

# CYBER TECHNOLOGIES & MODERNIZATION

Cybersecurity, Data Networking & Hardware Lifecycle Management

Military and national security successes in the information-intensive 21st century require innovative strategies and integrated, secure, reliable hardware and software components and systems that enable on-demand access to critical data.

The Space Dynamics Laboratory (SDL) has been solving the technical challenges faced by the military, science community, and industry for over six decades, launching over 430 space missions and integrating hardware and software systems for the Department of Defense and Homeland Security. For its national security partners, SDL provides advanced cybersecurity, networking, and obsolescence mitigation solutions to meet—and exceed—the latest security standards, processing capabilities, and interfacing technologies. As a trusted Government agent, SDL can engage in sole-source contracts and work in either a developer or Government advisory role. Additionally, SDL provides unlimited rights for all generated designs, code, and data, which the Government may use with no additional contract or cost.

## FOCUS AREAS

### Cybersecurity Solutions

- Threat & vulnerability assessment
- Secure architecture design
- Blue & Red Team system testing
- Risk Management Framework (RMF) compliance
- Embedded intrusion prevention systems

### Data Networking Solutions

- High-speed data dissemination
- Long-haul network data assurance
- Data conversion, conditioning & transport protocols to standardized interfaces
- Data network discovery & profiling

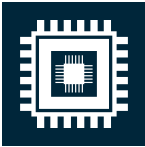
### Re-Engineering, System Engineering & Test (RESET) Services

- Solutions for obsolete systems & outdated interfaces
- Technology insertion for additional functionality
- In-field updating
- Reverse engineering for undocumented assemblies; replacement builds; technical data package generation

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## TECHNOLOGIES & CAPABILITIES

SDL's cyber technologies and modernization specialists have engineered a wide variety of systems, from ground stations to high-speed networking cards. The result is a vast array of technologies and capabilities ready for application in support of mission needs.



### ELECTRONICS DEVELOPMENT

Design and build of electronic circuits, from ultra-quiet analog sensors to cutting-edge digital systems. In-house expertise includes design, debugging, and low-volume production.



### ENVIRONMENTAL TESTING

Expertise to perform MIL-STD environmental testing and EMI testing to evaluate how environments will affect or are affected by sensor systems and electronic equipment.



### HIGH-SPEED COMMUNICATIONS

Designs to meet ever-increasing communication speeds and evolving standards. Systems incorporate 1-100 Gbps network speeds, multi-lane PCIe, and high-speed analog.



### MECHANICAL DESIGN

Comprehensive mechanical design, thermal modeling, and component production for ground-, flight-, and space-based systems.



### CYBER ENGINEERING

Solutions for cyber-resilient system design, as well as threat and vulnerability assessment, testing, and upgrades for legacy systems.



### SECURITY

Personnel, facilities, and procedures to handle all levels of Government security. SDL's campus houses more than 60,000 square feet of secure space, including data centers, laboratories, and meeting rooms.



### PRODUCTION

Fully equipped for low-rate initial production (LRIP), including circuit board assembly and mechanical part machining. SDL delivers on higher-volume orders through existing industry partnerships.



### MODERNIZATION

Solutions for removing obsolescence, improving manufacturability, increasing capability, and providing full testability. SDL also provides complete technical data packages.

Questions? SDL welcomes all inquiries. For more information about SDL's services, please contact:

**David Brenchley** | Branch Head

**Matt Cupal** | Cyber Technologies and Networks Program Manager

**Shawn Nielson** | Modernization Program Manager

435.713.3930

[engineeringsupport@sdl.usu.edu](mailto:engineeringsupport@sdl.usu.edu)

