**A Lightweight Secure Auditing Scheme for Shared Data in Cloud Storage**

**ABSTRACT:**

A Cloud Platform Provides Users With Shared Data Storage Services. To Ensure Shared Data Integrity, It Is Necessary To Validate The Data Effectively. An Audit Scheme That Enables Group Members To Modify Data Conducts The Integrity Veriﬁcation Of The Shared Data, But This Approach Results In Complex Calculations For The Group Members. The Audit Scheme Of The Designated Agent Implements A Lightweight Calculation For The Group Members, But It Ignores The Security Risks Between The Group Members And The Agents. By Introducing Hashgraph Technology And Designing A Third Party Medium (Tpm) Management Strategy, A Lightweight Secure Auditing Scheme For Shared Data In Cloud Storage (Lssa) Is Proposed, Which Achieves Security Management Of The Groups And A Lightweight Calculation For The Group Members. Meanwhile, A Virtual Tpm Pool Is Constructed By Combining The Tcp Sliding Window Technology And Interconnected Functions To Improve Agent Security. We Evaluate Our Scheme In Numerical Analysis And In Experiments, The Results Of Which Demonstrate That Ou Rscheme Achieveslightweightcomputingforthegroup Members And Ensures The Data Veriﬁcation Process For Security.

**SYSTEM REQUIREMENTS:**

**HARDWARE REQUIREMENTS:**

* System : Pentium Dual Core.
* Hard Disk : 120 GB.
* Monitor : 15’’ LED
* Input Devices : Keyboard, Mouse
* Ram : 1 GB

**SOFTWARE REQUIREMENTS:**

* Operating system : Windows XP/UBUNTU.
* Implementation : NS2
* NS2 Version : 2.28
* Front End : OTCL (Object Oriented Tool Command  Language)
* Tool : Cygwin (To simulate in Windows OS)