

# Success Story of Project Completed for the Government

May 2005

**Project Owner:** Office of the Government Chief Information Officer

**Project Name (in English):** Central Internet Gateway Menu Sub-system

## Project Description:

CIG is a mission-critical and network-based central Internet infrastructure of the OGCIO running 24 hours a day 365 days a year. It has comprehensive and stringent requirements in realms of networking and Internet technologies with intensive round-the-clock network monitoring, operation and administration.

With the growing complexity of the system and the necessity to perform daily support function frequently, a tightened control on the support of the system is suggested in order to prevent unnecessary human errors and to improve the traceability and accountability of accesses and changes on the CIG.

An interface or menu sub-system is proposed for the support staff to run routine operation and administration functions on server equipments.

The objectives of the Development of Central Internet Gateway Menu Sub-system are:

- a. to investigate and understand the operation of the existing systems;
- b. to conduct study with the CIG Support Team and OGCIO staff for the requirements of the new menu sub-system;
- c. to specify and design the new menu sub-system with functionality not limited to providing an interface for different groups of users to run tasks but also facilitating the CIG to further maintain and enhance the sub-system;
- d. to prevent unnecessary human errors by running routine tasks through the sub-system;
- e. to implement security control to prevent unauthorized access to the menu sub-system;
- f. to allow scalability and extensibility with newly added components in the CIG;
- g. to be portable to different platforms;
- h. to produce comprehensive record logging; and,
- i. to share workload with other administrators with user friendly menu.

**Means of Service Acquisition:** ITPSA

**Contractor Name:** Arcotect Limited

**Subcontractor Name:** N/A

**Project Commenced on:** 10 Sept 2004

**Project Completed on:** 2 Mar 2005

The Office of the Government Chief Information Officer (hereinafter refer to as “OGCIO”) of the Government of the Hong Kong Special Administrative Region had selected Arcotect Limited through the Information Technology Professional Services Arrangement (ITPSA) to conduct the Systems Analysis & Design, System Implementation & Integration, and System Support and Maintenance for the Menu Sub-system of Central Internet Gateway System (CIG).

During the project implementation, Arcotect was able to:

- Provide flexible and easy-to-use functions for the adjustment of available menu options and mapping of user account-to-menu options;
- Develop concise and reusable common modules to minimize redundancy of menu options with same functionality for different applications;
- Improve the traceability and accountability of accesses and changes on the CIG by tracking user action performed through the menu system;
- Simplify the operation and administration effort on routine tasks to allow less experienced administrators to handle the tasks;
- Unify menu to all server platforms;
- Support functionality to dynamically switch between the menu sub-system and the command mode;
- Support processing of multiple logs of clustered servers;
- Support user-friendly interface to build customized queries on logging output;
- Have flexibility to adopt new access log formats; and,
- Enforce security controls to prevent system tasks being run by ordinary accounts without authorization.

Through out the project duration, Arcotect was able to meet all the user requirements and implemented the System to 113 servers in 3 data centres as scheduled. The quality of services of the ITPSA Project Team is highly recommended.