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A Secure Medical Communication System for Android Smartphones

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A Secure Medical Communication System for Android Smartphones

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Abstract

The use of smartphones within the medical field can be beneficial in numerous ways. As an example, smartphones can be used by medical professionals to allow quick access to a patient's medical record in emergencies or as a general tool to improve communication between medical professionals. For this project, a secure medical communication system for Android-based smartphones is designed by formally defining an application layer communication protocol and access controls to ensure authentication, authorization, confidentiality, integrity, and accountability. Furthermore, the communication protocols and access controls ensure that the application prototype is compliant with HIPPA regulations.