The Navy is interested in upgrading machine-to-operator interfaces on the increasingly-complex EW systems on its submarines. The system needs to provide easy integration with new applications and features to increase operator functionality without increasing the operator/system interaction time. Operators need to interact quickly with the system and accurately see the electromagnetic environment, to quickly process data for decision-making and increased situational awareness.

A modular, extensible, and open Human Machine Interface (HMI) for the submarine’s AN/BLQ-10 electronic warfare (EW) system. The purpose of this HMI is to allow the EW operator to intuitively interact with the Radio Frequency (RF) environment and reduce the operators’ manual interaction with the system. This results in faster safety and threat assessments, and a more efficient means to conduct RF signal analysis. It also significantly improves emission classification and correlation.

With a successful Phase II under its belt, Progeny was awarded a Phase III fixed-price incentive (firm target), cost-plus-fixed-fee, and cost only contract for Navy systems engineering services. This contract includes options, which, if exercised, would bring the cumulative value of this contract to $81,944,297. The company is working with the Navy on developing a Next Generation EW HMI for submarines to determine its effectiveness in an operationally relevant environment. The Naval Sea Systems Command, Washington Navy Yard, District of Columbia, is the contracting activity.