數位科技
DIGI TECH 智慧海關
SMART CUSTOMS

TAIWAN CUSTOMS

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海關

引領未來之創新科技

因應經貿環境變遷及配合國家政策發展，臺灣海關配合世界貿易組織(WTO)及世界關務組織(WCO)，導入WCO全球貿易安全與便捷化標準架構，營造便捷安全優質通關環境。105年WCO鼓勵各國海關推動數位化。臺灣海關積極運用新興資通訊科技，優化通關便捷服務及邊境安全管理效能，實現智慧海關之目標。

Customs

Cutting-edge Technology

In order to meet the trends of international trade activities and national policy, Taiwan Customs in line with the World Trade Organization (WTO) and World Customs Organization (WCO) implemented the WCO SAFE framework to create a facilitated and safety clearance environment. In 2016, the WCO dedicated itself to promoting the digitalization of Customs processes. Taiwan Customs is committed to using innovative information and communication technologies to improve convenient customs clearance services and border security to achieve the goal of SMART CUSTOMS.

通關自動化

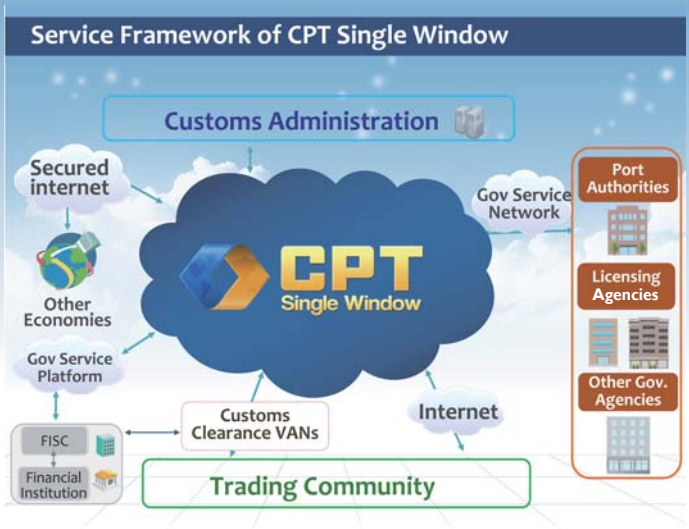
配合電子化政府政策，臺灣海關自84年起，全面實施海空運貨物通關自動化作業。91年起，推動資訊業務再造，陸續建置入境旅客行李系統、通關簽審單證比對作業、行動通關系統、關務行政自動化作業，發展網際網路線上申辦、網際網路稅費繳納等線上服務，同時建立海空運通關系統異地備援機制，提供多元、便捷、全年無休之通關服務。

Automated Clearance

In line with the e-government policy, Taiwan Customs has comprehensively implemented the automated clearance operation for air and sea cargoes since 1995. From 2002, Taiwan Customs has upgraded its information management sequentially, including the establishment of the inbound passenger baggage system, declaration and permits compliance check operation, mobilized clearance system, and automated administrative system as well as the development of online services such as web-based online applications, e-payment, etc. Meanwhile, Taiwan Customs has built the disaster recovery mechanism for air and sea cargoes, providing diversified, facilitate, and nonstop Customs services.

關港貿單一窗口

98 年起，配合政府推動「優質經貿網絡計畫」，臺灣海關分別於 102 年及 104 年完成關港貿單一窗口及預報貨物資訊進出口系統建置與上線，提供 B2G、G2G 及 N2N 申辦、查詢、會辦及資料交換等通關服務平台，提供優質通關服務。

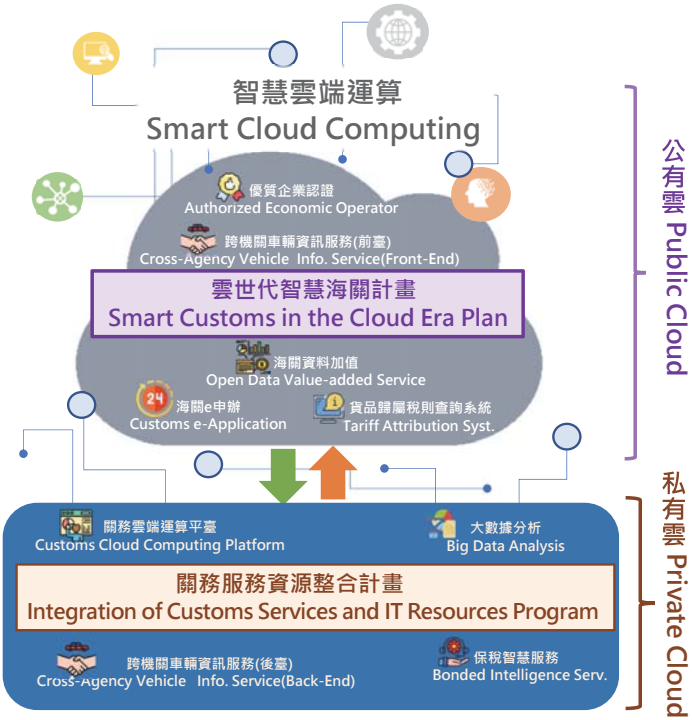


CPT Single Window

Since 2009, under the "Ubiquitous Economy and Trade Network Plan," the Customs - Port - Trade Single Window System and Advanced Cargo Information Import/Export System were implemented in 2013 and 2015, respectively, aiming to provide B2G, G2G, and N2N services on cargo clearance (e.g., application, query, compliance-check, and data exchange service platforms). All these systems strengthen the service with a high-quality clearance environment.

智慧雲端運算

105 年起，臺灣海關推動「關務服務資源整合計畫」建立關務雲端運算平臺 (私有雲)，陸續發展跨機關車輛資訊服務、保稅貨物跨區移運監控服務及保稅智慧服務等應用。110 年起，臺灣海關賡續推動「雲世代智慧海關計畫」，將貨品歸屬稅則查詢系統及多項關務便民服務



部署於政府公有雲。期藉由公、私雲構成的混合雲，發展更多智慧化創新應用，實現雲世代智慧海關願景。

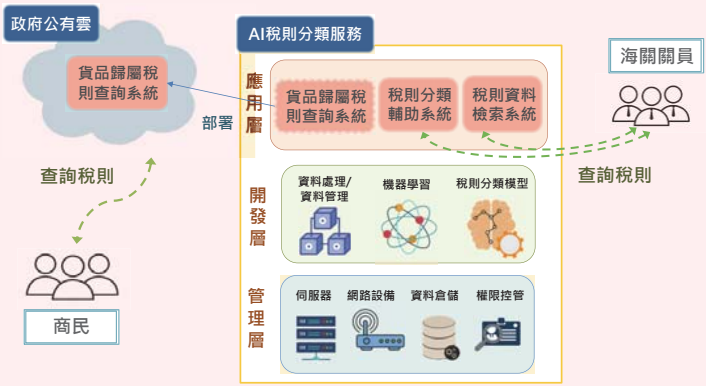
Cloud Computing

From 2016, Taiwan Customs has promoted the “Integration of Customs Services and IT Resources Program” to construct a customs cloud computing platform and develop many applications such as “Cross-Agency Vehicle Information Service,” “Bonded Cargoes Cross-Zone Transport Tracking and Monitoring Service” and “Bonded Intelligence Service” on Customs private cloud. Since 2021, Taiwan Customs has initiated the “Smart Customs in the Cloud Era Plan” to deploy “Tariff Attribution System” and many customs convenience services on the government public cloud. With the hybrid cloud consisting of private cloud and public cloud, Customs looks forward to developing smarter and more innovative applications to realize the vision of smart Customs in the cloud era.

AI 人工智慧運用

AI稅則分類服務

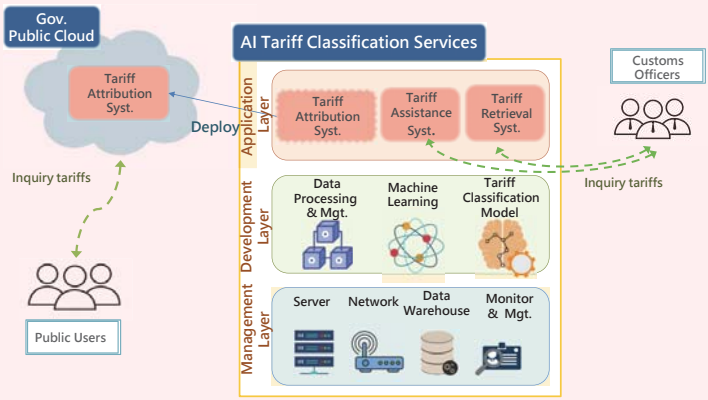
臺灣海關推動導入人工智慧，包括自然語言及機器學習等技術，建立稅則分類模型，開發智慧化稅則分類查詢服務，透過友善介面，引導使用者自行輸入貨名或相關貨品特徵，以漸進式問答，協助使用者查詢貨品歸屬之稅則號別、稅率及相關輸出入規定。期以智慧化服務，提高稅則申報與核列正確性，加速貨物通關。



Application of AI Technology

AI Tariff Classification Service

Taiwan Customs will adopt Artificial Intelligence (AI) technologies such as natural language processing and machine learning to construct tariff classification models and establish the smart tariff classification service. With a friendly interactive interface, users will be guided to input descriptions or features of cargoes to inquire relevant tariffs and import/export regulations. Taiwan Customs anticipates that the smart service will enhance tariff declarations accuracy and facilitate cargo clearance.



AI輔助儀檢影像辨識系統

基於人工智慧及深度學習已廣泛應用於各項領域，臺灣海關自108年推動AI影像辨識應用於查緝走私，以大數據資料庫協助關員執行X光儀檢影像判讀各類管制物品，有效提升查緝效能並維持通關便捷。目前以肉類管制品為影像辨識標的物，並逐步納入毒品、槍械等違禁品。

AI Image Recognition System

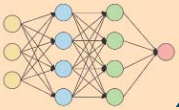
With the widespread use of AI and deep learning in various fields, in 2019 Taiwan Customs began to promote the AI image recognition system to assist customs officers in identifying contraband in X-ray inspection with Big Data to improve the efficiency of investigation and maintain convenient customs clearance. The current phase of the system focuses on the identification of meat products. Drugs, firearms, and other contraband will be included as its prime targets in the future.

X 光影像
X-ray image

大數據
Big Data

資料庫
Database

影像處理
影像辨識
Image Processing Recognition



類神經網路模型
Artificial Neural Network

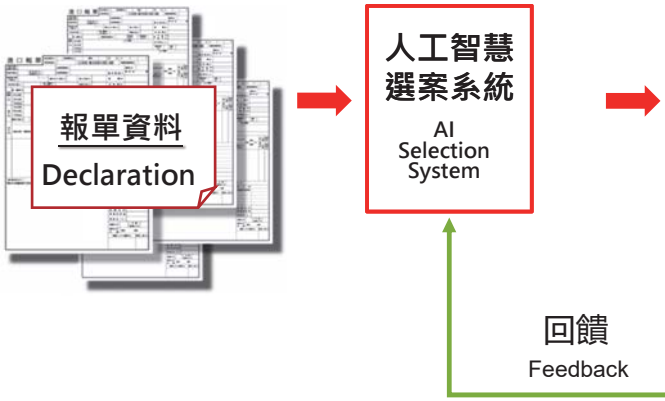
即時警訊
Real-Time Alert

輔助查緝
Seizure Assistance

事後稽核AI選案系統

臺灣海關事後稽核制度導入人工智慧選案系統，運用大數據及機器學習，進行全面篩選及客觀分析，聚焦查核高風險漏稅公司，提升稽核績效並降低稽核成本。

海關事後稽核人工智慧(AI)選案系統



Customs Post-Clearance Audit AI Selection System

Taiwan Customs has established an AI Selection System for Post-Clearance Audit. This system applies Big Data and Machine Learning to comprehensive screening and analysis, allowing Customs to focus on and select high-risk companies for auditing. With this system, Customs can improve audit performance and save audit costs.

全球定位系統

自由貿易港區貨櫃(物)跨區移運監控系統

109年建置自由貿易港區貨櫃（物）跨區移運監控系統，導入全球定位系統（Global Positioning System, GPS），有效監控自由貿易港區貨物入出區、運送路徑及運輸狀況等動態訊息，提供優化自由貿易港區貨況追蹤及管理，確保貨物移動安全。

GPS Global Positioning System

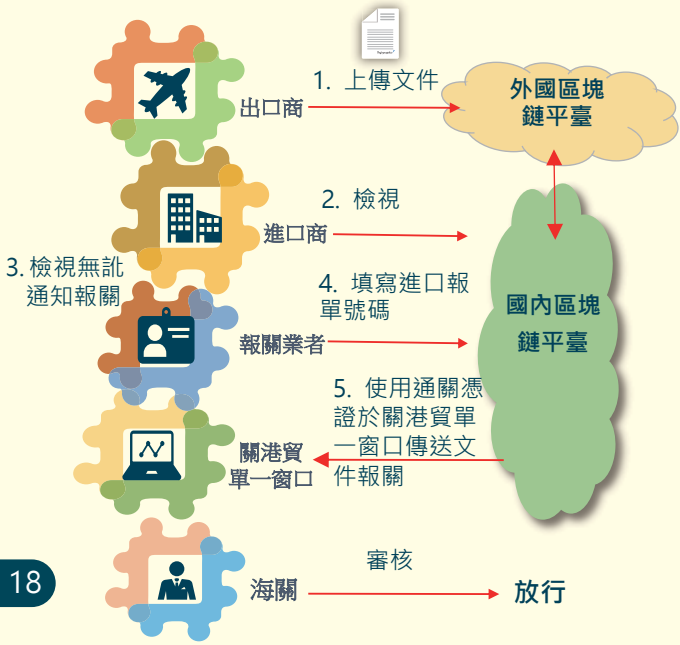
FTZ Cargo Cross-Zone Transport Tracking and Monitoring System

In order to establish a technology-controlled mechanism for Free Trade Zone (FTZ) cargo transportation, Taiwan Customs introduced Global Positioning System (GPS) technology to build the FTZ Cargo Cross-Zone Transport Tracking and Monitoring System. It effectively supervises the movement of goods in and out of the zone as well as dynamic information such as the route and transportation status during the transportation period, to ensure the safe movement of goods.

區塊鏈

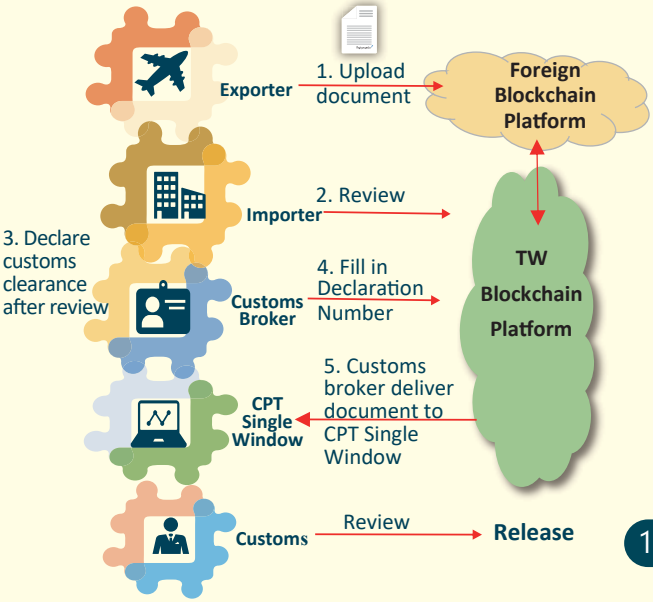
跨境貿易通關區塊鏈服務

臺灣海關於108、109年與新加坡及紐西蘭，透過區塊鏈平臺啟動跨境傳送與驗證通關貿易文件，並持續擴展利用區塊鏈分散系統及上鏈資訊易於追溯來源等安全機制，傳送並驗證各項國際貿易文件，簡化作業流程，降低跨境貿易成本，加速貨物通關，提供安全優質便捷通關服務環境。



Cross Border Blockchain Service for Customs Clearance

Taiwan Customs initiated cross-border transmission and verification of customs clearance trade and logistics documents with Singapore and New Zealand through the blockchain platform in 2019 and 2020, Taiwan Customs will continue to expand the use of blockchain decentralized systems and easy traceability of information to transmit and verify various international trade documents, effectively simplify operations and procedures, reduce costs, accelerate cargo clearance operations, and provide high-quality and convenient customs clearance service.



物聯網 IoT

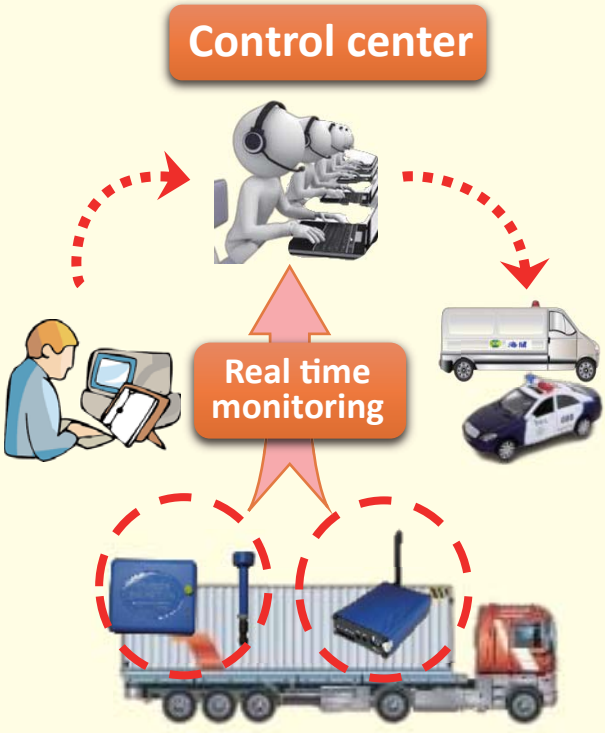
全時監控系統建置計畫

為強化貨櫃移動安全監控能量、節省人力及提升通關效能，臺灣海關規劃111年啟動物聯網全時監控系統，藉由車輛車載機與車機封條，配合物聯網技術即時傳送及記錄運輸資料至海關平臺，防範貨櫃調包、闖關等非法情事。

Internet of Things

IOT Cargo Monitoring Plan

For the purpose of enhancing cargo movement security, saving manpower, and improving customs clearance efficiency, Taiwan Customs is scheduled to launch the "IOT Cargo Monitoring Plan" in 2022. By installing on-board unit (OBU) and on-board diagnostics (OBD) seals, with the IOT technology to record and transmit the entire transportation data to the customs platform in real time, the project will greatly increase the security level of cargo movement and prevent smuggling.



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