



**SBIR BZ.26 Q&A Telecon Transcript
08 September 2026**

- SOC26BZ06-DV006: Resilient Integrated Photonic Transport in Denied Environments (RIPTIDE)

SBIR Process Timeline

Pre-release: 02 Sep 2026

Open for proposals: 23 Sep 2026

DSIP Q&A Closes to new questions: 07 Oct 2026

Proposal submission close: 21 Oct 2026 at 12:00 EST

1. When an individual node is lost, isolated, or potentially compromised, what behavior is expected for trust, revocation, rekeying, and continued mission operation?

The Government anticipates some type of encryption/authentication scheme. If a node loses connection and needs to rejoin the swarm, it would need the appropriate key or authentication mechanism. The Government is also open to approaches specific to optical communications, although the authentication method may not necessarily need to be unique to that modality.

2. Should security/authentication follow a hop-by-hop approach or a mission-flow policy when a node reconnects to the swarm?

The Government is open to different approaches. Optical communications are expected to serve as a secondary modality, with radio remaining the primary means of communication. If radio communications are jammed, the system could switch to optical communications. Ideally, the authentication/security scheme would remain uniform across both communication modalities.

3. What is the desired form factor/SWaP, and how valuable is a point-to-multipoint mesh network versus relay-only?

The anticipated platform is primarily Group 2 and Group 3 UAS. The network is expected to be partially connected rather than fully connected; not every drone would need to communicate directly with every other drone.

4. What is the representative Group 3 UAS for size, weight, power, vibration, attitude sensor performance, and power-budget assumptions?

To be determined. The Government could not provide specific assumptions at this time.

5. The solicitation mentions experimental results relaying navigation information between two endpoints for Phase I feasibility. Is there a distance requirement?

The Government would like to see a demonstration or proof of concept over a non-trivial distance. Approximately **2 miles** was provided as a preliminary target. Range is important because it affects how many drones would be needed to create a communication bridge across the swarm.

6. What latency/jitter budget can the security layer consume before it materially affects two-way precision time transfer/ranging or distributed navigation?





A specific latency/jitter threshold was not provided. The goal is for the optical communication capability to function as a stand-in when the primary radio communication is jammed. Ideally, it would provide at least the same communication range and allow the same assumptions regarding swarm composition, navigation-solution propagation, latency, and operation that would otherwise apply to the radio system.

7. Should offerors account for post-quantum cryptography (PQC) migration during Phase II architecture, or is PQC considered a future transition requirement rather than a near-term prototype requirement?

PQC is considered a future transition requirement.

8. Will the future security requirements also include data-at-rest/data-at-risk (DAR) encryption on the devices?

Yes.

9. Would PQC and DAR need to meet specific FIPS requirements or use NIAP-approved products?

The Government does not have a specific answer at this time; those requirements may be too far upstream in the prototype effort.

10. Would participation in a Government test exercise demonstrating a 1-kilometer communication range on a Group 2 UAS be sufficient for Phase I feasibility?

Yes, from the requirement standpoint, that would be sufficient. The Government ultimately wants to demonstrate the capability in real hardware with multiple drones communicating and potentially passing navigation solutions through the swarm. The Government has a partnership with the Experimental Test Force at Edwards Air Force Base and expects to have access to a range for testing.

11. What is the anticipated lead time for coordinating testing at Edwards Air Force Base?

The Government expects approximately **one to two months** from the start of coordination, depending on whether testing aligns with an existing event. It would be unexpected for coordination to take longer than two to three months.

12. Is there an existing relationship for this test bed with DIU Drone Dominance?

No, not at this time. The range and resources are a bespoke capability available at Edwards Air Force Base. The program being supported is the **Adaptive Airborne Enterprise**, an AFSOC program.

13. Would the Government be willing to consider active AFWERX SBIR work as part of this initiative?

Feasibility documentation cannot be based upon any prior or ongoing federally funded SBIR or STTR work and DP2 proposals MUST NOT logically extend from any prior or ongoing federally funded SBIR or STTR work. As the instructions state, proposals must provide documentation to substantiate that the scientific and technical merit and feasibility described in the Phase I section of the topic has been met by the proposer and/or the Principal Investigator.

14. How could the Adaptive Airborne Enterprise be used to transition the solution?

The program is very interested in the capability. It has conducted significant testing involving radio-based mesh networking and is interested in alternative communication modalities that can mitigate



or reduce the risks associated with radio-frequency jamming. The program office is interested in seeing how well the optical communication technology performs.

15. How long can industry continue submitting questions after the teleconference?

Technical clarifying questions can continue to be submitted through DSIP. The deadline to submit questions is October 7, 2026, and the Government has until October 14, 2026 to provide responses.

16. Can large nonprofit organizations compete on their own for this opportunity without a small-business partner?

No. This is a Small Business Innovation Research (SBIR) opportunity intended for US owned and operated small businesses.

17. For Direct-to-Phase-II eligibility, must an offeror have already fabricated an integrated airborne payload and demonstrated the optical link in flight before proposal submission, or can feasibility be established through prior work demonstrating the relevant constituent technologies and analysis showing their ability to be integrated?

A completed integrated payload does not have to have already been flight demonstrated. While a flight demonstration would be beneficial, the Government is willing to review submissions where the offeror has demonstrated a non-trivial communication link between endpoints and can establish the feasibility of the proposed approach.

18. Is this effort related to UGVs?

No. The effort is primarily focused on airborne vehicles.

19. Where can offerors find the Statement of Objectives (SOO) and additional requirements for this topic?

On the DSIP portal, go to Solicitation Documents and Instructions → Supporting Documents and Templates. The SOCOM-specific documentation and SOO are located there and provide requirements beyond the basic topic description.

20. Is there a course or resource available explaining how to navigate DSIP and find the required documentation?

DSIP's Learn and Support section contains tools explaining how to submit through the portal. Offerors should also review the Appendix A Technical Volume Template, which provides important instructions on how to structure the proposal and what the Government is looking for. For this Direct-to-Phase-II effort, offerors should also review the SOCOM-specific instructions, feasibility-study requirements, and SOCOM Phase II cost-volume documentation.

