



RESEARCH ARTICLE

An Enhanced HASBE for Cloud Computing Environment

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Abstract— In this era, even sensitive data is stored and shared on the internet using trusted third parties and service providers. Cloud computing is one of the emerging technologies that is being used widely on these days. It makes use of the computing resources such as hardware and software that is delivered over the internet and provides remote services with user's data, software and computation. We propose hierarchical attribute-set-based encryption (HASBE) by extending ciphertext-policy attribute-set-based encryption (ASBE) with a hierarchical structure of users. The proposed scheme not only achieves scalability due to its hierarchical structure, but also inherits flexibility and fine-grained access control in supporting compound attributes of ASBE. There are many encryption schemes that provide security and access control in clouds. This paper presents an encryption scheme called HASBE that provide security, scalable and flexible fine grained access control and its enhancement, a business model for separating the encryption and decryption service.

Key Terms: - Access control; Security; Cloud computing

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