

十一、研究計畫中英文摘要：請就本計畫要點作一概述，並依本計畫性質自訂關鍵詞。

(二) 計畫英文摘要。(五百字以內)

Since Cloud Computing platform places its services (e.g. application servers and data centers) at remote sites; therefore, users can access Cloud services through different ways (e.g. Web Service and Mobile device). Besides, Cloud can provide elastic services which users can change their services provider and/or hardware/software quota on-demand. This nature of elasticity brings challenges to the existing information technologies, including security, privacy, fault tolerance, robustness, load balance, and quality of services. According to our research experience, we find that the interceptor approach is a commonly used solution to resolve previous issues on distribution system. We believe that the interceptor approach maybe a promising candidate for the Cloud Computing platform, which is a system with distributed architecture. However, the current infrastructure of the Cloud Computing doesn't support any types of the interceptor mechanism. We therefore propose to investigate an interceptor mechanism for Cloud Computing. Recently, mobile embedded systems have become increasingly popular. Nowadays, in Taiwan the number of cellular phones that each person owns is about 1.59. However, a lot of private information is stored in these devices, such as short message, multimedia messages, call logs, contacts, voice and geolocation. As a result, we believe in the near future mobile devices will become one of the major targets of attackers. This research also focuses on the security issue of one of the most promising mobile operating systems to protect the private information stored in a cellular phone. Therefore, we will develop some mechanisms to prevent the leak of private information stored in cellular phone through utilizing the special properties of mobile devices to control the transmission of private data.

**Keyword:** Cloud Computing; Interceptor; Mobile Device; Mobile Embedded System; Information Security.