Cloud Assisted Secure Remote Health Care Services

Abstract

Health care facilities are yet to reach the most remote corners of the world. Little ignorance towards health can result in serious concerns and can also possibly cause life threatening
situations. A system is proposed which can collect different parameters of an individual and upload those on a global database for the best assistance from experts from all over the globe. Cloud computing is available on various devices like PCs, Laptops, and Smartphones. To help maintain security of a database, various encryption techniques are applied. Attribute-based encryption (ABE) is a new way for public key encryption that would allow the encryption and decryption of messages based on user attributes. Given its expressiveness, attribute based encryption is currently being considered for many cloud storage and computing applications. The aim of the system is to reduce the complexity involved in the current design and also to reduce the computation load on the client’s side without compromising the privacy through trying to shift the heavy computation burden to the server instead of the client’s device with limited computational power and many other constraints.

References

- M. Jang, Min Yoon, and Jae-Woo Chang, &quot;A Privacy-aware Query Authentication Index for Database Outsourcing&quot;, in IEEE transaction on BigComp., Pages 72-76, 2014.
- Huang Lin, Jun Shao, Chi Zhang, and Yuguang Fang, Fellow, IEEE, &quot;CAM: Cloud-Assisted Privacy Preserving Mobile Health Monitoring&quot;, IEEE TRANSACTIONS ON INFORMATION FORENSICS AND SECURITY, VOL. 8, NO. 6, JUNE 2013
- Shyamal Patel, Bor-rong Chen, Thomas Buckley, Ramona Rednic, Doug McClure, Daniel Tarsy, Ludy Shih, Jennifer Dy, Matt Welsh, Paolo Bonato, &quot;Home Monitoring of Patients with Parkinson’s Disease via Wearable Technology and a Web-based Application&quot;, 32nd Annual International Conference of the IEEE EMBS Buenos Aires, Argentina, August 31 - September 4, 2010
- C. Gentry, &quot;Fully homomorphic encryption using ideal lattices&quot;, in Proc. 41st ACM Symposium on Theory of Compututation, pp. 169178, 2009.
- C. Gentry, &quot;Fully homomorphic encryption using ideal lattices&quot;, in Proc. 41st ACM Symposium on Theory of Compututation, pp. 169178, 2009.
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- Stuart Haber, William G. Horne, Tomas Sander, and Danfeng Yao, "Privacy-Aware Verification of Aggregate Queries on Outsourced Databases with Applications to Historic Data Integrity";
- Qian Wang1, Cong Wang1, Jin Li1, Kui Ren1, and Wenjing Lou2, "Enabling Public Verifiability and Data Dynamics for Storage Security in Cloud Computing";
- Ichiro YAMADA and Guillaume LOPEZ, "Wearable Sensing Systems for Healthcare Monitoring".

Index Terms

Computer Science

Distributed Systems

Keywords

Abe (attribute-based Encryption) ecg (electrocardiogram) Fda (food And Drug Administrator)

Bp (blood Pressure).