

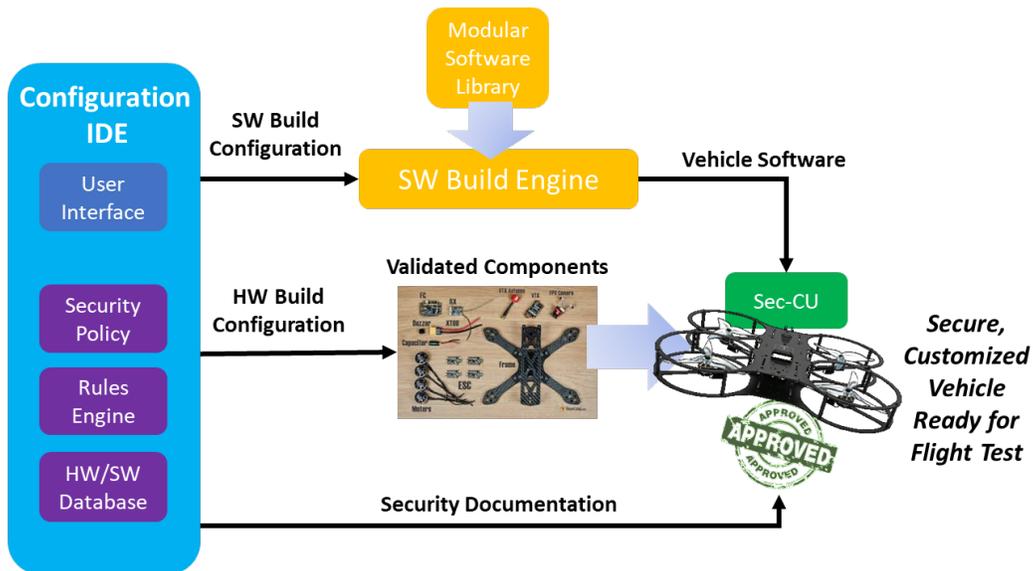
**SecMUAS – Secure Modular Unmanned Aerial Systems**

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Sponsor: Office of Naval Research, Contract #N68335-21-C-0150

**Problem Statement:** Unmanned Systems, such as Unmanned Aerial Systems (UAS), have become an essential element of US military operations. The operational users have a growing need for customized vehicles to meet dynamic battlefield requirements for combat support and situational awareness. To provide these capabilities, developers are relying on unsecure Commercial-off-the-Shelf (COTS) unmanned systems and components. Many of these components are made in areas with national security concerns. Government agencies have exposed significant security issues found in some foreign-made unmanned systems and components resulting in bans on their use by DoD and some other Government organizations.

Due to the lack of a readily available secured unmanned systems, current operations are relying on short-term security waivers for active operations. With the increase in operational use of unmanned systems and growing security concerns, these security waivers are being granted less frequently and for shorter durations. Understanding that the ability to operate under security waivers will soon end, warfighters have a need for rapidly customized unmanned systems that can be used in a secured manner using trusted components.



***SecMUAS provides a rapid development framework enabling UAS designers to leverage advanced security capabilities needed to operate in contested environments without need to become security experts***

**Solution:** Secimation is developing SecMUAS, Secure Modular Unmanned Aerial Systems, for ONR as a cyber-secure solution for modular unmanned systems to address this operational need. A goal of SecMUAS is to “bake in” security features into a modular design framework for unmanned systems. SecMUAS incorporates a US designed/manufactured Secure Control Unit with advanced security and performance features. SecMUAS provides a Configuration IDE providing a rapid unmanned system software development capability that automatically incorporates security features needed to implement security policy. SecMUAS also incorporates a library of validated UAS hardware/software components, an NSA certified communication system, and ground station, enabling full UAS system design and integration. Initial targets of SecMUAS development are Group 1 and 2 UAS to enable the US Navy’s missions.

**Program Status:** Secimation is currently executing the Phase II SBIR program to develop and demonstrate SecMUAS. Secimation’s partners for Phase II include Draper Laboratory, BAE Systems, Lumenier, and Cherokee Nation Businesses. ONR POC is: Dr. David Gonzalez, Program Officer, Aerodynamics, Code 35, [david.r.gonzalez@navy.mil](mailto:david.r.gonzalez@navy.mil).