A

Major Project Report

On

PROXY RE-ENCRYPTION APPROACH TO SECURE DATA SHARING IN CLOUD COMPUTING

Submitted to

Jawaharlal Nehru Technological University, Hyderabad

in partial fulfillment of the requirement for the award of Degree of

Bachelor of Technology

in

Computer Science & Engineering

| by | |
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CERTIFICATE

This is to certify that the Major-Project entitled "PROXY RE-ENCRYPTION APPROACH TO SECURE DATA SHARING IN CLOUD COMPUTING" is submitted by *Ch.Neha(196Y1A0523),E.Akshaya(196Y1A0530,G.Vaishnavi(196Y1A0537)*,B.*Thapaswini* (196Y1A0516) in the partial fulfillment of requirement for the award of degree of Bachelor of Technology in Computer Science and Engineering during academic year 2022-23.

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ABSTRACT

As the Internet of Things has grown, data sharing has become one of the most beneficial cloud computing applications. Even though this technology has a pleasing aesthetic, data security is still one of its difficulties because inappropriate data utilisation might have a number of unfavourable impacts. In this research, we present a proxy re-encryption technique for secure data transfer in cloud environments. Data owners can outsource their encrypted data to the cloud using identity-based encryption, and authorised users can access the data through proxy re-encryption construction. Because Internet of Things devices have limited resources, an edge device acts as a proxy server to conduct computationally intensive tasks. Additionally, by utilising information-centric networking capabilities, we successfully distribute cached content through the proxy, hence boosting the quality of service and effectively utilising the network capacity. It accomplishes fine-grained data access control and lessens centralised system bottlenecks. Our strategy for ensuring data security, confidentiality, and integrity has the potential, as shown by the security study and plan review..



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