The Net-Centric Strategy of the Department of Defense (DoD)

Network Centricity is the new DoD vision for managing the Department's data. In a *net-centric environment*, architectural guidelines permit:

- Data to be "visible, accessible, understandable, and trustable" when needed and where needed to accelerate decision-making

- Data (intelligence, non-intelligence, raw, and processed) to be "tagged" with metadata to enable **discovery** by known and unanticipated users in the Enterprise;

- Data are posted to shared spaces for users to access except when limited by security, policy, or regulations.

The Oak Ridge National Laboratory's SensorNet Initiative

The Department of Energy's Oak Ridge National Laboratory (ORNL) is establishing a standards-based architecture for a national information network for managers, planners, and response personnel who require instantaneous access to comprehensive data from chemical, biological, radiological, and nuclear (CBRN) sensors. SensorNet is a "system of systems" for the detection, identification, and assessment of CBRN threats to the United States. By specifying the standards for "plug-and-play" sensors and applications, SensorNet provides a scalable infrastructure to enable local, state, regional, and national authorities to rapidly detect, identify, communicate, interdict, and respond to the threat or incidence of a CBRN event. Following the DoD's Net-Centric strategy, SensorNet ensures that sensor information is discoverable and available through well-specified interfaces to applications when and where it is needed.

The Bragg Experimental SensorNet Testbed

The Fort Bragg Public Safety Business Center, in partnership with ORNL, is assessing the Net-Centric architectures and methodologies that can best meet the installation's requirements to detect, interdict, and respond to a chemical, biological, radiological, or nuclear (CBRN) event. These assessments will be conducted within the Bragg Experimental SensorNet Testbed (BEST). Modeled closely after the Joint Forces Command's Project Alpha and in consonance with the goals of the DoD's Net-Centric initiative, the BEST will characterize and validate the force protection requirements of SensorNet for similar military installations nationwide and will provide the military with the standards to deploy advanced and experimental sensors, robust and broadband communication networks, and applications for the detection and prediction of CBRN releases.

To assess and evaluate the "best in class" CBRN sensors, video sensors, meteorological sensors, intrusion detectors, access control technologies, and other force protection technologies, and to determine their ideal positioning for the installation, the BEST team will integrate and roll-out these emerging solutions into a SensorNet prototype at Fort Bragg. The BEST prototype will include the capability to:

- utilize "plug-and-play" sensors and applications

- acquire and store heterogeneous data from sensors and monitoring systems in a distributed common operational database;

- present the data to subscribers in a synchronized, real-time, comprehensive, easy to understand graphical format;

- interconnect the data to fixed and mobile SensorNet applications that will produce first order predictions of threat agent dispersions based upon actual metrological conditions

- produce predictions of the health affects on the ambient population due to the dispersion;

- interconnect alerts and predictions to existing 9-1-1 and public safety mass notification networks to provide information to decision makers, performance support to first responders, and early warning to at risk personnel

The BEST will span a five year period.