Nutrapong Jariyathanoi 2014: The Development of a Disaster Recovery Software using Cloud Technology. Master of Science (Information Technology), Major Field: Information Technology, Department of Computer Engineering. Thesis Advisor: Assistant Professor Putchong Uthayopas, Ph.D. 90 pages.

Disaster recovery is a process involving the implementation of a backup system to support and fix problems stemming from natural disaster or some changes by humans hand that causes the system to be unusable. Currently, many organizations do not set up a proper disaster recovery system due to the very high cost of using commercial solution. In this work, the open source cloud computing system is proposed as a cost effective solution for the building of a disaster recovery (DR) system.

Currently, there are several enterprise companies that provide in the fields of construction and to advise on the issue for creating a system backup through cloud computing such as Amazon EC2 or HP Cloud. Many researcher proposed public research for the preparation of a backup system with the application by cloud computing, which uses the operating system by open source software. The result from any research and experiments suggest that open source software can be applied in the preparation of backup center. This work uses the same approach to create an economical solution to be used in Thailand.

In this work, the use of OpenStack cloud as a disaster recovery solution is described. The system architecture, development and evolution results is presented. The experiences learned can be applied to provide a cost effective solution disaster recovery for many organizations.

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