# Article information:

A Blockchain-based access control scheme with multiple attribute authorities for secure cloud data sharing | Request PDF  
<https://www.researchgate.net/publication/343785880_A_Blockchain-based_access_control_scheme_with_multiple_attribute_authorities_for_secure_cloud_data_sharing>

# Article summary:

1. This paper proposes a Blockchain-based Multi-authority Access Control (BMAC) scheme for secure data sharing in the cloud.

2. The BMAC scheme uses Shamir Secret Sharing and permissioned blockchain to manage user attributes by multiple authorities, avoiding single point of failure.

3. Smart contracts are used to compute tokens for attributes managed across multiple management domains, reducing communication and computation overhead on the data user side.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article “A Blockchain-based access control scheme with multiple attribute authorities for secure cloud data sharing” is an informative and well-researched piece that provides a comprehensive overview of the proposed BMAC scheme for secure data sharing in the cloud. The authors provide a detailed description of the proposed system, its components, and its advantages over existing schemes. They also provide a thorough analysis of the security of their proposed algorithm as well as comparisons with other schemes in terms of properties and efficiency.

The article is generally trustworthy and reliable, as it provides evidence to support its claims and presents both sides equally. The authors have provided sufficient evidence to back up their claims about the effectiveness of their proposed system, such as performance metrics like memory usage, encryption time, decryption time, etc., which makes it clear that their system is more secure than existing systems. Furthermore, they have also discussed potential risks associated with their system such as privacy leakage or lack of fine-grained access control due to openness and accessibility of blockchain technology.

However, there are some areas where the article could be improved upon. For example, while the authors have discussed potential risks associated with their system, they do not provide any solutions or strategies to mitigate these risks. Additionally, while they have compared their system with existing systems in terms of properties and efficiency, they do not discuss how it compares in terms of scalability or cost effectiveness which would be useful information for potential users considering using this system.

# Topics for further research:

* Blockchain-based access control scalability
* Cost effectiveness of blockchain-based access control
* Mitigation strategies for privacy leakage in blockchain-based access control
* Fine-grained access control in blockchain-based access control
* Performance metrics for blockchain-based access control
* Comparison of blockchain-based access control with existing systems

# Report location:

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