

REQUEST FOR INFORMATION

Announcement Number: SDA-SN-26-0018

RFI Title: GEP-as-a-Service Development Roadmaps

NAICS Code: 517810 – All Other Telecommunications Size Standard: \$40M

1. DISCLAIMER

This is a Request for Information (RFI) issued solely for information and planning purposes. It does not constitute a Request for Proposal or a promise to issue an RFP in the future. This notice does not commit the Government to contract for any supply or service. Responses to this notice are not offers and cannot be accepted by the Government to form a binding contract. No reimbursement will be made for any costs associated with responding to this notice.

CAUTION: This market survey is being conducted to identify potential sources that may possess the expertise, capabilities, and experience to meet the requirements of persistent radio frequency Ground Entry Point (GEP) needs for use by the SDA. Contractors/Institutions responding to this market research are placed on notice that participation in this survey may not ensure participation in future solicitations or contract awards. The government will not reimburse participants for any expenses associated with their participation in this survey.

INSTRUCTIONS:

1. Below is a document containing a description of need/requirement and a Contractor Capability Survey, which allows you to provide your company's capability.
2. If, after reviewing these documents, you desire to participate in the market research, you should provide documentation that supports your company's capability in meeting these requirements. Failure to provide documentation may result in the government being unable to adequately assess your capabilities. If you lack sufficient experience in a particular area, please provide details explaining how you would overcome the lack of experience and/or capabilities in order to perform that portion of the requirement (i.e., teaming, subcontracting, etc.).
3. Small businesses are encouraged to participate in this Market Research.

2. PURPOSE

The Space Development Agency seeks information on industry's ability to support the Proliferated Warfighter Space Architecture (PWSA) Space Vehicles (SVs) with commercially leased Ground Entry Points (GEPs). Although this RFI is primarily focused on capabilities that could be onboarded in the Tranche 3 timeframe (FY28-31), these installations will be expected to, at a minimum, provide terrestrial links with PWSA SVs

including the Tranche 2, 3, and 4+ constellations through RF Mil-Ka-band communication. As the terrestrial link to a proliferated communications constellation, the GEP transmits uplink commands to the SVs and relays received data back to the Operation Center (OC) for decryption and routing to end users through secure channels.

3. REQUIREMENTS DESCRIPTION

- Availability: >98%
- Capacity: 14 Gbps total downlink
- RF Frequency Band: mil-Ka
- # of planes: 12
- SVs per plane: 9
- SV Altitude: 1000 km +/-50 km

4. CONTRACTOR CAPABILITY SURVEY

Interested businesses are invited to respond by providing the following:

Part I – Business Information:

- Company Name:
- Address:
- CAGE Code and UEL:
- Point of Contact (Name, Email, Phone):
- Website:
- Business Size and Socioeconomic Status under NAICS {NAICS Code and Description} (e.g., Small Business, Woman-Owned, Veteran-Owned, 8(a), HUBZone, etc.)

Part II – Capabilities and Experience:

4.1 Technical Capabilities & Notional GEP Architecture

4.1.1 Provide descriptions of existing and planned global GEP footprints to ensure they can support SDA's orbital planes. This should include:

- Identification of existing Contractor-owned or Contractor-operated antennas that could be immediately leveraged as either scheduled or dedicated GEP-as-a-Service (GaaS) resources for this effort.
- A map/geographic coordinates of current and planned Ka-band apertures, specifically targeting high-latitude zones (>70° N/S) for high inclination space vehicles and mid-latitude zones (35°–45° N/S) for low inclination vehicles.
- Antenna sizes, Gain-to-Noise-Temperature ratio (G/T), and polarization capabilities (e.g., LHCP/RHCP software-defined switches).

- Tracking and horizon profile information including maximum azimuth/elevation tracking velocities and acceleration rates to ensure antennas can handle high-elevation LEO overhead passes without losing tracking lock.
- Site-specific rain fade mitigation strategies, including site diversity (uplink/downlink handover to adjacent antennas during localized weather events) and automated uplink power control (UPC).

4.1.2. Describe your organization's capability and standard methodology for providing Military Ka-band GaaS to the Space Development Agency (SDA) that meets all assumptions and technical baselines outlined in the SDA Mil Ka-band GEP Assumptions Table (Attachment 1)(CUI).

4.1.3. If the notional architecture leverages Mil Ka-band antennas from multiple distinct hardware vendors, describe your methodology for:

- Integrating antennas from different vendors into a unified framework with SDA networks and ground systems.
- Performing uniform Mil Ka-band compatibility testing with Tranche 3 space segment contractors across differing hardware baselines.

4.1.4. If your capability is to design, build, or deploy new GaaS Mil Ka-band antennas, describe the following for both Continental United States (CONUS) and Outside Continental United States (OCONUS) locations:

- Planned antenna quantities, reflector sizes, G/T, polarization capabilities and target geographic regions or notional coordinates.
- Conceptual approaches to integrating these newly developed GaaS antennas with SDA ground systems, tactical edge nodes, and optical/fiber networks.
- Definition of typical organizational roles and responsibilities for the development, integration, testing, and ultimate transition to operations.

4.2 Schedule/Timeline, Compatibility, and Testing

4.2.1. Provide a notional schedule or historical timeline based on experience, for making both existing and new GaaS antennas operational. Provide a timeline that demonstrates the:

- Hardware/software development phase.
- Integration and verification test campaign (including end-to-end integration testing with SDA ground systems).
- Transition to operations activities/events.

4.2.2 Describe standard methodologies and historical approaches, and specialized test equipment required for performing Mil Ka-band radio frequency (RF) compatibility testing with designated SDA space segment contractors to ensure seamless link margins, handoffs, and bit error rate (BER) thresholds.

4.3 Spectrum, Licensing, Regulatory, Location and Operational Considerations (including interoperability)

4.3.1 Provide information indicating the legal/regulatory and technical flexibility to communicate with T3 SVVs, to include status of ITU filings and national regulatory approvals (such as NTIA and FCC in the US or local international equivalents) for Ka-band uplink/downlink operations at each existing GEP location.

4.3.2 Describe the typical design and implementation of digital intermediate frequency (Digital IF) interfaces, including whether they support standard open interoperability frameworks like DIFI (Digital IF Interoperability Consortium). If custom approaches are applied, describe how existing PWSA modems can seamlessly interface with their commercial digitizers.

4.3.3 Provide a framework and defined roles and responsibilities for obtaining all necessary approvals for GEP site development and operations. This must include physical site approvals, civil engineering permits, RF frequency authorizations, and host-nation telecom licenses.

4.3.4 Explicitly state all assumptions regarding:

- International landing rights and host-nation spectrum access.
- Status of Forces Agreements (SOFA) for OCONUS deployments.
- National and international frequency approval pipelines.
- Local RF deconfliction and emissions control (EMCON) management.
- Site-loading constraints (e.g., structural, power, and environmental).

4.3.5 Outline any assumptions on changes to existing domestic or international laws, regulatory frameworks, or Department policies that would be required to fully enact a notional operational roadmap.

4.4 Cybersecurity, Information Assurance, and other Security Policy Compliance (Department of War relevant)

Note: Commercial GaaS providers should demonstrate their ability to isolate government data and protect national security assets.

4.4.1 Provide the clearance levels of existing or planned GaaS facilities (e.g., cleared facility status, ability to host SCIFs or classified processing enclaves).

4.4.2 Provide compliance status with government cybersecurity mandates, such as NIST SP 800-171, CMMC (Cybersecurity Maturity Model Certification) Level 2 or higher, or FedRAMP authorizations for -cloud-based mission control software.

4.4.3 Provide a description and architectural details on how logical or physical isolation of SDA mission data from commercial customer data is typically achieved during downlinks, processing, and fiber backhaul transit.

4.4.4 Provide a conceptual cybersecurity framework for GaaS antennas, specifically focusing on the process, artifacts, and controls required to obtain a formal Approval to Connect (ATC) and Authority to Operate (ATO) to secure government networks.

4.4.5 Describe how your typical GaaS architecture satisfies Risk Management Framework (RMF) controls, protects Telemetry, Tracking, and Command (TT&C) links, and secures mission data at rest and in transit at the ground station (GEP) edge.

4.5 Commercial Business Model, SLAs, and Cost Drivers

4.5.1 Describe your approach to providing standard Service Level Agreement (SLA) for the GaaS antennas which includes monthly/quarterly/annual usage and performance metrics and describes customer access to this data.

4.5.2 Describe the operational approach to prioritization of mission use. Specifically address how the system arbitrates competing demands, including dual-band operations (e.g., S-band vs. Ka-band usage conflicts), and handles preemption rights between SDA, other military customers, and commercial users.

4.5.3 Describe how Priority Access or Preemption Rights for government missions during critical orbital passes or operational emergencies are typically guaranteed or assured within your commercial models.

4.5.4 Describe the commercial billing units available in the market or typically used by your organization (e.g., price per minute of pass time, data volume-based pricing, or flat-rate monthly antenna reservations).

4.5.5 Provide the pass-scheduling algorithms standardly utilized.

4.5.6 Provide Rough Order of Magnitude (ROM) estimates and typical cost drivers for annual GaaS antenna usage/leasing costs (including projected annual inflation/escalation percentages) for both dedicated antennas and pay-by-the-minute (or other unit) operational profiles.

- Note: If you do not plan to provide GaaS antennas via a pay-by-the-minute (or other unit) framework and only provide GaaS antennas as dedicated resources leased by SDA, state this explicitly.

4.5.7 Provide the minimum lease duration required for standard business models. If different lease durations (e.g., 1-year, 3-year, 5-year commitments) result in different annual costs structures, provide an overview of these options.

4.5.8 Provide the standard commercial metrics for Link Availability (e.g., 99.9% uptime target accounting for weather), mean time to restore (MTTR) hardware failures, and packet delivery latency thresholds under adverse weather, and data delivery latency from antenna edge to SDA's cloud landing zone to be used.

4.5.9 Identify typical non-recurring integration and compatibility testing costs required to onboard onto the Tranche 3 network.

4.5.10 Identify potential additional cost drivers, fees, or surcharges that are typically passed onto the Government (e.g., localized power surcharges, fiber cross-connect fees, host-nation regulatory taxes).

5. RESPONSE INSTRUCTIONS AND QUESTIONS

5.1 Questions Concerning the Solicitation

Submission Method: All questions must be submitted electronically to the ussf.pentagon.sda.mbx.sn-26-0018@mail.mil. Deadline: Questions must be submitted no later than **24 September 2026 1600 EST** to ensure sufficient time for compiling and publishing answers.

The GEP-as-a-Service Development Roadmaps solicitation comprises a Controlled Unclassified Information (CUI) document. Interested respondents must verify they are NIST compliant to receive CUI and need to contact SDA to receive the document that contains CUI. Please send an email to ussf.pentagon.sda.mbx.sn-26-0018@mail.mil with the subject line "GEP-as-a-Service Development Roadmaps." Please include:

- Company Name:
- Cage Code:
- City, State of Company location
- Email address:
- JWICS email: (for classified documents)

5.2 Response Submission Instructions

Submission Method: Final response packages must be submitted electronically to ussf.pentagon.sda.mbx.sn-26-0018@mail.mil.

Deadline: All submissions must be received no later than **14 October 2026 1600 EST**.

Attachment:

1. SDA Mil Ka-band GEP Assumptions Table (CUI) see section 5.1.