# Enhancing Security and Privacy Protocols in Telehealth: A Comprehensive Approach across IoT/Fog/Cloud Environments

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**Abstract :** This paper introduces an advanced security and privacy model tailored for Telehealth systems, emphasizing end-to-end protection across IoT, Fog, and Cloud components. The proposed model integrates encryption, key management, intrusion detection, and privacy-preserving measures to safeguard patient data. A comprehensive simulation study evaluates the model's effectiveness in scenarios such as unauthorized access, physical breaches, and insider threats. Results indicate notable success in detecting and mitigating threats yet underscore areas for refinement. The study contributes insights into the intricate balance between security and usability in Telehealth environments, setting the stage for continued advancements.

**Keywords :** cloud, enhancing security, fog, IoT, telehealth
**Conference Title :** ICCSPS 2024 : International Conference on Computer Science, Programming and Security
**Conference Location :** Vancouver, Canada
**Conference Dates :** August 05-06, 2024