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## (54) Title of the invention : CLOUD SECURITY BASED ON OBJECT METADATA

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## (57) Abstract :

The proposed system leverages object metadata, which contains crucial attributes associated with each data object stored in the cloud (116), to enforce security policies and protect sensitive information. The system's key features include authentication and access control mechanisms, encryption and data protection, data classification and labeling, metadata management, security monitoring, auditing, and incident response. Through fine-grained access control, the system ensures that only authorized users (118) and applications can interact with specific objects based on their metadata attributes. It incorporates strong authentication methods, such as multi-factor authentication and API key-based authentication, to verify the identity of users (118) and applications before granting access. The system supports data classification and labeling, allowing organizations to categorize objects based on sensitivity levels, which aids in the implementation of tailored security measures. The system provides a secure repository for storing and organizing object metadata, allowing administrators to enforce access controls and monitor access patterns efficiently

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