

Digital Customs Service Re-engineering Program

I. Project Objectives

Customs Administration is committed to promoting the digitalization of customs processes. Over the past decade, Customs Administration has implemented many critical information infrastructures, such as the Customs-Port-Trade Single Window System, the Advance Cargo Information System, and the Customs Cloud Computing Platform. All these systems have laid the foundation for a facilitated and secure clearance environment. However, as international trade activities have evolved, the customs business has grown rapidly and become more complex. The current information environment is confronted with significant challenges in maintaining facilitation and security due to outdated infrastructure and software, capacity scaling issues, and performance limitations.

In response to these challenges, Customs Administration is promoting the “Digital Customs Service Re-engineering Program,” which aims at “Remolding an Agile Single Window,” “Developing Smart Customs Services,” “Promoting the Customs Service Transformation,” and “Enhancing the Remote Backup Environment” as its execution strategies. The plan includes designing the next-generation customs digital service environment, transforming the current rigid information architecture, developing intelligent customs applications, and building robust infrastructure to comprehensively drive the digital transformation of customs and sustain the trade competitiveness of the country.

Remolding an Agile Single Window

- Enhancing Single Window Services
- Restructuring the Information Exchange Platform
- Expanding Paperless Measures on Customs Clearance

Developing Smart Customs Services

- Customs Intelligent Applications
- Advanced Express Services
- Ubiquitous Services

Promoting the Customs Service Transformation

- Migrating Operation Systems
- Implementing the Virtualized Architecture
- Upgrading Shared Systems

Enhancing the Remote Backup Environment

- Energy-Saving and Carbon-Reduction Data Center
- Establishing Cloud-based Remote Backup
- Strengthening Information Security



Figure - The overview of program

II. Implementation Content

A. Remolding an Agile Single Window

Develop a new-generation Customs-Port-Trade Single Window Message Exchange Platform and reform the inter-agency message exchange mechanism to enhance cross-agency service efficiency. Establish a high-efficiency, user-friendly customs environment, extend paperless customs operations, and improve the single window service effectiveness.

B. Developing Smart Customs Service

Integrate massive customs data to build a customs data analysis platform and promote intelligent customs applications. Develop smart customs mobile services to provide diverse service channels. Optimize the processing framework and risk screening mechanism for express cargo declarations to secure and facilitate customs clearance.

C. Promoting the Customs Service Transformation

Deploy an agile cloud environment by migrating large mainframe systems to clustered cloud servers to achieve equipment lightweighting and improve services availability. Enhance resource allocation flexibility to support innovative applications. Adjust application system frameworks and integrate standardized shared components to improve system security and maintainability.

D. Enhancing the Remote Backup Environment

Upgrade local and remote data centers, swap out the outdated equipment, and deploy green energy technologies. Optimize the remote backup environment, strengthen the resilience of critical infrastructure, and ensure stable and smooth customs services.

III. Expected Benefits

A. Enhanced User-Friendly Services

Provide more ubiquitous single window and message exchange services by optimizing and reforming customs information exchange mechanisms and the Customs-Port-Trade Single Window service framework, thereby promoting a convenient and safe trade environment.

B. Promotion of Intelligent Customs Applications

Provide intelligent customs services to leverage the value of customs data. Optimize express cargo customs services and accelerate the clearance of legitimate express cargo to help the trading community save logistics time and operational costs.

C. Agile Cloud Architecture

Establish a resource-sharing, flexible, and agile information environment to reduce maintenance costs and enhance core business efficiency.

D. Robust Data Service Environment

Implement green energy measures and optimize hardware performance to save on electricity expense. Improve the overall performance of the cloud platform infrastructure and build a reliable and secure customs environment.