



(<http://ipindia.nic.in/index.htm>)



(<http://ipindia.nic.in>)

Patent Search

Invention Title	SCALABLE AND SECURE DATA STORAGE FRAMEWORK IN CLOUD COMPUTING
Publication Number	40/2023
Publication Date	06/10/2023
Publication Type	INA
Application Number	202341060560
Application Filing Date	08/09/2023
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	COMPUTER SCIENCE
Classification (IPC)	G06F0009500000, H04L0067109700, H04W0004700000, H04L0067100000, H04L0067109500

Inventor

Name	Address	Country
Mr.Bammidi Pradeep Kumar	Assistant Professor, Department of ECE, Vignans Institute of Engineering for Women, Kapujaggarupeta, Visakhapatnam, Andhra Pradesh, India. Pin Code:530049	India
Dr.U.Sivaji	Associate Professor, Department of Information Technology, Institute of Aeronautical Engineering, Dundigal, Hyderabad, Telangana, India. Pin Code:500043	India
Dr.A.Sathishkumar	Professor, Department of ECE, Erode Sengunthar Engineering College, Perundurai, Thudupathi, Erode District, Tamil Nadu, India. Pin Code:638057	India
Ms.Syeda Farhath Begum	Associate Professor, Department of Computer Science and Engineering, Nawab Shah Alam Khan College of Engineering and Technology, Malakpet, Hyderabad, Telangana, India. Pin Code:500023	India
Ms.Farheen Sultana	Assistant Professor, Department of Information Technology, Nawab Shah Alam Khan College of Engineering and Technology, Malakpet, Hyderabad, Telangana, India. Pin Code:500023	India
Dr.Sarala Patchala	Associate Professor, Department of ECE, KKR & KSR Institute of Technology & Sciences, Vinjanampadu, Vatticherukuru Mandal, Guntur District, Andhra Pradesh, India. Pin Code:522017	India
Ms.Nazia Amreen	Assistant Professor, Department of Information Technology, Nawab Shah Alam Khan College of Engineering and Technology, Malakpet, Hyderabad, Telangana, India. Pin Code:500023	India
Dr.K.Lakshmana Rao	Associate Professor, Department of CSE, GMR Institute of Technology, Rajam, Vizianagaram District, Andhra Pradesh, India. Pin Code:532127	India
Dr.P.Upendra Kumar	Assistant Professor, Department of Electrical and Electronics Engineering, GMR Institute of Technology, Rajam, Vizianagaram District, Andhra Pradesh, India. Pin Code:532127	India
Mr.Kuchinad Vaishak	Assistant Professor, Department of Cyber Security, CMRCET, Hyderabad, Telangana, India. Pin Code:501401	India

Applicant

Name	Address	Country
Mr.Bammidi Pradeep Kumar	Assistant Professor, Department of ECE, Vignan's Institute of Engineering for Women, Kapujaggarupeta, Visakhapatnam, Andhra Pradesh, India. Pin Code:530049	India
Dr.U.Sivaji	Associate Professor, Department of Information Technology, Institute of Aeronautical Engineering, Dundigal, Hyderabad, Telangana, India. Pin Code:500043	India
Dr.A.Sathishkumar	Professor, Department of ECE, Erode Sengunthar Engineering College, Perundurai, Thudupathi, Erode District, Tamil Nadu, India. Pin Code:638057	India
Ms.Syeda Farhath Begum	Associate Professor, Department of Computer Science and Engineering, Nawab Shah Alam Khan College of Engineering and Technology, Malakpet, Hyderabad, Telangana, India. Pin Code:500023	India
Ms.Farheen Sultana	Assistant Professor, Department of Information Technology, Nawab Shah Alam Khan College of Engineering and Technology, Malakpet, Hyderabad, Telangana, India. Pin Code:500023	India
Dr.Sarala Patchala	Associate Professor, Department of ECE, KKR & KSR Institute of Technology & Sciences, Vinjanampadu, Vatticherukuru Mandal, Guntur District, Andhra Pradesh, India. Pin Code:522017	India
Ms.Nazia Amreen	Assistant Professor, Department of Information Technology, Nawab Shah Alam Khan College of Engineering and Technology, Malakpet, Hyderabad, Telangana, India. Pin Code:500023	India
Dr.K.Lakshmana Rao	Associate Professor, Department of CSE, GMR Institute of Technology, Rajam, Vizianagaram District, Andhra Pradesh, India. Pin Code:532127	India
Dr.P.Upendra Kumar	Assistant Professor, Department of Electrical and Electronics Engineering, GMR Institute of Technology, Rajam, Vizianagaram District, Andhra Pradesh, India. Pin Code:532127	India
Mr.Kuchinad Vaishak	Assistant Professor, Department of Cyber Security, CMRCET, Hyderabad, Telangana, India. Pin Code:501401	India

Abstract:

The present invention provides a robust cloud storage framework designed to address the modern challenges of data security and scalability in cloud environments. harnessing advanced encryption techniques, the framework ensures data security, even when distributed across multiple nodes. With features like dynamic resource the system adjusts to fluctuating storage demands, ensuring cost efficiency and performance. The invention also offers seamless data synchronization between on-p cloud environments, intelligent data residency compliance, and edge computing optimization. Additionally, it facilitates secure integration of data from IoT devices, of modular architecture for future tech integrations, and prioritizes user experience and transparency through intuitive interfaces and detailed audit trails.

Complete Specification

Description:The present invention pertains to the domain of cloud computing, more particularly to the design and implementation of a scalable and secure framew data storage. The invention addresses the challenges faced in dynamically scalable data storage environments and aims to ensure enhanced security, reliability, and integrity of data stored in cloud-based storage platforms.

Background of the invention:

The advent of cloud computing has revolutionized the manner in which data is stored, accessed, and managed. The ability to store vast amounts of data on cloud s thereby eliminating the need for businesses and individuals to maintain physical storage infrastructure, has presented a myriad of benefits. With cloud storage, dat longer confined to local hard drives or data centers but can be accessed from anywhere, at any time, and from any device connected to the internet. This flexibility l only led to reduced costs for data storage but has also introduced new paradigms in collaborative work, where multiple users can simultaneously access and modif data.

However, with this convenience and scalability, there have also emerged concerns and challenges, particularly in the realms of security and data integrity. Tradition: storage systems, such as local servers or hard drives, came with inherent limitations on capacity but had well-defined security parameters. On the other hand, in clc environments, data is often stored across multiple servers, possibly spanning different geographical locations, thus introducing multiple points of potential vulneral Issues such as unauthorized access, data breaches, and even government surveillance have become pressing concerns for many cloud storage users.

In addition to security challenges, the ever-growing volumes of data being generated and stored in the cloud have posed scalability concerns. Traditional data stora; solutions weren't designed to scale dynamically based on demand, leading to either wastage of resources during periods of low demand or inadequate resources d

[View Application Status](#)



Terms & conditions (<http://ipindia.gov.in/terms-conditions.htm>) Privacy Policy (<http://ipindia.gov.in/privacy-policy.htm>)

Copyright (<http://ipindia.gov.in/copyright.htm>) Hyperlinking Policy (<http://ipindia.gov.in/hyperlinking-policy.htm>)

Accessibility (<http://ipindia.gov.in/accessibility.htm>) Archive (<http://ipindia.gov.in/archive.htm>) Contact Us (<http://ipindia.gov.in/contact-us.htm>)

Help (<http://ipindia.gov.in/help.htm>)

Content Owned, updated and maintained by Intellectual Property India, All Rights Reserved.

Page last updated on: 26/06/2019