**Space Cybersecurity Symposium III: Cybersecurity – Global and Applied Topics**

**June 16, 2022**

**0830 – 1500 ET**

[**Virtual Event**](https://www.nist.gov/news-events/events/2022/06/space-cybersecurity-symposium-iii-cybersecurity-global-and-applied-topics) **(link provided to event website)**

**Objective of this symposium:** To learn the latest cyber intel and threats relevant to space systems and operations and find out how to make use of resources and assistance programs available from the Departments of Commerce and Homeland Security to protect business in the ever-changing space environment. See the website for more information.

**Break Out Session 2: Security Needs for Data Integrity**

* **Time:** 1:45 pm to 2:30 pm EDT
* **Goal:** The discussion will address how organizations ensure the integrity of their data in shared and open architectures. The integrity needs for data ingestion, creation, storage, and exportation to and from space systems will be considered.
* **Format:**
  + Dianne Poster will introduce the moderator and panel members by announcing their names.
  + Each speaker will then provide a short statement on their current role in security for data in the space domain and their work in this area (speakers will be called upon by Dianne following the order on the agenda)
  + Mark Mulholland will then lead off the discussion with a question from below.
  + Questions will then move to any questions arriving in the Q&A feature in the virtual platform being moderated by Dianne and Mark.
    - If there is no virtual question immediately, we’ll proceed through the leading questions below.
  + **All speakers must register at the event website to receive the speaker link (there is no charge for registration)**

**Questions for the speakers** (If you have a specific question(s) you’d like to be asked, please provide those to Dianne and Mark)

1. Developments in technologies and investment are transforming the space environment to be entirely data-driven, achieving greater accessibility for an increasing number of parties. How do you see current space systems data as targets for cyber-attacks and what makes these data so vulnerable?

**Supply Chain Interdiction (package management), verifiable digital signatures, decentralized PKI**

1. Data and technology leaders are welcoming modern approaches to open data architectures to offer more agility, resilient and competitive services from the space domain. In your experience, what types of tactics, techniques, and procedures have actors used to either deny access to or degrade data in shared and open architectures?

**Data theft/spoofing, identity theft/spoofing, denial of service, delay of service, service / algorithm compromise.**

1. Many public and private sector entities are increasingly gaining access to data originating from space for business and personal use, such as click-stream data, sensor data, geospatial data, and media files. What types of tools can help ensure the integrity of these types of data?

**Digital signature creation / verification tools, Web3 wallets, NFTs.**

1. In light of recent events targeting satellites, how does the security of data in the space domain enable defense of the satellite community?

**Machine 2 Machine systems data integrity, physical security, PNT.**

1. International cooperation is essential in the space domain. How should we encourage collaborative, secure information sharing to enable protection against cyber-attacks on open and shared data?

**Use non-proprietary, open-source, open standards. Public blockchain.**

**Panel Members**

**Moderator(s)**

* **[Dianne Poster](https://www.nist.gov/agenda/space-cybersecurity-symposium-iii-cybersecurity-global-and-applied-topics" \l "1016)**, DOC ([poster@nist.gov](mailto:poster@nist.gov); (202) 557-5235)
* **[Mark Mulholland](https://www.nist.gov/agenda/space-cybersecurity-symposium-iii-cybersecurity-global-and-applied-topics" \l "1021)**, DOC ([mark.mulholland@noaa.gov](mailto:mark.mulholland@noaa.gov) ; (571) 246-1467)

**Speaker(s)**

* **[Mr. Rick Miner](https://www.nist.gov/agenda/space-cybersecurity-symposium-iii-cybersecurity-global-and-applied-topics" \l "1086)**, Deputy Assistant Chief Information Officer, U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Environmental, Satellite, Data and Information Services
* **[Mr. TJ Koury](https://www.nist.gov/agenda/space-cybersecurity-symposium-iii-cybersecurity-global-and-applied-topics" \l "1291)**, CEO, DigitalArsenal.io
* **[Mr. Dan Oltrogge](https://www.nist.gov/agenda/space-cybersecurity-symposium-iii-cybersecurity-global-and-applied-topics" \l "1286)**, Director, Integrated Operations and Research, COMSPOC Corporation
* **[Lori Coombs](https://www.nist.gov/agenda/space-cybersecurity-symposium-iii-cybersecurity-global-and-applied-topics" \l "1296)**, CEO, WWCM and Director of WWCM Academy, Goddard Space Flight Center