

SpaceOps 2023 – Abstract: Commercial Space Operations Track

Title: LunaNet Governance: Organizing and Planning for LunaNet Operations

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Abstract:

LunaNet is proposed to be the lunar internet, providing services for communications, networking, position, navigation, and timing for missions in transit to and from the moon, in orbit around the moon, in transit to and from the surface, and on the surface. It is envisioned to be an open, international architecture with contributions from multiple organizations including international civil space agencies, commercial service providers, academic institutions, and other organizations. Using a combination of conventional and emerging technologies, LunaNet will create a lunar-centric network-of-networks that inherits some features of the terrestrial internet but has unique characteristics that will drive substantially different operations. Government acquisition efforts have already begun to procure commercial lunar communications and navigation services. A multi-stakeholder approach to developing the community-wide concepts of operation has been initiated by the Interagency Operations Advisory Group (IOAG), which is formed of international government space agencies, that includes other international organizations such as the Internet Society, Internet Engineering Task Force, International Committee on Global Navigation Satellite Systems, and Space Frequency Coordination Group as well as industry and academic participants. Products of the Interim Committee on LunaNet Governance will include the recommendation and definition of an initial international organizational governance structure; associated roles, responsibilities, and processes; and recommended steps to implement the governance approach. This paper will describe the progress made in developing these concepts and coordinating them among the participating organizations.