FEDERAL BUREAU OF INVESTIGATION

FINANCE AND FACILITIES DIVISION | PROCUREMENT SECTION

JUSTIFICATION AND APPROVAL (J&A) FOR OTHER THAN FULL AND OPEN COMPETITION

JUSTIFICATION FOR OTHER THAN FULL AND OPEN COMPETITION IN ACCORDANCE WITH 41 U.S.C. 3304 (A) (1)

Requisition Number: SHOP-PR-26-000759
CIRG MESH Technology Program

Date: 03/09/2026

[redacted]

1. Identification of the agency and contracting activity.

The Department of Justice (DOJ), Federal Bureau of Investigation (FBI), National Acquisition Program Unit (NAPU) has prepared this justification for other than full and open competition for operational communication on behalf of the Critical Incident Response Division (CIRG).

2. The nature and/or description of the action being approved, i.e., sole source, limited competition, establishment of a new source, etc.

The FBI contemplates award to Persistent Systems, LLC for the procurement of MPU5 MANET radios, RF modules, antennas, and associated accessories. This procurement will be advertised on SAM.gov as a brand name only requirement. The resultant contract is intended to be awarded as a firm-fixed price (FFP), single award Indefinite Delivery Indefinite Quantity (IDIQ) contract to include one (1) year base, with four (4) twelve-month option periods, with a six (6) month option to extend. [redacted]

3. A description of the supplies or services required to meet the agency's needs.

The FBI Critical Incident Response Group (CIRG) requires the procurement of additional Mobile Ad Hoc Network (MANET) compatible radios, RF modules, antennas, and associated accessories. These components are essential for expanding the capacity of the current MANET infrastructure, which serves as the primary transport for secure voice, high-definition live video, and enterprise network access (UNET, FBINET, and SCINET) during national response missions.

4. The statutory authority permitting other than full and open competition.

The statutory authority permitting other than full and open competition is 41 U.S.C. 3304 (a)(1) as implemented by the Federal Acquisition Regulation (FAR) Subpart 6.103-1 entitled, "Only One Responsible Source and No Other Supplies or Services Will Satisfy Agency Requirements." (c) Application for brand-name descriptions. (1) An acquisition or portion of an acquisition that uses a brand-name description or other purchase description to specify a particular brand-name, product, or feature of a product, peculiar to one manufacturer-

5. Demonstrate the unique qualifications of the proposed contractor or the nature of the action requiring the use of the authority.

Persistent Systems, LLC (brand name) is uniquely qualified to provide these services to the Critical Incident Response Group (CIRG) based upon the following:

- **Proprietary Wave Relay Protocol:** The MPU5 utilizes a proprietary networking protocol with a closed architecture, meaning no third-party hardware can natively join or manage the existing network without non-compatible external hardware.
- **Interoperability with Existing Infrastructure:** The FBI currently maintains a fleet of [redacted] units; market research confirms that other available mesh systems cannot integrate with this established infrastructure because the current network is built entirely on this proprietary stack, introducing a different radio manufacturer would result in a "siloed" environment. The new radios would be unable to:
    - **Share Topology:** They could not participate in the self-healing routing table, meaning they would be invisible to the existing [redacted] nodes.
    - **Perform Seamless Handoffs:** They would not support the roaming capabilities that allow users to maintain connectivity while moving between different mesh nodes.
    - **Aggregate Throughput:** They would operate on separate frequency channels (or require manual bridge hardware), effectively creating two disparate networks that cannot exchange data or utilize each other's bandwidth. To effectively bridge these systems, you would need complex external gateway hardware that performs protocol translation—essentially acting as a translator between two different "languages," which adds significant latency, introduces a single point of failure, and complicates the tactical configuration of the network. **Superior**

Technical Performance: During 2025 field evaluations, the MPU5 was the only system capable of maintaining stable links in high-obstruction environments (such as elevator shafts) without requiring intermediate high-power nodes. In 2025, the FBI participated in rigorous product demonstrations and comparative field testing alongside partners in the Department of Defense (DoW counterparts) to evaluate the current MANET landscape:

- [redacted] **MANET Equipment Evaluation (May 28 – June 5, 2025):** Functionality testing was performed comparing [redacted]
  - **Findings:** While [redacted] provided viable communications, the Persistent Systems MPU5 demonstrated superior responsiveness for robot control and video quality within the established 10MHz and 20MHz parameters. Specifically, the MPU5 successfully maintained links in challenging environments (e.g., elevator shafts) without the need for additional high-power intermediate units required by competitors like [redacted]
- [redacted] **Demonstration (November 13, 2025):** Attended a [redacted] hosted demonstration of [redacted] capabilities.
  - **Findings:** The evaluation noted [redacted] 3D LiDAR mapping capabilities. However, testing confirmed that the [redacted] [redacted] required a token-based waveform that is not natively compatible with the existing Wave Relay® infrastructure without significant third-party integration or hardware duplication.

- **Mission-Critical Responsiveness:** Testing verified that the MPU5 provided the most responsive control for robotic systems and high-quality video transmittal at required bandwidths, which is essential for personnel safety and operational success.
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- **Avoidance of Substantial Duplication of Costs:** Transitioning to a different radio platform would require a full system upgrade of the entire [redacted] fleet, resulting in a duplication [redacted] and significant delays of an approximate 24 months for technical integration and training. This figure accounts for more than the procurement of new radio hardware; it encompasses the mandatory replacement of the entire proprietary peripheral ecosystem—including specialized power systems, ruggedized cabling, mounting hardware, and antenna arrays. Furthermore, a full-scale transition would impose an estimated 24-month delay in operational readiness, driven by several critical integration requirements:
  - **Phased Training & Logistics:** Given the high operational tempo, training for the technical support staff and end-users must be conducted in sequential phases to maintain constant communication capabilities. When combined with

manufacturer lead times for specialized tactical hardware, this phased approach necessitates a 24-month lead time for complete fleet-wide fielding and integration.

- **Rigorous Validation & Compliance:** New hardware must undergo exhaustive testing of integration with other technical sensor platforms in use by the FBI, such as camera systems used for sniper deployments, sensor systems used in support of the [redacted], and other mission-critical systems that rely on the current MANET environment.

- **Hardware Compatibility:** The MPU5 ecosystem utilizes unique physical configurations, such as proprietary data/RF ports and twist-and-lock battery connections, that are not compatible with competitor power or management infrastructures.

6. A description of efforts made to ensure that offers are solicited from as many potential sources as is practicable, including whether a notice was or will be publicized as required by Subpart 5.1 and, if not, which exception under 5.101 applies.

While Persistent Systems, LLC (a small business) is the sole manufacturer market research has identified multiple small business resellers. There is a reasonable expectation of obtaining offers from two or more small business concerns that are capable of fulfilling the requirements.

This requirement will be publicized as a Request for Proposal on SAM.gov as a Brand Name only total small business set-aside.

7. The anticipated dollar value of the proposed acquisition, including options if applicable, and a determination by the Contracting Officer that the anticipated cost to the Government will be fair and reasonable.

The acquisition is a follow-on effort intended to ensure seamless interoperability with the Bureau's existing fleet of [redacted] MPU5 units. This requirement is technically complex due to the proprietary nature of the Wave Relay infrastructure, which provides the necessary flexibility to maintain critical data links in "urban canyons," large-scale facilities, and semi-permissible confined spaces where traditional radio signals often fail. The expansion is necessary to accommodate a new generation of remote diagnostic and situational awareness tools that have significantly increased the data load on the current network.

Estimated Cost and Funding

[redacted]

- **Methodology:** This value covers a 66-month period (08/07/2026 – 02/06/2032) and was established through a historical price analysis of contract 15F06724D0000804, adjusted for anticipated economic escalation and inflation.
- **Initial Funding Requisition:** Requisition (SHOP) Number SHOP-PR-26-000759

8. A description of the market research conducted and the results.

Participated in interactive, on-line communication among industry, acquisition personnel, and customers. Participated in vendor knowledge sessions, tradeshows and over GOV users. Based on these sessions, the MPU5 remains the only solution that [redacted] fleet without incurring substantial duplication of costs or unacceptable technical risks. Based on the proprietary nature of the Wave Relay ecosystem and the specialized hardware configurations of the MPU5, Persistent Systems, LLC is the only source capable of fulfilling this requirement without incurring substantial duplication of costs and unacceptable delays in technical integration.

9. Any other facts supporting the use of other than full and open competition.

- **Network Fragmentation Risk**: Introducing non-Persistent Systems hardware would create a "fragmented network," forcing field operators to carry multiple, disparate systems and significantly increasing the probability of communication failure during high-stakes national response missions.
- **Operational Consistency**: The MPU5 is the only solution that integrates with the existing [redacted] fleet without incurring unacceptable technical risks or operational degradation.
- **Unique Physical Integration**: The MPU5 ecosystem utilizes specialized hardware configurations, including proprietary data/RF ports and unique twist-and-lock battery connections, that are not natively compatible with competitor power or management infrastructures.
- **Voice Priority Capabilities**: Technical evaluations confirmed that competitor systems lacked integrated voice priority (Quality of Service) equivalent to the MPU5's mission-optimized configuration. Based on market research, comparative technical analysis, and empirical data from 2025 performance evaluations, it has been determined that

competitor systems lack the integrated Quality of Service (QoS) capabilities equivalent to the MPU5's mission-optimized configuration. Unlike the MPU5, whose proprietary firmware specifically allows for the granular prioritization of voice traffic even as network conditions degrade—ensuring continuous communication during high-bandwidth congestion—competitor platforms fail to provide this deterministic packet shaping. During the 2025 testing of alternative mesh systems, evaluations confirmed that voice traffic suffered the same degradation rate as all other data, with no inherent ability to isolate or protect voice packets.**Lack of Viable Alternatives**: Despite participating in rigorous technical demonstrations and field testing—including evaluations of [redacted]—no other system met the requirements for seamless interoperability and stable links in high-obstruction environments like elevator shafts. **Training and Integration Delays**: A transition to a different platform would cause substantial training delays for technical response teams who are already proficient with the Wave Relay infrastructure. A transition to an alternative radio platform is not a simple hardware swap, but a total re-engineering of the FBI/CIRG tactical data ecosystem. [redacted]. Because these systems are currently tuned for the MPU5's specific packet prioritization and latency profiles, they cannot be moved to a new architecture without exhaustive re-validation of the entire data pipeline.

- The estimated 24-month timeline is required to manage the following technical and operational constraints:
  - **System-of-Systems Integration:** Re-engineering the communication links for proprietary sensor payloads requires extensive firmware integration and hardware testing to ensure that high-definition video backhaul and low-latency command/control remain stable under high-stress deployment conditions.
  - **Phased Operational Transition:** Given the high operational tempo, this migration must be executed in sequential, localized phases to avoid compromising the agency's ability to respond to critical incidents, directly impacting the timeline for fleet-wide fielding.

10. A listing of any sources that expressed a written interest in the acquisition.

Since the procurement was not advertised, no other companies have expressed an interest either orally or in writing.

11. A statement of any actions the agency may take to remove or overcome any barriers to competition, if subsequent acquisitions are anticipated.

- **Monitoring Emerging Technology**: The FBI will continue to monitor the development of cross-platform gateway technologies that may allow for future interoperability between disparate MANET protocols.
- **Market Surveillance**: Technical personnel will maintain engagement with the MANET industry through regular participation in vendor knowledge sessions, tradeshows, and product demonstrations to evaluate the evolving landscape.
- **Encouraging Reseller Participation**: While the hardware remains proprietary, the Bureau continues to identify and verify USA-based small business resellers—such as ADS, SupplyCore, and FlyMotion, LLC—to facilitate competitive bidding within the established brand-name requirement.
- **Inter-Agency Collaboration**: The FBI will continue to participate in rigorous product demonstrations and comparative field testing alongside Department of Defense (DoD) counterparts and other government entities to stay informed on standardized communication solutions.
- **Requirement Refinement**: The Program Office will periodically review mission requirements to determine if emerging non-proprietary or open-architecture solutions can meet performance needs without incurring unacceptable technical risks or costs.