**Knight Shield**

Through a strong collaborative partnership among the UCF Office of Research, IST (School for Modeling, Simulation, and Training), UCF Information Technology, and the UCF Information Security Office, Knight Shield is a managed environment for handling sensitive and restricted research data. Knight Shield is the only approved UCF environment in compliance with NIST SP 800-171 and Cybersecurity Maturity Model Certification (CMMC Level 3) for handling Controlled Unclassified Information (CUI) and can be used for supporting Federal Information Security Modernization Act (FISMA), and Health Insurance Portability and Accountability Act (HIPAA), Export Controlled (ITAR/EAR), and other contractually regulated research. The Knight Shield environment currently consists of an on-premises network infrastructure and an AWS cloud environment.

The on-premises environment is separated from the academic network and provides an operational and managed environment that provides network level support (including but not limited to firewall and intrusion prevention systems), system level support (for all endpoints), computing and storage for research projects, and security incident response and monitoring.

The cloud environment is a secure enclave implemented in the AWS East region with FedRAMP Moderate or equivalent controls and uses a managed service provider. The architected infrastructure gives each researcher a virtual private cloud developed and managed to meet the research need and the specific contracted compliance requirements of their grant, contract, or award.

Managed services in these enclaves include:

* Assistance with System Security Plan (SSP) development;
* Virtual desktops and servers with memory and storage to meet research requirements;
* Installation of approved and licensed software;
* Secure data transfer and data sharing;
* Multifactor authentication
* Network security monitoring and incident response; and
* 24/7 availability (excluding maintenance and planned outages, and unavoidable events)