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Author: Dr. Krisztina Tilinger
University of Public Service (UPS), Hungary

IMPLEMENTATION OF THE OUTER SPACE TREATY THROUGH BLOCKCHAIN-BASED SYSTEMS

Abstract

The Outer Space Treaty (OTS) prescribes or implies numerous obligations for the spacefaring States Parties, which might be handled more easily, efficiently and in a cost-effective way through blockchain technology. These are the registration of space objects; the international cooperation regarding the scientific investigation in outer space; the rescue of astronauts and sharing information with the other Parties or the Secretary-General of the United Nations regarding any danger to the life or health of astronauts; the authorization and continuing supervision the activities of non-governmental entities in outer space; avoiding harmful contamination; providing information to the Secretary-General of the United Nations as well as the public and the international scientific community.

Blockchain is a disruptive technology which enables stakeholders to track transactions recorded in a public and secure, cryptographically verified database. This technology provides a secure and reliable record of activities and exchange/share of information regulated by international agreements. Blockchain technology has already been introduced in some activities that are regulated by international public law through international agreements, for example the recently launched electronic CITES (eCITES) system or the electronic bill of landing (eB/L). Electronic data interchange (eB/L) has already been widely accepted by the business, however, electronic permitting (eCITES) is quite new and still awaits for the approval of traders.

The author has been inspired by these blockchain based solutions already in place and would like to present how similar blockchain based systems might be introduced into the space industry in order to comply with the OST.