The Role of Localized Communities of Interest in Standardizing Coordinated Responses to Space Cybersecurity Threats

Prepare for the future of space operations—your participation could help shape the global norms and standards essential for secure and sustainable space activities.

The rapid evolution of the space domain has transitioned from complicated to complex. We are moving from a safety paradigm focused on collision risk and debris to a much more complex environment involving multi-party interactions like in-space servicing, debris removal, and coordinated responses to broad threats like a cyber attack. This presentation introduces a trust-based polycentric approach to managing this complexity through the creation and maturation of localized Communities of Interest (COIs), focusing on effective and technology-agnostic trusted information sharing within and across COIs in the space community.

Key Insights:

Complex Space Operations

- Explore the shift to complex operations like space refueling and in-orbit servicing, requiring coordination among multiple stakeholders.
- Understand the challenges of a distributed and decentralized environment where decision-making relies on trusted and traceable information.

Information Sharing Maturity Model

- Learn about the proposed maturity model for COIs that facilitates information sharing and decision-making at various levels of coordination.
- Discover how mature COIs can enhance global situational awareness and set the foundation for standard behaviors across the space domain.

Cyber Case Studies

- Delve into case studies like the Viasat incident, illustrating the importance of information sharing and the risks of mischaracterization in cyber operations.
- Gain insights from real-world examples of cyber risk-informed decision-making in critical infrastructure, such as the Colonial Pipeline event.

Developing COI Playbooks

- Understand how the Minimum Viable Information concept offers standardization, enabling COIs to develop playbooks for coordinated responses.
- Explore how playbooks guide stakeholders in executing specific actions based on predefined inputs, ensuring synchronized operations.

Call to Action

- Engage with our recommendations on forming and maturing Cyber COIs within Space ISAC and beyond.
- Learn how your organization can contribute to the next steps in creating interoperable and globally-recognized norms for space operations.

Why This Matters

As space operations become increasingly complex, the need for coordinated, reliable, and secure information sharing is paramount. This presentation offers a roadmap for developing local COIs to respond to cyber threats as a model for other information sharing techniques, Effective tools for sharing trusted and immutable information are essential for ensuring safe, secure, and sustainable space activities and can facilitate innovation in a transforming environment.

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Session Details

Session: Cybersecurity in space systems, risks and countermeasures
Date: October 18
Time: 12:15 PM
Location: Yellow Hall 1

Presenters

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