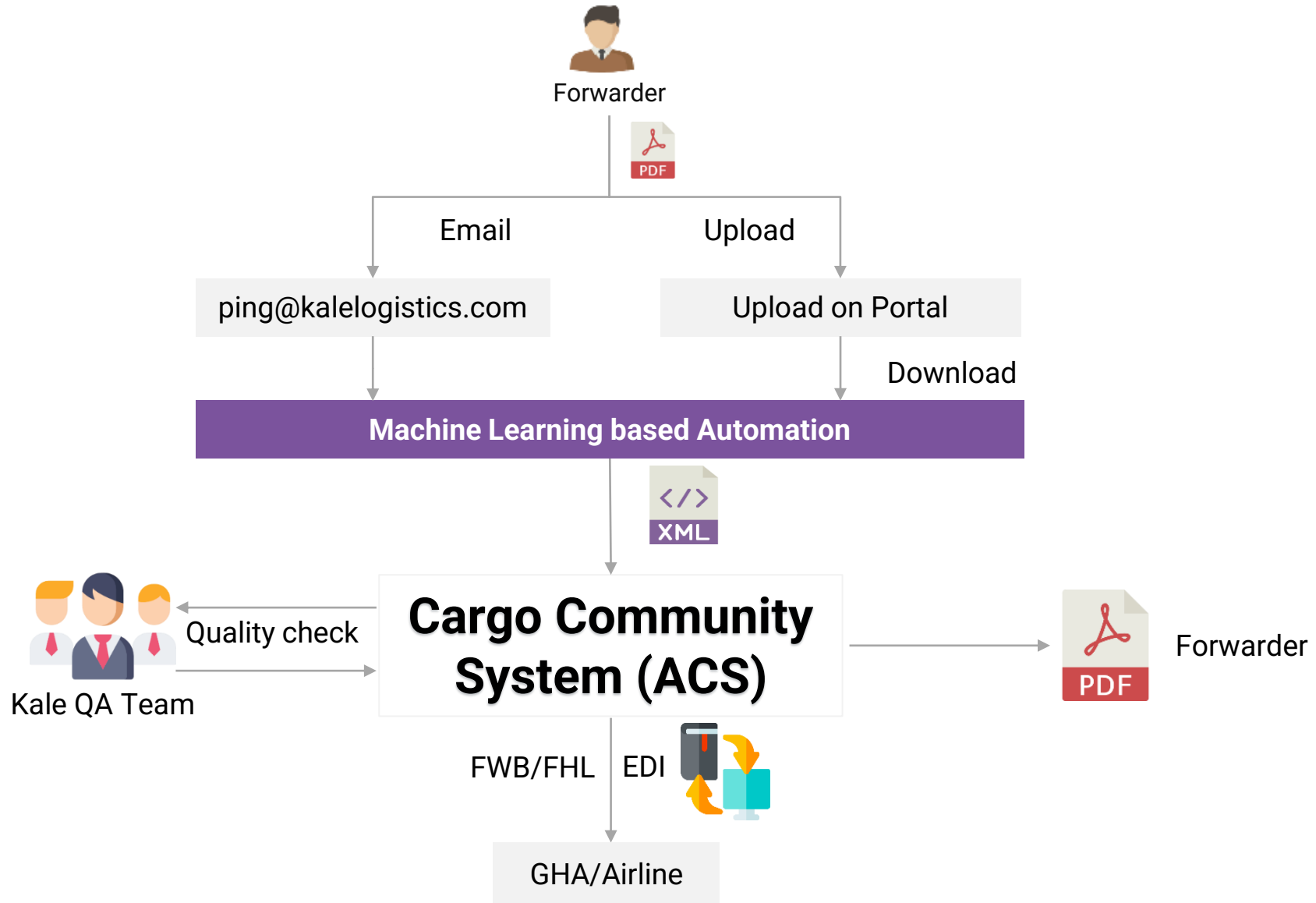
Kale's quality checks verifies the data accuracy



Data communicated to airlines and GHA through multiple protocols



Ground Handler gets accurate information before the truck arrives at the terminal





# PING Key Functional Features



## Send AWB PDF copy on e-mail

Forwarder sends system generated AWB PDF copy to a dedicated email ID (Ping@kalelogistics.com)



## Upload AWB on the Portal

Forwarder can upload the AWB on the portal which can be downloaded by Kale team to process further



## Document to EDI Converter Service

The data is extracted from the Airway bill document and converted in to EDI messages using Machine Learning based OCR automation tool



## Quality Check

Kale's QA team perform quality checks for data accuracy



## Advance Shipment Information (ASI)

Ground handler receives Advance Shipment Information which helps them to perform better warehouse and resource planning



## Freight Forwarder receives AWB PDF copy as per the EDI message

If AWB PDF copy is sent on email then system generated AWB PDF is sent to the email id from which original AWB is triggered and if AWB is uploaded on portal then system generated AWB PDF is available on the portal itself



## Cargo Track and Trace Service

This service provides real time visibility of freight status updates (FSUs).



## The option to track the processing status of the shipments in case AWB is uploaded on portal



**Holistic Benefits**

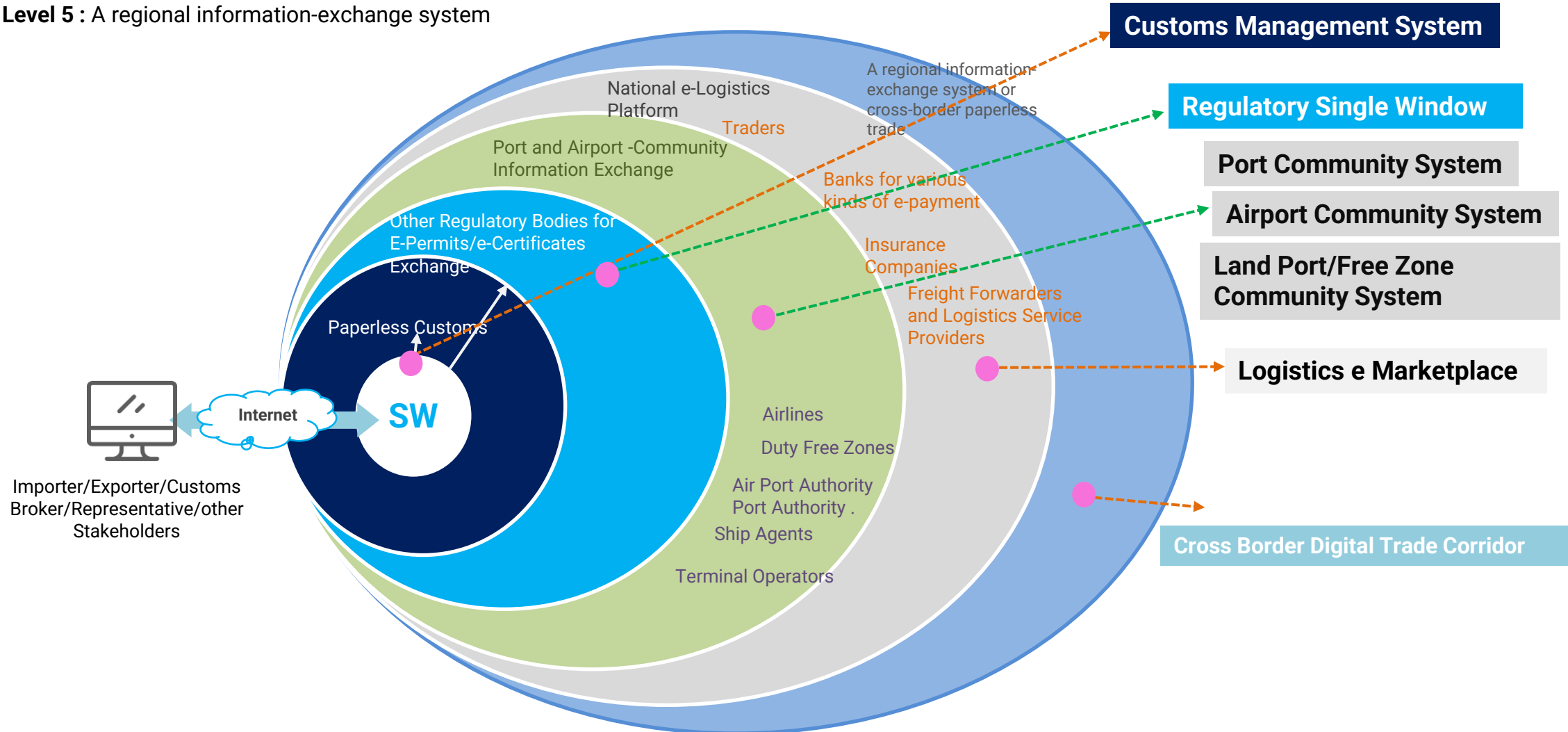






# UN Recommendation 33 for Trade Facilitation

- Level 1** : Paperless Customs + e-Payment for Customs Duty + e-Customs Duty + e-Container Loading List + and electronic risk-based inspection
- Level 2** : Connecting Other Government Back-end IT systems, and e-Permit Exchange with Paperless Customs System
- Level 3** : e-Documents Exchange among Stakeholders within the (air, sea) port community
- Level 4** : An Integrated national logistics platform with also traders and logistics-service providers information exchange
- Level 5** : A regional information-exchange system





# Helping Air Cargo Ecosystem with Efficacy of Cargo Business



## Commercial



Helping airlines/other stakeholders towards profitability



Possibility of earning additional revenue through the concession model



Ability to grow cargo volumes by focusing on service levels to large customers



## Business Growth



Marketing tool for attracting more cargo



E-retailing/commerce capabilities



Making airport attractive for shippers & airlines to become a regional cargo gateway/hub



Better understanding of the commodities and end customers



Better understanding of the trade flows and partner airports and develop digital Corridors



## Sustainability and Security



Reduced carbon footprint with lower dwell time



Helping community operate safer in Pandemic times



Saving trees by promoting paperless trade



# Helping Air Cargo Ecosystem with Efficacy of Cargo Business



## Operational Efficiency



Effective Warehouse planning and utilization of storage space and equipment



Instant and real time update of shipment status



Addresses the issue of Staff Shortage with process automation



## Cost Reduction



Data Handling costs reduced significantly



Information gathering costs like phone calls, emails, physical visits are avoided



## Compliance



Compliance with customs requirements



Compliance with GDPR policy and IATA messaging standards & ICS2.0 EU filing



# Summary Benefits of ACS to the Airport Operator



Helping airlines/other stakeholders towards profitability



Marketing tool for attracting more cargo



Making airport attractive for shippers & airlines to become a regional cargo gateway/hub



**Helping community operate safer in Pandemic times**



**Possibility of earning additional revenues through the concession model**



E-retailing/commerce capabilities



Better security at the airport



**Better understanding of the trade flows and partner airports**



Better understanding of the commodities



Better understanding of the end customers



Ability to grow cargo volumes by focusing on service levels to large customers



Ability to develop digital corridors with partner airports to grow cargo



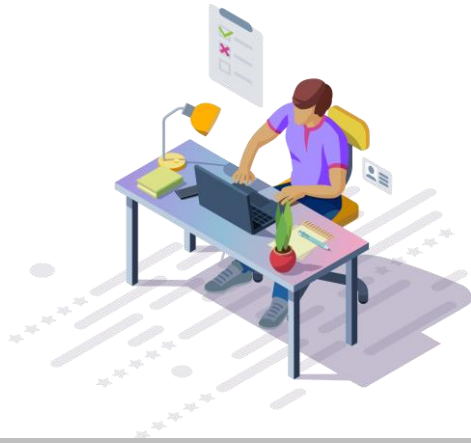
**Making the airport sustainable**



Reduced carbon footprint



Reduced revenue leakage



## Freight Forwarder/ Custom Brokers

- Eliminate travelling to various airline offices/airports for stamping, payments, documents & getting vehicle tokens.
- Savings in paper handling cost by elimination of multiple copies of AWB at truck dock, cargo screening & Carting Order.
- Supports electronic Certificate of Origin
- Supports community initiatives like ACAS, PRECISE, PACT etc.



## Cargo Ground Handling Agent

- Better productivity of trade/airport staff at the airport with better security
- Faster documentation and cargo processing
- Reduction in malpractices / errors
- Advanced shipment visibility
- Efficient planning of warehouse activities
- e-Payment of terminal charges reduces footfall at airport counters



## Airline

- Implement initiatives like e-freight successfully
- Higher efficiencies in booking processes
- Opportunity to become a preferred carrier with the community leading to better business opportunities



## Trucking companies

- Ability to plan truck schedules better
- Reduced waiting times at the airport and wasted trips due to incomplete processes
- Reduced carbon emissions
- Reduced fuel costs
- Better compliance to 10-hour driver rule
- Better visibility of truck movement



## Shipper

- Reduced inventory costs
- Better supply chain planning
- Reduced product costs
- Better compliance



## Success Stories





# Case Study - Mumbai – World's most constrained airport

- ✓ Mega city with over 20 Mn population
- ✓ Airport in the middle of the city – no space to expand
- ✓ Co-habited by India's largest maritime port – ripple effect congestion
- ✓ Huge city traffic and time restrictions on truck movement
- ✓ Highest Throughput per Sqm: International Cargo (14Tons/sqm), Domestic (28 tons/sqm)

Sai hanuman Mandir

Overhead Water Tank

masjid - madrasa talimul quran

This small lane facilitates movement of around 1,500 trucks a day



This small warehouse processes close to 1 Mn tons of air cargo per year without any MHS







# Kale's ACS at Mumbai International Airport (MIAL)

## Pioneering Air Cargo Trade through an ACS at Mumbai International Airport



### Business Challenges

- Low Cargo visibility
- Lack of an online platform for information exchange
- Revenue Leakages
- Inadequate information for planning and security

### Airport Cargo Community System (GMAX)

4000 AWB/day

### Kale's Solution

- Single Window for digital documentation
- Better Supply Chain planning
- Key account management for top 5 customers. Attract more cargo
- Reduced dwell times

### Parameters

Document handled ( including copies)
Average Dwell Time for Trucks
Accuracy of data
Average time per export doc handling
Average time per import doc handling
Availability of advance data for planning
Availability of shipment status
Availability of data to stake holders

### Pre

24
2-3 hours
85%
28 minutes
22 minutes
Limited
Limited to telephone calls
Through Mail, calls and in-person

### Post

6
30 minutes
94% +
6 minutes
8 minutes
Nearly 100% real time
On demand and end-to-end
Portal, EDI, App, On-Demand



# North America's First Air Cargo Community System- Overview

Atlanta International Airport partnered with Kale Logistics Solutions to develop North America's first Air Cargo Community System (ACS). ACS aims in achieving operational efficiencies with bringing in all the stakeholders on a single platform.

## BUSINESS CHALLENGE

 **Truck congestion at terminals**


 **Lack of Visibility on Vehicle Movement**


 **Longer dwell time of the trucks at the terminals**


 **Manual intervention required for informing truckers about the docks assigned**




## ACS SOLUTION

**Online Slot Booking and Vehicle Management for both exports and imports** 

**Real time tracking of Vehicle Movement.** 

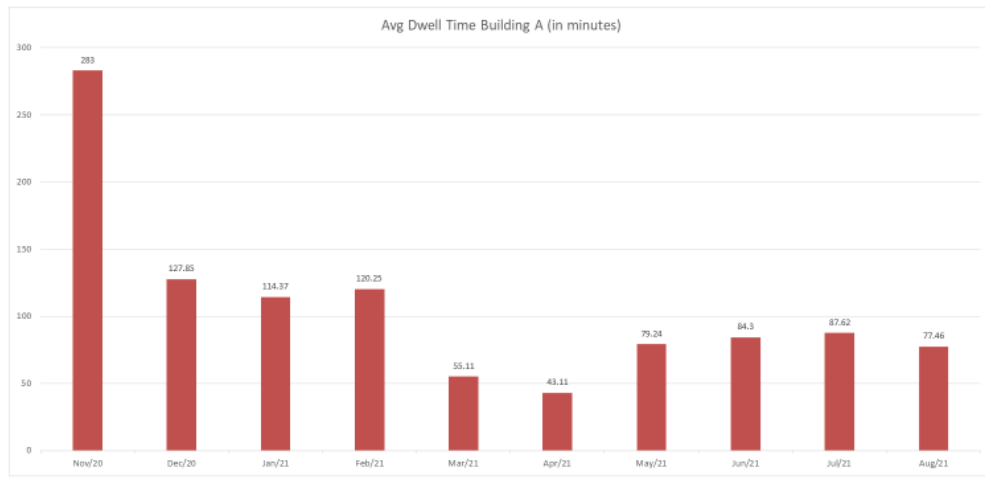
**Pre-alerts to GHA's about expected shipments and VT's resulting in faster processing at the terminals** 

**SMS message to inform drivers about assigned dock** 



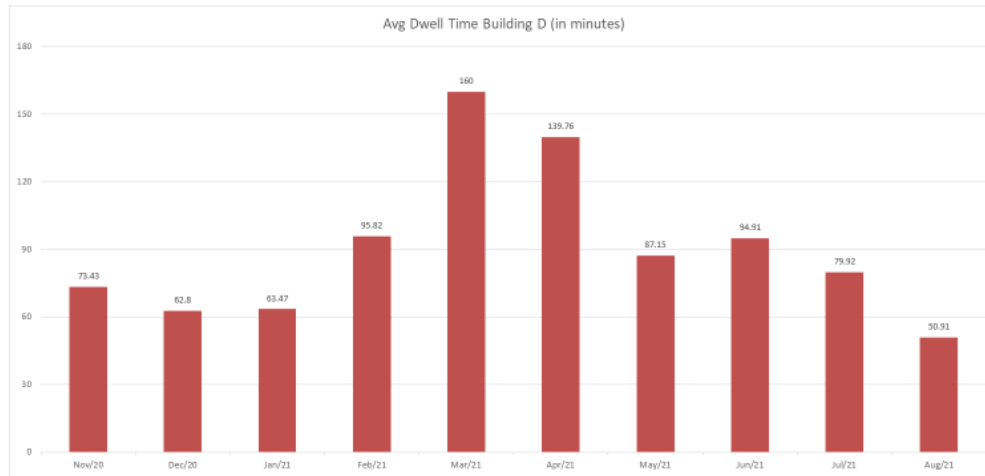
# Dwell Time Impact of Kale ACS TSM in ATL

## Import Shipments Dwell Time (Building A) – November 2020 - August 2021



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## Import Shipments Dwell Time (Building D) – November 2020 - August 2021

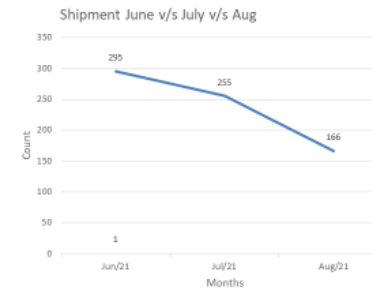


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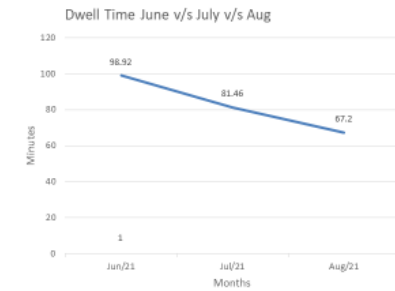


## Overview- ATL (June 2020 - August 2021)

Decrease in the total number of Shipments in August -21 compared to July-21.



Significant decrease in the Average Dwell Time by 17.53% compared to the previous month.



### Average wait time in Marshalling Yard

June-21 **42.50 minutes**

July-21 **37.76 minutes**

August-21 **21.18 minutes**

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## **ACS 2021 by the numbers(01/01/21-07/31/21):**

**389** Trucks Processed

**1839** Shipments

**9,017,020** Estimated grams of CO2 Saved\*\*\*

**1.5 Million** Pounds of Cargo

**1945** Hours Saved

**\$69,000** Estimated Driver Labor Savings\*

**1245** Estimated Gallons of Fuel Saved\*\*

\*based on Indeed CDL average salary | \*\*based on Department of Energy fuel consumption | \*\*\*based on EPA reporting of CO2 emissions

Using the Kale Mobile App you can check yourself in for a dock assignment without going to the Marshalling Yard. As easy as 1-2-3.

### Read What our Customers are Saying:



**SEFL**-We get into a door as we have some priority because of the pre-booking with the [ACS] computer system we use at Swissport.



**DBA**-Thank you so much for your help with getting our drivers in and out at the scheduled appointment times. It makes our life so much easier.



**Greer Trucking** -ACS has significantly enhanced a large portion of our Air Cargo related workload. With a well-defined process in place and a system to facilitate import and export shipments, we have recognized substantial time savings. Further, our working relationships with cargo handling stakeholders has improved tremendously.



**UPS** - I just wanted to tell you that since we have started using your service we have seen a good bit of reduction in our wait times for dropping exports and picking up imports at both Swissport locations in Atlanta. It's really made an impact on my drivers wait times and we do Appreciate your help





# Estimated ATL Annual ESG Benefits

*Based on ATL statistics of 593,134 MT of cargo for 2020*

**170,905** Trucks

**593,134** Metric Tons

**854,526** Shipments

**546,896** Gallons of Fuel Saved

**854,525** Hours Saved

**\$29,905,375.00** Driver Labor Savings

**3,961,577,900** Grams of CO2 Saved

IATA:  
720 kgs/AWB



## Before

- Truck congestion is an issue at cargo airports. The arrivals and departures are not coordinated which leads to higher dwell time
- Effect on high-value and time-sensitive cargo
- Shipper/consignee charged penalty for wait time and storage cost
- Neglected air cargo community, the cargo might land elsewhere



## After

- When freight forwarders share shipment data and pre-identified errors earlier, cargo handlers can anticipate and prepare for the required checks
- Better warehouse management to handle more trucks per hour
- Availability of accurate and complete information before the truck arrival leading to clarity, cooperation and understanding
- Reduced dwell time
- Terminal now handles 40% more cargo with advanced planning



## Before



- Manual and complex paperwork and data re-entry at every stage
- Cost to export for documentary compliance \$ 60 for USA as against \$35 for OECD countries and cost to import for documentary compliance \$ 100 as against \$24 for OECD. Trading Across Borders report from World Bank 2019
- Increased cargo processing time
- Non-compliance
- Loss of revenue and goodwill
- Customers not presenting proper documents at right time





## After

- Paper-less air cargo supply chain with cheaper, accurate and reliable electronic messaging
- e-Freight & e-AWB , ONE Record – Compliance to industry standards
- Eliminates data re-capture, reduce freight wait-time, quality electronic data for tracking status of freight
- Contribute to nation's Ease of Doing Business ranking with World Bank
- Interfaces with Customs, Airlines, and other security agencies
- Services available 24/7
- Contribute to environment by reducing paper consumption



## Before

- Cyber attacks
- Terrorist attacks and explosives
- Lack of ACI, PLACI, Single Window, e-AWB, e-Freight
- Laggards in technology adoption and innovation





## After

- Secured platform – Azure Cloud, site recovery service, encrypted database back-up
- Role-based access control
- Air Cargo Advance Screening (ACAS)
- Pre-Loading Advance Commercial Information (PLACI)
- TIACA – strongly supports automation and paper-free transactions
- IATA – e-Freight, e-AWB, Advance Cargo Information (ACI)
- WCO – Single Window
- Artificial Intelligence, Blockchain, Internet of Things, Cargo Connect, Interactive Cargo



# Customer Testimonials





Moving from our legacy system to a web-based solution like GMAX, we realised multiple benefits like compliance with industry regulations; enhanced customer satisfaction with regular consignment status update; data integrity facilitated by single point of data entry and a wide range of MIS reports that support decision-making.

Post implementation of the GMAX there has been a complete transformation in the way cargo is processed at Mumbai airport. 100% transactions are being carried out through web portal enabling web & mobile based track and trace with real-time status updates. Customs amended messages are getting updated in the system on time.

**- Mr. Manoj Singh, Senior VP  
& Head-Cargo, Mumbai International Airport**



We are excited by the possibilities that lie in store for us with Atlanta Airport's Cargo Community System, especially the reduction in truck dwell time. The scope of availability of accurate and complete information before the truck arrival has been leading to clarity, cooperation, and understanding amongst the stakeholders.

This initiative demonstrates the airport's commitment to be the bell-weather in creating the new generation of digital infrastructure at the airport. It is also the keystone for facilitating the digital trade corridor between Atlanta and Schiphol airport.

**Elliott Paige, Airport Director,  
Air Service Development at Atlanta Airport**





“

At BIAL, our vision is to make BLR Airport a cargo hub, equipped with state-of-the-art infrastructure and cutting-edge technology to deliver efficient operations. Together with the cargo community on our Campus, we are excited to implement a data-sharing platform.

Implementing the ACS demonstrates BIAL's commitment to support the Airport cargo community and bolster the growth of BLR Airport as a cargo hub. The demonstrated efficiencies of the Kale Logistics' ACS will ensure development of a technologically-enabled cargo community at BLR Airport

**-Mr. Satyaki Raghunath,  
Chief Strategy & Development Officer, Bangalore  
International Airport.**

”





This is to confirm that we have been using Kale Logistics Solutions Pvt Ltd. 's, (Kale) Cargo Community Platform - UPLIFT - for over 5 years for Electronic Data Interchange (EDI) transmission. Kale's connectivity with Customs system has resulted in seamless transmission of the manifest EDI. Kale's connectivity with customs has helped us in prompt and correct filing of airline manifest to customs.

Connectivity with Kale's platform and their dedicated support has benefited our organisation to,

1. Achieve e-A WB compliance
2. Adhere with local customs regulatory compliance
3. Adhere to advance manifest filing requirement
4. Reduce manual data entries of operations staff

**Mr. Sanjay Nichlani,**  
Gateway Manager, United Parcel Service Co.



This is to confirm that, we have been using Kale Logistics Solutions Pvt Ltd.' s, (Kale) Cargo Community Platform -UPLIFT - for more than 5 years for Electronic Data Interchange (EDI) transmission with local customs. Kale's robust platform and dedicated support has benefited our organisation to,

1. File accurate customs documentation on a timely basis
2. Adhere with various customs compliances
3. Stay updated with latest customs notifications and changes in duties
4. Reduce duplication of data entries by using facilities such as Excel Upload of data
5. Reduce paper work by storing e-dockets
6. Have shipment visibility

**Mr. Murali Krishna Narisetty,**  
Project Engineer-Planning & Engineering  
FedEx Express Transportation Supply Chain Services India.





We are delighted to cross such a significant mark in such a short time. With the saving potential of 500 Baht per AWB for forwarders in addition to savings in time and efforts, we are confident that TIFFFA EDI's ezyCompliance service will contribute in lowering the logistics transaction costs in Thailand and increasing its EXIM competitiveness.

This platform will further facilitate trade in addition to Thailand's National Single Window for electronic transactions which is emerging as a key requirement for global trade.

**- Mr. Anusorn Lovichit,  
Managing Director – TIFFFA EDI Services, Thailand**



As someone who has been a part of the air freight industry in Atlanta for more than 20 years, I am honored to be part of the team shaping this innovative initiative.

The ability to communicate electronically with our stakeholders like Trucking companies and Cargo Terminal Operators to obtain shipment statuses online is definitely going to help us in planning our operations better and deliver better services to our customers.

**Mr. Brooke Fleming,  
Agility, Atlanta, USA**







# Cargo Ground Handler and Transporter

“

With the leadership of Kale Logistics Solutions and the Atlanta Airport, the Air Cargo Community System will forever change the way air cargo is handled in Atlanta and throughout North America.

**Mr. Kris Northup,  
International Business Development Manager  
Southeastern Freight Lines, Atlanta, USA**



”

“

It's a matter of pride for Swissport-ATL for being part of this pioneering effort at ATL wherein the community got together to address the issues through next generation technology for the first time in North America. Getting shipment information in advance through the system is going to help cargo handling companies like us in improving planning and efficiency of operations ensuring faster turnarounds of trucks at the cargo terminals.

We are also pleased that this system will now allow all stakeholders to interact and be on the same platform and will allow us all to better communicate more efficiently to add in planning and better service our customers.

**Mr. Roy Copenig, General Manager  
Swissport Atlanta, USA**

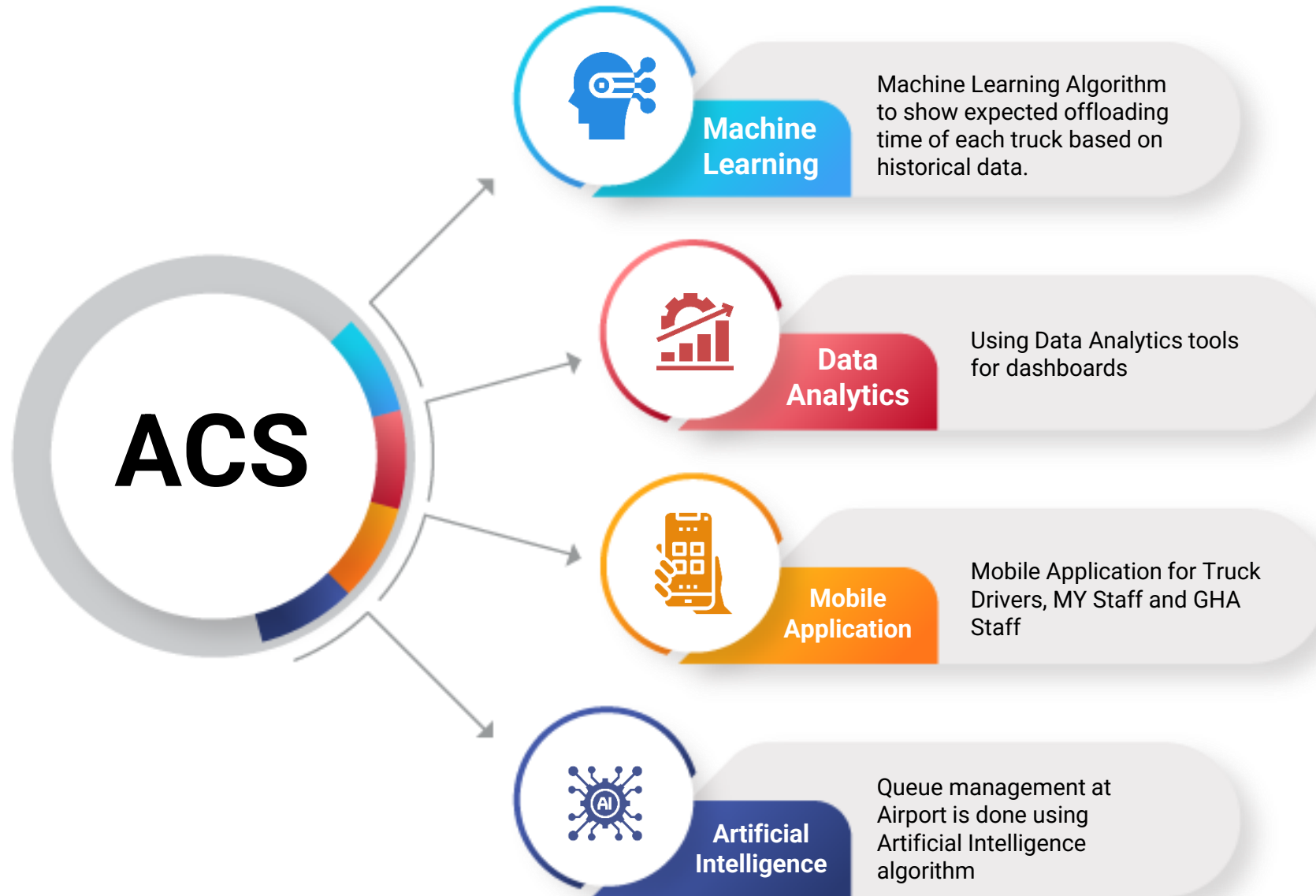


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## Competition Analysis







# Summary of Kale's competitive advantage

Parameter	Kale
Product	<p>Widest <b>stakeholder coverage</b> Widest/deepest <b>functionality</b> <b>Complete portfolio</b> – ACS, PCS, SW, e-marketplace <b>Value added products</b> – enterprise systems for stakeholders <b>Deep tech interventions</b> – AI, IoT, Blockchain, ML</p>
People	<p><b>Large Team Size: 300+</b> <b>Domain expertise:</b> complete supply chain <b>MT as Industry leaders:</b> MT on leading global associations like <b>TIACA, United Nations, IPCSA, CII, Govt task forces of Logistics</b></p>
Price	<p><b>Compelling business model</b> Huge Value advantage (<b>lower cost / better skills</b>) due to <b>Indian base</b> leading to competitive pricing</p>
Positioning	<p>Winners of <b>2 United Nations Awards</b> and several other <b>global recognitions</b> including Case Study in leading B-School SCM book <b>Existing customer base in ~30 countries including 80 airports</b> <b>Network of influencers and partners</b> in place in North America, South America, Europe, ASPAC, ME creating a <b>huge global pipeline</b></p>



**NCBFAA**  
NATIONAL CUSTOMS BROKERS &  
FORWARDERS ASSOCIATION OF AMERICA, INC.  
VOICE OF THE INDUSTRY SINCE 1897

**Airforwarders Association**

**SAFEGUARDING THE FUTURE OF AIR CARGO:  
ITS ECONOMIC IMPORTANCE AND CRITICAL  
NEED FOR INVESTMENT**

**WHITEPAPER**

Technology And Automation  
Service Standards  
Airport Facilities and Infrastructure  
Staffing and Hours of Operation  
Regulatory Agencies and Paperwork

**Whitepaper can be accessed at:**

Airforwarders Association under  
Member Resources

AND

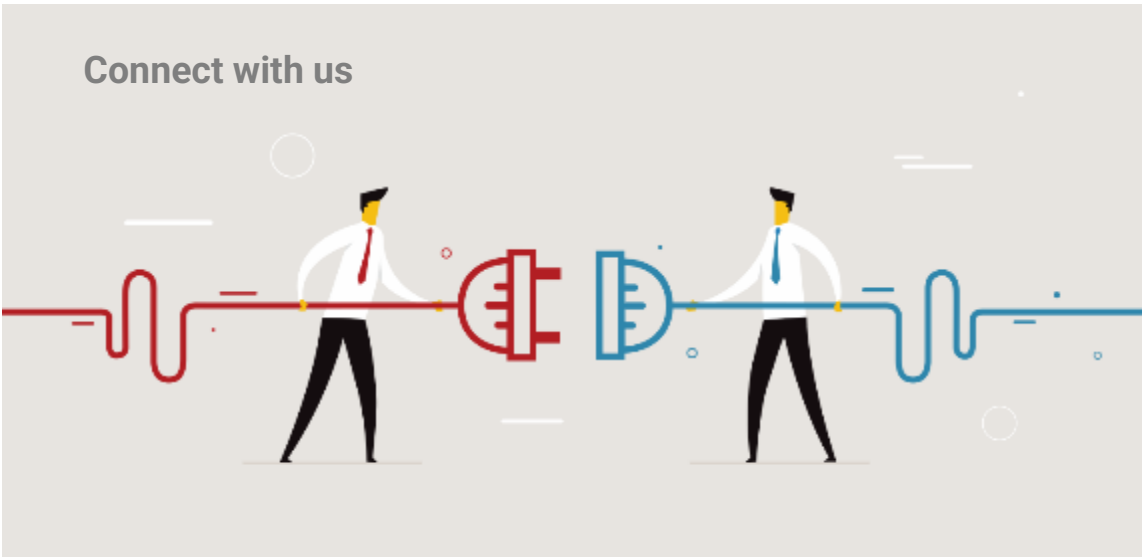
National Customs Brokers and  
Forwarders Association of America  
under Publications & Resources

# Thank You



Donna M. Mullins,  
Vice President  
KALE INFO SOLUTIONS INC (USA)  
Email: [Donna.Mullins@kalelogistics.com](mailto:Donna.Mullins@kalelogistics.com)

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