Survey and future of mobile cloud computing security and privacy issues

ChaitanyaKrishna Hanumantarao Chundiwar

Northwest Missouri State University, Maryville MO 64468, USA chaitanyachundiwar.k@gmail.com

1 Introduction

Because of the gigantic number of cloud-based versatile applications utilized in numerous spaces of our life like schooling, banking, and medical care, the security of information and correspondences has turned into a high-need issue. Among the innovation models that empower cell phones to utilize cloud administrations is versatile distributed computing (MCC). MCC is moving in the innovation space for both industry and exploration, as both endeavor to present and execute better models that further develop effectiveness while keeping an elevated degree of safety MCC is a moving innovation utilized in a few spaces to defeat the restrictions of cell phones by utilizing cloud capacities. Correspondence between cell phones and mists is kept up with by means of remote media to utilize cloud administrations. Consequently, MCC models bring along indispensable security issues connected with many disciplines, particularly validation, protection, and trust. Current MCC models miss the mark on capacity to get and safeguard information, assets, correspondence channels, and confirmation. MCC applications acquire the issues and attributes of both cloud and versatile figuring. This paper fills the hole of current MCC studies through a deliberate examination of the MCC security issues in the writing by satisfying specific targets: (I) surveying normal MCC security issues, (ii) exploring MCC models, (iii) dissecting the MCC models against the security issues found, and (iv) talking about future ramifications for the security issues of MCC models

References

- AlAhmad, A.S., Kahtan, H., Alzoubi, Y.I., Ali, O., Jaradat, A.: Mobile cloud computing models security issues: A systematic review. Journal of Network and Computer Applications 190, 103152 (2021)
- 2. Alqahtani, H.S., Kouadri-Mostefaou, G.: Multi-clouds mobile computing for the secure storage of data. In: Proceedings of the 2014 IEEE/ACM 7th International Conference on Utility and Cloud Computing. p. 495–496. UCC '14, IEEE Computer Society, USA (2014). https://doi.org/10.1109/UCC.2014.68, https://doi.org.ezproxy.nwmissouri.edu/10.1109/UCC.2014.68
- 3. Chaoui, H., Makdoun, I.: A new secure model for the use of cloud computing in big data analytics. In: Proceedings of the Second International Conference on Internet

- of Things, Data and Cloud Computing. ICC '17, Association for Computing Machinery, New York, NY, USA (2017). https://doi.org/10.1145/3018896.3018913, https://doi-org.ezproxy.nwmissouri.edu/10.1145/3018896.3018913
- 4. Javaid, M., Haleem, A., Singh, R.P., Rab, S., Suman, R., Khan, I.H.: Evolutionary trends in progressive cloud computing based healthcare: Ideas, enablers, and barriers. International Journal of Cognitive Computing in Engineering (2022)
- Jegadeesan, S., Azees, M., Kumar, P.M., Manogaran, G., Chilamkurti, N., Varatharajan, R., Hsu, C.H.: An efficient anonymous mutual authentication technique for providing secure communication in mobile cloud computing for smart city applications. Sustainable Cities and Society 49, 101522 (2019)
- Lo'ai, A.T., Saldamli, G.: Reconsidering big data security and privacy in cloud and mobile cloud systems. Journal of King Saud University-Computer and Information Sciences 33(7), 810–819 (2021)
- 7. Moorthy, V., Venkataraman, R., Rao, T.R.: Security and privacy attacks during data communication in software defined mobile clouds. Computer Communications 153, 515–526 (2020)
- 8. Nawrocki, P., Pajor, J., Sniezynski, B., Kolodziej, J.: Modeling adaptive security-aware task allocation in mobile cloud computing. Simulation Modelling Practice and Theory 116, 102491 (2022)
- Parast, F.K., Sindhav, C., Nikam, S., Yekta, H.I., Kent, K.B., Hakak, S.: Cloud computing security: A survey of service-based models. Computers & Security 114, 102580 (2022)
- VasanthaAzhagu, A.K., Gnanasekar, J.M.: Cloud computing overview, security threats and solutions-a survey. In: Proceedings of the International Conference on Informatics and Analytics. ICIA-16, Association for Computing Machinery, New York, NY, USA (2016). https://doi.org/10.1145/2980258.2982046, https://doiorg.ezproxy.nwmissouri.edu/10.1145/2980258.2982046