Blockchain Designs for In-Space Economies

David Hyland-Wood[*†]   Peter Robinson[*†]   Brett Henderson[*]   Christopher Hare[*]

Roberto Saltini[*]   Sandra Johnson[*]   Chris Lewicki[‡]

TODO

Nomenclature

n A blockchain node
N_n The total number of participating blockchain nodes
v A validator participating in a blockchain consensus protocol
N_v The total number of participating validators
Subscript
i Variable number

I. Introduction

TODO: Partially from Defining a Space Blockchain

II. Literature Review

TODO: Primarily from Literature Review
TODO: Remove this test citation.[1]

III. Consensus Algorithm Selection

TODO: Primarily from Consensus Algorithm for an In-Space Economy and Algorithm Evaluation for Blockchains in Space

IV. Desired Blockchain Properties for Solar System Domains

TODO: Blockchain properties for the three considered domains:

- Cislunar and cisdeimotic space

- Interplanetary space

- Local autonomy in the outer Solar System

A. Near Planets

TODO: Blockchain properties for operations with the orbits of an outer moon (e.g. cislunar and cisdeimotic space).

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[*]PegaSys, ConsenSys Australia, Brisbane, Queensland, Australia
[†]School of Information Technology and Electrical Engineering, The University of Queensland, Brisbane, Queensland, Australia
[‡]ConsenSys Space, Redmond, Washington, USA, AIAA Member.

American Institute of Aeronautics and Astronautics

B.   Interplanetary Space

TODO: Blockchain properties for interplanetary blockchain operations (e.g. Earth-Mars).

C.   Local Autonomy in the Outer Solar System

TODO: Asynchronous protocol for lex mercatoria operations between spacecraft.

V.   Consensus Near Planets

TODO: Details of a consensus algorithm for the cislunar and cisdeimotic domains

VI.   Results

TODO

VII.   Conclusion

TODO

Acknowledgments

TODO: Thank PegaSys, ConsenSys.

References

[1]Wüst, K. and Gervais, A., "Do you need a Blockchain?" *ArXiv Preprint*, 2017.

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