

## **SOCOM213-009: Multi-Domain Virtual Innovation**

### **MODERNIZATION PRIORITIES:**

General Warfighting Requirements (GWR), Microelectronics

### **TECHNOLOGY AREA(S):**

Electronics, Information Systems, Sensors

### **OBJECTIVE:**

The objective of this SBIR is to develop a prototype innovative platform that supports and manages ability for Operators to participate in real-world collaboration events and environments.

### **ITAR:**

The technology within this topic is restricted under the International Traffic in Arms Regulation (ITAR), 22 CFR Parts 120-130, which controls the export and import of defense-related material and services, including export of sensitive technical data, or the Export Administration Regulation (EAR), 15 CFR Parts 730-774, which controls dual use items. Offerors must disclose any proposed use of foreign nationals (FNs), their country(ies) of origin, the type of visa or work permit possessed, and the statement of work (SOW) tasks intended for accomplishment by the FN(s) in accordance with section 3.5 of the Announcement. Offerors are advised foreign nationals proposed to perform on this topic may be restricted due to the technical data under US Export Control Laws.

### **DESCRIPTION:**

Operators need the ability to remotely discover and interact with the Internet of Things (IoT) innovation infrastructure of Smart City systems, tools, sensors, components, networks, and controllers. All technology for this platform should use broadly available commercial off the shelf (COTS) Smart City technologies or be assembled primarily from COTS. All software should be based on and/or carry an Open Source license that does not restrict Government Use. All data formats should, to the degree possible, conform to existing and/or emerging Open Standards.

### **PHASE I:**

Conduct a feasibility study to assess what is in the art of the possible that satisfies the requirements specified in the above paragraph entitled "Description."

The objective of this USSOCOM Phase I SBIR effort is to conduct and document the results of a thorough feasibility study ("Technology Readiness Level 3") to investigate what is in the art of the possible within the given trade space that will satisfy a needed technology. The feasibility study should investigate all options that meet or exceed the minimum performance parameters specified in this write up. It should also address the risks and potential payoffs of the innovative technology options that are investigated and recommend the option that best achieves the objective of this technology pursuit. The funds obligated on the resulting Phase I SBIR contracts are to be used for the sole purpose of conducting a thorough feasibility study using scientific experiments and laboratory studies as necessary. Operational prototypes will not be developed with USSOCOM SBIR funds during Phase I feasibility studies. Operational prototypes developed with other than SBIR funds that are provided at the end of Phase I feasibility studies will not be considered in deciding what firm(s) will be selected for Phase II.

### **PHASE II:**

Develop, install, and demonstrate a prototype system determined to be the most feasible solution during the Phase I feasibility study on a Multi-Domain Virtual Innovation.

### **PHASE III DUAL USE APPLICATIONS:**

This system could be used in a broad range of military applications where virtual participants need more parity with in-person participants.

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**KEYWORDS:**

Internet of Things (IoT); infrastructure; Smart City systems; Open Source; Open Standards

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