A Survey on Hierarchical Attribute Set based Encryption (HASBE) Access Control Model for Cloud Computing

Abstract

Cloud computing refers to the application and service that run on a distributed system using virtualized resources and access by common internet protocol and networking standard. Cloud computing virtualizes system by pooling and sharing resources. System and resources can be monitored from central infrastructure as needed. It requires high security because of now a days companies going to put more essential and huge amount of data on cloud. That’s why the reason traditional access control is not enough For the High security. so that the attribute-based encryption (ABE) have been proposed for access control of outsourced data in cloud computing with the complex access control policy. in this paper, we have proposed hierarchical attribute-set-based encryption (HASBE) access control by extending cipher-text policy and attribute-set-based encryption (ASBE) with a hierarchical structure of users. HASBE provides Flexibility, scalability and fine-grained access control with efficient user revocation but the hierarchical structure of the domain hierarchy is to complex and there is no sub-domain level user hierarchy which increases system response time and decreases the system performance. So we are proposing HASBE scheme by creating a sub domain in to the user level Hierarchy that reduce the complexity of the hierarchy and also improve the system performance.
References

- John Bethencourt, Computer Sciences Department Carnegie Mellon University, "Intro to Bilinear Maps"
- Zhibin Zhou and Dijiang Huang Arizona State University On Efficient Ciphertext-Policy Attribute Based Encryption and Broadcast Encryption
Index Terms

Computer Science  Distributed Systems

Keywords

Access Control  Attribute  Cloud computing  Encryption  Decryption  Data Security