HR001120S0019-17  
STTR Opportunity: Rapid Multi-modal Communications  
Frequently Asked Questions (FAQs)

1. Is this solution aimed toward people working exclusively virtually (e.g. work-from-home employees), or by people in mixed office environments, especially where they might have both virtual and in-person interactions?
   A. The software developed as part of this solicitation is only for a virtual environment. However, the virtual environment should interact with non-virtual, to the extent feasible. The proposer may choose whether to address only work-from-home or a mixed office environment, or both.

2. Are you open to AR solutions, like the Microsoft Hololens, or exclusively VR solutions like the HTC Vive or Valve Index?
   A. The proposer may choose any hardware system. However, the impact of the choice on the commercialization strategy should be considered.

3. When you mention privacy protected and other similar concerns, are you focused primarily on people who are in the same room (and perhaps working on their own, separate projects), or also remote intrusion (e.g. hidden cameras and listening devices in the room)?
   A. Primarily remote, covert intrusion.

4. In the Phase I deliverables, what are you looking for with “Month 5: Interim report describing data and control flow”? A top-level block diagram or something else?
   A. A written description, illustrated with appropriate diagrams, that shows how data moves through and is processed by your software. Control flow is a complementary aspect of system design that shows how the system changes, based on external inputs from the user or other systems as well as internal system responses or reactions to changes or stimulation.

5. In the Phase II Option deliverables, Month 9 lists “Demonstration of collaboration with anomaly detection or other analytic results.” What do you mean by “anomaly detection”?
   A. Here is a definition of anomaly detection: https://en.wikipedia.org/wiki/Anomaly_detection

6. When designing for a virtual environment and interaction, my main concern is how a user will handle interruptions from people or the environment around them. Are you concerned with potential interruptions from the real world, specifically in how the proposed solution will help the user maintain context and situational awareness of what is going on in their virtual space while attending to that interruption, potentially switching back and forth between them multiple times? Or is this not a concern covered by this topic?
   A. This is not a concern covered by this topic.
7. Should we assume the physical environment in which the user is operating is relatively constrained (e.g. home or commercial office), or might this be used in harsher environments (say, outdoors, variable lighting, active threats, etc.)?
   A. Relatively constrained (home or commercial office).

8. Would DARPA consider evaluating a solution based on partially immersive commercial Augmented Reality hardware instead of fully immersive commercial Virtual Reality hardware?
   A. Yes. Any hardware is acceptable if the result meets the requirements of the solicitation.

9. Would DARPA consider evaluating a solution that has already selected hardware, principle data flow architecture, and User Interface/Engagement metaphor?
   A. Yes, if the result meets the requirements of the solicitation.

10. You mention portability in the solicitation, is this in terms of initial setup, weight, tethered vs non-tethered? All of the above? Other?
    A. The setup can be tethered. Otherwise, the setup should be able to be moved by one person in less than 30 minutes.

11. Is this intended to operate on a wide variety of VR hardware or is it sufficient to target a few devices during early development?
    A. One or a few devices is sufficient.

12. What is the expected typical duration of users working within the VR system?
    A. Two to four hours.

13. What is the typical physical user environment in terms of size and obstacles? Are these environments uniform or do they vary?
    A. A home or work office. The environments would vary.

14. Is low cost a goal?
    A. Yes. The hardware should cost less than $10,000.

15. Does this topic intend to support co-located and distributed teams?
    A. Distributed teams.

16. What is the typical size of teams?
    A. 12 people or less.

17. Is there interest in a solution that integrates with and extends COTS VR productivity software?
A. Yes.

18. Is there interest in measuring team performance, team dynamics, social cues and other behaviors within the system?  
A. Yes.

19. Is there interest in having a cognitive assistant within the VR environment to support users?  
A. Yes.