A Survey on Security Matters in Cloud Computing with its Solutions

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Abstract*: Cloud computing is an internet-based business that has become widespread in our environment, requiring trust on the network, especially in the field of computer science and information technology. Cloud computing is an integrated service that is becoming increasingly popular due to its cost, efficiency, availability and productivity. In addition to its many advantages, cloud computing creates more complex situations regarding data privacy, data protection, access to information, intellectual property rights and many more. Because of these problems, it has become difficult to embrace climate change in today's world. This review covers various security issues related to data privacy and trust, as well as basic concepts related to cloud computing, and discusses specific recommendations.*

Keywords: cloud computing, information technology, data protection, Network Access, cloud security.

REFERENCES

[1] Mell P, Grance T. The NIST Definition of Cloud Computing. NIST special publication 800-145 September 2011.

[2] Rashid Dar Ab, Ravindran D. A Comprehensive Study on Cloud Computing. International Journal of Advance Research in Science and Engineering. 2018; 7(4): 235-242.

[3] Mell P, Grance T. The NIST Definition of Cloud Computing, version 15. National Institute of Standards and Technology (NIST), Information Technology Laboratory. 2011.

[4] Simmon E. Evaluation of Cloud Computing Services Based on NIST 800-145. NIST special Publication. USA. 2018: 500-322

[5] Agarwal A, Siddharth S, Bansal P. Evolution of Cloud Computing and related security concerns. 2016 Symposium on Colossal Data Analysis and Networking (CDAN). Indore. 2016: 1-9.

[6] Chetan M B, Bhojannavar SS, Danawade VM. Cloud Computing: Research Activities and Challenges. International Journal of Emerging Trends & Technology in Computer Science. 2013; 2(5): 206-214.

[7] Grag P, Goel S, Sharma A. Security Techniques for Cloud Computing Environment. IEEE International Conference on Computing, Communication and Automation (ICCCA). Greater Noida. 2017: 771-776.

[8] Sharma PK, Kaushik PS, Agarwal P, Jain P, Agarwal S, Dixit K. Issues and Challenges of data security in a Cloud Computing Environment. 2017 IEEE 8th Annual Ubiquitous Computing, Electronics and Mobile Communication Conference (UEMCON). New York. 2017: 560-566.

[9] Amara N, Zhiqui H, Ali A. Cloud Computing Security Threats and Attacks with their Mitigation Techniques. 2017 International Conference on Cyber-Enabled Distributed Computing and Knowledge Discovery (CyberC). IEEE Explorer. Nanjing. 2017: 244-251.

[10] Ahmed I, Okumura H, Arai K. Identifying Green Services using GSLA for Achieving Sustainability in Industries. International Journal of Advanced Computer Science and Applications (IJACSA). 2016; 7(9): 160-167.

[11] Ajoudanian Sh, Ahmadi MR. A Novel Data Security Model for Cloud Computing. International Journal of Engineering and Technology. 2012; 4(3): 326-329.

[12] Qadiree J, Maqbool IM. Solutions of Cloud Computing Security Issues. International Journal of Computer Science Trends and Technology (IJCST). 2016; 4(2): 38-42.

[13] Shahzad F. State-of-the-art Survey on Cloud Computing Security Challenges, Approaches and Solutions. Procedia Computer Science. 2014; 37: 357-362.

[14] Rao RV, Selvamani K. Data Security Challenges and its Solutions in Cloud Computing. Procedia Computer Science. 2015; 48: 204-209.

[15] Chennam KK, Muddana L, Aluvalu RK. Performance Analysis of Various Encryption Algorithms for Usage in Multistage Encryption for securing data in Cloud. 2nd IEEE International Conference on Recent trends in Electronics, Information & Communication Technology (RTEICT). India. 2017: 2030-2033.

[16] Yan Z, Deng RH, Varadharajan V. Cryptography Data Security in Cloud Computing. Information Sciences. 2017; 387: 53-55.

[17] Sony R, Rao SKD, Prasad DB. Data Protection and Cloud Computing: A Jurisdictional Aspect. Law Journal of Higher School of Economics. Annual review. 2013: 81-91.

[18] Harfoushi O, Alfawwaz B, and Ghatasheh NA. Data Security Issues and Challenges in Cloud Computing: A conceptual Analysis and Review. Communications and Network 2014; 6(1): 15-21.

[19] Deepali, Bhushan K. DDoS Attack Defense Framework for Cloud using Fog Computing. 2nd IEEE International Conference on Recent trends in Electronics, Information & Communication Technology (RTEICT). India. 2017: 534-538.

[20] Somani, Gaurav. DDoS attacks in cloud computing: Collateral damage to non-targets. Computer Networks. 2016; 109: 157-171.

[21] Paharia, Bhumika, Bhushan K. DDoS Detection and Mitigation in Cloud Via FogFiter: A Defence Mechanism. 2018 9th International Conference on Computing, Communication and Networking Technologies (ICCCNT). India. 2018: 1-7.

[22] Alqahtani, Sarra M, Rose F, Gamble. DDoS Attacks in Service Clouds. 48th Hawaii International Conference on System Sciences. USA. 2015: 5331-5340.

[23] Merkle, Ralph C. A Certified Digital Signature. CRYPTO. New York. 1989: 218-238.

[24] Grobauer, Bernd, Tobias Walloschek, Elmar Stocker. Understanding Cloud Computing Vulnerabilities. IEEE Security & Privacy. 2010; 9(2): 50-57.

[25] Rewagad P, Pawar Y. 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. India. 2013: 437-439.