**CONCLUSIONS**

In this paper we studied how to securely and efficiently transform encrypted data in clouds. To address this issue, we proposed an identity-based encryption transformation (IBET)model, which connects the well-studied IBE and IBBE systems. IBET allows data owners to secure outsourced data with identity-based access control, which eliminates complicated cryptographic certificates for all users.Moreover, IBET provides a transformation mechanism for data owners to authorize cloud service provider (CSP) to transform a file in IBE-ciphertext formant into a file in IBBE-ciphertext format, so that a set of authorized users can access the underlying data. We proposed a concrete IBET scheme that is secure against powerful attacks. Thorough experimental analyses demonstrate the efficiency and practicability of the scheme.