



Edge-Enabled Tactical Systems



Operational images built and sent via handheld devices aid soldiers in the field.

The Software Engineering Institute (SEI) is a federally funded research and development center at Carnegie Mellon University. The SEI works with defense and government organizations, industry, and academia to improve software-reliant systems. As part of its mission, the SEI funds several internal research and development (IRAD) projects each year. This year, the SEI is funding the Edge-Enabled Tactical Systems IRAD.

The objective of this IRAD is to enable boots-on-the-ground warfighters to build mission-specific operational pictures on handheld smartphones and tablet computers. These devices are rapidly entering service through initiatives such as “Connecting Soldiers with Digital Applications.” The SEI’s goal is to improve warfighter effectiveness and safety by bringing tailorable and real-time situational awareness to the smallest tactical unit.

The challenge for the Edge-Enabled Tactical Systems IRAD is to identify and implement a strategy that supports warfighter-directed tailoring of operational pictures provided on handheld devices. Achieving this capacity involves filtering large volumes of data to reduce unnecessary clutter and increase the relevance of data that soldiers receive in the

field. Warfighter control over what information is displayed and how it is displayed is also essential. Key to success is enabling capabilities that allow warfighters to adapt operational pictures to support the wide range of missions that they undertake—from humanitarian to civil support to warfighting—and doing it all on the handheld devices that all soldiers will carry with them in the future.

As part of the Edge-Enabled Tactical Systems IRAD, the SEI would like to interview recently deployed individuals and groups of soldiers, and other experts in the field, who can help identify critical warfighter information needs and how these needs change based on the mission. This input will help the SEI provide the right information in the right format for use by warfighters. Interviews can be conducted via telephone or in person.

If you are interested in assisting in this effort, please call

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