

# **Cloud Invoice Public Cloud Service Sustainable Operation Project**

## **I. Project purpose**

To establish a robust, secure, resilient, and sustainable cloud invoice service environment, this project adopts the implementation strategy of leveraging public cloud infrastructure to strengthen service resilience. The project focuses on leasing and expanding public cloud platform resources, enhancing the cloud invoice public cloud service, and reinforcing the defense-in-depth information security protection of the platform. By utilizing the elasticity and horizontal scalability of public cloud resources, the project aims to provide a flexible application architecture capable of distributing high service demand for cloud invoice operations. This approach effectively accommodates the rapid growth in cloud invoice usage, alleviates peak traffic loads on the main data center, and enhances both the service resilience and overall user satisfaction of the cloud invoice system.

## **II. Implementation content**

### **A. Leasing and Expanding Public Cloud Platform Resources**

A multi-cloud virtual resource pool will be established to provide services for businesses, citizens, government agencies, organizations, and system integration entities. The project involves leasing and expanding software services, as well as providing network connectivity resources. The public cloud platform database will be maintained to store data required for public cloud services and to synchronize e-invoice data with the main data center. Regular backups of public cloud environment configurations and data will also be conducted.

### **B. Enhancing the Cloud Invoice Public Cloud Service**

By adopting cloud-native architectures such as microservices and containerization, the project aims to refine and expand public cloud service functions. A cross-cloud service management mechanism will be implemented to support peak traffic periods during the Uniform Invoice Prize Draw and business tax filing operations, thereby improving overall service quality and performance.

### **C. Strengthening the Defense-in-Depth Information Security Protection of the Public Cloud Platform**

To enhance information and communication security, various protection mechanisms will be implemented, including firewalls, intrusion detection and prevention systems, antivirus systems, content delivery networks, and traffic scrubbing mechanisms. A Security Operations Center (SOC) will be established

to provide monitoring and incident reporting services, enabling proactive detection of malicious activities. Regular vulnerability scans and penetration tests will be conducted as part of continuous security assurance. Additionally, an incident response team will be formed to carry out containment and mitigation measures in the event of a information security attack or intrusion.

### III. Expected benefits

#### A. Enhancing System Capacity and Cloud Service Resilience

Leveraging public cloud infrastructure with microservices and containerization technologies, the project builds a secure and reliable cloud invoice open data environment for faster and more efficient data management. By integrating multi-cloud resources and establishing cross-cloud management and disaster recovery mechanisms, it strengthens service reliability and supports government data transparency and digital governance.

#### B. Supporting Sustainable and Innovative Infrastructure to Achieve a Green Taiwan

The project applies microservices and containerization technologies to build a highly flexible hybrid-cloud framework, allowing for dynamic and efficient resource allocation. In addition, by utilizing green electricity in public cloud data centers, the project helps reduce energy consumption and enhance carbon reduction benefits, contributing to Taiwan's environmental sustainability goals.