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## (54) Title of the invention: CLIENT APPLICATION BASED ACCESS CONTROL IN CLOUD SECURITY SYSTEMS FOR MOBILE DEVICES

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## (57) Abstract:

The primary objective of the invention in the present disclosure is to develop a secure and efficient system that regulates user (116) access to cloud services through mobile applications. The proposed system leverages cutting-edge authentication (102) and authorization techniques, including multi-factor authentication (102) and role-based access control, to ascertain user (116) identities and enforce granular access policies. The system also focuses on the architecture and design of the client application-based access control system, emphasizing seamless integration with diverse mobile platforms and cloud service providers. The system is engineered to uphold a seamless user (116) experience while ensuring stringent data protection and privacy. Furthermore, extensive performance evaluations and security assessments are conducted to measure the system's effectiveness in real-world scenarios. Rigorous testing is undertaken to assess its resilience against common security threats, such as unauthorized access attempts, data breaches, and mobile-specific vulnerabilities.

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