



Lunar Interoperability Forum

7 May 2024

**The Indian Treaty Room
East Wing of the Eisenhower Executive Office Building
White House, Washington DC**

Bringing together members of the lunar exploration community to discuss drivers, opportunities, and means to foster development of secure interoperable communications and navigation systems.

Overall Agenda

- **8:00 AM** **Check in**
- **8:15 AM** **Welcome by Forum Chair: Sami Asmar**
Remarks from White House, Dept. of Commerce, and/or NASA officials
- **8:45 AM** **Keynote talks by Vint Cerf**
- **9:15 AM** **Panel 1: Space Agencies**
- **10:30 AM** **Panel 2: CCSDS Engineering Steering Group**
- **12:00 PM** **Lunch**
- **12:45 PM** **Panel 3: Industry & Academia**
- **2:30 PM** **Discussions & Concluding Remarks**
- **3:00 PM** **Exit building**

Panel 1: Space Agencies & Organizations

Chair: S. W. Asmar

- IOAG
 - **Jim Schier**: “Cislunar Infrastructure: The Convergence of Architecture, Governance, and Interoperability”
- JAXA
 - **Masaya Murata**: “Japan Lunar Navigation Satellite System and Its Contribution Towards Lunar Augmented Navigation Service”
- ESA
 - **Javier Ventura-Traveset**: “Moonlight, LCNS, and Lunar Pathfinder: European contribution to lunar Communication and Navigation Services”
- CNES
 - **Jean-Luc Issler**: “CCSDS frequency band recommendations related to lunar in-situ 3GPP 5G, WIFI and PNT”

Panel 2: Areas of the CCSDS Engineering Steering Group

Chair: K.-J. Schulz

- **System Engineering Area, Peter Shames**
- **Space Link Services, Ignacio Aguilar Sánchez**
- **Space Internetworking Services Area, Ivica “Vinny” Ristovski**
- **Cross Support Services Area, Erik Barkley**
- **Mission Operations and Information Management Services Area, Daniel Fischer**
- **Spacecraft Onboard Interface Services Area, Jonathan Wilmot**

Panel 3: Industry & Academia

Chair: Masaya Murata

- **Marshall Eubanks (Space Initiatives Inc.):** **The new lunar position, navigation and timing reference system**
- **Alberto Montilla (Spatiam Corp.):** **Building DTN capabilities in LunaNet Service Provider Networks**
- **Ramy Kozman (Surrey Satellite Technology LTD):** **Commercial Data Relay Services in the Cis-Lunar Environment with SSTL's Lunar Pathfinder**
- **Massimo Capozzi & Riccardo Petix (Telespazio):** **Moonlight LCNS European Industries Roadmap for Communication and Navigation Services**
- **Andrea Domenico Mourglia (Thales Alenia Spazio, Italy):** **Multi-Purpose Habitation (MPH): Enabling Lunar Exploration and LunaNet Services**
- **Farzana Khatri (MIT Lincoln Lab):** **Lunar Optical Communications**
- **Peter Shames (Jet Propulsion Laboratory, California Institute of Technology):** **Challenges for Secure Interoperability at the Moon**
- **Edward J. Birrane (Johns Hopkins Applied Physics Laboratory):** **Security and Management of DTNs in the Cis-Lunar Environment**
- **Jon Hamkins (Jet Propulsion Laboratory, California Institute of Technology):** **Technology considerations for PNT at the Moon**