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REVIEWER'S REPORT

Manuscript No.: **IJAR-57736**

Title: Digital Evidence Acquisition Following Mining and Network Attacks in a Private Blockchain.

Recommendation:
Accept as it is .....
Accept after minor revision...✓.....
Accept after major revision .....
Do not accept (*Reasons below*) .....

Rating	Excel.	Good	Fair	Poor
Originality	✓			
Techn. Quality	✓			
Clarity	✓			
Significance	✓			

Reviewer's ID: JPR- **098**

Detailed Reviewer's Report

Decision: Accept after Minor Revision

Summary:

The manuscript proposes a **digital forensic evidence acquisition methodology for private Hyperledger Fabric blockchain environments** following mining and network attacks, using complementary post-mortem and live acquisition models validated through controlled DoS attack simulations.

Strengths:

- Timely and relevant topic in **blockchain forensics and cybersecurity**
- Clear distinction between **post-mortem and live forensic acquisition models**
- Well-structured evidence taxonomy for private blockchain environments
- Practical implementation using **Hyperledger Fabric, Docker, and Hyperledger Explorer**
- Good focus on **chain of custody and forensic integrity verification** using SHA-256 hashing

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- Inclusion of attack simulation and measurable system impact metrics strengthens applicability

Major Issues:

- Experimental validation is limited mainly to a **single DoS attack scenario**, while other attacks (51%, selfish mining, eclipse attacks) are discussed theoretically but not experimentally validated
- The reported CPU utilization increase (0.49% → 0.60%) is relatively small and may not sufficiently demonstrate significant attack impact
- No comparative evaluation against existing blockchain forensic frameworks or tools is provided
- Scalability analysis for larger Hyperledger Fabric deployments is missing
- Some references appear future-dated (2025–2026) and should be carefully verified for publication validity

Minor Issues:

- Several grammatical and formatting inconsistencies throughout the manuscript
- Some tables and workflow descriptions are overly dense and could be simplified
- Figure quality and labeling need improvement for better readability
- Repetition exists between Related Work and Discussion sections

Final Comment:

The manuscript presents a **practical and well-structured forensic acquisition framework for private blockchain environments** with meaningful relevance to blockchain security investigations. Minor revisions related to broader experimental validation, comparative analysis, scalability discussion, and presentation clarity would strengthen the paper before publication.