A Major Project Report On

An Access Control Mechanism based on Authorization Certificates for Cloud Computing: Ensuring User's Anonymity

Submitted in partial fulfilment of the requirements

for the award of the degree of

MASTER OF TECHNOLOGY

IN

SOFTWARE ENGINEERING

By

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CERTIFICATE

This is to certify that the project report entitled "**An Access Control Mechanism based on Authorization Certificates for Cloud Computing: Ensuring User's Anonymity"** is a bona fide record of work carried out by Richa Arora (2K13/SWE/17) under my guidance and supervision, during the academic session 2013-2015 in partial fulfillment of the requirement for the degree of Master of Technology in Software Engineering from Delhi Technological University, Delhi.

To the best of my knowledge, the matter embodied in the thesis has not been submitted to any other University/Institute for the award of any Degree or Diploma.

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ABSTRACT

Access control is a mechanism used to grant or revoke access rights to or from the users. Data stored at remote server is highly confidential and must be protected from unauthorized users. Existing solutions are either too complex to implement or are not able to achieve all the required security parameters. Data is stored in cipher-text form in cloud; therefore there is a need for cipher-text based access control mechanism. The proposed algorithm uses authorization certificates to achieve access control. Data owners issue authorization certificates to the authorized users. Only the owner of certificate is given access to the data stored on remote server. Data owner can revoke access rights of data sharers any time without affecting the cipher-text. The proposed algorithm consumes minimal resources and is easy to implement.