

## ***Abstract***

*The use of cloud computing is a next-generation (next-generation) of information technology at the moment. Cloud computing is Internet-based technology, where users can share resources among the cloud-based service providers. Cloud computing is required to make a high quality of service and availability is high, so the user can access them anywhere, anytime, and using any platform. This makes a lot of users entrust their data to the cloud computing service providers. For example, cloud storage, the Internet-based storage media, so the user does not need to purchase hardware storage (hard drive, flash, SD Card, etc.) and also the user only needs to upload them to the cloud. However, security is the number one aspect of the cloud services business, because the user standpoint, cloud services can be regarded as a public service in which everyone can access the cloud service provider and only separated by a username and password, respectively. The purpose of this thesis is focusing implement the Kerberos protocol to guarantee the security of the cloud and to measure the Services Average Time, CPU usage, and Memory usage.*

***Keywords:*** *Cloud computing, Kerberos, Security, Authentication*