

Systems, Technologies, and Emerging Capabilities for Space Development Agency

Assuring our Nation Remains a Global Leader in the Space Domain



Stellar Space Cyber Range (SSCR) and FlatSats in Colorado Springs

Design Defense in Depth Space Architecture

Stephenson Stellar Corporation (SSC) will:

- Craft methods to increase the security posture of space assets
- Provide recommendations for a layered cyber defense architecture leveraging Defense in Depth as Mission Assurance for Spacecraft (DiDaMAS)
- Define best practice guidelines for logging cyber related events on spacecraft sub-systems to guide cyber alerting strategies on board the vehicle.

Provide Specialized Space Cyber Testing

- Use the Stellar Space Cyber Range (SSCR) of multiple FlatSats for security and vulnerability testing focusing on SDA specific architecture vulnerabilities.
- SSC will expand the configuration of the lab to provide a high-fidelity digital twin environment that will model the commercial and SDA constellations and serve as a place to test both interoperability and cyber challenges.

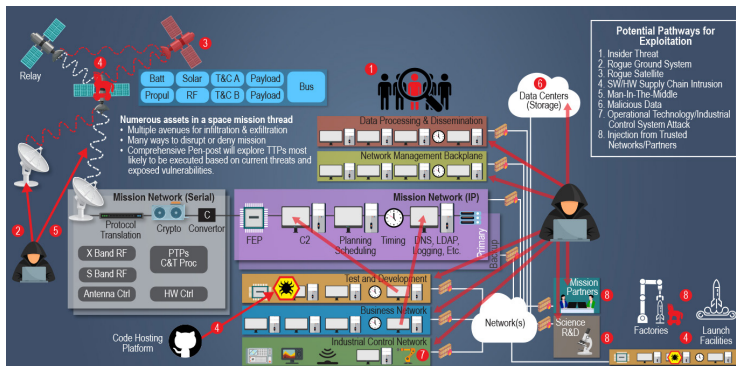
Develop Novel Methodologies

SSC is developing:

- Mission Focused Risk-Based Methodologies for the Proliferated Warfighter Space Architecture (PWSA)
- Crafting test plans for upcoming tranches to support the cybersecurity assessment assessments of all the space domains, including the IT/OT convergence as well as Ground Entry Points.
- Developing guidance on how to utilize threat intelligence to better the security posture moving into the Proliferated Warfighter Space Architecture.

Research Crypto Modernization Solutions

- Research MULTI-Level Security (MLS) to improve the warfighter's ability to seize and maintain the initiative on the battlefield across multiple classification levels
- Develop approach for COMSEC key management solutions for Link 16.



Threats to a Space Mission and Possible Attack Paths



Ten Step Risk Based Methodology

