

- CLIENT:** **Office of Naval Research (ONR)**
Herndon, VA
- MAIN CONTACT:** Gary Toth – ONR Program Officer
Gary Shaffer – PMW 160 Chief Engineer for SOA
- PROJECT FOCUS:** Role-relevant representation and visualization (R3V) of operational and tactical data
- PROJECT TIMELINE:** February 2008 – January 2011
- OVERVIEW:** Forward Slope (FSI) is providing system/software engineering expertise in the development of R3V services. These services are being developed as part of the risk reduction strategy of the Consolidated Afloat Network Enterprise Services (CANES) acquisition effort. FSI is providing Open-Geospatial-Consortium- (OGC) compliant visualization components to the ONR service oriented architecture (SOA) Reference Implementation (RI) and the Command and Control Rapid Prototyping Continuum (C2RPC). FSI is also providing end-user visualization components to support the Command and Control (C2) efforts of PMW-150 and the intelligence, surveillance and reconnaissance (ISR) efforts of PMW-120.
- OBJECTIVES:** The objectives of this effort the following:
- Determine the maturity, reliability and performance of open source OGC components for use in operational and tactical environments
 - Determine viability of brokered Web Service Notification (WSN) to provide publish and subscribe services within the Naval network infrastructure
 - Determine the effectiveness, performance and scalability of commercial mapping systems (e.g. Google Earth) to represent military operational and tactical data sets and relationships within an operational environment.
- RESULTS:** The project is in progress and has resulted in the following:
- Development of complex features in the GeoServer web feature server (WFS) and integration with the GeoServer web map server (WMS) and KML generation capability and integration with the ONR SOA RI
 - Development of the discovery façade as an abstraction layer for SOA service and topic discovery and integration with ONR SOA RI
 - Development of a blue force “baseball card” service that provides blue force platform information for the Interrelated (I/R) Common Operational Picture (COP)
 - Development of a OpenLayers-based portlet for display of geospatial information and integration into the SOA RI
 - Successful initial deployment of a web processing service (WPS) to perform geospatial processing
 - Successful deployment of WSN broker within the ONR SOA RI
 - Successful execution of two limited technology experiments
 - Successful demonstration of the I/R COP which integrates blue force order of battle with tracks, logistics, network operations, computer network defense, sensor status/readiness and planning into a single display