Indian Customs EDI Systems
Taking Ease of Doing Business to greater heights

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A significant step was taken in the year 2009, to transform the then existing ICES Application to a uniform and centralized software which culminated successfully with the launch of ICES 1.5. Thus the de-centralized application gave way to a robust central server based application. The many features of this application include single sign-on and central management of sites/ users by the National System Manager, Consolidation of Data for National Level MIS, Centralized Directory Management, License and Bond Management and standardized procedures across the country.

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The Indian Customs EDI Systems (ICES), a flagship application of NIC, was launched in the year 1995. This was a major initiative in the field of International Trade. It heralded a new era of Transparent and Paperless trade. The core functionality of the Indian Customs procedures has been fully automated through ICES. From a single location in 1995, the umbrella of ICES now covers more than 250 locations across the country. ICES aims to

Become the support pillars of our economy

There are two vital pillars of International Trade of any country. These are Export and Import of commodities.

ICES comprises of two main sub systems namely, Indian Customs EDI system/ Imports (ICES/I) and Indian Customs EDI System/ Export (ICES/E).

Promote Ease of Doing Business

Prompt response to the needs of the trade is an important part of the overall process of Computerization of Customs related functionalities and procedures. At the same time, taking into account the requirement of transparency in working, Customs officers at various levels were made accountable for their actions through a tracking mechanism.

Minimize personal interaction

Minimum personal contact of Trade with Customs officers and various Government agencies like DGFT, EPCs, Ports, Airport Authority of India and Banks has been achieved with a robust message exchange mechanism among various stakeholders. It is a significant step towards a graft free business and faster clearances.

Provide a holistic view

To provide the mechanism for retrieval of consolidated information from various Custom locations and to make useful policy related
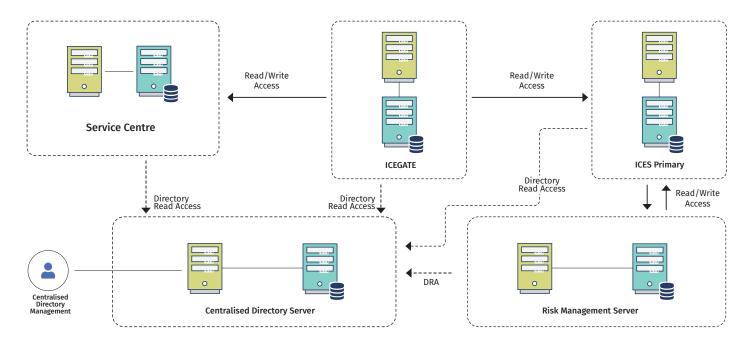
> Customs Duty comprised around 27 percent of total revenue receipt of our country. ICES facilitates the duty collection with daily collection of around INR 1500 crores. It has been integrated with PFMS in a major boost to expeditious disbursal of Drawback to exporters thus enhancing Ease of Doing Business. It has also incorporated a Faceless/ Paperless and Contactless Appraisal system which has introduced high standards of transparency and at the same time reduced time and cost. ICES goes a long way in achieving the Govt.'s goals of "Ease of Doing Business" and "Digital India".

NAGESH SHASTRI
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▼ Indian Customs EDI system Website

▲ Architecture

economic decisions, nationally and to share critical information with various agencies associated with Export and Import Statistics and Investigations.

Facilitate filing of documents from the comfort of one's premises

The Exporters, Importers and Custom House Agents (CHAs) can also submit Bills of Entry, Shipping Bills and other related documents through the Remote EDI Software (RES),which is a standalone software package developed by NIC.

Features of the Product

The Pioneering version of ICES
- Developed by re-engineering the core processes in Indian Customs
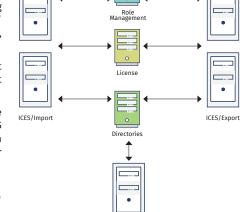- Introduced paper-less work flow and automated

customs clearance
- Electronic exchange of information with the trading partners like Ports, DGFT, Airlines, Shipping Lines/ Shipping Agents, Custom House Agents/ Importers/ Exporters, Banks, CFS Operators, DGCIS, RBI etc.
- System calculation of import duties, export incentive –drawback, duty foregone due to export incentives etc. and digital payments

A major exercise was initiated in 2009 to migrate the then existing de-centralized version of the ICES Application to a Uniform Centralized software which culminated successfully with the launch of ICES 1.5 or Central Server based application.

The Advantages of upgrade to ICES 1.5
- Single sign-on and central management of sites/ users by National System Manager

- Consolidation of Data for National Level MIS
- Centralized Directory Management
- Centralized License and Bond Management
- Standardized procedures across the country

Technical Specifications

The ICES application has been developed with Oracle as the backend database. The initial version of Oracle 3.0 graduated with new releases with the current application running on Oracle 12c. The initial Front end was a mix of Forms/ Reports as part of the Developer Suite, but keeping pace with the emerging technology, Open Source tools such as Java with Spring/ Struts Framework, are being used now for all the requirements.

▼ Hon'ble Union Minister of State for Finance, Shri Anurag Thakur, felicitating the Shri S. B. Singh, DDG for the achievements of ICES

Advent of Mobile Technology in ICES

The iOS mobile app for QR Code reader and verification has been developed and deployed in the App store. The ICETAB android app for Tab based devices was developed by NIC, with features of Uploading of Examination Report along with photos to ICES. The ICETRACK application facilitating tracking of documents , duty calculator, scanning of QR code mentioned on the final documents and GSTIN Enquiry has also been developed by NIC.
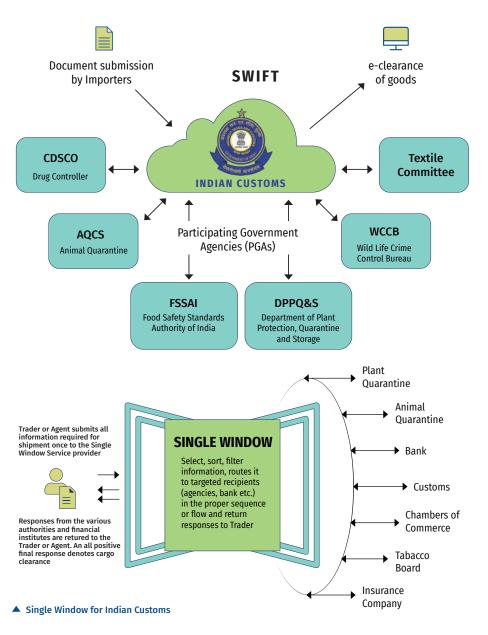
Benefits

In terms of Daily statistics, around INR 1500 crores of Customs Duty is collected, around INR 100 crores of Drawback payment is made and more than 50,000 documents are filed. This all is facilitated by the ICES Application of NIC. It is a matter of great pride that 27 percent of total revenue receipt of India is earned by the Customs Duty only.

Major Benefits of Trade friendly measures to Exporters/ Importers

- Automatic refund of GST for EDI sites based on RMS instructions has been implemented. As a major boost to expeditious disbursal of Drawback, the integration of ICES with PFMS was also initiated. A Touch screen based module has been provided for enquiry of the Document's current status for trade. Physical printout to QR Code based digitally signed verifiable Clearance Orders of LEO and OOC made ICES a Trade's favourite. The new GST regime in ICES rolled out smoothly on 01-Jul-2017, as per schedule.

Future Roadmap

- To develop Conversational chatbots with backend RESTAPI connectivity
- Predictive analysis of Export and Import trends at various ports
- Using machine learning algorithms and python packages

Document submission by Importers

SWIFT

e-clearance of goods

INDIAN CUSTOMS

CDSCO Drug Controller

Textile Committee

AQCS Animal Quarantine

Participating Government Agencies (PGAs)

WCCB Wild Life Crime Control Bureau

FSSAI Food Safety Standards Authority of India

DPPQ&S Department of Plant Protection, Quarantine and Storage

Trader or Agent submits all information required for shipment once to the Single Window Service provider

Responses from the various authorities and financial institutes are returned to the Trader or Agent. An all positive final response denotes cargo clearance

SINGLE WINDOW

Select, sort, filter information, routes it to targeted recipients (agencies, bank etc.) in the proper sequence or flow and return responses to Trader

Plant Quarantine

Animal Quarantine

Bank

Customs

Chambers of Commerce

Tabacco Board

Insurance Company

▲ Single Window for Indian Customs

▼ Ease of Doing Business

EASE OF DOING BUSINESS - INDIA (2019)

Rank-77	Jump- 23 places

1. Becomes highest ranked economy in South Aisa
2. Improvement in 6 to 10 parameters
3. Among top-10 improvers for second consecutive year
4. Also in top 10 for protecting minority investors
5. Leaves Bhutan (81) behind this year
6. India reduced the time and cost to export & import through various initiatives

Implementation of electronic sealing of containers

Upgrading of port infrastructure

Allowing electronic document submission with digital Signatures

- Using Natural Language processing techniques for automatic generation of SQL scripts from statistical tables
- Use of blockchain technology for exchange License details with DGFT
- Dynamic reports - User should have option for selecting the output columns and input parameters