

SYNOPSIS

Cloud Computing: Security

**Submitted to Submitted by**

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**Project**

CloudComputing: Security

**Team Members:**

Afnan Pathan

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**Problem Definition:**

Cloud computing is a recently developing new technology for complex systems with massive scale service sharing, which is different from the resource sharing of the grid computing systems. Cloud reliability and modeling are not easy tasks because of the complexity, sharing resources present at far locations and large scale of the system. Various types of failures are interleaved in the cloud computing environment, such as overflow failure, timeout failure, and resource missing failure, network failure, hardware failure, software failure, and database failure. In current scenario sectors like banking and others are still using the traditional way (servers) and are not using cloud the reliability of cloud due to security and performance. The purpose of our project is to find a way to make cloud more secure to use for the sectors other than IT by making a research in security domain.

**Expected outcome:**

* To study the various existing deployed models of the cloud.
* To study the various open source implementations of the cloud available.
* Implementation of the cloud.
* To study the issues and problems faced in using the cloud.
* Security enhancement of the cloud.

**Role Play**

**Requirement Elicitation**

Requirement elicitation was done by the both of us as a collective effort. Since cloud computing is an emerging field till date, we searched out the project related information and the resources available in the present scenario through research papers and internet.

**Analysis**

Analysis Phase which contains the Software Requirement Specification which had combined efforts of both of us.

**Architectural Design**

Architectural diagram was made by Afnan Pathan.

**Implementation**

Aneka 2.0 is the .Net based Software Platform used to implement cloud. Afnan Pathan is working on this part.

RC5 Encryption algorithm, Homomorphic Encryption is a highly efficient algorithm. Anuj Khasgiwala is working on implementing the security algorithm.

Installation: Aneka management studio is complete. File Repositories are created and Aneka daemons are installed. Work on containers is on progress.

**Deployment**

Aneka cloud is deployed on machines 10.10.21.141, 10.10.21.142, 10.10.21.144 in which 10.10.21.141 is the master machine.