

Smart Customs in the Cloud Era

1. Project Objectives

In response to the government's cloud policy and to strengthen the Customs service quality, from 2021 to 2025, the Customs Administration is initiating the “Smart Customs in the Cloud Era” plan to develop the “AI Tariff Classification Service” by utilizing artificial intelligence. This service provides smart import/export cargo tariffs inquiries and enhances the accuracy of tariff declaration.

Meanwhile, convenient services such as “Cross-Agency Vehicle Information Exchange,” “Authorized Economic Operator Certification,” “Customs e-Application,” and “Open Data Value-added Service” will be deployed to the public cloud to achieve the goal of cloud-based public services.

Moreover, the Customs Administration will also build a “Data Analysis Platform” on the private cloud of Customs as an AI development and training environment. On the basis of hybrid clouds, the Customs Administration will develop more intelligent and innovative applications to realize the vision of “Smart Customs in the Cloud Era”.

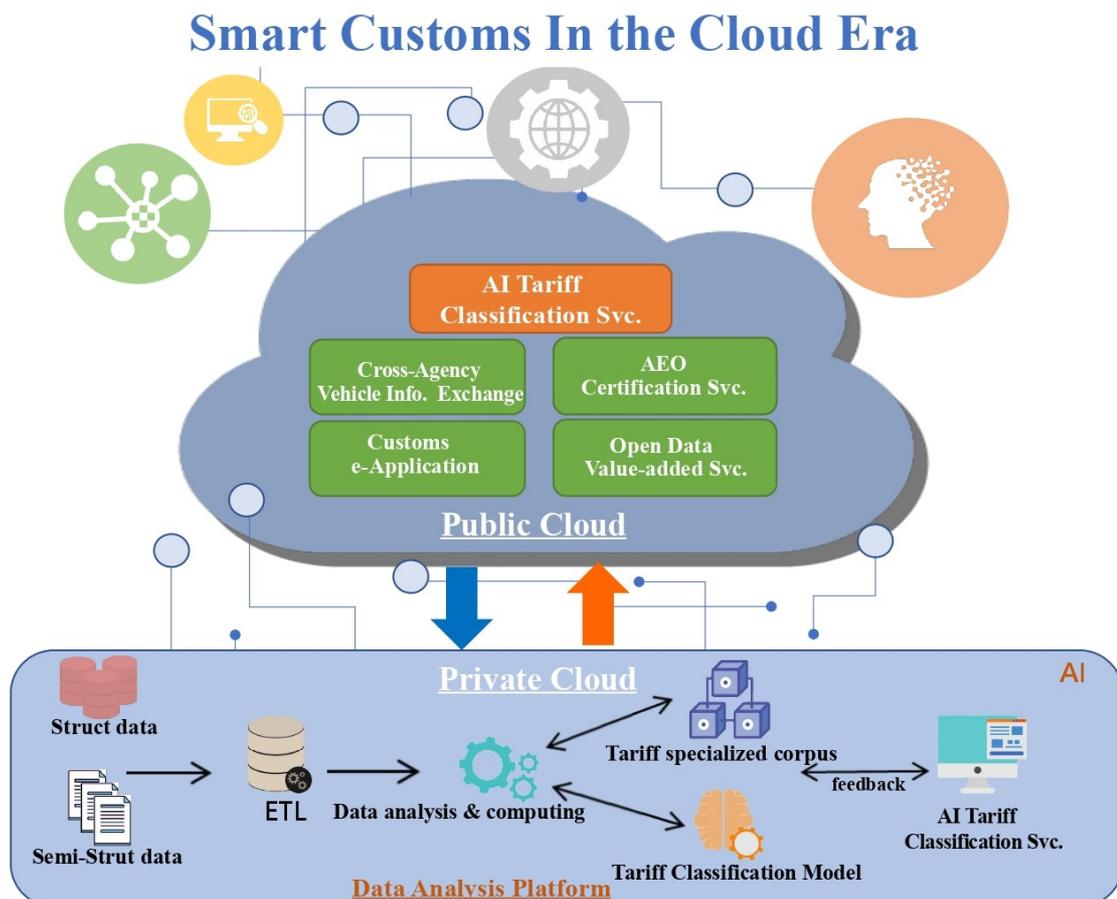


Figure - The overview of program

2. Implementation Content

A. AI Tariff Classification Service

On the basis of the data analysis platform and AI development environment, Customs will establish a specialized tariff text corpus by NLP (Natural Language Processing), and construct tariff classification models using deep learning technology to develop the smart “AI Tariff Classification Service”. The first phase of this service is expected to be available for internal users in 2024. With the continuous refining process, the second phase of this service will be deployed to the public cloud for public users in 2025. This service will guide stakeholders through a series of questions and answers step by step to find out merchandises' tariffs.

A capacity building program will be held from 2022, which contains professional training courses and hands-on operations lasting for three years to cultivate Customs AI experts.

B. Convenient Cloud Services

Since cloud technologies can support the customs services on an open, flexible, high-efficiency and service-oriented IT environment, Customs will deploy convenient services such as “Cross-Agency Vehicle Information Exchange,” “Authorized Economic Operator Certification,” “Customs e-Application,” and “Open Data Value-added Service” on the public cloud.

3. Expected Benefits

The tariff classification of merchandises is probably the biggest concern for the trade stakeholders. In view of the complexity and professional nature of tariff classification, as well as the fact that this knowledge is difficult to impart and unclear to public users, the use of “AI Tariff Classification Service” is not only raising the accuracy of tariff declarations and speeding up cargo release but also enhancing the clearance transparency and reducing the doubts about the tariff classification. In addition, data analysis platform and AI development environment and training experts can improve customs data analysis capability.

“Convenient Cloud Services” can realize the goal of flexible resource allocation and ease network traffic thus contributing to improving reliability and security of services as a result of the quality of Customs services in good progress.