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### Enhancing Communications & Information Sharing from Research to Engineering

A strategy to efficiently communicate and share massive volumes of real time high value data is necessary for emergency management (EM) professionals during a large-scale complex incident. Translating those EM requirements into technological solutions has proven challenging. Existing technology such as 5G provides an opportunity for the EM field to effectively communicate, share current incident situation securely, and assist key leaders in the decision process. Building on research under the Navy's Mobility Center of Excellence (Defense Operations Managed Environment project/2019), develop similar capability for emergency managers to respond to incidents to further mitigate loss of life and critical infrastructures.

The ground work for this research to support EM professionals has been done and following is a summary of the findings:

- Secure network with advanced security controls to meet cybersecurity requirements (ex: Multi-factor authentication)
- Ease of adding users with use of employer owned and/or personal devices (i.e., phones, tablets and laptops)
- Sharing of real-time video, data and documents to select users, experts, groups and/or operation centers
- Integrate multiple activities and provides for effective decision making and resource utilization

-Monitor health status and accountability requirements of responders, healthcare and other essential workers while maintaining HIPAA/PII needs

-Geo-fenced zones set up at any location to allow for secure communications and sharing of unclassified and classified documents (ex: intelligence products)?

Understanding the EM requirements and adapting technologies will require collaboration. Conduct a study to share on-going research, best practices and collaborate to adapt the aforementioned capabilities. Test capabilities in planned exercises and share results with emergency management practitioners.

**Presentation Theme:** Share current research on mobile secure communications and present findings to support emergency management practitioners and stakeholders involved in a large scale complex incident.

**Collaborators, Advisor(s) and Department(s) that assisted with this research:**

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