Secure File Storage on Cloud using Hybrid Cryptography

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Abstract: *Cloud Computing has played a vital role in the field of computing. It has revolutionized how computing is used in the industry from first setting up the infrastructure and then using it to just spinning up the resources as needed from different cloud vendors. It is also used in different industries for various services and storage of data. The data stored on the cloud can be retrieved as per the user's request but the concern of many users is the security of their data. In this proposed system 3DES (Triple Data Encryption Standard) and Blowfish algorithms are used to provide security. Here the encryption is divided into three parts. Each part is encrypted with different encryption algorithms and decrypted using the different keys when required. This system of encryption and decryption guarantees better security of data to the users by storing encrypted data on a single cloud server, using 3DES and Blowfish.*

Keywords: Blowfish, 3DES.

REFERENCES

[1] Kumar, A., Lee, B. G., Lee, H., & Kumari, A. (2012). Secure storage and access of data in cloud computing. 2012 International Conference on ICT Convergence (ICTC).

[2] Rewagad, P., & Pawar, Y. (2013). Use of Digital Signature with Diffie Hellman Key Exchange and AES Encryption Algorithm to Enhance Data Security in Cloud Computing. 2013 International Conference on Communication Systems and Network Technologies.

[3] Ping, Z. L., Liang, S. Q., & Liang, L. X. (2011). RSA Encryption and Digital Signature. 2011 International Conference on Computational and Information Sciences.

[4] Sunita Sharma,Amit Chugh:'Suvey Paper on Cloud Storage Security'.

[5] Rawal, B. S., & Vivek, S. S. (2017). Secure Cloud Storage and File Sharing. 2017 IEEE International Conference on Smart Cloud (SmartCloud).

[6] Peter Mel and Tim Grace, "The NIST Definition of Cloud Computing", NIST, 2010. [2]]Achill Buhl, "Rising Security Challenges in Cloud Computing", in Proc. of World Congress on Information and correspondence Technologies ,pp. 217-222, Dec. 2011.

[7] Srinivasarao D et al., "Breaking down the Superlative symmetric Cryptosystem Encryption Algorithm", Journal of Global Research in Computer Science, vol. 7, Jul. 2011

[8] Tingyuan Nye and Tang Zhang "An investigation of DES and Blowfish encryption algorithm", in Proc. IEEE Region 10 Conference, pp. 1-4 ,Jan. 2009.

[9] Jitendra Singh Adam et al.," Modified RSA Public Key Cryptosystem Using Short Range Natural Number Algorithm" , International Journal of Advanced Research in Computer Science and Software Engineering ,vol. 2,Aug. 2012.

[10] Manikandan.G et al., "A changed cryptographic plan improving information", Journal of Theoretical and Applied Information Technology, vol. 35, no.2, Jan. 2012.

[11] Niles Maintain and Subhead Bhingarkar, " The examination and Judgment of Nimbus, Open Nebula and Eucalyptus", International Journal of Computational Biology , vol. 3, issue 1, pp 44-47, 2012